



## DETERMINANT OF ELDERLY POSYANDU UTILIZATION IN WORKING AREAS OF SIX PUBLIC HEALTH CENTERS (PUSKESMAS) OF SEMARANG CITY

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### Abstract

In improving the total coverage of elderly health care, public health centers (puskesmas) provide services off-building, one of which is elderly posyandu. In Semarang city, the average elderly attendance rate to posyandu was still meager. It impacted health care's low coverage and decreased elderlies' health status quality. This study aimed to analyze factors affecting the elderly posyandu utilization in working areas of six puskesmas of Semarang city. This study was quantitative with a cross-sectional design. The population was 42.679 elderlies with 70 elderly samples. The sampling technique was accidental sampling using questionnaires. The univariate analysis used a frequency distribution, while the relationship analysis used the rank spearman test. The study results showed relationships of attitude ( $p=0.048$ ), trust ( $p=0.000$ ), access ( $p=0.000$ ), cadres role ( $p=0.000$ ), health care workers role ( $p=0.000$ ), family support ( $p=0.015$ ), facility ( $p=0.000$ ), and disease susceptibility perception ( $p=0.002$ ) to elderly posyandu utilization in working areas of six puskesmas of Semarang city. It is necessary to maximize funding for activities and facilities, innovate the development of gymnastics, conduct a singing together activity, and provide an understanding of disease risk factors.

**Keywords:** *posyandu; puskesmas; elderlies*

### 1. Introduction

Life Expectancy is an indicator of health development success. Increased life expectancy number is presented from an increased number of elderlies in a community. Increasing the number of elderly will cause some problems that will harm families, communities, and older age groups themselves.

The growing number of elderly people with their needs has become a priority of the government by making old age one of the priority areas. Elderlies are people of 60 year old and above. The elderly population is susceptible and possesses a higher risk of health problems, and therefore requires health care facility roles to improve elderly health in the elderly puskesmas and posyandu (Melita, 2018). Based on the Regulation of the Ministry of Health RI No. 25 of

2016 regarding the National Action Plan for Elderly Health from 2016 to 2019, the government is obligated to guarantee the health care facility availability, facilitate elderly cluster development, and perform elderly health maintenance to maintain elderlies to stay healthy, independent, and productive in society and economy (Kemenkes RI, 2016).

In Semarang city, the elderly health care execution is encountering a problem of decreasing elderly health care coverage. The elderly health care coverage in Semarang city in 2015 was 64.76% and decreased to 56.35% in 2016. Subsequently, the data of elderly health care coverage in Semarang city in 2017 increased to 102.96%. However, based on the elderly prevalence obtaining health care in puskesmas in 2017, only 26 puskesmas met the renstra target, while the other 11 puskesmas had not (Dinkes, 2017). The health profile data of Semarang city in 2018 showed the elderly health care of 99.83% or

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175.893 of 176.187 elderlies. This number was decreasing from the 2017 data of 102.96%. To improve the number of elderly coverage in obtaining health care, puskesmas perform off-building services, i.e., elderly posyandu.

The fact shows that the average elderly attendance rate to posyandu in Semarang city is meager. Several elderly groups perceived the needs of elderly posyandu, but various factors restricted them. Non-optimal utilization of elderly posyandu impacts the low coverage of elderly health care and decreases elderlies' health status quality. If elderlies' health status quality continues to decrease, it harms many parties, including oneself, others, families, and the government (Afrizal, 2018).

Therefore, it is crucial to improve the coverage of elderly posyandu attendance. This study aimed to analyze factors affecting elderly posyandu utilization in working areas of six puskesmas of Semarang city, to be used as an evaluation to improve elderly posyandu's coverage in working areas of six puskesmas of Semarang city.

## 2. Method

This study was quantitative with a cross-sectional design. The data collection carried out from April-June 2020. The study population was all elderlies in working areas of six puskesmas of Semarang city, sourced from the city center, downtown, and countryside, i.e., Puskesmas Poncol, Puskesmas Miroto, Puskesmas Halmahera, Puskesmas Krobokan, Puskesmas Bandarharjo, and Puskesmas Mangkang with total elderlies of 42.679 and 70 samples.

The variables in this study include utilization, attitude, trust, access, the role of posyandu cadres, the role of health workers, family support, facilities, and disease susceptibility. The sampling technique used was accidental sampling. The data collection was conducted using online interviews, while data analyses were conducted using the univariate analysis (frequency distribution) and bivariate analysis (rank spearman).

## 3. Result and Discussion

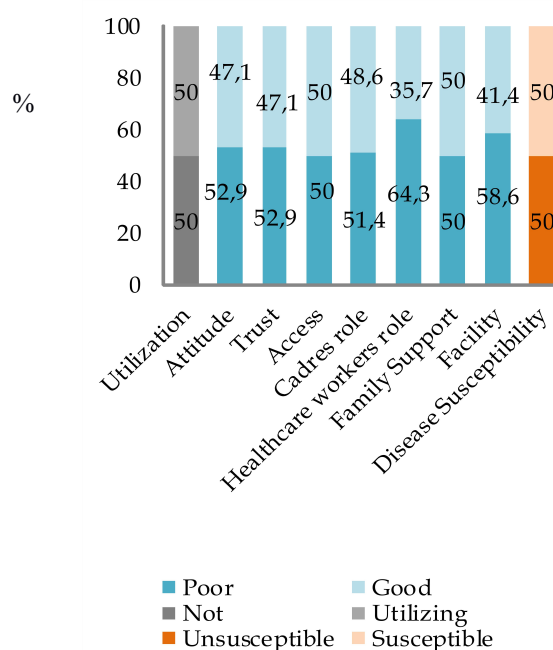
The following results and discussions will explain the description and analysis of the relationship between variables in the utilization of elderly posyandu in the working area of 6 puskesmas in Semarang. There are independent variables, including attitude, trust, access, the

role of posyandu cadres, the role of health workers, family support, facilities, and disease susceptibility that will be tested with utilization variables. The results and discussions will be presented in table 1 was about the characteristics of respondents, figure 1 about univariate result, and table 2 about bivariate result.

**Table 1.** Elderly Characteristics

Characteristics	Respondents	
	Frequency	Percentage
<b>Age</b>		
60-69 years	35	50
≥ 70 years	35	50
<b>Gender</b>		
Male	23	33
Female	47	67
<b>Education Level</b>		
Uneducated	4	6
Elementary School	30	43
Junior High School	26	37
<b>Education Level</b>		
High School	7	10
Academies/Universities	3	4
<b>Employment</b>		
Unemployed	54	77
Traders	3	4
Pensioner	9	13
Others	4	6

Table 1 shows that percentage of 60-69 year olds respondents was directly proportional to > 70 year olds respondents (50%). Most respondents were female (67%), with an education level of elementary school graduates (43%), and unemployed (77%).



**Figure 1.** Univariate Result

Based on Figure 1, respondents utilizing elderly posyandu were directly proportional to those who did not utilize them (50%). Respondents perceived a poor attitude of (52.9%), a poor trust of (52.9%), an equal level of good and poor access (50%), poor cadres role (51.4%), poor health care workers role (64.3%), an equal level of good and poor family support (50%), a poor facility (58.6%), and an equal level of being susceptible and unsusceptible to diseases of (50%).

**Table 2.** Bivariate Results

Aspect	Utilization of Elderly Posyandu		Total %	p-value	R
	Not	Utilizing			
	%	%			
<b>Attitude</b>					
Poor	62.2	37.8	100	0.048	0.237
Good	36.4	63.6	100		
<b>Trust</b>					
Poor	67.6	32.4	100	0.000	0.458
Good	30.3	69.7	100		
<b>Access</b>					
Poor	74.3	25.7	100	0.000	0.481
Good	25.7	74.3	100		
<b>Cadres role</b>					
Poor	77.8	22.2	100	0.000	0.511
Good	20.6	79.4	100		
<b>health care workers role</b>					
Poor	60.0	40.0	100	0.000	0.424
Good	32.0	68.0	100		
<b>Family support</b>					
Poor	71.4	28.6	100	0.015	0.290
Good	28.6	71.4	100		
<b>Facility</b>					
Poor	73.2	26.8	100	0.000	0.513
Good	17.2	82.8	100		
<b>Disease Susceptibility</b>					
Unsusceptible	71.4	28.6	100	0.002	0.363
Susceptible	28.6	71.4	100		

Based on Table 2, on respondents attitude aspect of not utilizing elderly posyandu perceived poor attitude (62.2%) higher than the good ones. The Rank Spearman statistic test show a relationship between attitude and elderly posyandu utilization (p-value<0.05). The statement follows a study of Rixi et al. regarding the Relationship of Elderly Attitude to Elderly Posyandu Utilization in 2019 (Rixi, 2019). Many respondents stated that elderly posyandu's activities were tedious. They wanted other activities to entertain them. The elderly community was perceived to require activities that diminish boredom and help them live independently and prosper (Ilyas, 2017). Hence,

it is necessary to variate activities in elderly posyandu.

On the trust aspect, respondents who did not utilize elderly posyandu perceived poor trust (67.6%) higher than good trust. The Rank Spearman statistic test shows a relationship between trust and elderly posyandu utilization (p-value<0.05). It is relevant to a study by Kurnianingsih et al. regarding Factors Affecting the Utilization Rate of Elderly Posyandu in Bandarjo Village, West Ungaran Sub-District, Semarang Regency in 2019 (Kurnianingsih dkk, 2019). Incomplete health examination in elderly posyandu is a factor affecting respondents trust of elderly posyandu benefits. The public tends to be sure and wants to visit health care centers if the facilities are complete (Rivano, 2016).

Respondents who did not utilize elderly posyandu perceived poor access (74.3%) higher than the good ones on the access aspect. The Rank Spearman statistic test shows a relationship between access and elderly posyandu utilization (p-value<0.05). This statement is relevant to a study of Alhidayati et al. regarding Factors Affecting the Elderly Attendance Behavior to Elderly Posyandu in Puskesmas Kampar Working Area of Kampar Regency in 2013 (Alhidayati, 2014). Several respondents stated that they struggle and could not go alone to elderly posyandu. It was caused by the respondents characteristics of over 70 year olds, where they undergo physical degeneration that decreases their ability to go to health care facilities independently. Everybody will get older and experience physical, mental, and social degeneration over time until they cannot perform daily tasks any longer (Mustayah, 2016). Help from families to accompany elderlies to elderly posyandu is necessary not to struggle to come.

On the cadres aspect, respondents who did not utilize elderly posyandu perceived poor cadres role (77.8%) higher than the good ones. The Rank Spearman statistic test shows a relationship between cadres role and elderly posyandu utilization (p-value<0.05). The study result follows a study of Sudarmi regarding Factors Affecting Elderly Posyandu Utilization in Puskesmas Center Pesisir Working Area of West Pesisir Regency, Lampung Province in 2014 (Rahmi et al., 2018). According to respondents statement, there was lack of cadres role from the quantity and posyandu cadres activeness in carrying out its role. The unsuitability of cadres role in striving posyandu activities affected elderlies interest to attend posyandu

(Sulistiyawati et al., 2014). Thus, communication training is needed so that cadres appear more appealing in carrying out their roles to attract the interested in attending posyandu.

On the workers role aspect, respondents who did not utilize elderly posyandu perceived poor workers role (60%) higher than the good ones. The Rank Spearman statistic test shows a relationship between workers role and elderly posyandu utilization ( $p\text{-value}<0.05$ ). This statement is relevant to a study of Winda Triana regarding the Relationship of Knowledge, Family Support, and Workers Role on Elderly Posyandu Utilization in Puskesmas Koni's Working Area in 2015 (Triana, 2015). The elderly community perceives that they only get basic examination in posyandu, and not treatments. Therefore, health care workers must strive to execute elderly posyandu activities according to their needs. health care workers are also obligated to provide guidance or training to cadres to improve each activity of elderly posyandu and improve elderlies interest to attend posyandu (Alhidayati, 2014). health care workers involvement in striving for the elderly posyandu activity coverage success is vital.

On the family support aspect, respondents who did not utilize elderly posyandu perceived poor family support (71.4%) higher than the good ones. The Rank Spearman statistic test shows a relationship between family support and elderly posyandu utilization. It follows a study of Rindha Mareta et al. regarding the Relationship of Family Support of Melati Putih Elderly Posyandu Utilization in Puskesmas Palaran Working Area of Samarinda City in 2018 (Mareta, 2018). The lack of attention from families is a factor affecting the attendance of elderlies to posyandu. Because families are often busy with their jobs, they are unaware of the posyandu schedule and cannot drive their parents to elderly posyandu. Family support to elderlies in maintaining their health status is one of the essential care needed by elderlies (Yusselda & Wardani, 2016). Cadres must remind families regarding the elderly posyandu schedule considering the family's preoccupation.

On the facility aspect, respondents who did not utilize elderly posyandu perceived poor facility (73.2%) higher than the good ones. The Rank Spearman test shows a relationship between the facility and elderly posyandu utilization ( $p\text{-value}<0.05$ ). The study result is relevant to a study of Dwi Endah Kurniasih regarding the Factors Affecting Elderly Communities to Choose the First-Degree health

care Facility in Bantul Yogyakarta (Kurniasih, 2018). Several respondents stated that facilities availability in elderly posyandu was still incomplete, and several posyandu were built in uncomfortable buildings. Facility availability in health care highly impacts society's re-visit interests (Ridwan et al., 2015). An accurate community self-help fund allocation may overcome the lack of facilities and affect facility availability in posyandu.

On the disease susceptibility aspect, respondents who did not utilize elderly posyandu perceived unsusceptible disease susceptibility (71.4%) higher than the susceptible ones. The Rank Spearman test shows a relationship between disease susceptibility and elderly posyandu utilization ( $p\text{-value}<0.05$ ). It is relevant to a study of Hana Maulida Muflikhah regarding the Factors Related to Elderly Posyandu Utilization in Bulusan Village, Tembalang Sub-District, Semarang city (Hana Maulida, 2016). Several respondents stated that they do not need elderly posyandu to observe their health regularly. The elderly community should regularly check their health status to well-maintain it, considering that elderlies are vulnerable to various diseases (Lailati Rohmah, 2016). The majority of study respondents were elementary school graduates and unemployed, which caused a lack of understanding of regular health check-ups importance. It is essential to provide understanding regarding disease risk factors and the importance of health monitoring of elderlies.

#### 4. Conclusion and Suggestion

There is a relationship between attitude, trust, access, cadres role, health care workers role, family support, facility, and perception of disease susceptibility with elderly posyandu utilization in working areas of six puskesmas of Semarang city.

It is necessary for the Health Office of Semarang city, Puskesmas of Semarang city, and elderly posyandu cadres to maximize elderly posyandu activities from its funding for activities and facilities from self-help funds; activity development of gymnastics and singing together; education to elderlies families through PKK meetings and recitations; communication training for cadres; understanding provision regarding risk factors; and officers assistance as the monitoring step. The downside of this research is that the quantitative method of data obtained lacks detail. Further research needs to

be developed using qualitative methods so as to describe the utilization of advanced posyandu in more detail and depth.

## 5. Acknowledgments

The author expresses gratitude to the Health Office of Semarang city, Puskesmas Poncol, Miroto, Halmahera, Krobokan, Bandarharjo, and Mangkang, which permitted the author to conduct this study.

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