



Analysis of Factors Affecting the Effectiveness of Integrated Service Posts for the Elderly in Health Centers Banda Aceh City

Qurrata Aini^{1*}, Nasrul Z², Dedy Syahrizal³, Said Usman⁴, T.Maulana⁵

Universitas Syiah Kuala, Banda Aceh, Indonesia^{1,2,3,4,5}

Email: qurrataaini36@gmail.com

KEYWORDS	ABSTRACT
The Role of Health Workers, Elderly Participation, Availability of Infrastructure, Accessibility, Cross-Sector Cooperation, Monitoring and Evaluation, Effectiveness of Posyandu	<p>Background: The elderly aged 60-64 years are 52.3%. The average elderly visit per month is only 48% of registered seniors. The highest coverage of Posyandu activities for the elderly is health checks (95%) and the lowest skill training (65%).</p> <p>Objectives: This study aims to analyze the factors that affect the effectiveness of the Integrated Service Post for the Elderly in the Banda Aceh City Health Center.</p> <p>Research Methods: A type of observational research that uses a cross-sectional design. The population in this study includes all elderly people in 3 (three) Puskesmas of Banda Aceh City, namely Kopelma Darussalam, Ulee Kareng and Batoh. The sample in this study is 271 elderly people. The statistical analysis used is Partial Least Square with smartPLS 3.0.</p> <p>Results: There was an influence on the role of health workers ($t= 26.771$; $p=0.000$), elderly participation ($t=1.807$; $p=0.035$), availability of facilities and infrastructure ($t=2.859$; $p=0.004$), accessibility to ($t=6.778$; $p=0.026$), cross-sectoral cooperation ($t=1.154$; $p=0.043$), monitoring and evaluation of the effectiveness of elderly posyandu in the Banda Aceh City Health Center ($t=4,668$; $p=0.000$), The factor that most affects the effectiveness of the elderly posyandu in Banda Aceh City is the role of health workers ($t=26,771$; $p=0.000$).</p> <p>Conclusion: The role of health workers, the participation of the elderly, the availability of infrastructure, accessibility, cross-sectoral cooperation and monitoring and evaluation affect the effectiveness of posyandu in Banda Aceh City.</p>

DOI:

Corresponding Author: Qurrata Aini*

Email: qurrataaini36@gmail.com

INTRODUCTION

Indonesia is the country with the fourth largest population in the world, with a total population of 278.69 million people in 2022 (Diniati & Permana, 2024). One of the worrying trends is the increase in the number of elderly population, which is projected to continue to increase from 25.9 million people or 3.67% in 2021 to 57 million people or 17.9% in 2045. The increase in life expectancy which reached 71.85 years in 2022 is also a driving factor for this trend (Fang et al., 2024). To increase the reach of health services for the elderly, the Indonesian government has developed the Posyandu Elderly program (Permata, 2020). However, data shows that the coverage of elderly visits to Posyandu for the Elderly in Banda Aceh City is still very low, below 20%. Efforts to improve promotion, counselling, and services of the Posyandu Elderly need to be carried out to encourage the elderly to take advantage of this service.

The scope of visits by the elderly to the Posyandu has a significant impact on the effectiveness of the program (Tinambunan & Wibowo, 2023a). Regular visits to the Posyandu allow for regular health monitoring, medical examinations, and proper health education for the elderly (Triwibowo, 2023). The high level of visits also helps Posyandu to provide more efficient and effective services, as well as

develop programs that are by the needs of the elderly in the community (Ridwan, 2022). The previous research does not provide a specific explanation regarding its novelty and the novelty of this research.

However, there are still several challenges that affect the participation of the elderly, such as lack of socialization and education, limited facilities, and suboptimal cross-sector coordination (Bolkan, Teaster, & Ramsey-Klawnsnik, 2023). Efforts to increase the role and capacity of health workers also need to be carried out to provide more quality and responsive services to the needs of the elderly (Organization, 2017). By overcoming these challenges, it is hoped that the coverage of elderly visits to the Posyandu can be increased so that the program can run effectively and provide maximum benefits for the health and welfare of the elderly.

METHODS

This research is Quantitative Research using correlational design, with the cross sectional study. The population in this study is all the elderly in 3 health centres that are considered representative, namely the Kopelma Darussalam Health Center, Ulee Kareng Health Center and Batoh Health Center is 10,549 people, the size of the sample was determined by the Slovin equation to subsequently use the proportional sampling technique in sample selection. The selected sample was 271 elderly people.

RESULTS and DISCUSSION

Characteristics of Respondents

The characteristics of the observed respondents include age, gender and education in full in Table 1 below:

Table 1.
Respondent Characteristics Based on Age, Gender and Education

Characteristic	Category	Sum	
		f	%
Age	45-55 Years	191	70,5
	56-60 Years	80	29,5
Gender	Man	151	55,7
	Woman	120	44,3
Education	Elementary/Junior High/Equivalent	65	24,0
	High School/Vocational School/Equivalent	117	43,2
	DIII/IV/S1/S2	89	32,8

Source: Data Processed (2024)

Based on Table 1, it can be seen that in terms of age, the majority of respondents are classified as adults (78.6%), with most of the sample being female (61.1%). In terms of education, the majority of respondents have secondary education (67.5%), most of them work as civil servants (27.4%) and students (18.8%). The marriage status of the respondents showed that the majority of them were married (66.7%).

Model Measurement (Outer Model)

Table 2.
Composite Reliability, Cronbach Alpha and Average Variance Extracted

Variable	Cronbach Alpha	Composite Reliability	Average Variance Extracted
Accessibility	0,870	0,899	0,564

Effectiveness of Posyandu for the Elderly	0,913	0,929	0,658
Cross-Sector Cooperation	0,899	0,921	0,626
Availability of facilities and infrastructure	0,909	0,929	0,656
Monitoring and Evaluation	0,936	0,949	0,729
Elderly Participation	0,873	0,899	0,564
The Role of Health Workers	0,94	0,939	0,660

Based on 2, it can be concluded that all constructs meet the reliable criteria, this is indicated by the composite reliability value 0.70; Cronbach alpha >0.6 and AVE > 0.50 as recommended by Fornell and Lacker in (Sujiati, Nasrul, Usman, Saputra, & Muhazar, 2022).

R-Square and F-Square

The full R-Square and F-Square test results are as follows:

Table 3.
R-Square and F-Square values

It	Variable	R-Squares	F-Squares	Saturated model	Estimated model
1	Accessibility to the effectiveness of posyandu for the elderly	0,713	0,018	0,713	0,018
2	Monitoring and Evaluation of the effectiveness of elderly posyandu	0,840	0,007	0,840	0,007
3	Elderly Participation in the Effectiveness of Posyandu for the Elderly	0,670	0,026	0,670	0,026
4	Cross-sector cooperation on the effectiveness of elderly posyandu	-	0,015	-	0,015
5	Cross-sector cooperation on monitoring evaluation	-	12,985	-	12,985
6	Availability of infrastructure for accessibility	-	4,256	-	4,256
7	Availability of infrastructure facilities to the effectiveness of the elderly posyandu	-	0,118	-	0,118
8	SRMR	-	-	0,084	0,089

Source: Data Processed (2024)

Table 3. It can be seen that the accessibility variable has an R-squared value of 0.713 and an f-squared value of 0.018, indicating that the accessibility variable has a considerable influence on the effectiveness of the elderly posyandu. The monitoring and evaluation variables have an R-squared value of 0.840 and an f-squared value of 0.007, indicating that this variable has a very strong influence on the effectiveness of the elderly posyandu. The elderly participation variable had an R-squared value of 0.670 and an f-squared value of 0.026, indicating that this variable also had a considerable influence on the effectiveness of the elderly posyandu.

The cross-sector cooperation variable has an f-Square value of 0.015 on the effectiveness of the elderly posyandu and 12.985 on evaluation monitoring, indicating that this variable has a very strong influence on evaluation monitoring. The variable of the availability of infrastructure facilities has an f-

Square value of 4.256 on accessibility and 0.118 on the effectiveness of posyandu for the elderly, indicating that this variable has a very strong influence on accessibility. The variable of the role of the officer has an f-Square value of 0.004 on the effectiveness of the elderly posyandu and 5.654 on the participation of the elderly, indicating that this variable has a very strong influence on the participation of the elderly. The SRMR (Standardized Root Mean Square Residual) value in the saturation model is 0.084 and in the estimation model is 0.089, indicating that the model has a good match with the data (Naveen & Gurtoo, 2020).

Structural Model (Inner Model)

Table 4.
Inner Model Results

	Original Sample	Sample Mean	Standar Deviasi	T-Statistic	P value
Peran Petugas Kesehatan → Efektivitas Posyandu Lansia	0,811	0,802	0,021	26,771	0,000
Partisipasi Laniasa → Efektifitas Posyandu Lansia	0,321	0,403	0,038	1,807	0,035
Ketersediaan Sarana Prasarana → Efektivitas Posyandu Lansia	0,608	0,624	0,212	2,859	0,004
Aksesibilitas → Efektivitas Posyandu Lansia	0,3	0,304	0,065	6,778	0,026
Kerjasama Lintas Sektor → Efektivitas Posyandu Lansia	0,159	0,165	0,078	1,154	0,043
Monitoring Evaluasi → Efektivitas Posyandu Lansia	0,536	0,546	0,073	4,668	0,000
Peran Petugas Kesehatan → Partisipasi Lansia	0,819	0,823	0,032	25,314	0,000
Ketersediaan Sarana Prasarana → Aksesibilitas	0,845	0,846	0,023	37,283	0,000
Kerjasama Lintas Sektor → Monitoring Evaluasi	0,916	0,918	0,015	62,338	0,000

Source: Data processing with SmartPLS, 2024

The results showed that there was a relationship between the role of health workers and the effectiveness of elderly posyandu ($t=26,771$; $p=0.000$), elderly participation ($t=1,807$; $p=0.355$), availability of infrastructure facilities ($t=2,859$; $p=0.004$), accessibility ($p=0.016$ $t=6,778$), cross-sector cooperation ($t=4,668$; $p=0.043$), monitoring and evaluation ($t=7,323$; $p=0.004$) with the effectiveness of posyandu for the elderly in Banda Aceh City.

The results of the study show that all these factors have a significant influence on the effectiveness of the Elderly Posyandu (Tinambunan & Wibowo, 2023b). The role of competent and communicative health workers is very important in increasing the effectiveness of the Elderly Posyandu (Dewi & Anisa, 2018). Older people's participation is also a key factor, which can be improved through their education and involvement in decision-making (Serrano-Gemes, Rich-Ruiz, & Serrano-del-Rosal, 2020). The availability of adequate facilities and infrastructure can increase the accessibility of the elderly and encourage their participation (Srichuae, Nitivattananon, & Perera, 2016). Cross-sector cooperation between various related agencies is also very important, in planning, monitoring, evaluation, and resource provision. In addition, periodic and comprehensive monitoring and evaluation need to be carried out to ensure the effectiveness of the Posyandu for the Elderly (Kusuma, 2022).

Based on the findings of the research, some recommendations that can be given are increasing the capacity of health workers, educating and socializing the elderly, increasing the availability of facilities and infrastructure, strengthening cross-sector cooperation, and conducting regular monitoring and evaluation. By implementing these recommendations, it is hoped that the effectiveness of the Posyandu for the Elderly in Banda Aceh City can be improved, so that it can provide more optimal benefits for the health and welfare of the elderly.

CONCLUSION

Based on the results of the research and discussion, it can be concluded as follows: There is an influence of the role of health workers on the effectiveness of elderly posyandu in the Banda Aceh City Health Center ($t= 26,771$; $p=0.000$) There is an effect of elderly participation on the effectiveness of elderly posyandu in the Banda Aceh City Health Center ($t=1.807$; $p=0.035$) There is an effect on the availability of facilities and infrastructure on the effectiveness of posyandu for the elderly in the Banda Aceh City Health Center ($t= 2,859$; $p=0.004$) There is an effect of accessibility on the effectiveness of

posyandu for the elderly in the Banda Aceh City Health Center ($t=6.778$; $p=0.026$) There is an effect of cross-sector cooperation on the effectiveness of elderly posyandu in the Banda Aceh City Health Center ($t= 1.154$; $p=0.043$). There is an effect of monitoring and evaluation on the effectiveness of elderly posyandu in the Banda Aceh City Health Center ($t=4,668$; $p=0.000$). There is an influence of the role of health workers on the participation of the elderly in the Banda Aceh City Health Center ($t=23,314$; $p=0.000$). There is an effect of the availability of facilities and infrastructure on the accessibility of elderly posyandu at the Banda Aceh City Health Center ($t=37,283$; $p=0.000$). There is an influence of cross-sector cooperation on the monitoring and evaluation of elderly posyandu at the Banda Aceh City Health Center ($t=12,338$; $p=0.000$). The factor that most affect the effectiveness of posyandu for the elderly in Banda Aceh City is the role of health workers ($t=26,771$; $p=0.000$)

REFERENCES

- Bolkan, C., Teaster, P. B., & Ramsey-Klawnsnik, H. (2023). The context of elder maltreatment: an opportunity for prevention science. *Prevention Science*, 24(5), 911–925.
- Dewi, R., & Anisa, R. (2018). The Influence of Posyandu Cadres Credibility on Community Participation in Health Program. *Jurnal The Messenger*, 10(1), 83–92.
- Diniati, B. T., & Permana, D. A. (2024). The Influence of Population Size, Economic Growth, Human Development Index, Unemployment on Poverty in Indonesia from 1998 to 2022. In *International Conference on Humanity Education and Society (ICHES)* (Vol. 3).
- Fang, C., Li, G., Bao, C., Wang, Z., Qi, W., Ma, H., ... Chen, W. (2024). How many people can the Qinghai-Tibet Plateau hold, and how large cities can be built in recent hundred years? *Science of The Total Environment*, 927, 172404. Retrieved from <https://doi.org/10.1016/j.scitotenv.2024.172404>
- Kusuma, A. N. (2022). The presence of Posyandu as an approach in improving health development in the community. *Jurnal EduHealth*, 13(01), 137–146.
- Naveen, B. R., & Gurtoo, A. (2020). The Cause Effect Relationship Model of Service Quality in relation with Overall Satisfaction. *Transportation Research Procedia*, 48, 1694–1721. Retrieved from <https://doi.org/10.1016/j.trpro.2020.08.208>
- Organization, W. H. (2017). *Enhancing the role of community health nursing for universal health coverage*. World Health Organization.
- Permata, S. P. (2020). Improving The Quality Of Life Of The Elderly Through Participation In The Activities Of Posyandu Lansia (Integrated Community Health Service Of Elderly). In *Proceeding International Conference On Social Work (ICSW)* (pp. 125–132).
- Ridwan, M. (2022). Evaluation of the implementation of the Elderly Posyandu during the Covid-19 pandemic in Jambi City. *International Journal of Medicine and Health*, 1(4), 23–32.
- Serrano-Gemes, G., Rich-Ruiz, M., & Serrano-del-Rosal, R. (2020). Systematic review of qualitative studies on participants in the decision-making process about the location of care of the elderly. *BMJ Open*, 10(3), e036551.
- Srichuae, S., Nitivattananon, V., & Perera, R. (2016). Aging society in Bangkok and the factors affecting mobility of elderly in urban public spaces and transportation facilities. *IATSS Research*, 40(1), 26–34. Retrieved from <https://doi.org/10.1016/j.iatssr.2015.12.004>
- Sujiati, E., Nasrul, Z., Usman, S., Saputra, I., & Muhazar, M. (2022). Analysis of Officer Soft Skills in Increasing Service Satisfaction to Customers Aceh Mental Hospital. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 5(2).
- Tinambunan, D. S., & Wibowo, A. (2023a). Factors Affecting The Success Of Posyandu For The Elderly In Indonesia: A Systematic Review. In *The International Conference on Public Health Proceeding* (Vol. 4, pp. 119–129).

Tinambunan, D. S., & Wibowo, A. (2023b). Factors Affecting The Success Of Posyandu For The Elderly In Indonesia: A Systematic Review. In *The International Conference on Public Health Proceeding* (Vol. 4, pp. 119–129).

Triwibowo, H. (2023). The Relationship Of The Role Of Cadres And The Visit Of The Elderly In Participating The Posyandu For The Elderly. *International Journal of Nursing and Midwifery*, 7(3).



© 2024 by the authors. It was submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).