www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Determinants Related to Nutritional Status in the Elderly in Tongko Village, Lage District, Poso Regency

Anggri Alfira Yunitas Assa[1], Sabarulin Tarigan[2]
[1,2] *STIKES Bala Keselamatan Palu, Indonesia*
anggi87elif@gmail.com

Abstract

Many elderly people in Indonesia experience nutritional disorders, namely those who are undernourished (BMI 16.5 – 18.49) as much as 31% and overnutrition as much as 1.8%. Undernutrition is associated with certain diseases and functional disorders, but little is known about its relationship to nutritional intake and nutritional care among the elderly..Objective : This study was to determine the factors related to the nutritional status of the elderly in Tongko Village, Lage District, Poso Regency. Research Methods: The research design used was descriptive analytic with a cross sectional approach. The population in this study were elderly people aged 60 years and over who were in Tongko Village, Lage District, Poso Regency. The sampling technique used purposive sampling with 49 elderly respondents. Data analysis was carried out univariate and bivariate using Chi Square test with a significance value of 5% alpha (α = 0.05). Result: this study shows that there is a relationship between knowledge and nutritional status in the elderly (p = 0.007), there is no relationship between attitudes and nutritional status in the elderly (p = 0, 090) and there is no relationship between family support and nutritional status in the elderly (p=0,365). Conclusion: that there is a relationship between knowledge and nutritional status in the elderly, there is no relationship between attitudes and nutritional status in the elderly and there is no relationship between family support and the nutritional status of the elderly. Suggestion: for the elderly to be willing to receive information in order to develop themselves to fulfill good nutrition.

Keywords
elderly knowledge; elderly attitude; family support; elderly nutritional status

I. Introduction

The success of development is the ideals of a nation which can be seen from the improvement of the standard of living and life expectancy (UHH). However, this increase in UHH can lead to an epidemiological transition in the health sector due to the increasing number of morbidity due to degenerative diseases. One of the health transitions is the increase in the elderly population (elderly) with a decrease in mortality rates and a decrease in the number of births and an increase in UHH resulting in changes in the demographic structure (Ministry of Health RI, 2013). Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The proportion of the elderly population (over 60 years) is increasing from the total population worldwide. This proportion increased from 10% in 1998 to 15% in 2025, and

DOI: https://doi.org/10.33258/birci.v5i2.5092

almost reached 25% in 2050 (UNFA, 2007 in Fatmah 2010). The elderly population in Asia and the Pacific increased sharply from 410,000,000 in 2007 to 733,000,000 in 2025, and is predicted to reach 1.3 trillion in 2050 (Macao, 2007 in Fatmah, 2010).

In Poso Regency the number of Elderly in 2015, Pre-elderly 45-59 years was 15,457 people, Elderly 60 years and over were 14,048 people and the nutritional status of Elderly in Poso Regency were 1,520 people with over nutrition status and 3,988 people with less nutrition status (Profile Poso District Health). Based on data from the Tongko Village Health service, there are 98 elderly people aged 60 years and over and there is no data on the nutritional status of the elderly in Tongko Village.

Old age can be said to be a golden age, because not everyone can reach that age. Increasing age will be accompanied by a decrease in function and metabolism as well as body composition. These changes cause the need for nutrients and the amount of food intake to change. Paracha's research (2011) shows that there is an inverse relationship between age and nutritional status, the higher the age the lower the intake decreases with age. It was found that obesity, overnutrition, and undernutrition were 13.1%, 3.1% and 10.9%.

II. Research Method

DesignThe research used is descriptive analytic with a cross sectional approach. This descriptive study aims to determine the value of one or more variables, or to relate it to other variables (Sugiono, 2003). This study was conducted to determine the factors associated with nutritional status in the elderly.

2.1 Population, Sample and Research Sampling

a. Population

Population is a subject that meets the criteria that have been set (Nursalam, 2011). The population in this study was the elderly aged 60 years and over (Depkes RI) who resided in Tongko Village, Lage District, were 98 people.

b. Sample

The sample is part or the number of characteristics possessed by the population. If the population is large, and it is impossible for the researcher to study everything in the population, the researcher will take a sample from that population. For this reason, samples taken from the population must be truly representative (Sugiono, 2011). The size of the sample required is calculated using the Slovin formula according to (Notoadmodjo S, 2012).

BeBased on data obtained from Tongko Village, Lage District, Poso Regency in 2016, the number of elderly people is 98 people. Based on this formula, the sample size is 49 elderly people.

c. Sampling

Sampling is a sample selection process used in research from the existing population (A, Aziz Alimul Hidayat, 2012). The sampling technique was purposive sampling, namely sampling in accordance with the wishes of the researcher in accordance with the inclusion and exclusion criteria.

2.2 Place and time of research

The research location is in Tongko Village, Lage District, Poso Regency. Research and data collection was carried out on 5,6,7 March 2020

2.3 Data collection technique

1. Primary data
   a. Factors related to the nutritional status of the elderly were obtained by means of interview questionnaires.
   b. Data on the nutritional status of the elderly were obtained by means of anthropometric measurements.
   c. Anthropometric data for the elderly was obtained by measuring weight and height.
2. Secondary data

   Secondary data in the form of data on the number of elderly in Tongko Village, Lage District, Poso Regency.

2.4 Data analysis

The data analysis method is carried out as follows:

1. Univariate analysis was carried out on each variable from the results of the study using a frequency distribution table so as to produce the distribution and percentage of each research variable.
2. Bivariate analysis was conducted to test the hypothesis of the relationship between each independent variable studied and the dependent variable. Bivariate analysis will be carried out using the chi-square test. The chi-square test was used to determine whether or not there was a relationship between two variables using the SPSS program.

III. Result and Discussion

3.1 Respondent Characteristics

a. Age

Table 1. Distribution of Respondents Characteristics by Age In Tongko Village, Lage District, Poso Regency

Age	Frequency	Percent (%)
60-64 Years	19	38.8
65-69 Years	21	42.9
70-74 Years	9	18.4
Total	49	100.0

Source: Primary Data 2017

Based on table 1 above, it shows that of the 49 respondents judging by the age of the most respondents are aged 60-64 years as many as 19 respondents (38.8%), then aged 65-69 years as many as 21 respondents (42.9%) and age 70 -74 years as many as 9 respondents (18.4%).

b. Gender

Table 2. Distribution of Respondents Characteristics by Gender in Tongko Village, Lage District, Poso Regency

Gender	Frequency	Percent (%)
Man	24	51.0
Woman	25	49.0
Total	49	100.0

Source: Primary Data 2017

Based on table 2 above, it shows that from 49 respondents 25 people (51.0%) were female respondents, while 24 people (49.0%) were male respondents.

c. Education

Table 3. Distribution of Respondents Characteristics by Education In Tongko Village, Lage District, Poso Regency

Education	Frequency	Percent (%)
SD	33	67.3
JUNIOR HIGH SCHOOL	11	22.4
SENIOR HIGH SCHOOL	4	8.2
S1	1	2.0
Total	49	100.0

Source: Primary Data 2017

Based on table 3 shows that of the 49 respondents most of the primary education are 33 respondents (67.3%), then junior high school education is 11 respondents (22.4%), then elementary education is 4 respondents (8.2%) and those who have at least S1 education are 1 respondent (2.0%).

d. Weight

Table 4. Distribution of Respondents Characteristics based on Body Weight In Tongko Village, Lage District, Poso Regency

Weight	Frequency	Percent (%)
35-42 kg	20	40.8
43-50 kg	21	42.9
51-58 kg	4	8.2
59-66 kg	2	4.1
67-75 kg	2	4.1
Total	49	100.0

Source: Primary Data 2017

Based on table 4 shows that of the 49 respondents most of the respondents weighed 35-42 kg as many as 20 respondents (40.8%), then 43-53 kg as many as 21 respondents (42.9%), then 51-58 kg as many as 4 respondents (8.2%), then 59-66 kg as many as 2 respondents (4.1%) and 67-75 kg as many as 2 respondents (4.1%).

e. Height

Table 5. Distribution of Respondents Characteristics by Height In Tongko Village, Lage District, Poso Regency.

Height	Frequency	Percent (%)
140-146cm	10	20.4
147-153 cm	5	10.2
154-160 cm	25	51.0
161-166cm	8	16.3
167-172 cm	1	2.0
Total	49	100.0

Source: Primary Data 2017

Based on table 5 shows that of the 49 respondents most of the respondents have a height of 140-146 cm as many as 10 respondents (20.4%), then 147-153 cm as many as 5 respondents (10.2%), then 154-160 cm as many as 25 respondents (51.0%), then 161-166 as many as 8 respondents (16.3%) and 167-172 as many as 1 respondent (2.0%).

f. BMI

Table 6. Distribution of Respondents Characteristics based on BMI in Tongko Village, Lage District, Poso Regency

BMI	Frequency	Percent (%)
Thin	24	49.0
Normal	21	42.9
Fat	4	8.2
Total	49	100.0

Source: Primary Data 2017

Based on table 6, it shows that of the 49 respondents, most of the respondents had a thin BMI as many as 24 respondents (49.0%), then normal BMI as many as 21 respondents (42.9%), and fat BMI as many as 4 respondents (8.2%).

3.2 Univariate Analysis

a. Knowledge

Table 7. Frequency Distribution of Respondents based on Knowledge Variables in Tongko Village, Lage District, Poso Regency

Knowledge	Frequency	Percent (%)
Well	25	51.0
Not enough	24	49.0
Total	49	100.0

Source: Primary Data 2017

Based on table 7 shows that from 49 respondents who have good knowledge as many as 25 respondents (51.0%) and who have less knowledge as many as 24 respondents (49.0%).

b. Attitude

Table 8. Frequency Distribution of Respondents based on Attitude Variables In Tongko Village, Lage District, Poso Regency

Attitude	Frequency	Percent (%)
Positive	24	49.0
Negative	25	51.0
Total	49	100

Source: Primary Data 2017

Based on table 8, it shows that of the 49 respondents who have a Positive Attitude, as many as 24 respondents (49.0%) and those who have a Negative Attitude, as many as 25 respondents (51.0%).

c. Family support

Table 9. Frequency Distribution of Respondents based on Variables Family Support in Tongko Village, Lage District, Poso Regency

Family support	Frequency	Percent (%)
Well	26	53.1
Not enough	23	46.9
Total	49	100.0

Source: Primary Data 2017

Based on table 9 shows that of 49 respondents who have good family support as many as 26 respondents (53.1%) and who have less family support as many as 23 respondents (46.9%).

3.3 Bivariate Analysis

a. The Relationship between Knowledge and Nutritional Status in the Elderly in Tongko Village, Lage District, Poso Regency

Table 10. Distribution of the Relationship between Knowledge and Nutritional Status in the Elderly in Tongko Village, Lage District, Poso Regency

	BMI				
Knowledge	Thin	Normal	Fat	Total	Mark
	F %	F %	F %	F %	p
Well	7 28.0	16 64.0	2 8.0	25 100.0	
Not enough	17 70.8	5 20.8	2 8.3	24 100.0	0.007
Total	24 49.0	21 42.9	4 8.2	49 100.0	

Source: Primary Data 2017

Based on table 10 there are 25 respondents (100.0%) who have good knowledge and 24 respondents (100.0%) who have less knowledge. The number of respondents who have good knowledge with a thin BMI are 7 respondents (28.0%), then the number of respondents who have good knowledge with a normal BMI are 16 respondents (64.0%), and the number of respondents who have good knowledge with a fat BMI are 2 respondents (8.0%). Then the number of respondents who are less knowledgeable with a thin BMI are 17 respondents (70.8%), then the number of respondents who are less knowledgeable with a normal BMI are 5 respondents (20.8%) and the number of respondents who are less knowledgeable with a fat BMI are 2 respondents (8.3%). Based on the Chi square test, the p value = 0.007, because the p value <0.

b. The Relationship Between Attitude And Nutritional Status In The Elderly In Tongko Village, Lage District, Poso Regency

Table 11. Distribution of the Relationship between Attitudes and Nutritional Status in the Elderly in Tongko Village, Lage District, Poso Regency

	BMI				
Attitude	Thin	Normal	Fat	Total	Mark
	F %	F %	F %	F %	p
Positive	9 37.5	14 58.3	1 4.2	24 100.0	
Negative	15 60.0	7 28.0	3 12.0	25 100.0	0.090
Total	24 49.0	21 42.9	4 10.2	49 100.0	

Source: Primary Data 2017

Based on table 11 there are 24 respondents (100.0%) who have a positive attitude and 25 respondents (100.0%) who have a negative attitude. The number of respondents who have a positive attitude with a thin BMI are 9 respondents (37.5%), then the number of respondents who have a positive attitude with a normal BMI are 14 respondents (58.3%), and the number of respondents who have a positive attitude with a fat BMI is 1 respondent (4.2%). The number of respondents who have a negative attitude with a thin BMI are 15 respondents (60.0%), then the number of respondents who have a negative attitude with a normal BMI are 7 respondents (28.0%) and the number of respondents who have a negative attitude with a fat BMI is 3 respondents (12.0%). Based on the Chi square test, the p value = 0.090, because the p value <0.

2. Relationship Between Family Support and Nutritional Status of the Elderly in Tongko Village, Lage District, Poso Regency

Table 12. Distribution of Relationship between Family Support and Nutritional Status in the Elderly in Tongko Village, Lage District, Poso Regency

	BM				
Family support	Thin	Normal	Fat	Total	Mark
	F %	F %	F %	F %	p
Well	12 46.2	13 50.0	1 3.8	26 100.0	
Not enough	12 52.2	8 34.8	3 13.0	23 100.0	0.365
Total	24 49.0	21 42.9	4 8.2	49 100.0	

Source: Primary Data 2017

Based on table 12 there are 26 respondents (100.0%) who have good family support and 23 respondents (100.0%) who have less family support. The number of respondents who have good family support with a thin BMI are 12 respondents (46.2%), then the number of respondents who have good family support with a normal BMI are 13 respondents (50.0%), and the number of respondents who have good family support with BMI fat there is 1 respondent (3.8%). The number of respondents who have less family support with a thin BMI are 12 respondents (52.2%), then the number of respondents who have less family support with a normal BMI are 8 respondents (34.8%) and the number of respondents who have less family support with a BMI fat there are 3 respondents (13.0%). Based on the Chi square test, the p value = 0.365.

IV. Conclusion

Based on the results of research and discussion of research factors related to the nutritional status of the elderly in Tongko Village, Lage District, Poso Regency, the following conclusions can be drawn:

1. There is a relationship between knowledge and the nutritional status of the elderly in Tongko Village, Lage District, Poso Regency with a p value = 0.007.
2. There is no relationship between attitudes and the Nutritional Status of the Elderly in Tongko Village, Lage District, Poso Regency with a p value = 0.090.
3. There is no relationship between family support and the nutritional status of the elderly in Tongko Village, Lage District, Poso Regency with p value = 0.365.

References

Almatsier, S.(2006). Prinsip Dasar Ilmu Gizi. Jakarta : Gramedia Pustaka Utama

Arikunto, S. (2008). Prosedur Penelitian Suatu Pendekatan Pratik. Jakarta : Rineka Cipta

Azwar, S. (2005). Sikap Manusia. Yogyakarta : Pustaka Belajar

Darmajo Boedhi, & Hadi Martono. (2000). Ilmu Kesehatan Usia Lanjut Edisi Lima. Jakarta: Fakultas Kedokteran. Universitas Indonesia.

Darmojo Boedhi, & Hadi Martono. (2006). Buku Ajar Geriatri, Ilmu Kesehatan Usia Lanjut, Jakarta. Fakultas Kedokteran. Universitas Indonesia.

Departement Kesehatan RI. (2010). Pedoman Kesehatan Usia Lanjut Bagi Petugas Kesehatan. Jakarta

Depkes, RI. (2003). Pedoman Tata Laksana Gizi Usia Lanjut Untuk Tenaga Kesehatan, Direktorat Gizi Masyarakat Dirjen Bina Kesehatan Masyarakat, Depkes RI, Jakarta.

Dewa Nyoman, (2002.) Penilaian Status Gizi. Jakarta Kedokteran EGC.

Elva, S. (2010). Status Gizi Lanjut Usia Di Daerah Pedesaan, Kecamatan Porsea, Kabupaten Toba Samosir, Provinsi Sumatera Utara Tahun 2010. FKM UI

Fatmah, (2010). Gizi Usia Lanjut. Jakarta: Erlangga

Hidayat, A.Aziz. (2011). Metode Penelitian Kebidanan Teknik Analisa Data . Jakarta : Salemba Medika

Ibrahim H. Moha, (2014). Hubungan Dukungan Keluarga Dengan Pemenuhan Kebutuhan Nutrisi Pada Lansia di Kelurahn Biyonga Kecamatan Limboto Kabupaten Gorontalo.

Jack Gosal, (2016). Hubungan antara Pengetahuan dan Sikap Dengan Status Gizi Lansia Di Wilayah Kerja Puskesmas Bitung Barat Kecamatan Masea Kota Bitung. Fakultas Keperawatan, USIT

Keliat . (1996). Peran Serta Keluarga dalam Perawatan Klien Gangguan Jiwa. Jakarta :EGC

Maryam, RS. & Fatma Ekasari. (2008). Mengenal Usia Lanjut dan Perawatannya. Jakarta. Salemba Medika.

Milne A, et al. (2006)Meta-Analysis: Pretein and Energy Suplementation in Older People. Ann Intern Med.; 13(1):1-15

Noorkasiani, Tamher. S. (2011). Kesehatan Usia Lanjut Dengan Pendekatan Asuhan Keperawatan. Jakarta: Salemba Medika

Notoatdmojo, S. (2007). Promosi Kesehatan dan Ilmu Perilaku, Jakarta : PT. Rineka Cipta.

Notoatdmojo, S. (2012). Metodologi Penelitian Kesehatan, Jakarta : PT. Rineka Cipta.

Notoatmodjo, S. (2013). Ilmu Kesehatan Masyarakat Prinsip-prinsip Dasar. Jakarta: Rineka Cipta

Nursalam, (2011). Metode Penelitian Ilmu Keperawatan. Jakarta : Salemba Medika

Saryono. (2008). Metode Penelitian Kesehatan. Yogyakarta : Mitra Cendikia

Shah, M. et al. (2020). The Development Impact of PT. Medco E & P Malaka on Economic Aspects in East Aceh Regency. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). P. 276-286.transkultural. Jakarta : EGC

Sudiharto. (2007). Asuhan Keperawatan Keluarga dengan Pendekatan Keperawatan

Sugiono. (2011). Statistika Penelitian. Bandung : CV. Alfabeta.

Sugiyono, (2011). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : Afabeta, cv.

Sugiyono. (2013). Statistik untuk Penelitian. Bandung : Alfabeta, cv.

Suhardjo. (1989). Pangan, Gizi dan Pertanian. UI Press. Jakarta

Suharyono. (2008). Pengetahuan Gizi. Jakarta : PT. Rineka Cipta

Supariasa. (2001). Penilaian Status Gizi. Jakarta Kedokteran EGC.