Factors Associated with the Activeness of Posyandu Cadres in Providing Supplementary Food in Banyuasin District

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ABSTRACT

Background: *Stunting is a condition of failure to thrive in toddlers (babies under the age of five) due to chronic malnutrition, causing children to have a shorter height than they should for their age. Banyuasin Regency has the third highest prevalence of stunting in South Sumatra Province (13.3% in 2022). The Supplementary Feeding Program (PMT) is designed to improve the nutritional status of under-fives, and posyandu cadres play an important role in its successful implementation. This study aims to analyze the factors associated with the active role of posyandu cadres in providing supplementary food in Banyuasin Regency.*
Method: *Quantitative research with a cross-sectional design using 100 samples with the Proportional random sampling method which was carried out in early October - early November 2024 in Banyuasin Regency.*
Result: *The results of the chi square test showed that knowledge (p = 0.001), attitude (p = 0.025), age (p = 0.039), education (p = 0.524), incentives (p = 0.269), training (p = 0.019), length of time as a cadre (p = 0.045) facilities and infrastructure (p = 0.090) and active cadres as many as 59 posyandu cadres. This study indicates that the better the cadres' knowledge, attitudes, and experience, and the more frequently they attend training, the more likely they are to play an active role in implementing the PMT program. In contrast, educational background, the provision of incentives, and the availability of facilities do not necessarily influence the cadres' active involvement in the delivery of the PMT program. Efforts to increase the training of posyandu cadres are the main recommendations to support the success of the PMT program in stunting prevention in Banyuasin district.*

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INTRODUCTION

Stunting is a condition of failure to thrive in toddlers (babies under the age of five) due to chronic malnutrition, which causes children to have a shorter height than they should for their age. According to the World Health Organization or WHO, there are 148.1 million children under the age of 5 who are stunted. There are 148.1 million children under the age of 5 who are stunted. Based on the results of the Indonesian Nutrition Status Survey (SSGI) in 2022, the incidence of stunting is 21.6%. The incidence of stunting in South Sumatra Province, according to the results based on SSGI (2022) is 18.6%. Banyuasin is the district with the 3rd highest prevalence rate of stunting in South Sumatra Province with a stunting incidence rate of 24.8%.(1)

Stunting is a serious health problem because it is associated with high morbidity and mortality rates, a weakened immune system making it vulnerable to disease, and an increased risk of diseases such as diabetes, obesity, heart and vascular disease, cancer, and stroke in old age.(2) Indonesia has taken various steps to address stunting, considering that stunting is one of the targets of the Sustainable Development Goals (SDGs). Stunting is included in the second Sustainable Development Goal, which is to end hunger and all forms of malnutrition by 2030 and achieve food security. One of the targets is to reduce stunting by 40% by 2025. To achieve this, the government has established stunting as one of its national priority programs. Stunting prevention in Indonesia is carried out based on Presidential Regulation No.72 of 2021 concerning the National Strategy for Accelerating Stunting Reduction through specific interventions and sensitive interventions. Stunting can be addressed through specific nutrition interventions. The specific intervention strategy to overcome nutrition problems can be in the form of supplementary feeding.(3)

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Supplementary feeding (PMT) is an intervention program aimed at children under five years of age who are malnourished. The program aims to improve the nutritional status of children while meeting their nutritional needs, so that they can achieve optimal nutritional conditions according to their age. Supplementary foods are given in addition to, not as a substitute for, the main daily diet. A child's supplementary food should be fortified with micronutrients such as iron, calcium and zinc.(4) In managing the implementation of the PMT program in posyandu, it requires the direct involvement of posyandu cadres.(5) Posyandu cadres are community members who are voluntarily willing, able and have the time to carry out posyandu activities. Posyandu cadres are selected by and from the community when the posyandu is established. The role of posyandu cadres is very important in the implementation of posyandu, not only as a conveyer of health information to the community, but also as a community mobilizer to come to the posyandu and implement clean and healthy living behavior.(6)

The success of the Supplementary Feeding Program (PMT) in tackling the problem of undernutrition and stunting in toddlers is highly dependent on the active role of posyandu cadres as implementers in the field.(7) However, based on research conducted by Semastri et al. (2022), posyandu cadres in Banyuasin Regency have not been able to conduct PMT counseling optimally or lack competence due to limited knowledge, and therefore still require assistance from health officers. In addition, their limited ability is further constrained by very limited counseling time, while visitors tend to be impatient waiting for their turn and want to leave immediately.(8) In addition, according to data from the South Sumatra Health Office in 2022, the coverage of children under five with severe malnutrition who received supplementary feeding (PMT) in Banyuasin District reached 98.4%. However, the success of this high coverage still leaves questions about the effectiveness of supplementary feeding, including whether the food provided is in accordance with the guidelines and targeted.

Posyandu cadres play an important role in various aspects of PMT provision, such as identification of children under five who require intervention, education of parents, distribution of supplementary food, and monitoring of children's development. The active role of cadres is often influenced by various factors, both from the individual cadre side (knowledge, attitude, age) and from the supporting environment (training, incentives, education and availability of facilities). Such factors are key to understanding and improving the role of cadres in implementing the PMT program.(9)

Based on these conditions, the researcher is interested in analyzing various factors associated with the active role of posyandu cadres in providing supplementary feeding in Banyuasin Regency. This study is important to determine the effectiveness of the program implementation, particularly regarding the suitability and accuracy of the targeting of supplementary feeding, as well as to identify obstacles faced by posyandu cadres in implementing the PMT program. This is because the coverage of toddlers receiving PMT in Banyuasin Regency has reached 98.4%, yet the stunting incidence rate in Banyuasin remains the third highest in South Sumatra Province. Therefore, the results of this study are expected to serve as evaluation material for the government in formulating more effective policies to improve the quality of health services and ultimately help reduce the stunting rate in Banyuasin Regency.

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METHOD

This study used a Quantitative research design with an observational design cross-sectional approach, which was carried out in October - November 2024 in Banyuasin Regency, South Sumatra Province. This district has the third-highest stunting prevalence rate in South Sumatra Province. The population in this study consisted of 3,334 posyandu cadres in the Banyuasin Regency area. To determine the sample size, the researchers used the Lemeshow formula, resulting in a sample of 100 respondents. This study used a cluster sampling technique, which involves random selection. Banyuasin Regency, consisting of 21 sub-districts, served as the initial population. The researchers then determined five stunting

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loci based on stunting prevalence data: Banyuasin 1, Banyuasin 3, Rambutan, Talang Kelapa, and Rantau Bayur sub-districts. From these, random sampling was conducted, and three sub-districts were selected as research sites—two with the highest stunting prevalence (Banyuasin 1 and Talang Kelapa), and one with the lowest (Banyuasin 3). After the sub-districts were selected, the proportional random sampling technique was used to determine the number of sample individuals in each sub-district proportionally, based on the population size or stunting prevalence. Banyuasin 1 sub-district had 24 samples, Banyuasin 3 had 28 samples, and Talang Kelapa sub-district had 48 samples. Primary data for this study were collected using a research questionnaire administered to the respondents. Meanwhile, the secondary data used in this study were obtained from the Health Office of Banyuasin Regency, South Sumatra Province.

The independent variables in this study included knowledge, attitude, age, education, incentives, posyandu cadre training, length of service as a cadre, occupation, and the availability of facilities and infrastructure. The dependent variable was the active role of posyandu cadres in providing supplementary food (PMT). The instrument used to measure the knowledge variable was a questionnaire, with a score of 1 assigned to correct answers and 0 to incorrect ones. The total score was then categorized into two levels: 1 for the "less good" category and 2 for the "good" category. Attitude was measured using a questionnaire with a Likert scale, where responses were scored as follows: 4 for “strongly agree,” 3 for “agree,” 2 for “disagree,” and 1 for “strongly disagree.” The total attitude score was then categorized into two levels: 1 for “negative” and 2 for “positive.” The age variable was categorized into two groups: 1 for “early adulthood” (18–40 years) and 2 for “middle adulthood” (41–60 years). The education variable was categorized as follows: 1 for “elementary to junior high school or equivalent” and 2 for “senior high school to college or equivalent.” The incentive variable was categorized based on the amount of incentive received: 1 for “inadequate” (< Rp750,000) and 2 for “adequate” (≥ Rp750,000). The cadre training variable was determined based on participation in training, with code 1 for “did not attend training” and code 2 for “attended training.” The length of service as a cadre was categorized into two groups: 1 for “< 5 years” and 2 for “> 5 years.” The employment variable was categorized as follows: 1 for “unemployed” and 2 for “employed.” The facilities and infrastructure variable was assessed based on the completeness of facilities at the posyandu, using five questions related to PMT-related facilities and infrastructure. Each item was scored as 1 for “Not available” and 2 for “Available.” The total score was then categorized into two levels: 1 for “Incomplete” and 2 for “Complete.”. The active role of posyandu cadres was measured using a Likert scale based on the frequency of activities, with scores of 3 for “often,” 2 for “sometimes,” and 1 for “never.” The total score from these indicators was then categorized into two levels: 1 for “inactive” and 2 for “active.”

Data analysis was conducted in two stages. Univariate analysis was used to describe the frequency distribution of each variable. Furthermore, bivariate analysis was conducted to determine the relationships between variables with a confidence level of 95% ($\alpha = 0.05$). The results were considered statistically significant if the p-value was less than 0.05.

This research has obtained ethical approval from the Research Ethics Commission of the Faculty of Public Health, Sriwijaya University (Approval No. 313/UN9.FKM/TU.KKE/2024, September 23, 2024).

RESULT AND DISCUSSION

Table 1. Frequency distribution based on respondent characteristics

Characteriatics	n	%
Age		
Early adulthood	38	38
Middle adulthood	62	62
Education		
Low	24	24
High	76	76
Incentive		
< Rp. 750.000	87	87
> Rp. 750.000	13	13
Duration of service as a cadre		
< 5 Years	43	43
> 5 Years	57	57
Occupation		
Unemployed	76	76
Employed	24	24
Facilities and infrastructure		
Not complete	84	84
Complete	16	16
Activeness		
Inactive	41	41
Active	59	59
Knowledge		
Poor	38	38
Good	62	62
Attitude		
Negative	44	44
Positive	56	56
Training		
Did not attend	41	41
Attended	59	59

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Table 1 show the characteristics of posyandu cadres. A total of 100 respondents filled out the questionnaire with 62 respondents (62.0%) classified as being in middle adulthood (ages 41-60). The most recent education of posyandu cadres is the SMA / SMK / MA level, as many as 62 (62.0%). More posyandu cadres with tenure > 5 years as many as 49 (49.0). It was found that 41 respondents (41.0%) were classified as inactive, while 59 respondents (59.0%) were classified as active. The findings indicate that posyandu cadres have varying knowledge regarding Supplementary Feeding (PMT).

Knowledge of Posyandu Cadres about Supplementary Feeding

A total of 38 respondents (38.0%) demonstrated poor knowledge, suggesting that some cadres still lack adequate understanding of the importance of PMT. In contrast, 62 respondents (62.0%) exhibited good knowledge, indicating that most cadres know the role of PMT in improving the nutritional status of stunted toddlers. Most respondents had very good knowledge regarding the primary target of PMT-Recovery (94.0%), the general objective of supplementary feeding (84.0%), and the function of PMT as an intervention program for undernourished toddlers (83.0%). Respondents also showed a good understanding of the ingredients in PMT biscuits (81.0%), PMT-Recovery activities (77.0%), and the types of PMT (72.0%). However, lower levels of knowledge were observed concerning the recommended protein intake for children aged 12–23 months (69.0%), the consistency or texture of food for children aged 9–11 months (59.0%), and the components of locally sourced supplementary food (58.0%).

Attitudes of posyandu cadres regarding supplementary feeding

Total of 56.0% of posyandu cadres have a positive attitude, indicating that they believe PMT can improve the nutritional status of toddlers. However, 44.0% of posyandu cadres still hold a negative attitude. This discrepancy warrants attention, as differing attitudes may affect the success of PMT implementation and highlight the need for enhanced training and deeper understanding among posyandu cadres. Respondents generally have a positive view regarding supplementary feeding, with 10 positive attitude responses above 90%. However, five items scored relatively lower, with the lowest being a 63.0% positive response to the statement "Posyandu cadres only provide counseling during PMT activities." Additionally, only 68.0% responded positively to the statement "Posyandu cadres only monitor toddlers with malnutrition at the posyandu."

Training of Posyandu Cadres

Most respondents (59.0%) reported having attended training related to the Supplementary Feeding Program (PMT), indicating efforts by posyandu cadres to enhance their knowledge and skills in PMT implementation. However, a considerable proportion (41.0%) of respondents had not received such training. This gap raises concerns, as inadequate training may adversely affect the quality and effectiveness of PMT program delivery. The respondents' answers to 10 items related to the training received. Of these, 8 items received a response rate above 80.0%, indicating a relatively high level of knowledge and participation. However, 2 items showed notably lower response rates. The lowest was 57.0%, where posyandu cadres stated they had received training on the types and composition of supplementary food according to the age of the toddlers. Additionally, only 71.0% of cadres reported receiving training on selecting, processing, and serving supplementary food from puskesmas nutrition officers or healthcare workers.

Facilities and infrastructure

In this study, the majority of respondents (84.0%) reported that the available facilities and infrastructure were incomplete, indicating an insufficiency in supporting PMT activities. Meanwhile, 16.0% of respondents stated that the facilities and infrastructure were complete, suggesting adequate support for PMT activities. The result shows that 100.0% of respondents reported that the posyandu lacked adequate cooking equipment for implementing the PMT program and food storage facilities (such as refrigerators and storage racks). Furthermore, 79.0% stated that the PMT storage warehouse did not meet the required physical standards. However, 76.0% of respondents reported that posyandu had the necessary equipment available during PMT activities, including tables, chairs, mats, eating utensils, and educational tools. In addition, 74.0% of respondents stated that the posyandu building or space was sufficiently large to accommodate participants during PMT sessions.

Factors associated with the active role of posyandu cadres in providing additional food

Table 2 presents a cross-tabulation of the factors associated with the active role of posyandu cadres in implementing the PMT program. The data show

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Table 2. Cross-tabulation of factors associated with the active role of posyandu cadres

Variable	Aktiveness of Posyandu Cadres				Total		P-value	PR (95% CI)
	Inactive		Active					
	n	%	n	%	N	%		
Knowledge								
Poor	24	63.2	14	36.8	38	100	0.001	2.303 (1.436-3.694)
Good	17	27.4	45	72.6	62	100		
Attitude								
Negative	24	54.5	20	54.5	44	100	0.025	1.797 (1.112-2.903)
Positive	17	30.4	39	69.6	56	100		
Age								
Early adulthood	21	55.3	17	44.7	38	100	0.039	1.713 (1.081-2.715)
Middle adulthood	20	32.3	42	67.7	62	100		
Education								
Low	8	33.3	16	66.7	24	100	0.524	0.768 (0.412-1.429)
High	33	43.4	43	56.6	76	100		
Incentive								
< Rp. 750.000	38	43.7	49	56.3	87	100	0.269	1.893 (0.682-5.253)
> Rp. 750.000	3	23.1	10	76.9	13	100		
Training								
Did not attend	23	56.1	18	43.9	41	100	0.019	1.839 (1.148-2.944)
Attended	18	30.5	41	69.5	59	100		
Duration of service as a cadre								
< 5 Age	23	53.5	20	46.5	43	100	0.045	1.055 (1.055-2.718)
> 5 Age	18	31.6	39	68.4	57	100		
Occupation								
Unemployed	32	42.1	44	57.9	76	100	0.871	1.123 (0.629-2.005)
Employed	9	37.5	15	62.5	24	100		
Facilities and infrastructure								
Not complete	38	45.2	46	54.8	84	100	0.090	2.413 (0.847-6.873)
Complete	3	18.8	13	81.3	16	100		

statistically significant associations between cadres' activeness and their knowledge, attitude, and age, while education level was not significantly associated.

Relationship between Knowledge and the Active Role of Posyandu Cadres in PMT

Posyandu cadres with poor knowledge about supplementary feeding were mostly inactive cadres, totaling 24 individuals (63.2%), while cadres with good knowledge were mostly active cadres, totaling 45 individuals (72.6%). The statistical test yielded a p-value of 0.001, which is less than the significance level (α = 0.05), indicating that H0 is rejected. Therefore, it can be concluded that there is a significant association between knowledge and the active role of cadres in supplementary feeding in Banyuasin Regency. The prevalence ratio (PR) was 2,303 with a 95% confidence interval (CI) of 1,436–3,694. This PR value indicates that posyandu cadres with poor knowledge of supplementary feeding have 2,3 times greater opportunity of being inactive compared to those with good knowledge.

Good knowledge greatly influences posyandu cadres to be active in posyandu activities.(10) Knowledge can be influenced by the level of education. The higher a person's level of education, the easier it is for them to understand external information. Highly educated posyandu cadres will more easily understand information about PMT and will be more critical in addressing various issues when implementing the PMT program.(11) According to researchers, the high level of education among posyandu cadres is related to their knowledge in implementing the PMT program. In this study, the majority of posyandu cadres' highest level of education was at the SMA/College/Equivalent level, accounting for (76.0%). This figure indicates that most posyandu cadres have a relatively high level of education, which can certainly support their knowledge of PMT information. Although the education level of posyandu cadres is relatively high, this study found that (62.0%) have good

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knowledge, but their knowledge regarding the content of elements in local food additives is still relatively low. Only (58.0%) of posyandu cadres have knowledge in this area. Additionally, (59.0%) of posyandu cadres are aware of the consistency/texture of food for toddlers aged 9-11 months.

This low number indicates a gap between the formal education level of cadres and the specific knowledge required to optimally implement the PMT program. This gap may be due to several factors, such as the lack of specialized training that thoroughly addresses the nutritional content of local supplementary foods. As seen in this study, (59.0%) of posyandu cadres participated in training. However, only (57.0%) of cadres stated that they had received training on the types and composition of supplementary foods. This indicates that many posyandu cadres still do not attend training, and the training provided has not fully covered in-depth material related to the needs of the PMT program, particularly the types and composition of supplementary foods.

The results of this study are in line with research conducted by Dinda Elnifara (2024), which found statistical test results between knowledge factors and the activeness of cadres in the Kapau Health Center Region of Agam Regency. The p-value obtained was 0.050 (p-value < α), and it can be concluded that there is a relationship between knowledge factors and the activeness of cadres in providing supplementary food in the Kapau Health Center Work Area of Agam Regency.(12) This study is also in line with research conducted by Fred Rumagit et al. (2020), which states that the results show most of the samples had good knowledge, with 43 people (95.6%), 1 person (2.2%) in the moderate category, and 1 person (2.2%) in the poor category. The 43 posyandu cadres with good knowledge were involved as active cadres in every supplementary feeding (PMT) activity in the posyandu.(13)

Relationship between Attitude and the Active Role of Posyandu Cadres in Supplementary Feeding

Based on the results of the study, it can be seen that there is a relationship between attitude and the active role of posyandu cadres in providing supplementary food, with a p-value of 0.025 < α 0.05 and PR (95% CI) = 1,797 (1,112-2,903). A PR value of 1,7 indicates that respondents with a negative attitude are 1,7 times more likely to be inactive compared to cadres with a positive attitude. In this study, 56 (56.0%) of posyandu cadres had a positive attitude, while 44 (44.0%) had a negative attitude. Posyandu cadres with a positive attitude tend to be more active than those with a negative attitude. Posyandu cadres who believe that PMT can improve the nutritional status of their toddlers are more likely to carry out their duties and responsibilities in the implementation of the PMT program.(14) This can be seen in this study, which shows that the majority of posyandu cadres (99.0%) have a positive view of their task in preparing the PMT implementation schedule, including planning the time, place, type of PMT, and alternatives. Additionally, (98.0%) of posyandu cadres also had a positive attitude toward their tasks prior to PMT implementation, such as collecting data on potential target children under five years old by age group and gender.

Based on Ajzen's (1991) Theory of Planned Behavior (TPB), this theory consists of three components, one of which is attitude towards behavior, which explains that attitude refers to an individual's evaluation of a behavior, whether the behavior is considered positive or negative. These attitudes are formed from individual beliefs about the consequences of the behavior. If a person believes that the outcome of the behavior is positive, they will be more likely to have a positive attitude towards that behavior. In this context, the attitude of posyandu cadres towards PMT refers to their beliefs about the outcomes of supplementary feeding activities, both positive and negative. If posyandu cadres have a positive attitude towards the benefits of PMT, such as the belief that supplementary feeding can improve the nutritional status of stunted children, they will be more likely to actively implement the program.(15)

The differences in positive and negative attitudes among posyandu cadres indicate the importance of efforts to improve posyandu cadres' understanding of their role more comprehensively in the PMT program. A positive attitude of a posyandu cadre greatly influences their success in implementing PMT. With positive responses from the cadres, they will be more confident and active in participating and carrying out their duties during PMT activities.

The results of this study are in line with research conducted by Pering et al (2022) which states that posyandu cadres with a positive attitude are more active in PMT activities in the posyandu because they have a very good response in every PMT activity in the posyandu.(16) The results of this study are consistent with research by Pakasi et al. (2020), which states that a cadre with a more positive attitude can provide better service.(17) This research is in line with a study conducted by Afrida (2020), which found that cadres with a positive attitude were more prevalent than those with a negative attitude, with the results of statistical tests showing a p-value of 0.004. In this study, the significance level was set at α = 5% (or 0.05). Therefore, it was concluded that attitudes

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were significantly related to the activeness of cadres in the Kota Juang Health Center Working Area, Bireuen Regency.(18)

Relationship Between Age and the Active Role of Posyandu Cadres in Supplementary Feeding

The results of the statistical test indicate a significant relationship between age and the active role of Posyandu cadres in providing supplementary food, with a p-value of 0.039 (< α = 0.05) and a prevalence ratio (PR) of 1.713 (95% CI: 1.081–2.715). This PR value of 1.7 suggests that Posyandu cadres aged 18–40 years are 1.7 times more likely to be inactive compared to those aged 41–60 years.

According to Havighurst's Developmental Theory, individuals aged 41–60 years are considered to be in the productive age category, during which one of the key developmental tasks is assuming responsibility within the community. Therefore, individuals in this age group are more likely to take an active role in social and community activities.

Age influences the role of a cadre in Posyandu activities. As individuals grow older, their mindset becomes more developed, leading to greater experience and mental maturity. This enables cadres to better understand their duties, particularly the importance of the Supplementary Feeding Program (PMT), and to take greater responsibility in ensuring its effective implementation.(19) This can be seen from the analysis results, which show that Posyandu cadres in the middle adulthood age group (41–60 years) totaled 62 individuals (62.0%), with (42.0%) actively participating. In contrast, cadres in the early adulthood age group (18–40 years) totaled 38 individuals (38.0%), with only (17.0%) actively participating.

This experience and maturity are gained as the working period of Posyandu cadres increases. As many as (57.0%) of the cadres have more than five years of service, which indicates that most of them have gained considerable experience in carrying out their roles. This experience not only helps Posyandu cadres understand various aspects, ranging from data collection of stunted toddlers to family assistance, but also strengthens their ability to face challenges during the implementation of the PMT program. Furthermore, as the length of service of Posyandu cadres increases, so does the knowledge they possess.(20)

According to Notoatmodjo, as cited in the study by Dortea Lewen et al. (2020), age is a variable that is always considered in epidemiological research because it is one of the factors that influence knowledge. Age is the length of a person's life span in years, calculated from birth. The older a person is, the more knowledge they tend to have, as their knowledge is gained from both their own experiences and those of others.(21)

This study is in line with research conducted by Pratiwi et al. (2024), which shows that age is significantly associated with cadre participation in Posyandu activities in the working area of Puspahiang Health Center (p-value = 0.036 < α = 0.05).(22) The results of this study are not in line with the research by Dea Yolanda Killista et al. (2021), which states that the age of 30–54 years is considered the productive working age; however, age alone is not a guarantee of one’s quality. Increasing age without accompanying training, learning, and experience will certainly not improve a person’s quality. Therefore, the age factor alone does not play a significant role in a person's performance. A Posyandu cadre will continue to serve as a cadre until they decide to stop, as there are no regulations that specify limits on the length of service or age for being a cadre. As a result, many elderly cadres continue in their roles, which can lead to a decline in performance due to decreasing physical abilities with age.(23)

Relationship Between Education and the Active Role of Posyandu Cadres in Providing Supplementary Food

The results of the study indicate that there is no significant relationship between education and the activeness of Posyandu cadres, as the p-value is 0.524 > α 0.05. This finding suggests that education is not the main factor associated with the active role of Posyandu cadres in providing supplementary food (PMT). Individuals who become Posyandu cadres do so voluntarily as a form of service to the community. As a result, the educational backgrounds of Posyandu cadres are highly diverse. The community cannot select only highly educated individuals, but rather depends on those who are willing to serve voluntarily as Posyandu cadres.(15)

In this study, (76.0%) of Posyandu cadres had a final educational background of SMA/PT or the equivalent. This indicates that although the education level of Posyandu cadres is relatively high, other factors—such as knowledge—may also influence their ability to actively carry out their roles. The results of this study show that (62.0%) of Posyandu cadres had good knowledge. A cadre must possess adequate knowledge of their duties, especially regarding the provision of supplementary food (PMT). This knowledge is more commonly acquired through training and field experience rather than formal education.(24) The results of this study showed that (59.0%) of Posyandu cadres had attended training.

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Although (41.0%) of Posyandu cadres had not participated in training, efforts to increase knowledge about PMT come not only from educational background but also through training.

This study is in line with the findings of Indrilia et al. (2021), who reported no significant relationship between education and cadre activeness in the implementation of posyandu in East Simeulue District, Simeulue Regency, with a p-value of 0.419 > 0.05.(9) The results of a study conducted by Aome et al. (2021) also showed that the statistical test yielded a p-value of 0.371, indicating no significant relationship between education and cadre activeness in the working area of Baumata Health Center in 2021.(25)

Relationship between Incentives and the Activeness of Posyandu Cadres in Providing Supplementary Food

The results of this study indicate that incentives are not significantly associated with the activeness of cadres in Supplementary Feeding, as shown by the statistical test with a p-value of 0.269 > α 0.05. Additionally, this study found that 87 (87.0%) posyandu cadres received incentives that did not comply with the provisions of the Supplementary Food Program. In this study, information obtained from respondents revealed that the incentives provided are usually irregular: some receive Rp 250,000 per month paid once every three months, some receive Rp 200,000 per month paid once every four months, some receive incentives once every six months or once a year, and there are even posyandu cadres who do not receive any incentives. However, posyandu cadres who do not receive incentives or receive inappropriate incentives still carry out their duties as posyandu cadres and remain actively involved in posyandu activities, especially the Supplementary Feeding program. This is because posyandu cadres understand their roles and responsibilities as voluntary cadres.(26)

As revealed by research conducted by Baharuddin (2023), not all cadres work solely with the expectation of receiving compensation in cash or other forms. As volunteers in the field of public health, posyandu cadres are required to provide services voluntarily and sincerely to the community without expecting any rewards or personal gain. This study also obtained additional information indicating that some posyandu cadres felt they did not receive transportation allowances. The money given to them periodically is used for posyandu development costs, such as the procurement of supplementary food (PMT), which serves as an attraction for toddlers to visit the posyandu.(27)

Incentives can serve as a motivating factor for posyandu cadres to be more actively involved in carrying out Supplementary Feeding (PMT) tasks. When posyandu cadres feel valued and recognized for their efforts, they are more likely to be strongly motivated to actively participate in these activities. Incentives may take the form of financial rewards, such as allowances or bonuses, as well as non-financial incentives, such as recognition or opportunities for further training.(28)

This study is in line with research conducted by Aome et al. (2022), which states that there is no relationship between incentives and cadre activeness (p = 0.697). Incentives are a form of stimulus that encourage individuals to engage in certain behaviors, as such behaviors are associated with receiving rewards. Incentives are one of the ways to improve the activeness and performance of posyandu cadres.(25) This finding is in line with research conducted by Indrilia et al. (2021), which states that there is no relationship between incentives and the activeness or role of posyandu cadres in East Simeulue District, Simeulue Regency.(9)

Relationship Between Training and the Active Role of Posyandu Cadres in Providing Supplementary Food

Based on statistical tests, there is a significant relationship between cadre training and the activeness of posyandu cadres, with a p-value of 0.019 < α 0.05 and PR (95% CI) = 1.839 (1.148–2.944). The PR value of 1.8 indicates that posyandu cadres who do not attend training are 1.8 times more likely to be inactive compared to those who attend training.

Regarding the cadre training variable, it was previously explained in the knowledge variable that cadre training provides opportunities to improve the knowledge, skills, and independence of posyandu cadres. In this study, although only 59.0% of posyandu cadres participated in training, (99.0%) stated that the training they attended improved their skills in preparing supplementary food. Moreover, (97.0%) of cadres received training in making high-protein snacks from local ingredients, taking into account the nutritional needs of toddlers. However, only (57.0%) of posyandu cadres reported receiving training on the types and composition of supplementary foods based on the age of children under five. Additionally, (71.0%) of posyandu cadres stated that they received training from puskesmas nutrition officers or health workers on how to select food ingredients, process, and present supplementary feeding (PMT).

Although the training provided is quite comprehensive, there are still differences in the material received by cadres, particularly regarding their

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understanding of the types and composition of supplementary foods based on the age of toddlers. These differences may affect the ability of posyandu cadres to provide supplementary feeding (PMT) in accordance with the nutritional needs of toddlers. The results showed that training contributed to improving the skills of posyandu cadres. However, there needs to be an increase in training coverage, especially regarding knowledge of the types and composition of supplementary food appropriate for the age of toddlers. Thus, more equitable and comprehensive training efforts can support the effective implementation of the PMT program, enabling posyandu cadres to improve the nutritional status of under-five children more optimally.(29)

The results of this study are in line with the research of Indra Martua Nasution et al. (2023), which found that training is significantly related to the activeness of posyandu cadres, with a p-value of 0.001. This indicates that a cadre's high level of skill can be influenced by the training attended, which in turn can shape the activeness of the cadre both in posyandu activities and during the training period.(30) Similarly, Noordiati's (2020) research on the activeness of posyandu cadres in the Kereng Bangkirai Health Center area, Sebangau District, Palangka Raya, states that training has a significant effect on the activeness of posyandu cadres.(31)

Relationship Between Length of Service and Activeness of Posyandu Cadres in Providing Supplementary Food

The results of statistical tests show that there is a relationship between the length of time being a cadre and the activeness of posyandu cadres, with a p-value of 0.045 < α 0.05 and PR (95% CI) = 1.055 (1.055–2.718). A PR value of 1.055 indicates that posyandu cadres with less than 5 years of tenure have a 1.055 times higher chance of being inactive compared to cadres with more than 5 years of tenure. This is because posyandu cadres tend to have more in-depth experience in implementing the PMT program. In this study, posyandu cadres with a tenure of more than 5 years accounted for (57.0%) of the cadres.

The length of time as a posyandu cadre can affect the activeness of cadres in carrying out their roles, including in the supplementary feeding program (PMT). The longer a cadre serves, the more experience they gain in handling various situations and challenges in the field. This experience can enrich their understanding and boost the confidence of posyandu cadres in carrying out their duties and responsibilities.(32) In this study, length of service also provided posyandu cadres with the opportunity to learn from real experiences, such as facing challenges in persuading families to utilize the PMT program, identifying children who need nutritional interventions, and building good cooperation with health workers, community leaders, and other relevant parties. All of these aspects make cadres with longer tenure potentially more active and effective in supporting the success of the PMT program.

However, the length of time as a cadre should also be accompanied by adequate training to ensure cadres remain up-to-date with relevant information and skills or the latest science. Experience gained during duty is important, but without ongoing training, cadres may struggle to keep up with new methods or strategies in supplementary feeding programs (PMT).(33)

This study is in line with research conducted by Indra Martua Nasution et al. (2023), where the statistical analysis showed that the calculated X^2 value (16.287) was greater than the critical X^2 value (3.841), and the p-value (0.001) was less than α (0.05). This means that the length of service as a cadre is related to the activeness of posyandu cadres in stunting prevention.(30) In line with research conducted by Damayanti et al. (2022), which shows a significant relationship between length of service and the role of posyandu cadres in stunting prevention efforts (p = 0.000). Among the cadres, 22 (68.8%) had worked for more than 3 years, while 10 cadres (31.3%) had worked for 3 years or less. This suggests that the longer a cadre's length of service, the more active their role tends to be in posyandu activities.(34)

Relationship between Occupation and the Active Role of Posyandu Cadres in Providing Supplementary Food

The results of statistical tests showed no relationship between employment status and the active role of posyandu cadres, with a p-value of 0.871 > α 0.05. The study also showed that although as many as 76 posyandu cadres did not have jobs outside their duties as cadres, there was still no significant relationship between employment status and cadres' activeness in providing supplementary feeding (PMT).

The results of this study indicate that (76.0%) of respondents do not have a job, while the remaining (24.0%) do work. This illustrates that more cadres who work focus on their role as posyandu cadres than those who have other jobs, such as farmers, civil servants, and self-employed. Non-working posyandu cadres are posyandu cadres who have the status of housewives and whose daily activities involve participating as posyandu cadres in posyandu services, while working posyandu cadres are cadres who have additional jobs such as farmers, civil servants, and entrepreneurs.

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Non-working posyandu cadres may have more free time, but there are many factors that can influence their inactivity, such as the level of knowledge they have or inadequate training, which make them less active. In this study, (62.0%) of posyandu cadres had good knowledge, but (38.0%) still had poor knowledge. Therefore, it is necessary for posyandu cadres to attend training, as (41.0%) of them have not yet participated in any training. The low level of training participation among posyandu cadres may be one of the reasons for their lack of activeness, regardless of employment status. Without adequate training, posyandu cadres may feel less confident or have a limited understanding of their roles in implementing the PMT program due to insufficient knowledge.(35)

The results of this study are consistent with research conducted by Herlinawati (2020), in which statistical analysis showed a p-value of 1.000 ($p > 0.05$), indicating no significant relationship between employment and the activeness of posyandu cadres in the working area of UPT Puskesmas Kejaksan in 2020. The work environment allows individuals to gain experience and knowledge, either directly or indirectly. Posyandu cadres who have other jobs generally have limited time to carry out tasks outside their primary workplace.(36)

Similarly, research conducted in the working area of the Sipiongot Health Center, North Padang Lawas Regency, in 2021 found no relationship between employment status and the provision of basic immunization information, with a statistical test result of $p = 0.190 > 0.05$. The proportion of cadres who are active in conducting socialization and are housewives is lower than the proportion of active cadres who are civil servants. Some posyandu cadres who are civil servants (ASN) are more active in conducting socialization because, in addition to their responsibilities as government employees, they also feel responsible for securing children's futures by ensuring they receive complete basic immunizations.(37)

Relationship Between Facilities and Infrastructure and the Activeness of Posyandu Cadres in Providing Supplementary Food

The results of this study indicate that there is no relationship between facilities and infrastructure and the activeness of posyandu cadres in providing supplementary food, as shown by a statistical test with a p-value of $0.090 > \alpha\, 0.05$. In this study, 55 respondents (55.0 %) reported that the available facilities and infrastructure were inadequate, while 45 respondents (45.0 %) stated that the facilities were complete. It is known that all posyandu cadres (100.0%) stated that they did not have adequate cooking equipment for the implementation of PMT at the posyandu and did not have food storage facilities (such as refrigerators and storage shelves).

The absence of these facilities requires posyandu cadres to find solutions so that the PMT program can still run. Based on information obtained by the researchers, posyandu cadres voluntarily prepare supplementary food (PMT) and carry out the activities at the cadre's home or at the village midwife's house, using the facilities available at their homes. Facilities and infrastructure play an important role in supporting the implementation of the supplementary feeding program (PMT) by posyandu cadres. Ideally, complete facilities such as cooking utensils, food storage equipment, and other tools can encourage posyandu cadres to carry out their duties optimally. Facilities and infrastructure provided—whether through the puskesmas or the local government—should be directed at removing operational barriers faced by cadres. With adequate resources in place, cadres can work unhindered, ensuring the effectiveness of PMT activities is not diminished".(38)

These findings are consistent with research by Yanti et al. (2021), which reported that 65.0 % of the 20 respondents with complete facilities and infrastructure showed a high level of active cadre participation, whereas 48.0 % of the 50 respondents lacking adequate facilities and infrastructure demonstrated inactive participation. The statistical analysis yielded a p-value of 0.470, indicating no significant relationship between the availability of facilities and infrastructure and the cadres' level of active participation.(39)

This research has been conducted in accordance with the applicable scientific review procedures. The limitations of this study are as follows:

1. The researchers did not directly observe the posyandu cadres in preparing the supplementary food, and therefore could not verify whether they had followed the applicable 2023 PMT technical guidelines issued by the Ministry of Health. These include maintaining hygiene during food processing, using appropriate local food ingredients, and applying proper cooking techniques to preserve the nutritional content of the food. Furthermore, without direct observation, the researchers were also unable to identify any challenges that may have occurred in the field, such as lack of cooking equipment, insufficient raw materials, or an unhygienic cooking environment.
2. The researchers did not directly monitor the posyandu cadres during home visits to measure the height and weight of stunted toddlers. Therefore, the researchers

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could not confirm whether the cadres conducted the measurements and weighing in accordance with proper procedures. This includes using accurate equipment, ensuring that the scales were properly calibrated to avoid measurement errors, and recording the results accurately and thoroughly in the MCH (Maternal and Child Health) book. Furthermore, the researchers were also unable to verify whether the cadres fulfilled their role in monitoring whether the supplementary food provided to stunted toddlers was appropriate and well-targeted

CONCLUSION

Based on the results of the statistical analysis in this study, it can be concluded that the variables of knowledge, attitude, age, training, and length of time as a cadre are significantly associated with the active role of posyandu cadres in providing additional food in Banyuasin Regency, with a p-value < 0.05. Meanwhile, the variables of education, incentives, employment, and facilities and infrastructure do not show a significant relationship with the active role of posyandu cadres in providing additional food. The health policies implemented in Banyuasin District, such as regular training and capacity building for cadres by the Health Office, align with the findings of this study. However, additional health promotion strategies should be incorporated to further motivate cadres and enhance their effectiveness in educating the community. For instance, more interactive training sessions and the use of digital media could serve as innovative approaches to improve cadre skills. Therefore, future research is recommended to focus on developing innovative health promotion interventions aimed at increasing cadre motivation and community involvement, such as participatory workshops, mentoring among cadres, and the use of digital media for health education. Furthermore, policymakers should incorporate structured health promotion components into cadre training modules to ensure sustained behavior change among both cadres and communities. This approach is expected to maximize the impact of the PMT program in reducing stunting in Banyuasin Regency.

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Conflict of Interest

No potential conflicts of interest relevant to this article were reported

REFERENCES

1. Priyono P. Strategi Percepatan Penurunan Stunting Perdesaan (Studi Kasus Pendampingan Aksi Cegah Stunting Di Desa Banyumundu, Kabupaten Pandeglang). J Good Gov. 2020;16(2):149–74.
2. Nazidah MDP, Fauziah R, Hafidah R, Jumiatmoko J, Nurjanah NE. Pengaruh Stunting Pada Kognitif Anak Usia Dini. J Stud Islam Gend Dan Anak. 2022;17(1):59–72.
3. Akhfar K, Erniawati, Kanang B, Khatimah H, Jusni. Peran Intervensi Gizi Spesifik Dalam Penanggulangan Masalah Gizi Pada Balita Di Kabupaten Bulukumba. Journal Educ Innov Public Heal. 2023;1(3):139–48.
4. Safrina S, Putri ES. Hubungan Pemberian Makanan Tambahan (PMT) Dengan Resiko Kejadian Stunting Pada Balita. J Biol Educ. 2022;10(1):78–90.
5. Domili I, Anasiru MA, Napu A, Zakaria R, Mustafa Y. Pencegahan Stunting Melalui Intervensi Spesifik Dan Sensitif. Jurnal Masy Mandiri. 2023;7(6):5778.
6. Sastika W, Hanifa FH, Disastra GM. Peningkatan Kapabilitas Kader Posyandu Melalui Pelatihan Service Excellent Di Desa Panyocokan Ciwidey Kabupaten Bandung. Pros Cosecant Community Serv Engagem Semin. 2023;2(2).
7. Erliana E, Arsyad M. Efektivitas Program Pemberian Makanan Tambahan (PMT) Untuk Pencegahan Stunting Di Desa Karuh Kecamatan. Jurnal MSDM. 2024;506–16.
8. Murdiningsih, Rohaya, Sumastri H. Optimalisasi Kinerja Kelompok Posyandu Jurusan Kebidanan Di Desa Mulia Sari Kecamatan Tanjung Lago Kabupaten Banyuasin Pendampingan Dan Pembinaan Dan Home Visit. Jurnal Abdikemas. 2022;1:7–11.
9. Indrilia A, Efendi I, Safitri ME. Faktor-Faktor Yang Memengaruhi Peran Aktif Kader Dalam Pelaksanaan Posyandu Di Kecamatan Simeulue Timur Kabupaten Simeulue. J Healthc Technol Med. 2021;7(2):2615–109.
10. Hakiki RJ, Yustati E, Chandra E. Faktor Yang Berhubungan Dengan Pengetahuan. J Ilm. 2020;15(2):58–66.
11. Nur I, Setyowati C, Queennenza MS, Nasution H, Aisyah S, Ulva N. Program Sosialisasi Dan Edukasi Masyarakat Untuk Meningkatkan Gizi Anak Melalui PMT Pudding Daun Kelor Di Desa Curahsawo Kecamatan Gending. JPkMN. 2024;6(1):1299–307.
12. Elnifara R. Faktor Yang Mempengaruhi Keaktifan Kader Dalam Pelaksanaan Kegiatan Posyandu. J

Copyright © 2025 The Author. JPKI, p-ISSN: 1907-2937 – e-ISSN: 2620-4053

Keperawatan. 2024;16(2):497–504.
13. Fred R. Faktor Yang Berhubungan Dengan Keaktifan Kader Posyandudi Wilayah Kerja Puskesmas Ranotana Weru. Voice Of Midwifery. 2020;11(2):52–8.
14. Sijabat R, Anggraini S, Akmal ZN, Paramita P. Penyuluhan Pemberian Makanan Tambahan Lokal di Desa Pantai Harapan Jaya Kecamatan Muaragembong. Jukmas. 2025;9(1).
15. Chahyanto BA, Purba DD, Doloksaribu TH. Pengetahuan dan Sikap Kader Posyandu Pada Seribu Hari Pertama Kehidupan Dan Stunting. 2024;5(September):8124–37.
16. Pering EE, Takaeb AE, Riwu RR. Faktor Yang Berhubungan Dengan Keaktifan Kader Dalam Kegiatan Posyandu Di Wilayah Puskesmas Kenarilang Kabupaten Alor. J Ris Rumpun Ilmu Kesehat. 2022;1(1):27–37.
17. Pakasi AM, Korah BH, Imbar HS. Hubungan Pengetahuan Dan Sikap Kader Kesehatan Dengan Pelayanan Posyandu. J Ilm Bidan. 2020;4(1):15–21.
18. Afrida. Faktor Yang Memengaruhi Keaktifan Kader Posyandu Di Wilayah Kerja Puskesmas Kota Juang Kabupaten Bireuen Tahun 2020. Inst Kesehat Helv. 2020;1–176.
19. Suwarnisih, Noviani A. Studi Deskripsi Pengetahuan Kader Dan Usia Kader Di Posyandu RW XV Perum Josroyo Indah Jaten Karanganyar Tentang Pemantauan Kehamilan Resiko Tinggi. Jurnal Komunikasi Kesehatan. 2020;11(2).
20. Himmawan LS. Faktor Yang Berhubungan Dengan Pengetahuan Kader Posyandu Tentang 1000 Hari Pertama Kehidupan (HPK). J Kesehat. 2020;11(1):23–30.
21. Lewen D, Astuti S, Emil. Faktor-Faktor Yang Berhubaungan Dengan Keaktifan Kader Posyandu Di Desa Pahlawan Setia Kecamatan Tarumajaya Kabupaten Bekasi. J Nurse. 2020;3(1):43–61.
22. Cahyani ZSD, Pratiwi W, Cahyadi I. Hubungan Usia, Pengetahuan Dan Dukungan Keluarga Dengan Partisipasi Kader Dalam Kegiatan Posyandu Di Wilayah Kerja Puskesmas Puspahiang Kabupaten Tasikmalaya. Tunas Med J Ked & Kes. 2024;10(1).
23. Killista DY, Yaniarti S, Eliana E. Kinerja Kader Posyandu Di Wilayah Kerja Puskesmas Lingkar Barat. J Penelit Terap Kesehat. 2021;7(1):77–83.
24. Sugandini W, Erawati NK, Mertasari L. Pelatihan Dan Pendampingan Kader Posyandu Membuat Pudding Jagung Modisco Untuk Pemberian Makanan Tambahan (PMT) Penyuluhan Di Desa Tegallinggah. J Widya Laksana. 2023;12(1):101–12.
25. Aome LN, Muntasir. Faktor-Faktor Yang Berhubungan Dengan Keaktifan Kader Posyandu Di Wilayah Kerja Puskesmas Baumata Tahun 2021. J Ilm Kesehat Masy. 2022;1(3):418–28.
26. Didah D. Kader Posyandu Memahami Peran Dan Tugasnya Sebagai Kader Posyandu Yang Bersifat Sukarela. J Kebidanan Malahayati. 2020;6(2):217–21.
27. Baharuddin I. Analisis Kinerja Pada Kader Posyandu Di Wilayah Kerja Puskesmas Wonorejo Kota Samarinda. Wind Heal J Kesehat. 2023;6(4):410–8.
28. Siregar LYS. Motivasi Sebagai Pengubahan Perilaku. Forum Paedagog. 2020;11(2):81–97.
29. Loaloka MS, Umbu ZA. Pelatihan Pembuatan MP-Asi Dan PMT Lokal Bagi Kader Posyandu Di Desa Oeltuah Kabupaten Kupang. Bernas J Pengabdi Kpd Masy. 2023;4(3):2179–82.
30. 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.
31. Noordiati N. Peningkatan Kapasitas Kader Posyandu Melalui Pelatihan Pemantauan Pertumbuhan Dan Perkembangan Balita Di Wilayah Kerja Puskesmas Kereng Bangkirai Kecamatan Sebangau Palangka Raya. J Ilm Pengabdi Kpd Masy. 2020;5(4):328–35.
32. Nurdiantini I. Hubungan Keaktifan Kader Posyandu Dengan Keberhasilan Pemberian Makanan Tambahan Pada Anak Kurang Gizi Di Kelurahan Tlogomas Kecamatan Lowokwaru Malang. J Nurs News. 2020;XI(1):31–7.
33. Azizan N, Rahayu S, Aini N. Pengaruh Pelatihan Kader Terhadap Peningkatan Keterampilan Pemberian Makanan Tambahn Pada Balita Di Desa Kadubale, Kecamatan Banjar, Kabupaten Pandeglang Tahun 2022. J Ilmu Gizi Dan Diet. 2023;2(1):53–8.
34. Damayanti DF, Aprianti E, Fatonah O, Sulistiawati R. Faktor-Faktor Yang Mempengaruhi Peran Kader Posyandu Dalam Upaya Pencegahan Stunting Di Wilayah Puskesmas Sungai Melayu Kabupaten Ketapang. J Kebidanan Khatulistiwa. 2022;8(1):8.
35. Santi MW, Triwidiarto C, Syahniar TM, Firgiyanto R, Andriani M. Peningkatan Pengetahuan Kader Posyandu Dalam Pembuatan Pmt Berbahan Dasar Kelor Sebagai Upaya Percepatan Pencegahan Stunting. Dharma Raflesia J Ilm Pengemb Dan Penerapan Ipteks. 2020;18(2):77–89.
36. Herlinawati. Faktor-Faktor Yang Berhubungan Dengan Keaktifan Kader Posyandu. Jurnal Kesehatan. 2020;10(1):1285–93.
37. Inayati IN, Wakano A, Atik NS, Witari NND. Faktor-faktor Yang Berhubungan Dengan Keaktifan Kader Dalam Pemberian Informasi Imunisasi Dasar. Ensiklopedia of Journal. 2025;7(3):140-3.
38. Devina MS, Utami SB. Inovasi Program Toss Melalui Pemberian Makanan. Responsive. 2024;7:21–31.
39. Yanti, Mulyadi, Usman S. Pengetahuan, Dana Insentif, Sarana Dan Prasarana Dengan Partisipasi Keaktifan Peran Kader Dalam Pelaksanaan Posyandu. J Ilmu Keperawatan. 2021;3(2):161–71.

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