

Factors related to the utilization of integrated health services among older people in Kendari City, Southeast Sulawesi Province, Indonesia

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Abstract

Background: Integrated health service, called *Posyandu*, is one of the efforts by the Indonesian Government to improve the health quality of older people. However, its utilization is not optimal. Thus, factors related to it warrant investigation.

Objective: This study aimed to identify factors related to the utilization of integrated health services for older people.

Methods: This study employed a cross-sectional design among 173 older people aged ≥ 60 registered as members of integrated health services in two areas in Kendari City, Southeast Sulawesi, Indonesia. Convenience sampling was applied, and data were collected from January to March 2022.

Result: There was a significant relationship between the older people's perception (AOR = 2.40; CI = 1.14-5.03; $p = 0.018$), family support (AOR = 2.73; CI = 1.23-6.02; $p = 0.028$), and cadres' role (AOR = 3.62; CI = 1.59-8.21; $p = 0.011$) with the use of integrated health services. Otherwise, treatment-seeking showed no relation with the utilization of integrated health services (AOR = 1.68; CI = 0.74-3.82; $p = 0.094$).

Conclusion: The significant factors revealed in this study can be used to improve the utilization of integrated health services for older people in the community. Education to change the perception of older people is needed, and family support and cadres' roles should be advanced to improve healthcare visits in order to increase health quality.

Keywords: integrated health services; older people; perception; family supporting; cadre

Background

Indonesia has the 8th largest population of older people in the world. Results of the population census in 2020 record that the number of older people in Indonesia reached 26.82 million or about 9.92 % of the total population. Then, in 2021 the population

increased to 29.3 million, equivalent to 10.82 % of the total population of Indonesia ([Badan Pusat Statistik, 2021](#)). With the population of older people, which is big enough, striving for a good quality of old life from a health perspective is essential. Therefore, one of the efforts is establishing integrated health services (*Posyandu*) for older people.

Posyandu for older people is an integrated service post for older people in a particular area where the process of formation and implementation is carried out by the community based on the needs and initiatives of the community itself (Khoirunisa, Karsidi, & Yusuf, 2019; Suparto, Azizah, Andriyani, Puspita, & Hermayanti, 2022). The implementation is through the community health center program involving the participation of older people, families, community leaders, and social organizations (Kementerian Kesehatan Republik Indonesia, 2015).

In the implementation of *Posyandu* for older people, several activities are conducted, including regular activity checking, mental status related to the emotional, nutritional status checking, measuring of blood pressure, and simple laboratory checking. Furthermore, there are other activities such as providing additional food (PMT), sports, and non-health activities, for example, spiritual exercises, social gathering, and gardening (Kementerian Kesehatan Republik Indonesia, 2015; Pangaribowo, Keban, & Darwin, 2020)

Based on Provincial Health Office data of Southeast Sulawesi, the number of people aged 60 years old and over 206,687 people in 2021. Meanwhile, Kendari contributed 16,242 people in the age group above 60 years old (Badan Pusat Statistik, 2021). However, the utilization of health services at integrated health services by older people is still not optimal, as illustrated by the visit achievement, which only reached around 70 % in 2020 (Dinas Kesehatan Kota Kendari, 2020).

Many factors affect older people's visits to health services, including the perception of older people, family support, and the role of Integrated health services cadres (Kurniawati & Hasanah, 2019; Pebriani & Amelia, 2020; Ratnawati, Safitri, & Karmelia, 2019). Other studies also reveal a significant relationship between knowledge, distance to the health services, and culture of treatment searching on accessing health services (Intarti & Khoriah, 2018; Marwati & Amidi, 2019; Wawomeo, Kurnia, Sekunda, & Fredimento, 2022).

This research aimed to identify factors related to the utilization of integrated health services for older people in Kendari City, Indonesia.

Methods

Study Design

A cross-sectional design was employed. This research was conducted from January to March 2022 in Kendari, Southeast Sulawesi Province. Of 11 public health centers in Kendari, two were chosen conveniently: Nambo Public Health Center and Puuwatu Public Health Center.

Samples

The target population of this research was all older people over 60 years who were registered as members of integrated health services in the study area. The sample size was determined using the sample size formula for a cross-sectional study (Pourhoseingholi, Vahedi, & Rahimzadeh, 2013). Considering 60 % (proportion of older people with a positive perception toward *Posyandu* was taken from a similar study (Muna, 2022), a confidence level of 95 %, and a precision of 0.10, the minimum sample size for this study was 92. Therefore, the total number of samples in this research was 173, consisting of 79 representatives from the integrated health services in the area of Nambo Health Center and 94 samples from the Integrated health services in the area of Puuwatu Health Center. The samples were selected non-randomly using a convenience sampling technique.

Instruments

Data were collected using a questionnaire where the researcher read out each question and noted the answers from the respondents. The questionnaire consists of several question items, which include socio-demographic characteristics, clinical information of the older people, perceptions of the older people, family support, the role of cadres, and treatment seeking.

To assess perception, family support, the role of cadres, and treatment seeking, we created questionnaires consisting of 10 questions for each variable. For the perception variable, the older people were asked to rate the quality of care of *Posyandu* in their living area using a Likert scale, and their responses were dichotomized into "good perception" and "poor". For the variable of seeking treatment, the questions were created to capture the older people's practices related to treatment seeking, and their responses were categorized into "modern treatment" and "traditional treatment".

Family support was assessed by asking the older people about their family-supportive behavior. The responses were recorded as “get support” and “do not get support”. All data were obtained directly from the older people, except for clinical data collected from the medical records of the older people at the Integrated health services. Clinical data were body mass index (BMI) and blood pressure.

Data Analysis

The collected data were entered into Microsoft Excel and loaded into SPSS version 16 for analysis. Binary logistic regression was used to identify confounding variables. Variables with p -value < 0.2 were further analyzed using multiple logistic regression using a significance level of p -value < 0.05 . Variables of age, gender, living status, state of health, education, and employment were used as controlled variables.

Ethical Consideration

The ethical consideration for this study has been secured by the Faculty of Public Health, Halu Oleo

University, Kendari, Indonesia. Each respondent has received an appropriate informed consent.

Results

The sample which participated in this research was 173 older people. All samples lived in and were registered at the integrated health services in the Nambo Health Center and Puuwatu Health Center as the research location.

Table 1 shows the characteristics of older people who participated in this research. Generally, respondents in both areas of the study were between 60-70 years old, female, and living with their families. More than half had a history of hypertension based on their health condition at the time of the research. In the case of education, most of the older people who had completed nine years of primary education with current employment status generally were no longer working.

Table 1 Socio-demographics characteristics and health status of older people

Characteristics	Nambo Health Center		Puuwatu Health Center		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Age					0.478
60-70 years	71	89.9	86	91.5	
>70 years	8	10.1	8	8.5	
Sex					0.850
Male	18	22.8	17	18.1	
Female	61	77.2	77	81.9	
Living status					0.151
Living with child	38	48.1	50	53.2	
Living with spouse	36	45.6	38	40.4	
Living alone	5	6.3	6	6.4	
Blood pressure					0.388
Non Hypertension	19	24.1	35	36.2	
Hypertension	60	75.9	60	63.8	
Body mass index (body weight/Height²)					0.930
Underweight	7	8.9	7	7.4	
Normal	29	36.7	30	31.9	
Overweight / Obesity	43	54.4	57	60.6	
Health condition					0.122
Good	14	17.7	20	21.3	
Poor	65	82.3	74	78.7	
Educational level					0.407
No education	8	10.1	4	4.3	
Primary education	43	54.4	64	68.1	
Secondary/High education	28	35.4	26	27.7	
Occupational status					0.571
Not working	71	89.9	84	89.4	
Working	8	10.1	10	10.6	

Table 2 shows the perception of older people, family support, the role of cadres, and treatment seeking. The majority of respondents had a fairly good perception of the existence of integrated health services for older people. Most respondents had families who provided sufficient support and attention so that the older people could regularly visit the health services. In terms of the role of cadres,

respondents generally assumed that Integrated health services cadres in their area took an active role in encouraging older people to see the advantage of the health check services available at the Integrated health services. In terms of treatment-seeking when they got sick, respondents generally preferred to use modern treatments rather than traditional treatments.

Table 2 Perceptions of the older people, family support, cadres' roles, and treatment seeking

Variables	Nambo Health Center		Puuwatu Health Center	
	<i>n</i>	%	<i>n</i>	%
Older people perception				
Good perception	28	35.4	30	31.9
Poor perception	51	64.6	64	68.1
Family support				
Did not get support from family	24	30.4	27	28.7
Get support from family	55	69.6	67	71.3
The role of cadres				
Did not have an active role	23	29.1	20	21.3
Have active role	56	70.9	74	78.7
Treatment seeking				
Use traditional treatment	22	27.8	22	23.4
Use modern treatment	57	72.2	72	76.6

Table 3 Multivariate analysis of factors related to the utilization of *Posyandu* for the older people

Variables	COR (95% CI)	<i>p</i>	AOR (95% CI)	<i>p</i>
The role of cadres				
Did not have an active role	Reference		Reference	
Have active role	2.56 (1.25-5.22)	0.010	3.62 (1.59-8.21)	0.002
Family support				
Did not get support	Reference		Reference	
Get support	2.03 (1.02-4.03)	0.042	2.73 (1.23-6.02)	0.013
Older people perception				
Good perception	Reference		Reference	
Poor perception	2.44 (1.25-4.74)	0.008	2.40 (1.14-5.03)	0.020
Treatment seeking				
Use traditional treatment	Reference		Reference	
Use modern treatment	1.72 (0.84-3.52)	0.135	1.68 (0.74-3.82)	0.212

AOR: Adjusted Odds Ratio; COR: Crude Odds Ratio; CI: Confidence Interval; *p*-value 0.05; analyzed using multiple logistic regressions by controlling variables of age, gender, living status, state of health, education, and employment

Table 3 shows the results of a multivariate analysis of factors related to the use of integrated health services for older people. Three variables were significantly associated with the visits of older people respondents to health services. Respondents who received encouragement and motivation from Integrated health services cadres (AOR = 3.62; 95% CI = 1.59-8.21; *p* = 0.002) tended to have a higher level of participation in regular visits to the integrated health services for the older people than the

respondents who received less encouragement from cadres.

Respondents who had families who supported them to see the advantage of the health services available at the Integrated health services (AOR = 2.73; 95% CI = 1.23-6.02; *p* = 0.013) also tended to make more frequent visits to the Integrated health services for the older people than the respondents who did not get support from their family. Respondents with a positive perception (AOR = 2.40; 95% CI = 1.14-

5.03; $p = 0.020$) of the existence of integrated health services for older people were more likely to make monthly visits than the respondents who had a poor perception. Multivariate analysis also found one variable not significantly related to older people's access to health services: treatment seeking for older people (AOR = 1.68; CI = 0.74-3.82; $p = 0.094$).

Discussion

Our research found a significant relationship between the role of Integrated health services cadres and the use of Integrated health services for older people. Quality services include good skills in conducting health checks and providing advice appropriate to the condition of the older people, affect the satisfaction of older people, and impact the routine of older people visits at the Integrated health services. The observations at the time of the research show that integrated health services cadres are skilled in serving the older people who visit Integrated health services and conduct all stages of service according to established procedures. These results are in line with the research conducted in other regions in Indonesia, including at the working area of Karangnanding Health Center, Central Bengkulu Regency (Giena, Pawiliyah, & Efrianto, 2021) and in Tikopo Village, Bokat District, Buol Regency (Purnama, Sudirman, & Yusuf, 2018)

This research also found a significant relationship between the perception of older people and the use of integrated health services. Field observations show that most respondents are aware of the importance of regular health monitoring and consider that Integrated health services are beneficial for them. Integrated health services at the Village/District level make it easier for older people to visit regularly. This finding is in line with a study conducted in Gedegan Village, Tlogomulyo District Temanggung Regency (Eti Rohaeti, 2021) and at the working area of Sukarame Public Health Center in Bandar Lampung (Ratnawati et al., 2019) which shows that there is a significant relationship between perception and participation of older people in Integrated health services for older people.

A positive response to the benefits of health services depends on the match between the expectations of older people and the services they receive. The

more appropriate the service provided to their expectations, the more positive their perception of health services will be. Respondents who are unsure about the benefits of health facilities may have an unpleasant experience with the results of the services provided, which can affect the level of older people's visits to health services.

We also found a significant relationship between family support and the use of Integrated health services for older people. The support system from the family is essential not only for physical health but also for the mental and emotional health of older people. Older people who come from families with sound support systems are more likely to make visits to the older people's integrated health services compared to those who do not get support from their families. This result is in line with the research conducted in the Kampeonaho Region at the working area of Kampeonaho Health Center in Baubau (Pebriani & Amelia, 2020) and in Jorong Lasi Tuo at the working site of Lasi Integrated health services for older people, Candung Sub-district, Agam Regency (Wartisa, Putri, & Triveni, 2017).

Family support can be in the form of financial support, assistance when the older people perform health checks, reminding the schedule of visits, and psychological support such as encouragement when the older people are lazy to carry out their routine checks.

The limitation of this research is that sampling using non-random techniques may cause the sample of older people selected not to be able to represent the older people population in Kendari. Therefore, for further research, a combination of quantitative and qualitative research to obtain deeper information about the factors that influence the participation of older people in using Integrated health services for older people is needed.

Conclusion

In this study, three variables, namely the older people's perception, family support, and the role of Integrated health services cadres, significantly related to the utilization of *Posyandu* by the older people. Therefore, improving the service quality of Integrated health services cadres needs to be conducted through regular training to refresh and increase cadres' knowledge and skills. Furthermore,

education about the benefits of regular health monitoring to Integrated health services should be aimed not only at older people but also at their families.

Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest in this study.

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Author Contribution

AA and DSE designed the research. AA performed the study and wrote the manuscript. DSE supervised the research. DSE, FM, IR, HL, and HB contributed to the statistical analysis and critical revision of the manuscript. All authors were accountable in each process of the study and agreed to the final version of the article to be published.

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