

# Journal of Resilient and Sustainability for Health (JRSH)

Qualitative Research Article

## Community Health Workers 'Performance Determinants in Monitoring Under Five Children' Growth and Development in a Sub-Urban Stunting Locus Area

Maharanti<sup>1</sup>, Apriningsih<sup>1</sup>, Dyah Utari<sup>1</sup>, Tyan Yelena<sup>2</sup>

### Abstract

**Background:** The COVID-19 pandemic reduced the number of active Integrated Health Service Posts (Posyandu) in Tangerang City, affecting the monitoring of growth and development of children under five (U5C). Posyandu cadres play a critical role in restoring these services, particularly in stunting locus areas.

**Objective:** This study aimed to identify determinants of Posyandu cadres' performance in monitoring U5C growth and development in a sub-urban stunting locus area.

**Design and Methodology:** A cross-sectional study was conducted involving 137 Posyandu cadres from the Jurumudi Baru Health Center in Tangerang City, selected through purposive sampling. Data were collected using structured questionnaires and analyzed using chi-square and multiple logistic regression.

**Findings:** Individual factors (age, knowledge), psychological factors (attitudes), and organizational factors (incentives, training, facilities) significantly influenced cadre performance. Logistic regression identified cadre incentives ( $p=0.000$ ;  $POR=11.84$ ), Posyandu facilities ( $p=0.001$ ;  $POR=7.68$ ), training ( $p=0.009$ ;  $POR=4.56$ ), and age ( $p=0.048$ ;  $POR=2.83$ ) as significant determinants. Incentives were the most dominant factor affecting performance.

**Conclusion and Implications:** The performance of Posyandu cadres is influenced by multiple factors, with incentives playing a pivotal role. Improving cadre performance requires a multi-faceted approach, including regular training, sufficient facilities, and financial or non-financial incentives. Enhancing these factors can improve monitoring of U5C growth and development, particularly in stunting locus areas, ultimately contributing to better public health outcomes. These findings emphasize the importance of strengthening community-based health services to address health inequities.

### Author Affiliation

<sup>1</sup> Fikes, UPN Veteran Jakarta, Indonesia

<sup>2</sup> Gumilyov Eurasian National University, Kazakhtan

\*Corresponding author e-mail: apriningsih@upnvj.ac.id

### Article Information

*Received:* 19-11-24

*Revised:* 21-11-24

*Accepted:* 22-11-24

### Keywords

Care, growth, monitoring, performance, under five children

## Introduction

Integrated Health Service Post is a community-based health service organization. Health Service Post or Posyandu in Bahasa has a function to assist village leaders in improving village community health services. A posyandu has an active status if every month the Posyandu can carry out basic activities regularly. The Ministry of Health of the Republic of Indonesia in 2021 reported that the number of active posyandu in 2019 reached 65.42% of the 298,058 posyandu Tangerang City Health Office in 2019 there were 1,083 active Posyandu and decreased in 2020 to 1,057 active Posyandu. This decrease has an impact on the achievement of health program targets, including monitoring the growth and development of Under Five Children.

Monitoring the growth and development of under-five children is an important part of efforts to reduce stunting cases. Therefore, these activities need to be carried out properly and continuously by reactivating the Posyandu which has been inactive due to the pandemic. To restore the number of active posyandu, the active role of posyandu cadres is required. Facts on the ground several factors influence the performance of posyandu cadres, both internal and external factors of posyandu cadres (Nugraheni & Oktaviasari, 2020). The performance of posyandu cadres is related to the implementation of all activities at the posyandu. Based on the study by Desiana (2021), the results obtained that the performance of posyandu cadres is influenced by knowledge, motivation, and rewards (Desiana et al., 2021).

Another study conducted by Irianty (2017) states that age, education, knowledge, and attitudes of cadres have a strong influence on the performance of posyandu cadres. Based on this research, it is stated that the majority of posyandu cadres are aged 45 years and over, generally, at that age the cadres are already married and are housewives. Most female cadres have reasons to look for activities to fill their free time by participating in social activities in their environment, such as becoming posyandu cadres. Most of the mothers who chose to become cadres reasoned that cadres' jobs were more flexible and did not take up much time with their families compared to formal workers (Irianty et al., 2017.).

Based on the report from the Tangerang City Health Office, it was found that several cadres in two of the three sub-districts in the working area of the Jurumudi Baru Health Center, Tangerang City, lacked skills in taking anthropometric measurements so this could affect the validity of toddler growth and development data in the area in the future. In addition, the stunting rate in Banten increased from 20% in 2022 to 24% in 2023 (BKPK 2023). The validity of the stunting rate is determined by the skills of cadres in measuring nutritional status based on anthropometry standards.

Incentives play a crucial role in motivating CHWs to deliver effective health services. Financial incentives, such as salaries or performance-based pay, have been shown to enhance the motivation and retention of CHWs, leading to improved health outcomes in the communities they serve (Ballard et.al

2021). Therefore, it is necessary to research the factors related to the performance of posyandu cadres in monitoring the growth and development of toddlers at the Jurumudi Baru Health Center, Tangerang City

## Methods

This study used a cross-sectional study design by conducting questionnaire interviews which were conducted from November 2021 – January 2022. The population of this study was all posyandu cadres in the working area of the Jurumudi Baru Health Center, Tangerang City. the number of samples used in this study was 137 respondents. The sample selection in this study was based on inclusion and exclusion criteria. The inclusion criteria for this study were cadres who are active in posyandu activities, domicile in the working area of the Jurumudi Baru Health Center, and are willing to be respondents. While the exclusion criteria are cadres who have not been active for the last 6 months and are seriously ill or outside the country/city.

The dependent variable of this study is the performance of posyandu cadres in monitoring the growth and development of toddlers. The independent variables in this study consisted of individual factors (age, last education, employment status, marital status, family income, length of service as cadres, knowledge), psychological factors (attitudes), and organizational factors (training, posyandu facilities, and incentives). Age factors are categorized into 2 age groups based on the median. Education is categorized as junior and senior high school's last education achievement. The family income factor is categorized based on Banten Provincial's minimum wage. The length of cadres' work is categorized into 2 groups based on the median. This study used univariate to multivariate analysis.

Univariate analysis was applied to describe the frequency distribution of each variable. A chi-square test was conducted to see the relationship between the dependent and independent variables. Multiple logistic regression test was used to see the most dominant variable on the performance of posyandu cadres in monitoring the growth and development of toddlers. This research was approved by the Health Research Ethics Commission (KEPK) UPN Veterans Jakarta with number: 502/XII/2021/KEPK.

## Results and Discussions

### **Characteristics and performance of Posyandu Cadres in Monitoring the Growth and Development of children under 5 years old Demographic Information**

This study obtained that the majority (80.3%) of cadres had good performance, but there were still 19.7% of Posyandu cadres in the working area of the Puskesmas who had poor performance in monitoring the growth and development of toddlers (see table. 1). This finding is not much different from the performance conditions of posyandu cadres in the working area of the Panyili Health Center, Palakka, Bone Regency, reported by Malik and Darwis (Malik & Darwis, 2020).

Table 1 describes the distribution of the characteristics and performance of posyandu cadres in monitoring the growth and development of U5C in the working area of the new Jurumudi Health Center, Tangerang City, in 2021. The majority of posyandu cadres have good knowledge and attitudes toward the toddler growth monitoring program, with percentages of 84.7% and 52.6% respectively (see table 1). This is in line with research conducted in East Jakarta by Lestari and Ayubi (2021) which found that 89% of cadres had good knowledge, 69% of cadres had a good attitude about posyandu. (Lestari & Ayubi, 2021). Good cadre knowledge and attitudes are important factors in the success of posyandu implementation.

According to Gibson, organizational factors are one of the supporting factors for performance. The organizational factors measured in this study are incentives, training, and posyandu facilities (Simamora et.al, 2018.). This variable was also analyzed by Ekowati et.al (2019).

**Table 1.** Characteristics and performance of Posyandu Cadres

| Posyandu Cadres Characteristic | Number | Percentage |
|--------------------------------|--------|------------|
| Age (years old)                |        |            |
| - 24-45                        | 61     | 44,5       |
| - 46-55                        | 76     | 55,5       |
| Education                      |        |            |
| - Up to Junior High School     | 54     | 39,4       |
| - Up to Senior High School     | 83     | 60,6       |
| Employment status              |        |            |
| - Not working formally         | 127    | 92,7       |
| - Working formally             | 10     | 7,3        |
| Marriage status                |        |            |
| - Marriage                     | 126    | 92,0       |
| - Divorce                      | 11     | 8,0        |
| Family Income Level            |        |            |
| - < Provincial Minimum Wage    | 97     | 70,8       |
| - ≥ Provincial Minimum Wage    | 40     | 29,2       |
| Length of cadre's work         |        |            |
| - <15 year                     | 60     | 43,8       |
| - ≥15 year                     | 77     | 56,2       |
| Knowledge                      |        |            |
| - Less                         | 3      | 2,2        |
| - Moderate                     | 18     | 13,1       |
| - Good                         | 116    | 84,7       |
| Attitude                       |        |            |
| - Less                         | 45     | 47,4       |
| - Good                         | 92     | 52,6       |
| Performance                    |        |            |
| - Less                         | 27     | 19,7       |
| - Good                         | 110    | 80,3       |

Source: Research data

Table 2 illustrates that the majority of cadres perceive the incentives received as satisfactory (52.6%), the training they receive is sufficient (78.8%) and the posyandu facilities are complete (51.8%). A chi-square test is applied to analyze the relationship between characteristic variables with organizational factors and cadre performance. The test results are shown in Table 3. It can be seen that the factors related to the performance of cadres in this study are age, years of service, knowledge, attitudes, cadre incentives, cadre training, and posyandu facilities. This follows a study conducted by Wirapuspita (2013) which found a relationship between training received by cadres, transport money, operational assistance, and award certificates with the performance of posyandu cadres ( $p < 0.05$ ) (Wirapuspita, 2013)

**Table 2.** Cadre Perceptions of Factors Organization

| Organisation factor based on cadres's perception | Number | Percentage |
|--|--------|------------|
| Incentives                                       |        |            |
| - Less satisfied                                 | 65     | 47,4       |
| - Satisfied                                      | 72     | 52,6       |
| Training   |        |            |
| - Less sufficient                                | 29     | 21,2       |
| - Sufficient                                     | 108    | 78,8       |
| Posyandu facilities                              |        |            |
| - Incomplete                                     | 66     | 48,2       |
| - Complete                                       | 71     | 51,8       |

**Model of Cadre's performance determinant in monitoring the growth and development of U5C in Jurumudi Baru Health Center**

Of all the variables analyzed, there were 4 variables that survived until the final model was obtained for multiple logistic regression multivariate analysis. These variables are the age of cadres, posyandu cadre training, posyandu cadre incentives, and posyandu facilities. From this multivariate analysis, it was found that the posyandu cadre incentive variable was the most dominant variable on the performance of posyandu cadres in monitoring U5C's growth and development with an OR of 11.838 controlled by posyandu facilities, training, and cadre age. Then followed by the posyandu facility variable with an OR value of 7.682. Then followed by the posyandu cadre training variable with an OR value of 4.561 and the cadre age variable has an OR value of 2.831.

According to Hariani and Ramlah (2017) providing incentives is an encouragement for cadres to increase their enthusiasm for duty. In addition, incentives can be proof that the puskesmas provides social attention to cadres (Hariani & Ramlah, 2017). Furthermore, Gibson (1997) stated that the existence of incentives greatly influences one's work performance. Cadres are social work that is done voluntarily, but this incentive is not a big reward to appreciate the services of the cadres and as additional income to meet the needs of their families. Cadres who get satisfactory incentives will be more active and focused on work than cadres who feel dissatisfied with their incentives so they look for other activities that can generate money. (Sari, 2018).

Table 3 Characteristic variables association with organizational factors and cadre performance

| Variable                    | Cadre performance |      |      |      |       | P value                | OR<br>95%CI |
|-----------------------------|-------------------|------|------|------|-------|------------------------|-------------|
|                             | Less              |      | Good |      |       |                        |             |
|                             | n                 | %    | %    | n    |       |                        |             |
| Age                         |                   |      |      |      |       |                        |             |
| - 24-45                     | 18                | 29,5 | 43   | 70,5 | 0,018 | 3,12<br>(1,28-7,57)    |             |
| - 46-55                     | 9                 | 11,8 | 67   | 99,2 |       |                        |             |
| Education                   |                   |      |      |      |       |                        |             |
| - Junior High School        | 9                 | 16,7 | 45   | 83,3 | 0,612 | 0,722<br>(0,298-1,751) |             |
| - Senior School High        | 18                | 21,7 | 65   | 78,3 |       |                        |             |
| Employment status           |                   |      |      |      |       |                        | 0,98        |
| - Not working formally      | 25                | 19,7 | 102  | 80,3 | 1,000 | (0,196-4,905)          |             |
| - Working formally          | 2                 | 20,0 | 8    | 80,0 |       |                        |             |
| Marriage status             |                   |      |      |      |       |                        |             |
| - Marriage                  | 25                | 19,8 | 101  | 80,2 | 1,000 | 1,114 (0,226-5,481)    |             |
| - Divorce                   | 2                 | 20,0 | 9    | 81,8 |       |                        |             |
| Family Income Level         |                   |      |      |      |       |                        |             |
| - < Provincial Minimum Wage | 17                | 17,5 | 80   | 82,5 | 0,445 | 0,638<br>(0,263-1,547) |             |
| - ≥ Provincial Minimum Wage | 10                | 25   | 30   | 75,0 |       |                        |             |
| Length of cadre's work      |                   |      |      |      |       |                        |             |
| - <15 year                  | 17                | 28,3 | 43   | 71,7 | 0,043 | 2,649 (1,110-6,322)    |             |
| - ≥15 year                  | 10                | 13   | 67   | 87,0 |       |                        |             |
| Knowledge                   |                   |      |      |      |       |                        |             |
| - Less                      | 2                 | 66,7 | 1    | 33,3 | 0,015 | 2,822 (1,222-6,516)    |             |
| - Moderate                  | 6                 | 33,3 | 2    | 66,7 |       |                        |             |
| - Good                      | 19                | 16,4 | 97   | 83,6 |       |                        |             |
| Attitude                    |                   |      |      |      |       |                        |             |
| - Less                      | 15                | 33,3 | 30   | 66,7 | 0,01  | 3,333 (1,400-7,935)    |             |
| - Good                      | 12                | 13   | 80   | 87,0 |       |                        |             |
| Incentive                   |                   |      |      |      |       |                        |             |
| -Less satisfied             | 21                | 32,3 | 44   | 67,7 | 0,001 | 5,250 (1,962-14,047)   |             |
| -Satisfied                  | 6                 | 8,3  | 66   | 97,7 |       |                        |             |
| Training                    |                   |      |      |      |       |                        |             |
| -Less sufficient            | 11                | 37,9 | 18   | 62,1 | 0,012 | 3,514 (1,402-8,808)    |             |
| -Sufficient                 | 16                | 14,8 | 92   | 85,2 |       |                        |             |
| Posyandu facilities         |                   |      |      |      |       |                        |             |
| -Incomplete                 | 20                | 30,3 | 46   | 69,7 | 0,005 | 3,975 (1,552-10,181)   |             |
| -Complete                   | 7                 | 9,9  | 64   | 90,1 |       |                        |             |

Source; research data

This study found that complete posyandu facilities have a 7.7 times greater chance of having a good performance in monitoring the growth and development of children under 5 years of age compared to incomplete posyandu facilities. The availability of work infrastructure can support the ability to work productively which is an indicator of organizational effectiveness. Posyandu activities will not run as smoothly as they should if there are no adequate facilities (Suhart dan Hasanah, 2014). The more complete

the posyandu facilities, the smoother the posyandu will carry out its services. Most posyandu in the working area of the Jurumudi Baru Health Center do not have independent buildings due to limited land. However, the cadres have high spirits by utilizing the slightly large yard of the house or the yard of the local mosque to carry out the posyandu activities.

Table 4 Multiple Logistic Regression Analysis of Posyandu Cadre Performance Determinants

| Factor              | B    | SE   | P value | Exp (B) | 95% CI      |
|---------------------|------|------|---------|---------|-------------|
| Age                 | 1,04 | 0,53 | 0,048   | 2,83    | 1,01-7,94-- |
| Training            | 1,52 | 0,58 | 0,009   | 4,56    | 1,45-14,3   |
| Incentive           | 2,47 | 0,64 | 0,000   | 11,84   | 3,41-41,13  |
| Posyandu facilities | 2,04 | 0,59 | 0,001   | 7,68    | 2,4-24,63   |

The results of this study indicate that adequate cadre training is 4.6 times more likely to have good performance in monitoring the growth and development of toddlers than cadre training with insufficient training. Lack of skills can be an obstacle to one's performance. These skills can be honed through training and coaching. Cadres can carry out their responsibilities more effectively and maximally need to be supported by training (Apriningsih et al., 2022). Differences in educational background between cadres, and the majority of cadres' education levels only up to high school level, training must be provided specifically using methods and language that are easy to understand and arranged in modules to facilitate the delivery of information (Darmiyanti & Adiputri, 2020).

This study found that elderly cadres have a 2.8 times greater chance of performing well than adult cadres. In recruiting cadres, there is no minimum or maximum age requirement because there are no regulations. Most cadres in Indonesia are old adults or elderly (Nurayu, 2013). Cadres who already have experience and a mature mindset are more trusted by the community than cadres who do not have sufficient experience in carrying out all posyandu activities, especially weighing and monitoring the growth and development of their children. Age can be an obstacle because increasing age will affect productivity, which is caused by a decrease in the body's ability to be alert.

### Conclusion and Implications:

This research obtains a performance model of posyandu cadres in the stunting locus area of the UPT Puskesmas Juru Mudi Tangerang City which consists of the incentive factor received by the cadre as the dominant factor, accompanied by posyandu facilities, the age of the cadre and the training received by the cadre. Therefore, it is necessary to create a system that involves these 4 factors. Enhancing the performance of community health workers requires a multifaceted approach that addresses incentives, facilities, age, and training. By providing adequate financial and non-financial incentives, ensuring access to necessary facilities, recognizing the diverse contributions of different age groups, and investing in comprehensive training programs, health systems can significantly improve the effectiveness of CHWs. This, in turn, can

lead to better health outcomes for communities, particularly in underserved areas where CHWs play a vital role in bridging the gap between healthcare services and the populations they serve.

## References

- Apriningsih, A., Arianda, M. R., Wahyuningtyas, W., & Makiyah, F. A. (2022). Readiness of The Community-Based Organization in Improving Female Adolescents Iron Folate Status in a Rural Area. *Jurnal Profesi Medika : Jurnal Kedokteran Dan Kesehatan*, 16(1). <https://doi.org/10.33533/jpm.v16i1.4268>
- Ballard M, Westgate C, Alban R, et al. (2021). Compensation models for community health workers: Comparison of legal frameworks across five countries. *Journal of global health* vol.11. doi: 10.7189/jogh.11.04010
- Boni Lestari, P., & Ayubi, D. (2021). Pengetahuan, Sikap Dan Perilaku Kader Posyandu Dalam Penimbangan Balita Selama Pandemi Covid-19 Di Jakarta Timur. *Jurnal Health Sains*, 2(4), 533–540. <https://doi.org/10.46799/jhs.v2i4.154>
- Darmiyanti, N. M. D., & Adiputri, N. W. A. (2020). Efektivitas pelatihan kerja terhadap kinerja kader Posyandu. *Jurnal Kebidanan*, 9(2), 95. <https://doi.org/10.26714/jk.9.2.2020.95-102>
- Desiana, Apriza, (co Author), & Erlinawati, co author). (2021). Faktor-Faktor Yang Mempengaruhi Kinerja Kader Dalam Kegiatan Posyandu Balita Di Desa Seremba. *Jurnal Ilmiah Ilmu Kesehatan*, 1(1).
- Ekowati, E., Shaluhiah, Z., & Agushybana, F. (2019). Pengaruh Pemanfaatan Aplikasi Keluarga Sehat terhadap Kinerja Petugas Promosi Kesehatan Puskesmas. *Jurnal Promosi Kesehatan Indonesia*, 14(2), 92. <https://doi.org/10.14710/jpki.14.2.92-107>
- Hariani, H., & Ramlah, R. (2017). Hubungan Motivasi dengan Kinerja Kader Posyandu di Kecamatan Bulo Kabupaten Polewali Mandar. *J-KESMAS: Jurnal Kesehatan Masyarakat*, 3(2), 120. <https://doi.org/10.35329/jkesmas.v3i2.289>
- Irianty, H., Agustina, N., & Sulistiyawati, R. (n.d.). *Faktor –Faktor Yang Berhubungan Dengan Kinerja Kader Posyandu Balita Di Wilayah Kerja Puskesmas Tambarangan Kabupaten Tapin Tahun 2015*. 8(1), 10.
- Malik, R. H. A., & Darwis, N. (2020). *Hubungan Motivasi Terhadap Kinerja Kader Posyandu Di Wilayah Kerja Puskesmas Panyili Kecamatan Palakka Kabupaten Bone*. 2, 10.
- Nugraheni, R., & Oktaviasari, D. I. (2020). Pengaruh Karakteristik Ibu dan Kinerja Kader Posyandu Terhadap Partisipasi Ibu Dalam Penimbangan Balita di Posyandu Desa Kedak Kecamatan Semen Kabupaten Kediri. *Journal for Quality in Women's Health*, 3(1), 78–81. <https://doi.org/10.30994/jqwh.v3i1.54>
- Nurayu, A. W. (2013). *Hubungan Tingkat Pengetahuan, Pendidikan, Usia Dan Lama Menjadi Kader Posyandu Dengan Kualitas Laporan Data Bulanan Data Kegiatan Posyandu* [Unpublished Manuscript].
- Simamora, F. U., & Ramdani, A. (2018). *The Influence An Individual Performance, Compensation Non Financial, And Motivation On Work Satisfaction State Vocational High School Teachers In West Lombok Regency Of Indonesia*. VI(11), 13.
- Suhat. (2014). Faktor-Faktor Yang Berhubungan Dengan Keaktifan Kader Dalam Kegiatan Posyandu (Studi Di Puskesmas Palasari Kabupaten Subang ). *Jurnal Kesehatan Masyarakat*, 10(1), 73–79.
- Badan Kebijakan Pembangunan Kesehatan. Kemenkes RI. Survei Kesehatan Indonesia. 2023.



- Wandira, B. A., Hermiyanti, H., Suwendro, N. I., & Suarayasa, K. (2022). Impact of the COVID-19 Pandemic on Integrated Health Service for Child (Posyandu) Management in Palu City. *Open Access Macedonian Journal of Medical Sciences*, 10(E), 243–247. <https://doi.org/10.3889/oamjms.2022.8149>
- Wirapuspita, R. (2013). *Insentif Dan Kinerja Kader Posyandu*. 8.