

Factors Related to The Utilization of Integration Health Program (Posbindu) Among Older Adults in Indonesia: A Scoping Review

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Abstract: Indonesia is experiencing an increase in the elderly population, which is a challenge for health services. One of the health programs specifically designed for older people is the integration health program, known as “Posbindu”. *Posbindu* is a community-based health service that provides health promotion, disease prevention, and early detection services for the elderly. However, its utilization has not been maximized, so a study was conducted to analyze the factors related to the utilization of *Posbindu* in Indonesia. The research design used a scoping review and data analysis narrative approach. The researcher searched articles using the PCC framework, with the elderly as the population (including pre-elderly), the factors as concept, and the context as utilization of *Posbindu*. It used Indonesian and English keywords in the Google Scholar, Pubmed, ProQuest, and Researchgate databases. Then, the article selection process used the PRISMA-ScR flow chart, and 201 articles were obtained that matched the inclusion criteria, 192 articles, and the final result was nine articles were analyzed. The results of the article analysis showed that the average value of older people’s participation in *Posbindu* was 47.51%, which means it did not reach the target. Factors related to this are predisposition factors found in eight articles (intentions, knowledge, attitudes, education, traditions, beliefs, and control over actions), enabling factors in five articles (distance to *Posbindu*, access to information, and quality of *Posbindu* for older people), and reinforcing factors in seven articles (family support and health voluntary support). From all p-values for these factors, the most strongly related to *Posbindu* for the elderly was reinforcing elements, with a p-value of less than 0.03 in all analyzed articles. So, it can be concluded that the reinforcing factor is the most related to the utilization of the elderly *Posbindu*. So, it is crucial to involve all sector to increase the participation of older people in *Posbindu* program.

Keywords: elderly, posbindu, integration, utilization, factors

Background

The number of elderly individuals in Indonesia has significantly increased, posing challenges for health services. This demographic shift is partly due to higher life expectancy, which was 69.59 years for men and 73.46 years for women in 2020.¹ The elderly population, constituting 9.6% (25.64 million people) in 2019, is projected to reach 63.71 million by 2045.² In the world, the elderly population has exceeded 7%, thus entering the era of the aging population.³ Globally, Indonesia is among the countries experiencing the highest increase in its elderly population.⁴

The rise in elderly numbers is an indicator of human development success.⁴ Elderly who are healthy and remain productive make a good contribution, but the elderly are one of the vulnerable groups in the family that require special attention. However, this group often faces physical and psychological health challenges, with 48.14% experiencing complaints and a 24.35% morbidity rate dominated by non-communicable diseases.⁵ These conditions necessitate comprehensive health interventions, highlighting the importance of primary health services.⁶

The importance of health control for the elderly, especially those who are sick, so that the elderly family as the main support system and caregiver for the elderly must pay good attention to the condition of the elderly,⁷ but the elderly often

rely on family support for care, but not all families have the resources or knowledge to provide adequate assistance,⁸ which is particularly crucial for elderly populations who often require ongoing support and education to manage their health effectively.⁹ So, there is a need for a community approach with community empowerment in the health sector.

Hence, community-based health initiatives, such as the integration health program (*Posbindu*), play a vital role in promoting health and preventing disease in elderly. This involves health improvement, disease prevention and treatment, and health restoration, which are carried out routinely every month. The *Posbindu* program offers integrated health services and self-development activities to enhance the quality of life for the elderly.¹⁰

The *Posbindu* program is considered effective in enhancing the elderly's ability to independently detect degenerative diseases and increasing their awareness of healthier living practices.^{11,12} Beyond the health benefits, *Posbindu* also fosters social care within the community and among the elderly.¹³ Moreover, elderly individuals who actively participate in *Posbindu* activities experience a higher quality of life compared to those who do not participate.¹⁴ The program's effectiveness heavily relies on the active participation of the elderly.¹⁵

Participation can be in the form of participating as *Posbindu* administrators or cadres, it can also be by making good use of the program as an active member.¹⁶ The target for the participation of the elderly as active members set by the Ministry of Health is 80%, while the participation of the elderly is still very low, namely 41.76%.¹⁵ This coverage target can be different; in another article, it is stated that elderly participation is said to be sufficient when it reaches 75%, but only 4.4% of the elderly actively participate in *Posyandu*.¹⁷

The lack of participation of the elderly in the use of the *Posbindu* program can be influenced by various factors. Data collection and publication of articles regarding factors related to the utilization of the *Posbindu* have been carried out, a literature review of the article has been carried out, focusing on factors of elderly knowledge, family support, and the role of cadres, with the result that all three are related to the utilization of the *Posbindu*.¹⁸ Another literature analysis was published, which analyzed the relationship between perceived need factors in the utilization of the *Posbindu*.¹⁹ The study stated that chronic conditions, self-rated health, subjective health complaints, perceptions of benefit matter and limitations in data imitation in daily activities have a relationship with the participation of the elderly in utilizing the *Posbindu*.¹⁹ Data regarding the utilization of *Posbindu* can be seen in the Indonesia Family Life Survey conducted in 2014, secondary data analysis was carried out by Ridzkyanto, who concluded that ownership of health insurance and the distance of *Posbindu* have a close relationship with the activity of the elderly attending the *Posbindu*.²⁰

The difference with these studies is that this research does not limit the particular factors analyzed but groups them into predisposition, enabling, and reinforcement factors based on the stages of behavioural diagnosis or educational and ecological assessment on the PRECEDE-PROCEED model. This model was chosen because it can be practically applied to community empowerment-based health programs, including analysis of behavioral factors.²¹

This model from Green & Kreuter can be applied in planning health services, including community empowerment, advocacy, atmosphere building, and partnerships. This theory helps to understand the characteristics of the community that will be the target of health services.²² This model divides the factors that influence individual behavior and lifestyle into three domains: predisposing factors, enabling factors, and reinforcing factors.²³ A study was conducted that aims to analyze the factors related to the utilization of the *Posbindu* in Indonesia.

Method

Scoping review follows the JBI methodology, using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist as a writing guide.²⁴ A literature search was conducted on Google Scholar, Pubmed, ProQuest, and Researchgate databases.

This review uses PCC with the context:

Population: Elderly (based on WHO, ie, pre-elderly, age ≥ 45 years) or families with elderly family members.

Concept: Predisposition, Enabling, and Reinforcing factors.

Context: Utilization of *Posbindu*

The keywords used in the search for articles in English included: "Factors" OR "Determinant" OR "Cause" AND "Utilization" OR "Utilization" OR "Correlation" OR "Related" OR "Participation" AND "Posyandu" OR "Posyandu Elderly" AND "Elderly". The Indonesian keywords included: "Faktor" OR "Determinant" AND "Pemanfaatan" OR

“Utilisasi” OR “Kunjungan” OR “Partisipasi” OR “Hubungan” AND “Posyandu Lansia” OR “Posbindu”. Boolean operators AND and OR were used in the search strategy. Articles were searched in the ProQuest, Google Scholar, PubMed, and ResearchGate databases.

Screening of search results articles using the PRISMA-ScR guidelines, along with the inclusion and exclusion criteria in Figure 1.

Result

Table 1 describes the population and sampling technique. All articles have the same research design, namely, the correlative quantitative method with a cross-sectional approach, which has the following characteristics.

Table 2 describes the characteristics of the respondents. Five of the nine selected articles described the characteristics of the respondents who were included in their research in the form of gender, education, occupation, income, and/or knowledge, as follows in Table 2.

Table 3 about the view of the use of the *Posbindu*. It describes the percentage of elderly who participate actively in the activities of the *Posbindu*, as well as their achievement of targets based on articles, as follows in Table 3. This table

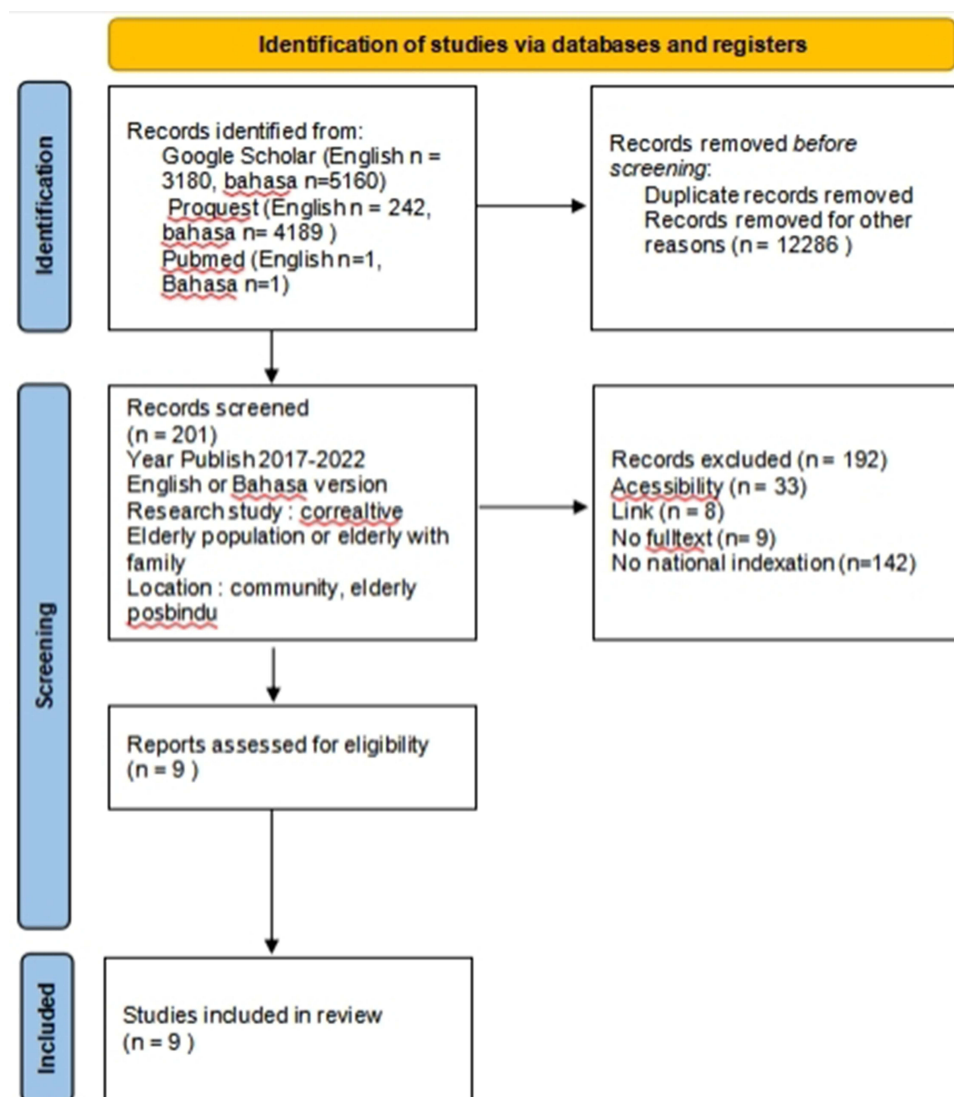


Figure 1 PRISMA Scoping review. Adapted from Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71. Creative Commons.²²

Table 1 Population and Sampling Technique

Method		Total
Design	Quantitative	8
	Mix	1
Population	Elderly	8
	Family	1
Sampling technique	Simple random sampling	5
	Purposive sampling	3
	Total sampling	1
Statistic	Non-parametric	7
	Parametric	2

Table 2 Characteristic Respondent

Variable	Cahyawati ²⁶	Intarti ²⁹	Putri ³⁰	Melita ³¹	Rahayu ³²
Gender					
Male	51	38	9	6	29
Female	70	22	78	64	115
Age					
< 60	121	16		43	144
>60		44		27	
Education					
Never	49	51	4	10	
Elementary	45	5	32	16	
Junior High	20	4	25	15	
Senior High	7		23	29	
University			3		
Work					
Yes	89	30		7	20
No	32	30		63	124
Income					
Low			34		57
Moderate			32		87
High			21		
Knowledge					
Low			6	43	6
Moderate			43	27	138
High			38		
Total Sample	121	60	87	70	144

describes about use of the *Posbindu*. The data above shows that the percentage of utilization of the *Posbindu* has an average value of 47.51%, with the lowest score of only 11.69% and the highest percentage of 71.9% still not reaching the target set. The low participation of the elderly in *Posbindu* is related to various factors.

Table 4 summarizes factors associated with the utilization of the *Posbindu*. The smaller the p-value produced by the two variables, the closer the relationship between them. A p-value less than 0.03 is categorized as having a very close

Table 3 Use of the Posbindu

No.	Author	Participation (%)		Achieve the Target
		Active	Not Active	
1.	Ariani ²⁵	71.9	28.1	No
2.	Cahyawati ²⁶	40.5	59.5	No
3.	Simbolon ²⁷	31.7	68.3	No
4.	Masruluh ²⁸	55	45	No
5.	Intarti ²⁹	48.33	51.66	No
6.	Putri ³⁰	65,5	34,5	No
7.	Melita ³¹	59.17	40.83	No
8.	Rahayu ³²	43.8	56.2	No
9.	Panjaitan ³³	11.69	88.31	No
Mean of Elderly Participation		47.51	52.49	No

Table 4 Factors Associated with the Utilization of the Posbindu

No.	Author	Factor	P-value
1.	Ariani ²⁵	Behavioral Intention	0.015
		Personal Autonomy	0.012
		Action Situations	0.0001
		Information Access	0.007
		Social Support	0.008
2.	Cahyawati ²⁶	Attitude	0.001
		Accessibility	0.513
		Family support	0.000
		Role of Cadre	0.000
3.	Simbolon ²⁷	Tradition	0.000
		Trust	0.001
		Knowledge	0.303
4.	Masruluh ²⁸	Knowledge	0.037
		Family support	0.0001
		Role of Cadre	0.01
5.	Intarti ²⁹	Gender	0.001
		Work	0.001
		Education	0.084
		Distance	0.210
		Posyandu quality	0.001
		Family support	0.001
		Cadres Support	0.001
6.	Putri ³⁰	Attitudes towards Behavior	0.008
		Behavior Control	0.002
		Subjective Norm	0.105
7.	Panjaitan ³³	Family support	0.003

(Continued)

Table 4 (Continued).

No.	Author	Factor	P-value
8.	Melita ³¹	Knowledge	0.014
		Need	0.001
		Age	0.054
		Gender	0.283
		Education	0.331
		Work	0.728
		Access	1.000
		Family support	0.001
		Officer Support	0.001
		9.	Rahayu ³²
Attitude	0.000		
Gender	0.122		
Work	0.182		
Income	0.747		
Pain Perception	0.634		
Knowledge	0.172		
Distance	0.000		
Family support	0.000		
Role of Cadre	0.002		

relationship, values 0.03–0.05 are in the closely related category, values 0.05–0.1 can be said to be weakly related, and ≥ 0.1 is not related.³⁴

From the results of the table above, several factors have p-values that interpret the results differently, but there are also factors that are consistently closely related to the utilization of the *Posbindu*.

Discussion

The utilization of the *Posbindu* is influenced by various things, based on the articles analyzed, the following are the factors related to the utilization of the *Posbindu*, using the PRE-factors approach, as follows:

Predisposing Factors

Predisposing variables are what set off a behavior, or in this case, what draws the elderly to *Posbindu*. Knowledge, attitudes, intentions, and sociodemographic circumstances are a few of them. However, while previous study assert that there is a very close association between knowledge and use of the *Posbindu*.^{28,31} Other study contend that there is no correlation between the elderly's knowledge and their use of the *Posbindu*.^{27,32} This discrepancy in results makes sense because predisposing factors have no effect on health behavior, but their absence has an impact on healthcare delays.³⁵ Older adults with good health knowledge can decide whether or not to visit *Posbindu*, but those with poor health knowledge do not consider doing so.

The second component is the strong correlation between elderly visits to *Posyandu* and attitude.^{25,26,32} Regression analysis indicates that elderly visit activity is influenced by attitude.³⁰ The congruence of these findings with Triandis's Theory of Attitude and Behavior suggests that an individual's behavior is strongly associated with their attitude on what actions to take; a person who has a positive attitude about health is more likely to visit a health facility.³⁶

Intentionality is another factor that is directly linked to older people's visits to *Posbindu*.²⁵ Perceived behavioral control and attitudes toward behavior are two examples of factors that can impact intentions directly.³⁰ As stated by previous study, in a group setting, tales can be shared to inspire others.³⁷ Although each person's motivation for taking action might vary greatly based on their personal experiences, values, and other factors.

According to previous research, perceptions of illness are not related to behavior, which may explain the difference in behavior.³² The elderly in the area tend to visit the clinic, primary care facility, or hospital right away when they have complaints, making *Posbindu* less appealing. Rosenstock found that perceptions about health affect health service utilization behavior.³⁸ Similar to subjective norms, previous research indicates that these variables are unrelated to the use of *Posbindu*; study participants believe that taking part in the *Posbindu* program is beneficial, but they may not plan to do so.³⁰ The other program, Chronic Disease Management Program Activities (*Prolanis*) in the previous study reported that positive attitudes towards health and the perceived benefits of regular health check-ups play a significant role in participant engagement.³⁹ Both are critical in enhancing the health outcomes of older adults in Indonesia.

Sociocultural elements play a role in how people behave when it comes to health; how they react physically and mentally to sickness depends on the culture of their surroundings.⁴⁰ The research conducted by Simbolon indicates that tradition and belief are closely associated with the elderly's engagement in *Posbindu*.²⁷ Health professionals need to understand the customs and culture of the communities they work with.³¹ If a tradition is good, it should be upheld; if it is not, a better one should be substituted without sacrificing its core values.⁴¹

A person's position inside a group might affect their behavior. Socio-demographic factors are the social and demographic circumstances of each individual within a population.⁴² There are conflicting findings, though. Melita and Nadjib's study revealed no correlation between education and *Posbindu* attendance,³¹ while Intarti and Khoriah's reported a weak correlation²⁹ and Rahayu's piece demonstrated a strong correlation.³² The observed discrepancy suggests that an individual's behavior in accessing healthcare services is not solely influenced by their educational background.

Variations in the gender component also show up in the results. Gender and the use of *Posbindu* is associated, according to Intarti and Khoriah, while it is unrelated, according to Melita and Nadjib research and Rahayu research.^{29,31,32} As reported by Hart, an individual's behavior is more influenced by their feminine-masculine level, regardless of their gender.⁴³

Age represents the last sociodemographic factor. It is thought to have no significant relationship with elderly visits to *Posbindu*, but there is still a weak relationship: those in the pre-elderly age group visit *Posbindu* more frequently because they engage in other social activities, such as social gatherings, and because *Posbindu* is a topic of conversation at other events, encouraging each other to attend.³¹ There was no examination of other sociodemographic parameters.

Enabling Factors

Things like accessibility or distance to health facilities are examples of reinforcing factors—things that make it easier for someone to receive health services. Previous study claims that there is a correlation between the elderly's use of *Posbindu* and the distance between their home and the app,³² but three other studies have found no such correlation.^{26,29,31} This is because accessibility serves as a reinforcement, and in the absence of motivating factors, an individual's behavior cannot be formed.

According to Penchansky and Thomas' theory, access to health services encompasses not only physical distance but also factors such as availability, acceptability, affordability, and adequate service, as well as implementation and evaluation.⁴⁴ As a result, one accessibility factor is *Posbindu*'s quality, and member participation is said to be closely correlated with it.²⁹

According to Saurman, communication and information—both about programs and community literacy in relation to health—are included in the dimensions of access.⁴⁴ This is consistent with Ariani's finding that older people's arrival at the *Posbindu* is correlated with their access to information;²⁵ the more comprehensive the information regarding the events scheduled, the more probable it is that the elderly will attend.

Reinforcing aspects include economic issues; WHO highlights that higher income and social status are directly linked to better health.¹⁰ There is a correlation between the work and income of the elderly and the use of the *Posbindu*.²⁹ But according to another study, income and employment had little bearing on how actively the *Posbindu* participated.^{27,31,32} This is likely because the *Posbindu*, as a health unit built on community empowerment, does not require a large amount of funding.

Reinforcing Factors

The component that causes the behavior to persist over time and be consistently engaged in is known as the driving factor. The primary motivator is the intricate network of support that includes the government, the community, the family, and health care providers.⁴⁵ In order to effectively support and remind the elderly to regularly attend and participate in activities, family support and *Posbindu* cadres are closely linked to the use of *Posbindu*.^{26,28,29,31–33}

Friedman asserts that the family serves a variety of purposes in terms of support, including informational exchange, monitoring behavior through assessment and evaluation, actual, instrumental assistance, and emotional support that encourages someone to engage in a behavior. According to previous study, families provide the most comfortable environment for older individuals to live out their remaining years and serve as their primary support network for maintaining their health.⁷

A *Posbindu* health voluntary is a person with the capacity and willingness to assist health workers in managing the *Posbindu* voluntarily. They can accomplish this by serving as a coordinator, energizing the community, promoting health, encouraging and monitoring the elderly and their family to continue taking part in *Posbindu* events, and supplying documentation. They received training on how to assess the elderly, measure height and weight, and provide health education from the community nurse. As part of this job, health voluntary must be evaluated and assisted in gaining more knowledge and expertise on health-related topics.⁴⁶ The active engagement of the *Posbindu* is highly associated with social support.²⁵ It can come in the form of direct help, knowledge sharing, emotional support, affirmation and gratitude, and encouragement of helping others in need.⁴⁷ Apart from providing support, the information factor encompasses rewarding positive behavior or success in abstaining from negative behavior. It also includes the option of punishment for negative behavior or deviation from routine tasks.⁴⁸ The other study about *Prolanis*, reported that the program considered to be good, but the participants still feel some obstacles in following the program, such as the lack of collaboration of health workers and family support to participate in this program.⁴⁹

Conclusion

Many aspects of the *Posbindu*'s use are covered in this scoping review, including intention, knowledge, attitudes, education, employment, income, traditions, and beliefs; access to information; control over actions; and the quality of the *Posbindu*. Gender, age, distance, subjective norm, and pain perception are the unrelated elements. It is desired that community nurses, families, and *Posbindu* health voluntary will fully encourage the elderly in using the *Posbindu*, as this has been shown to be most closely associated with the presence of the elderly.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Central Bureau of Statistics. Life Expectancy Rate (AHH) by Province and Sex; 2020a. Available from <https://www.bps.go.id/indicator/40/501/1/angka-harapan-hidup-ahh-menurut-provinsi-dan-jenis-kelamin.html>. Accessed June 26, 2024.
2. Central Bureau of Statistics. Indonesia Population Projections 2015-2045; 2018. Available from https://indonesia.unfpa.org/sites/default/files/pub-pdf/ProyeksiPopulation_2015-2045_.pdf. Accessed June 26, 2024.
3. United Nations Development Programme. The next frontier Human development and the Anthropocene; 2020. Available from <http://hdr.undp.org/sites/default/files/hdr2020.pdf>. Accessed June 26, 2024.
4. Population Reference Bureau. Countries with the Oldest Populations in the World; 2020. Available from <https://www.prb.org/countries-with-The-oldest-populations/https://www.prb.org/countries-with-The-oldest-populations/>. Accessed June 26, 2024.
5. Central Bureau of Statistics. Statistics on the Elderly Population 2020; 2020. Available from <https://www.bps.go.id/publication/download.html?nrbvfeve=>. Accessed June 26, 2024.
6. P2P Kemkes RI D. Rencana Aksi Program 2020-2024. *Jurnal Ilmiah Teknosains*. 2020;2(1/Mei):1–33.
7. Guriti I, Ningsih SR Family Role in Elderly Care: a Systematic Review. *The 6th International Conference on Public Health*, 2019. 43. doi:10.26911/the6thicph.01.20.
8. Prabasari NA, Juwita L, Maryuti IA. Pengalaman Keluarga Dalam Merawat Lansia Di Rumah (Studi Fenomenologi). *Jurnal Ners Lentera*. 2017;5(1):56–68.
9. Ilham R. Kemandirian Keluarga dalam Merawat Lansia. Gorontalo: Ideas Publishing. Diambil dari. Available from <https://stikestanawali.ac.id/wp-content/uploads/2021/10/BUKU-KEMANDIRIAN-KELUARGA-ROSMIN-ILHAM.pdf>. Accessed June 26, 2024.

10. Kementerian Kesehatan RI. Petunjuk Teknis Pos Pembinaan Terpadu Posbindu bagi Kader, 1–60; 2019. Available from http://p2ptm.kemkes.go.id/uploads/VHcrbkVobjRzUDN3UCs4eUJ0dVBndz09/2019/03/Petunjuk_Teknis_POSBINDU_Bagi_Kader.pdf. Accessed June 26, 2024.
11. Utami U, Palupi FH. Efektivitas Posyandu Lansia Terhadap Kemampuan Deteksi Dini Penyakit Degenerative Di Posyandu Lansia Gbi Colomadu. *Maternal*. 2017;II(1):548.
12. Sa'diyah NK, Desmawati L. Peran posyandu lansia dalam meningkatkan kesadaran hidup sehat di kelurahan kalisegoro, kecamatan gunungpati, kota semarang. *J Fam Life Educ*. 2021;1(1):36–48.
13. Sundariningsih S. DIKLUS: jurnal Pendidikan Luar Sekolah Sumbangan Posyandu Lansia Delima dalam Meningkatkan Kepedulian Sosial di Widoro Kidul. *J Uny Acid*. 2020; 169–177.
14. Malariu SR, Pitoyo J. Perbedaan kualitas hidup lansia yang aktif mengikuti posyandu lansia dengan yang tidak aktif mengikuti posyandu lansia di kelurahan mojolangu kecamatan lowokwaru. *Profl Health JI*. 2020;2(1):66–72.
15. Arfan I, Sunarti S. Faktor frekuensi kunjungan lansia ke posyandu lansia di kecamatan pontianak timur. *Jurnal Vokasi Kesehatan*. 2018;3(2):1–6. doi:10.30602/jvk.v3i2.36
16. Novitasari SD. Bentuk-Bentuk Partisipasi Lansia dalam Pelayanan Kesehatan Posyandu Lansia; 2017. Available from <http://lib.unnes.ac.id/31951/1/3401412133.pdf>. Accessed June 26, 2024.
17. Aryantiningih DS. Faktor-Faktor yang berhubungan dengan pemanfaatan posyandu lansia di kota pekanbaru. *J Kesehatan Masyarakat*. 2014;1(2):42–47.
18. Latif I, Ichwandie BH. Faktor-Faktor yang Berhubungan dengan Pemanfaatan Pelayanan Posyandu Lansia. *J Kesehatan Indra Husada*. 2018.
19. Tumanger DTA. Perceived need factor analysis on the utilization of elderly health services in puskesmas and posyandu. *Jurnal Kesehatan Komunitas*. 2021;7(3):360–367. doi:10.25311/keskom.vol7.iss3.982
20. Ridzyanto RP. Analisis data indonesia family life survey 2014. *Jurnal Ikesma*. 2020;16(2):60–66. doi:10.19184/ikesma.v16i2.17400.
21. Sulaeman ES, Murti B, Kunci K. Aplikasi model PRECEDE-PROCEED pada perencanaan program pemberdayaan masyarakat bidang kesehatan berbasis penilaian kebutuhan kesehatan masyarakat. *Jurnal Kedokteran Yarsi*. 2015;23(3):149–164. doi:10.33476/jky.v23i3.230.
22. Eldredge LKB, Markham CM, Ruitter RAC, Fernandez ME, Kok G, Parcel GS. *Planning Health Promotion Programs* (Forth). United States of America: Jossey-Bass; 2016.
23. Porter CM. Revisiting Precede-Proceed: a leading model for ecological and ethical health promotion. *Health Educ J*. 2016;75(6):753–764. doi:10.1177/0017896915619645
24. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71. doi:10.1136/bmj.n71.
25. Ariani M. Determinants of elderly behavior follow the posyandu in the working area of kebonsari primary healthcare surabaya. *J Promkes: Indones J Health Promotion Health Educ*. 2020;8(1):79–86. doi:10.20473/jpk.v8.i1.2020.79-86
26. Cahyawati S, Rumaolat W, Sayid N, Rumi J, Rumaolat W. Factors related to the utilization of the integrated health services center for the elderly. *Jurnal Ners*. 2020;15(2):63–66. doi:10.20473/jn.v15i2.18931
27. Simbolon P, Simbolon N. Association between social-cultural and the utilization of elderly integrated health services (posyandu lansia) in hampanan perak health center. *Unnes J Public Health*. 2018;7(1):1–5. doi:10.15294/ujph.v7i1.18201.
28. Masluroh M, Farlikhatun L. Efektivitas pemanfaatan posyandu lanjut usia. *Jurnal Kebidanan Dan Kesehatan Tradisional*. 2020;5(1):36–40. doi:10.37341/jkkt.v5i1.129
29. Intarti WD, Khoriah SN. Faktor-Faktor yang Mempengaruhi Pemanfaatan Posyandu Lansia. *JHeS*. 2018;2(1):110–122. doi:10.31101/jhes.439.
30. Putri M. Faktor-Faktor yang berpengaruh terhadap niat keaktifan lansia dalam mengikuti posyandu lansia. *Jurnal Promkes*. 2021;6(2):213–225.
31. Melita NM. Faktor-faktor yang berhubungan dengan kunjungan lansia ke posbindu lansia di wilayah kerja puskesmas kelurahan bintang Kota bekasi tahun 2017. *JURNAL KEBIJAKAN KESEHATAN INDONESIA: JKKI*. 2018;07(04):158–167.
32. Rahayu ND. Pemanfaatan posyandu lansia di wilayah kerja puskesmas. *HIGEIA J Pub Health Res Dev*. 2018;1(3):84–94. doi:10.15294/higeia/v4i3/33867
33. Panjaitan AA, Frelestany E, Latifah SN, Masan L, Noberta EY, Herman J. Dukungan Keluarga Terhadap Keaktifan Lansia dalam Mengikuti Posyandu Lansia di Puskesmas Emparu. *Jurnal Vokasi Kesehatan*. 2017;3(2):78. doi:10.30602/jvk.v3i2.105
34. Witten J. P-value interpretation; 2015. Available from <https://thefinchandpea.com/2015/02/02/p-value-interpretation/>. Accessed June 26, 2024.
35. Sutter ME. An integrated behavioral model of healthcare utilization among transgender and gender-nonconforming adults. *Virginia Commonwealth University*. 2017; 144.
36. Murphy TF Behavioral Intentions: a Cognitive Process; 2024. Available from: <https://psychologyfanatic.com/behavioral-intentions/>. Accessed June 26, 2024.
37. Raz J. Intention and value. *Philosophical Explorations*. 2017;20(sup2):109–126. doi:10.1080/13869795.2017.1356357
38. Rosenstock IM. The health belief model and preventive health behavior. *Health Educ Behav*. 1977;2(4):354–386. doi:10.1177/109019817400200405
39. Ariana R, Sari CW, Kurniawan T. Perception of Prolanis Participants About Chronic Disease Management Program Activities (PROLANIS) in the primary health service Universitas Padjadjaran. *Nurs J*. 2020;4(2):103–113. doi:10.19184/nlj.v4i2.12687
40. Uskul AK. Socio-cultural aspects of health and illness. *Health Psychol*. 2010;347–359.
41. Betancourt DAB. Madeleine Leininger and the transcultural theory of nursing. *The Downtown Review*. 2015;2(1):1–8.
42. Abdullahi KB. Socio-demographic statuses: theory, methods, and applications. *Preprints*. 2019;1–31. doi:10.20944/preprints201902.0051.v2
43. Hart CG, Saperstein A, Magliozzi D, Westbrook L. Gender and Health: beyond Binary Categorical Measurement. *J Health Social Behav*. 2019;60(1):101–118. doi:10.1177/0022146519825749
44. Saurman E. Improving access: modifying penchansky and thomas's theory of access. *J Health Serv Res Po*. 2016;21(1):36–39. doi:10.1177/1355819615600001
45. Liang D Transformation and Upgrading of Social Support System for the Elderly Health Based on Dissipative Structure Theory. *Proceedings of the 6th International Conference on Economics, Management, Law and Education (EMLE 2020)*, 165(Emle 2020), 2021, 478–483. doi:10.2991/aebmr.k.210210.076.
46. Armiyati Y, Soesanto E, Hartiti T. Optimalisasi pemberdayaan kader posbindu lansia sebagai upaya peningkatan kualitas hidup lansia di demak. *Jurnal Keperawatan Komunitas*. 2014;2(2):57–63.
47. Stupinski C Understanding The Different Types of Social Support; 2020. Available from <https://homebase.org/operation-healthhome/understand-ing-The-different-types-of-social-support/>. Accessed June 26, 2024.

48. Nilasari MG, Prabawati I. Evaluasi Peraturan Daerah Kota Surabaya Nomor 3 Tahun 2014 Tentang Kesejahteraan Lanjut Usia (Studi Pada Posyandu Lansia Sekar Melati Rw Ii Kelurahan Baratajaya Kecamatan Gubeng Kota Surabaya). *Publika*. 2018;6(4):1152.
49. Sari CWM, Witdiawati W, Purnama D, Kurniawan T. Evaluation of diabetes patients about chronic disease management program in bandung. *Malaysian J Med Health Sci*. 2022;18.

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