



FACTORS ASSOCIATED WITH ELDERLY PARTICIPATION IN THE UTILIZATION OF THE ELDERLY POSYANDU INTEGRATED HEALTH SERVICE POST FOR THE ELDERLY IN THE WORKING AREA OF TENGGABA PUBLIC HEALTH CENTER, SOUTHWEST SUMBA

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Abstract

The elderly are a group vulnerable to experiencing various health problems, so one effort to improve and maintain the health of the elderly is through the utilization of health services, namely the Elderly Posyandu. However, elderly participation in the utilization of the Elderly Posyandu is still not optimal. This study aims to analyze the factors associated with elderly participation in the utilization of the Elderly Posyandu in the working area of Tenggara Public Health Center, Southwest Sumba Regency, based on the Health Belief Model approach. The study used a quantitative design with a cross-sectional approach involving 96 elderly respondents selected through purposive sampling and proportional random sampling techniques, and data were collected through interviews using a questionnaire, then analyzed using the Chi-Square test. The results of the bivariate analysis showed that there was no significant relationship between perceived susceptibility ($p=0.835$), perceived severity ($p=0.466$), perceived benefits ($p=0.559$) and elderly participation in the utilization of Posyandu Lansia, while perceived barriers ($p=0.000$) and cues to action ($p=0.019$) showed a significant relationship with elderly participation in the utilization of Posyandu Lansia. The conclusion of this study shows that elderly participation in the utilization of Posyandu Lansia is related to perceived barriers such as long distances, forgetting the schedule, work, having other activities on the same day as posyandu activities, no transportation, and cues to action such as support from family, health workers, and cadres. Therefore, efforts to increase participation need to be focused on reducing the barriers perceived by the elderly group.

Keywords: Elderly, Participation, Elderly Posyandu, Health Belief Model

Introduction

The increase in life expectancy in Indonesia has led to a growing proportion of the elderly population, namely residents aged 60 years and above. Data from the Central Statistics Agency recorded that the number of elderly people increased from 30,942.2 thousand people in 2023 to 32,424.3 thousand people in 2024. The aging process also affects various dimensions of life, especially health, because increasing age causes a decline in the function of body organs due to both natural factors and disease. The highest prevalence of health problems among the elderly in Indonesia includes hypertension (63.5%), dental problems (53.6%), joint disease (18%), diabetes mellitus (5.7%), heart disease (4.5%), stroke (4.4%), kidney failure (0.8%), and cancer (0.4%).

As an effort to address the health service needs of the elderly, the government established the Elderly Posyandu as a community-based health service facility in accordance with Regulation of the Minister of Health Number 67 of 2015. The Elderly Posyandu aims to expand access to health services, bring services closer to the community, and encourage active participation of the elderly so that a healthy, independent, and active elderly condition can be achieved. However, the success of this program greatly depends on the participation of the elderly themselves, while various studies show that the awareness and attendance of the elderly in Posyandu activities are still low, influenced by factors such as knowledge, age, occupation, level of education, schedule information, and support from health workers and family.

This condition is also evident at the provincial and district levels. East Nusa Tenggara Province recorded an increase in the number of elderly people from 511,654 in 2022 to 568,990 in 2025. Southwest Sumba Regency itself recorded a decline in the coverage of elderly visits to the Elderly Posyandu from 94 percent (2022) to only 62 percent (2024), with Tenggaba Public Health Center recording the lowest coverage among the 16 existing public health centers, at only 15% in 2025. Data from Tenggaba Public Health Center shows a similar trend: of the 22,707 elderly people registered in 2022, only 50% utilized the Elderly Posyandu, and this figure continued to decline to only 26% in 2024. The gap between the availability of services and their utilization by the target group risks causing the health condition of the elderly to go unmonitored on a regular basis.

The Health Belief Model (HBM) explains that a person's health behavior is influenced by perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action. Research by Ayuningsih et al. (2023) in Pageraji Village found a relationship between perceived susceptibility, benefits, and barriers with the utilization of the Elderly Posyandu, while research in Rembang Regency found a significant relationship between health worker support, family support, and all HBM components with the utilization of the Posbindu for Non-Communicable Diseases (PTM) among the elderly. These findings indicate that individual perception within the HBM approach can be one of the factors related to the utilization of health services by the elderly.

Previous research findings show a relationship between several components of the Health Belief Model and the utilization of elderly health services, but the associated factors have not shown a uniform pattern across every study area. Differences in community characteristics and health service conditions can lead to differences in the perceptions and behavior of the elderly in utilizing the Elderly Posyandu. This condition indicates the need for research in the working area of Tenggaba Public Health Center to obtain a more specific understanding of the Health Belief Model factors related to elderly participation.

Based on this gap, this study aims to analyze the factors associated with elderly participation in the utilization of the Elderly Posyandu in the working area of Tenggaba Public Health Center, Southwest Sumba Regency, including the relationship between perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action with elderly participation.

Methods

This study is a quantitative study with a cross-sectional approach to analyze the relationship between the independent variables (perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action) and the dependent variable (elderly participation in the utilization of the Elderly Posyandu). The study was conducted in the working area of Tenggara Public Health Center, Wewewa Tengah Subdistrict, Southwest Sumba Regency, in June 2026.

The study population consisted of all elderly people in the working area of Tenggara Public Health Center, totaling 22,217 people. The sample size was calculated using the Lemeshow formula, yielding 96 respondents (plus a 10% reserve, bringing the total to 106 respondents to anticipate drop-out). The sampling technique was carried out in two stages, namely determining 6 villages out of 20 villages through purposive sampling in the working area of Tenggara Public Health Center, followed by determining the number of respondents in each selected village through proportional random sampling.

Data were collected through interviews using a questionnaire whose validity and reliability had been tested, covering respondent characteristics (sex, age, education, occupation), the level of participation in the utilization of the Elderly Posyandu, and the five constructs of the Health Belief Model. Secondary data were obtained from the profile and visit reports of the Southwest Sumba District Health Office and Tenggara Public Health Center. Data analysis consisted of univariate analysis to describe the frequency distribution of each variable, and bivariate analysis using the Chi-Square test (with Continuity Correction or Fisher's Exact Test according to the requirements of the 2x2 contingency table) to test the relationships between variables, accompanied by the Phi coefficient to measure the strength of the relationship. A relationship was declared significant if the p-value ≤ 0.05 .

Results

The characteristics of respondents based on sex, age, last education, and occupation are presented in Table 1.

Table 1. Characteristics of elderly respondents in the working area of Tenggara Public Health Center (n=96)

Characteristic	Number	Percentage (%)
Sex		
Male	35	36.5
Female	61	63.5
Age		
60-64	29	30.2
65-69	20	20.8
70-74	25	26
75-79	22	22.9
Last education		
No schooling	21	21.9
Elementary school (SD)	31	32.3
Junior high school (SMP)	21	21.9

Senior high school (SMA)	23	24
Occupation		
Housewife (IRT)	20	20.8
Farmer	60	62.5
Motorcycle-taxi (ojek) driver	5	5.2
Self-employed/entrepreneur	11	11.5

Source: Primary data, 2026

Based on Table 1, it is known that the majority of respondents were female, totaling 61 people (63.5%). Based on age group, the largest number of respondents were in the 60–64 year age group, totaling 29 people (30.2%). Based on last level of education, most respondents had elementary school (SD) as their last education, totaling 31 people (32.3%). Meanwhile, based on occupation, the majority of respondents worked as farmers, totaling 60 people (62.5%).

Univariate analysis was carried out on elderly participation in the utilization of the Elderly Posyandu as well as five variables based on the components of the Health Belief Model, namely perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action. The categorization of the perception variables was determined based on the median value of each variable.

Table 2. Distribution of study variables among the elderly in the working area of Tenggara Public Health Center (n=96)

Variable	f	%
Elderly Posyandu Participation		
Inactive	55	57.3
Active	41	42.7
Perceived Susceptibility		
Low	28	29.2
High	68	70.8
Perceived Severity		
Low	38	39.6
High	58	60.4
Perceived Benefits		
Low	30	31.3
High	66	68.8
Perceived Barriers		
Low	45	46.9
High	51	53.1
Cues to Action		
Low	40	41.7
High	56	58.3

Source: Primary data, 2026

Based on Table 2, it is known that most respondents fell into the inactive category regarding utilization of the Elderly Posyandu (57.3%). For the perception variables, most respondents had a high perceived susceptibility (70.8%), high perceived severity (60.4%), and high perceived benefits (68.8%). Perceived barriers were in the high category for 53.1% of respondents, while cues to action were in the high category for 58.3% of respondents.

Bivariate analysis was carried out to determine the relationship between perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cues to action with elderly participation in the utilization of the Elderly Posyandu. The test used was the Chi-Square test with a significance level of 0.05. The strength of the relationship is shown using the Phi coefficient.

Table 3. Relationship between independent variables and elderly participation in the utilization of the Elderly Posyandu

Variable	Participation in Elderly Posyandu Utilization						p-value	Phi
	<i>Inactive</i>		<i>Active</i>		<i>Total</i>			
	n	%	n	%	n	%		
Perceived Susceptibility								
Low	17	60.7	11	39.3	28	29.1	0.835	0.044
High	38	55.9	30	44.1	68	70.9		
Perceived Severity								
Low	24	63.2	14	36.8	38	39.6	0.466	0.096
High	31	53.4	27	46.6	58	60.4		
Perceived Benefits								
Low	19	63.3	11	36.7	30	31.2	0.559	0.082
High	36	54.5	30	45.5	66	68.8		
Perceived Barriers								
Low	12	26.7	33	73.3	45	46.9	0.000	0.582
High	43	84.3	8	15.7	51	53.1		
Cues to Action								
Low	29	72.5	11	27.5	40	41.7	0.019	0.260
High	26	46.4	30	53.6	56	58.3		

The analysis results show that perceived susceptibility was not associated with elderly participation in the utilization of the Elderly Posyandu ($p=0.835$; $\Phi=0.044$). Perceived severity also showed no association with participation ($p=0.466$; $\Phi=0.096$), as did perceived benefits ($p=0.559$; $\Phi=0.082$). In contrast, perceived barriers showed an association with elderly participation ($p<0.001$; $\Phi=0.582$). Among respondents with low perceived barriers, 73.3% were classified as active, whereas among respondents with high perceived barriers, only 15.7% were classified as active. Cues to action also showed an association with elderly participation ($p=0.019$; $\Phi=0.260$). The proportion of active respondents among those with low cues to action was 27.5%, while among respondents with high cues to action, the proportion of active respondents was 53.6%.

Discussion

Perceived susceptibility describes an individual's belief that they are at risk of experiencing diseases related to the aging process. This study did not find a significant relationship between perceived susceptibility and elderly participation in the utilization of the Elderly Posyandu. Theoretically, individuals who believe themselves to be at risk tend to be more motivated to take preventive action; however, this finding indicates an intention-behavior gap, in which awareness of disease risk is not necessarily followed by concrete action due to barriers such as distance, limited transportation, and the demands of working as farmers. This condition can also be explained by optimistic bias, namely the tendency of the elderly to regard the decline in physical condition as a natural part of aging, which does not encourage routine check-ups. This finding is consistent with research that also found no meaningful relationship between perceived susceptibility and the utilization of elderly health services, but differs from the results of research in Rembang Regency, which instead found a significant relationship, possibly due to differences in respondent characteristics and service access in each region.

Perceived severity relates to beliefs about the level of seriousness of the impact of a disease if left untreated. This study also did not find a significant relationship between perceived severity and elderly participation, consistent with research in East Pontianak Subdistrict, which stated that the activeness of the elderly is more influenced by knowledge and family support than by perceived severity alone. This phenomenon is also influenced by fatalistic beliefs, namely the view that the decline in physical condition in old age is unavoidable, so routine check-ups are considered to change little. The characteristics of respondents, dominated by farmers aged 60-64 years, also help explain why awareness of disease severity has not been followed by active participation, because more time and energy are devoted to working in gardens or rice fields.

Perceived benefits refer to an individual's belief about the advantages gained from a health action. Although most respondents (68.8%) considered the Elderly Posyandu beneficial, this study did not find a significant relationship between perceived benefits and elderly participation. This indicates that knowledge of the benefits of the service is not yet strong enough to drive actual behavior when still faced with various access barriers, such as distance, limited time, and a lack of encouragement from the surrounding environment.

Unlike the three perceptions above, perceived barriers were proven to have a significant relationship and a strong strength of association with elderly participation. This finding is consistent with the Health Belief Model framework, which places perceived barriers as the main determinant of health behavior, and is in line with research finding that work demands, distance to health facilities, and limited transportation are real barriers to the utilization of the Elderly Posyandu. Community-based service approaches, such as conducting the Posyandu at easily accessible locations and home visits for elderly people who do not attend, have proven effective in expanding the reach of health services for the elderly.

Cues to action were also proven to have a significant relationship with elderly participation, although the strength of the relationship was classified as moderate. Encouragement in the form of invitations from cadres, family support, and information from health workers serve as triggers for turning intention into concrete action [23], consistent with several related studies. Nevertheless, the moderate strength of the relationship indicates that the provision of information is not yet sufficient to drive participation if the elderly still face more dominant access barriers.

Overall, these findings confirm that increasing the utilization of the Elderly Posyandu in the working area of Tenggara Public Health Center is not sufficient merely by improving elderly people's understanding of health risks and benefits, but must also be followed by reducing access barriers and strengthening cues

or encouragement from the surrounding environment. Strengthening the role of cadres and health workers, family support, adjustment of service schedules, and the development of more varied activities such as elderly exercise and supplementary feeding, in accordance with Decree of the Minister of Health Number HK.01.07/MENKES/2015/2023 concerning Technical Guidelines for the Integration of Primary Health Services, has the potential to sustainably increase elderly participation.

Conclusion

This study analyzed the factors associated with elderly participation in the utilization of the Elderly Posyandu in the working area of Tenggaba Public Health Center, Southwest Sumba Regency, using the Health Belief Model approach on 96 elderly respondents. The results showed that most elderly people (57.3%) were still inactive in utilizing the Elderly Posyandu, even though the majority of respondents already had high perceived susceptibility, severity, and benefits regarding health and the Elderly Posyandu service.

Bivariate analysis proved that perceived susceptibility, perceived severity, and perceived benefits were not significantly related to elderly participation in the utilization of the Elderly Posyandu. This condition indicates that the elderly's cognitive awareness of the risk, seriousness, and benefits of a health action is not yet strong enough to drive concrete behavior if not accompanied by ease of access to services. In contrast, perceived barriers were proven to be significantly related with a strong strength of association, while cues to action were also proven to be significantly related with a moderate strength of association. These findings confirm that the barriers perceived by the elderly, such as long distances to health facilities, limited transportation, the demands of working as farmers, and a lack of encouragement from the surrounding environment, are more dominant factors in determining the elderly's decision to participate than mere cognitive understanding of disease and health benefits.

Increasing elderly participation in the utilization of the Elderly Posyandu in the working area of Tenggaba Public Health Center will not be effective if it focuses only on education about health risks and benefits. More strategic efforts need to be directed at reducing access barriers to services and strengthening cues or encouragement from the elderly's social environment. Several steps that can be taken include adjusting the schedule of Elderly Posyandu services so that they do not clash with farming activities, organizing community-based services closer to the elderly's place of residence, conducting home visits for elderly people who are unable to attend, and using communication media such as text messages and announcements through community and religious leaders to remind people of activity schedules.

Strengthening the role of health cadres and health workers at Tenggaba Public Health Center in providing continuous health education, assisting elderly people with physical limitations, and involving families as the main source of support also needs to be a priority. In addition, developing more varied Elderly Posyandu activities, such as elderly exercise, health counseling, and supplementary feeding, has the potential to increase the attractiveness and motivation of the elderly to attend regularly, so that the Elderly Posyandu is not only viewed as a place for treatment but also as a space for meaningful social interaction for elderly wellbeing. Future research is recommended to add other variables such as social support, economic status, and the quality of health services, and to use a qualitative research design to explore more deeply the reasons for elderly inactivity, so that strategies to increase the utilization of the Elderly Posyandu can be formulated more comprehensively and appropriately targeted.

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