



Analysis of Factors Associated with Utilization of Posyandu Elderly Health Services

Norjainah Sulastr¹, Rosihan Adhani¹, Muhammad Abdan Shadiqi¹, Harapan Parlindungan Ringoringo¹, Silvia Kristanti Tri Febriana¹

¹Master Program in Public Health Sciences, Faculty of Medicine, Lambung Mangkurat University,

*Corresponding Author: Norjanah Sulastr¹

E-mail: sulastrinorjainah@gmail.com



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Abstract

Puskesmas Panarung is the coverage of elderly health services with the lowest utilization of 559 elderly (25.0%) data on the number of elderly visits from both the Health Office and the health center has not reached the target of 70%. To determine the relationship between motivation, family support, accessibility, and service quality with the utilization of oral health services at the Panarung City Health Center. This study used a cross sectional design. The study subjects consisted of 94 people at the Panarung City Health Center. Data analysis chi square test and multiple logistic regression test. The results of the analysis is the most dominant variables related to the Utilization of Posyandu Elderly Health Care Services in the working area of Puskesmas Panarung are motivation (17.767), family support (15.046), service quality (10.797), and accessibility (7.956). There is a relationship between motivation, family support, accessibility, and service quality with the utilization of posyandu health services for the elderly. The most dominant variable is motivation.

Introduction

Elderly is defined as someone who is 60 years old and above. The world's elderly population has now exceeded 7% of the population, which means that the world population has entered the era of an ageing population. In 2017, the world's elderly population has reached 962 million, which is double the number of 382 million in 1980. It is predicted that this number will continue to increase in 2050 to reach 2.1 billion elderly people worldwide. The region that has the largest elderly population in the world is in East and Southeast Asia with 260 million elderly people.

Indonesia is one of the countries in Southeast Asia that has also experienced an increase in the number of elderly people about twice in the vulnerable period of almost five decades (1971-2019). The total number of elderly people in Indonesia in 2019 was 25.64 million (9.60%), an increase compared to 2018 which was 24.49 million (9.27%)(4). It is estimated that in 2020 the increase in the total elderly population in Indonesia will continue to reach 28.8 million people (11.34%).

Based on the results of the Interim Population Projection 2020-2023, the elderly population in Central Kalimantan in 2021 is around 209 thousand people or 7.76 percent of the total population. This data is based on the comparison of the population census that has been carried out every period, the percentage of the number of elderly people continues to increase. Based on data from the National Economic Survey (susenas) in 2021, almost all elderly people in

Central Kalimantan experienced health complaints, namely 38.23% with a morbidity rate of 16.90%.

According to data obtained from the Central Statistics Agency in 2022, it is known that in Central Kalimantan the number of households in urban areas is 298,377 households and in rural areas is 411,138. Based on this, it is also known that the number of family members living in the same house in the Panarung Health Center working area is 100 family members. In addition, the number of members who live in the same area but not in the same house in the Panarung Health Center working area is 79 family members.

Recording and reporting of elderly health in health centers data on the number of elderly visits in the working area of the Palangkaraya City Health Office in 2023 the coverage of elderly health services at the Kalampang Health Center was 781 elderly (133.5%), Pahandut Health Center 3,768 elderly (117.7%), Rakumpit Health Center 308 elderly (101.7%), Jekan Raya Health Center 236 elderly (100.9%), Kereng Bengkirai Health Center 996 elderly (100.6%), Bukit Hindu Health Centre 4,000 elderly (97.26%), Marina Permai Community Health Centre 2,030 elderly (66.6%), Kayon Community Health Centre 1,862 elderly (50.1%), Tangkiling Community Health Centre 571 elderly (46.7%), Menteng Community Health Centre 1,399 elderly (34.0%), and Panarung Community Health Centre is the lowest utilized elderly health service coverage at 559 elderly (25.0%). Data on the number of elderly visits from both the Health Office and community health centers has not reached the target of 70.

According to the theory proposed by Andersen (1967), the factors that influence the utilization of health services are beliefs, in this case motivation and family resources in the form of family support. Meanwhile, according to Dever's theory (1984), the factors that influence this are accessibility and provider factors in this case the quality of service. The increasing number of elderly people is actually an indicator that shows the healthier Indonesian population because their life expectancy is increasing, although on the other hand their productivity has decreased (Fitriani et al., 2018; Hasnawati et al., 2024; Setyadi et al., 2023; Mboi et al., 2018). One of the efforts provided for monitoring the health of the elderly is the posyandu for the elderly.

Based on this background, the researcher is interested in taking research on the analysis of factors related to the utilization of posyandu health services for the elderly in the Panarung Puskesmas working area (Review of motivation, family support, accessibility, and service quality).

Methods

This type of research is analytical observational with a cross sectional survey approach with a sample of 94 respondents with non probability sampling technique. This research was conducted in the Panarung Health Center working area. The research was conducted for 1 month. This research has obtained Ethical Clearance. Data collection was done directly to respondents. The independent variables in this study were motivation, family support, accessibility, and service quality. The dependent variable in this study was the utilization of elderly posyandu health services. The test used was logistic regression test at 95% confidence level ($\alpha = 0.05$). The instrument used is the motivation variable questionnaire using a questionnaire adopted from Himawan et al. (2015) on the family support variable questionnaire using a questionnaire adopted from Toulasik (2019), and on the service quality variable using a questionnaire adopted from Faadhilah (2018).

Result and Discussion

Table 1. Univariate analysis of elderly posyandu health service

No.	Health Service	Frequency	Percentage
1	Low	66	70,2
2	High	28	29,8

No.	Health Service	Frequency	Percentage
Total		94	100,0
No.	Motivation	Frequency	Percentage
1	Low	49	52,1
2	High	45	47,9
Total		94	100,0
No.	Family Support	Frequency	Percentage
1	Low	51	54,3
2	High	43	45,7
Total		94	100,0
No.	Accessibility	Frequency	Percentage
1	Difficult	30	31,9
2	Easy	64	68,1
Total		94	100,0
No.	Service Quality	Frequency	Percentage
1	Low	33	35,1
2	High	61	64,9
Total		94	100,0

Source: Data Primer, 2024

Based on table 4.1, it is known that respondents stated that the utilization of posyandu for the elderly at the Panarung Health Center was less. This is due to lack of motivation, low family support, easy accessibility, and high service quality even so, respondents are still lacking in utilizing the elderly posyandu service.

Based on the research, it is also known that the number of family members in one house mostly consists of 3 (three) people. These family members consist of the elderly and their guardians, usually the children of the elderly. The presence of these family members has an important role in the utilization of health services. This is because the presence of other family members has a role to motivate and provide support to the elderly to utilize health services in the form of posyandu elderly.

Table 2. Bivariate and Multivariate

Motivation	Utilization Of Health Service				Total		P-Value	OR
	Low		High		N	%		
	N	%	N	%				
Low	46	93,9	3	6,1	49	100,0	0,000	19,167
High	20	44,4	25	55,6	45	100,0		
Total	66	70,2	28	29,8	94	100,0		

From table 2 the results of bivariate analysis using the *Chi Square* test show a p value of 0.000 ($p < 0.05$), meaning that H_0 is rejected. It can be concluded that there is a relationship between motivation and Utilization of the Elderly Posyandu at the Panarung Health Center.

Table 3. The Relationship Between Family Support and Utilization of Elderly Posyandu Services in the Panarung Health Center Work Area

Family Support	Utilization Of Health Service				Total		P-Value	OR
	Low		High		N	%		
	N	%	N	%				
Low	45	88,2	6	11,8	51	100,0	0,000	7,857

High	21	48,8	22	51,2	43	100,0		
Total	66	70,2	28	29,8	94	100,0		

From table 3 the results of bivariate analysis using the Chi Square test show a p value of 0.000 ($p < 0.05$), meaning that H_0 is rejected. It can be concluded that there is a relationship between family support and Utilization of the Elderly Posyandu at the Panarung Health Center.

Table 4. Relationship Between Accessibility and Utilization of Elderly Posyandu Health Services at Panarung Health Center

Accessibility	Utilization Of Health Service				Total		P-Value	OR
	Low		High					
	N	%	N	%	N	%		
Difficult	27	90,0	3	10,0	30	100,0	0,009	5,769
Easy	39	60,9	25	39,1	64	100,0		
Total	66	70,2	28	29,8	94	100,0		

From table 4 the results of bivariate analysis using the Chi Square test show a p value of 0.009 ($p < 0.05$), meaning that H_0 is rejected. It can be concluded that there is a relationship between accessibility and Utilization of the Elderly Posyandu at the Panarung Health Center.

Table 5. Bivariate Analysis between Service Quality and Utilization of Elderly Posyandu Services at Panarung Health Center

Quality of Service	Utilization of Health Services				Total		P-Value	OR
	Low		High					
	N	%	N	%	N	%		
Low	30	90,9	3	9,1	33	100,0	0,003	6,944
High	36	59,0	25	41,0	61	100,0		
Total	66	70,2	28	29,8	94	100,0		

From table 6 the results of bivariate analysis using the Chi Square test show a p value of 0.003 ($p < 0.05$), meaning that H_0 is rejected. It can be concluded that there is a relationship between service quality and Utilization of the Elderly Posyandu at the Panarung Health Center.

Table 6. Analysis of Factors Influencing the Use of Elderly Posyandu Health Services in the Panarung Health Center Work Area

No.	Variables	B	Wald	Sig	Exp(B)	95% CI
1	Motivation	2,877	12,404	0,000	17,767	3,583 - 88,112
2	Family Support	2,711	12,167	0,000	15,046	3,280 - 69,024
3	Accessibility	2,074	4,883	0,027	7,956	1,264 - 50,076
4	Quality of Service	2,379	6,360	0,012	10,797	1,699 - 68,599

Based on this study, it can be seen that the most dominant variables associated with the utilization of posyandu health services for the elderly at Puskesmas Panarung in order from the most dominant are motivation (17.767), family support (15.046), service quality (10.797), and accessibility (7.956).

*Statistically significant ($p < 0.05$)

Multivariate Analysis Results

Multiple logistic regression analysis that has been carried out and presented in table 4.7 states that the variables of motivation, family support, accessibility and service quality have a

significant relationship to the utilization of posyandu health services for the elderly. Meanwhile, when viewed from the B value indicated by the value of Exponent Beta (EXP B), the variables of motivation, family support, accessibility and quality of service have a relationship with the utilization of posyandu health services for the elderly.

The resulting B value is positive towards the four variables on patient motivation has a value of 17.767 times higher utilization of elderly posyandu health services. Health centers with family support are 15.046 times more likely to utilize elderly posyandu health services. Patients who have accessibility have a value of 7.956 times more utilizing the elderly posyandu health services, and Patients who have service quality have a value of 10.797 times more utilizing the elderly posyandu health services.

The relationship between motivation and the utilization of posyandu health services for the elderly in the Panarung Puskesmas work area

Based on the results of statistical analysis using the chi square test, the Pvalue (0.000) <0.05 was obtained so that H₀ was rejected, meaning that there was a relationship between motivation and the utilization of Posyandu Elderly Health Services in the Panarung Puskesmas work area.

These results support research conducted by Sulistianingsih which shows there is a relationship between motivation and the frequency of visits to posyandu. In line with Nurzia's research, it is known that there is a relationship between the motivation of the elderly in visiting the elderly posyandu (Gustina et al., 2023; Susanti et al., 2020).

The factor that causes there to be an influence between the motivation of the elderly to visit the elderly posyandu is due to the age factor of the elderly so that the elderly are less active in seeking information about the benefits of the posyandu resulting in low motivation of the elderly to visit the elderly posyandu. Elderly people will be motivated if they want to fulfill the basic needs of their life to their complex needs. The environment in the family will affect the behavior of the elderly. Motivation from the family can provide encouragement, interest or willingness of the elderly to participate in activities at the elderly Posyandu. The family can be a strong motivator for the elderly if they always make themselves available to accompany or take the elderly to the elderly posyandu, remind the elderly posyandu schedule if they forget and try to help and solve the elderly's problems together (Sekarningrum & Ismahmudi, 2020; Sangian et al., 2017).

The relationship between family support and the utilization of posyandu health services for the elderly in the Panarung Puskesmas work area

Based on the results of statistical analysis using the chi square test, the Pvalue (0.000) <0.05 was obtained so that H₀ was rejected, meaning that there was a relationship between family support and Utilization of Posyandu Elderly Health Services in the Panarung Puskesmas working area.

The better the family support, the more the elderly visit the elderly posyandu, and vice versa, the less family support, the less the elderly visit the elderly posyandu. These results support research conducted by Gestinarwati, Ilyas and Manurung which shows that there is an influence between family support and elderly visits to posyandu. In line with Meigia's research, it is known that there is a relationship between family support and the activeness of the elderly in participating in posyandu activities for the elderly. Less family support tends to be inactive in the utilization of the elderly posyandu.

The results of this study are in line with research conducted by Deri (2016), which shows that there is a relationship between family support and the use of posyandu for the elderly in the Sikapak Health Center Working Area in 2015. According to Deri, family support has an important role for the elderly in the use of posyandu by the elderly, if there is no support from the family then indirectly the intensity of the elderly's visit to the posyandu will decrease, in

the absence of support from the family, the elderly will not come to the posyandu, especially for the elderly who are no longer able to walk alone to come to the posyandu (Pebriani & Amelia, 2020; Harahap, 2021).

Family support is one of the factors that influence the frequency or level of activeness of the elderly in visiting the elderly posyandu. The family plays a role in fostering the interest or willingness of the elderly to participate in posyandu activities for the elderly. The family is the best motivator and support system for the elderly. The family is tasked with caring for the elderly, improving and maintaining mental condition and status, anticipating changes in socio-economic status and providing motivation, support and acting as a facilitator for the spiritual needs of the elderly (Permana, 2018).

The relationship between accessibility and the utilization of posyandu health services for the elderly in the Panarung Puskesmas work area

Based on the results of statistical analysis using the chi square test, the Pvalue (0.009) <0.05 was obtained so that H0 was rejected, meaning that there was a relationship between accessibility and Utilization of Elderly Posyandu Health Services in the Panarung Puskesmas working area.

Inactive posyandu utilization tends to have a long distance between home and posyandu. This is certainly an obstacle for the elderly to get to the posyandu. Especially the elderly who have poor health so that they are unable to walk alone to the posyandu or no one to take them, of course the elderly prefer not to come to the posyandu.

If the distance traveled is in good condition, it makes respondents unburdened in attending posyandu. In addition, the researcher's assumption is that easy access conditions such as no traffic jams are also a consideration for the elderly in attending posyandu.

This research is in line with research conducted by Pebriani & Amelia (2020) which revealed that there is a relationship between access to the distance of the house to the posyandu and the utilization of the elderly posyandu in Kampeonaho Village, Kampeonaho Puskesmas Working Area. Accessibility is how easy or difficult it is for the elderly to reach the posyandu. This accessibility will affect the participation of the elderly during the implementation of the posyandu, the close distance of the posyandu will make it easy for the elderly to reach the posyandu without having to experience fatigue or physical accidents due to decreased endurance or physical strength of the body. Accessibility in this study is the ease with which the elderly can reach the posyandu location, the time it takes for the elderly to go to the posyandu, means of transportation, road conditions and transportation costs (Suriani et al., 2023).

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The relationship between service quality and the utilization of posyandu health services for the elderly in the Panarung Puskesmas work area.

Based on the results of statistical analysis using the chi square test, the Pvalue (0.003) <0.05 was obtained so that H0 was rejected, meaning that there was a relationship between service quality and Utilization of Elderly Posyandu Health Services in the Panarung Puskesmas work area.

An elderly person is a potential human resource asset. it is necessary to provide health services to the elderly, one of which is through elderly posyandu activities. With the elderly posyandu aims to improve the health status of the quality of health services for the elderly in the community, to achieve a happy and empowered old age for the family, and to increase community participation in health services and communication between the elderly community. Implementing the elderly posyandu properly will make it easier for the elderly to get basic health services, so that the quality of life of the community in old age is well maintained and optimal. There are various elderly posyandu activities that can provide benefits, with the aim that the health of the elderly can be maintained and monitored properly (Rohana & Husin, 2023).

Dominant factors associated with the utilization of posyandu health services for the elderly in the Panarung Health Center working area.

Multivariate analysis was conducted on 4 independent variables that met the requirements of the model, namely motivation, accessibility, service quality, and family support. after undergoing testing together it turned out to have a significant partial relationship with the Utilization of Posyandu Elderly Health Services in the working area of Puskesmas Panarung.

The most dominant variables related to the Utilization of Posyandu Health Services for the Elderly in the working area of Puskesmas Panarung are motivation (17.767), family support (15.046), service quality (10.797), and accessibility (7.956).

Motivation has a purpose, namely as a driver and change so that someone has the desire and willingness to do something so that someone gets certain results and goals. Someone with high motivation will move in realizing expectations and realities related to their needs and desires (Sekarningrum & Ismahmudi, 2020).

Motivation is never separated from three elements, namely needs, encouragement and goals. Needs come because of something that is not fulfilled, while encouragement is a clue to meet needs, and the goal itself is the end result of a motivation in general because of the strength of the drive that moves us to behave in a certain way (Sumendap et al., 2020).

Conclusion

There is a relationship between motivation, attitude, accessibility, and family support to the utilisation of posyandu for the elderly in the Panarung Health Centre area. The motivation factor is the most related factor to the utilisation of posyandu for the elderly at Puskesmas Panarung. It is expected that Puskesmas Panarung will disseminate information to the elderly about the benefits of the elderly posyandu so that the elderly know the importance of the elderly posyandu. It is expected that the elderly family to provide good support to the elderly so that they want to take advantage of the elderly posyandu by suggesting and accompanying the elderly to visit the elderly posyandu as an effort to maintain the health status of the elderly. Socialization can be carried out during elderly posyandu activities by presenting someone who understands disease prevention and the importance of maintaining health for the elderly.

References

- Deri, P. (2016). *Faktor Yang Berhubungan Dengan Pemanfaatan Posyandu Lansia Di Wilayah Kerja Puskesmas Sikapak Kota Pariaman* (Doctoral dissertation, Universitas Andalas).
- Faadhilah, F. N. (2018). Pengaruh Gaya Hidup Konsumtif Dan Beauty Vlogger Sebagai Kelompok Referensi Terhadap Keputusan Pembelian Kosmetik Studi Kasus Pada Remaja Perempuan Pengguna Kosmetik Korea Di Surabaya. *Jurnal Ilmu Manajemen*, 7(1), 133-142.
- Fitriani, F., Haskas, Y., & Asdar, F. (2018). Hubungan antara Motivasi dengan Frekuensi

- Kehadiran Lanjut Usia di Posyandu Lansia di Desa Melle Wilayah Kerja UPTD Puskesmas Palakka Kabupaten Bone. *Jurnal Ilmiah Kesehatan Diagnosis*, 13(1), 66-69.
- Fridolin, A., Huda, S., & Suryoputro, A. (2021). Determinan perilaku terhadap keaktifan kunjungan lansia ke posyandu lansia: literatur review. *Jurnal Ilmu Keperawatan Dan Kebidanan*, 12(2), 263-269. <https://doi.org/10.26751/jikk.v12i2.1028>
- Gustina, W., Arbi, A., & Arifin, V. N. (2023). FAKTOR–FAKTOR YANG BERHUBUNGAN DENGAN PEMANFAATAN POSYANDU LANSIA DI WILAYAH KERJA PUSKESMAS SINGGAH MULO KECAMATAN PINTU RIME GAYO KABUPATEN BENER MERIAH TAHUN 2023. *Jurnal Kesehatan Tambusai*, 4(2), 2049-2055. <https://doi.org/10.31004/jkt.v4i2.15952>
- Harahap, L. J. (2021). Hubungan Dukungan Keluarga Dengan Pemanfaatan Posyandu Lansia Di Desa Sipangko. *Jurnal Keperawatan Priority*, 4(2), 52-57. <https://doi.org/10.34012/jukep.v4i2.1660>
- Hasnawati, S., Usman, M., Elfaki, F. A., Faisol, A., & Russel, E. (2024). Modeling the relationship between life expectancy, population growth, carbon dioxide emission, and GDP growth in Indonesia. *International Journal of Energy Economics and Policy*, 14(4), 484-500. <https://doi.org/10.32479/ijeep.16303>
- Himawan, A. B., Hadisaputro, S., & Suprihati, S. (2015). BERBAGAI FAKTOR RISIKO KEJADIAN TB PARU DROP OUT (Studi Kasus di Kabupaten Jepara dan Pati). *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, 2(1).
- Mboi, N., Surbakti, I. M., Trihandini, I., Elyazar, I., Smith, K. H., Ali, P. B., ... & Hay, S. I. (2018). On the road to universal health care in Indonesia, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 392(10147), 581-591. [https://doi.org/10.1016/s0140-6736\(18\)30595-6](https://doi.org/10.1016/s0140-6736(18)30595-6)
- Palungan, W. A., Pajung, C. B., & Mamujaja, P. P. (2024). HUBUNGAN ANTARA PENGETAHUAN DAN SIKAP DENGAN PEMANFAATAN PELAYANAN POSYANDU LANSIA DI LEMBANG PAONGANAN KECAMATAN BUNTU PEPASAN. *JURNAL ILMIAH KESEHATAN MANADO*, 3(2).
- Pebriani, D. D., & Amelia, A. R. (2020). Faktor yang Berhubungan dengan Pemanfaatan Posyandu Lansia di Kelurahan Kampeonaho Kota Baubau Wilayah Kerja Puskesmas Kampeonaho Kota Baubau Tahun 2020. *Window of Public Health Journal*, 88-97. <https://doi.org/10.33096/woph.v1i2.15>
- Permana, R. A. (2018). Peran Dukungan Keluarga Pada Kepuasan Hidup Di Kelompok Lansia Sehat Diwilayah Kerja Puskesmas Mantup Lamongan. *NERSMID: Jurnal Keperawatan dan Kebidanan*, 1(2), 103-118.
- Rohana, S., & Husin, A. (2023). The Role of Elderly Cadres in Increasing Elderly Participation in Posyandu Activities in Margoyoso Village, Jayaloka District. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 6(2), 737-745. <https://doi.org/10.33258/birci.v6i2.7541>
- Sangian, L. M., Wowiling, F., & Malara, R. (2017). Hubungan dukungan emosional keluarga dengan penerimaan diri pada lansia di Desa Watutumou III. *Jurnal Keperawatan*, 5(2). <https://doi.org/10.35790/jkp.v5i2.16841>
- Sekarningrum, E. H., & Ismahmudi, R. (2020). Hubungan antara Motivasi dan Dukungan Keluarga dengan Kunjungan Lansia ke Posyandu Lansia di Wilayah Kerja Puskesmas Sempaja Samarinda. *Borneo Studies and Research*, 2(1), 127-132.

- Setyadi, S., Kustanto, A., & Widiastuti, A. (2023). Life Expectancy in Indonesia: The Role of Health Infrastructure, Political, and Socioeconomic Status. *Iranian Economic Review*, 27(3), 965-1005. <https://doi.org/10.22059/ier.2023.329904.1007259>
- Sumendap, J., Rompas, S., & Simak, V. (2020). Hubungan Dukungan Keluarga Dan Motivasi Dengan Minat Lansia Terhadap Posbindu. *Jurnal Keperawatan*, 8(1), 99-105. <https://doi.org/10.35790/jkp.v8i1.28417>
- Suriani, S., Parellangi, A., & Amiruddin, A. (2023). Hubungan Dukungan Keluarga, Motivasi Dan Aksesibilitas Dengan Keaktifan Lansia Dalam Mengikuti Kegiatan Posyandu Lansia Di Desa Bunyu Barat Kecamatan Bunyu. *Aspiration Of Health Journal*, 1(1), 97-107. <https://doi.org/10.55681/aohj.v1i1.90>
- Susanti, E., Asbiran, N., & Hayati, N. (2020). Analisis Faktor Yang Mempengaruhi Rendahnya Partisipasi Lansia Dalam Pemanfaatan Posyandu Lansia Di Puskesmas Pauh Kembar Kabupaten Padang Pariaman Tahun 2019. *Human Care Journal*, 5(4), 915-926. <http://dx.doi.org/10.32883/hcj.v5i4.616>
- Toulasik, Y. A. (2019). *The Relationship between Family Support and Adherence to Taking Medication in Patients with Hypertension at Prof. Dr. WZ Hospital. Johannes Kupang NTT*. Airlangga University.