

# The Relationship Between Diet And Physical Activity With Quality Of Life In The Elderly In Glintang Village, Sambu Boyolali District

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## Abstract.

Elderly are those who have reached the age of 60 and over. Central Java is one of eight provinces in Indonesia that has entered the old population structure, with the percentage of the elderly population reaching 14.17%, and will continue to increase every year. An increase in the quantity of the elderly must be balanced with an increase in the quality of life of the elderly. There are several factors that may affect a person's quality of life, such as eating patterns and physical activity. The purpose of this study was to determine the relationship between eating patterns and physical activity with quality of life in the elderly in Glintang Village, Sambu Boyolali District. This study used cross-sectional analytic observation, with 46 elderly respondents. The data was processed using rank-spearman test. The questionnaires in this study used the Food Frequency Questionnaire (FFQ), the Global Physical Activity Questionnaire (GPAQ), and the WHOQOL-BREF Questionnaire. The results of the analysis using the rank-spearman test showed that there was no relationship between eating patterns and the quality of life of the elderly with a  $p=0.359$  ( $p>0.05$ ) and there was a relationship between physical activity and the quality of life of the elderly with a value of  $p=0.001$  ( $p <0.05$ ). The majority of the elderly in Glintang Village, Sambu Boyolali District have good BMI, eating patterns, physical activity, and quality of life. There is no relationship between eating patterns and quality of life in the elderly and there is a relationship between physical activity and quality of life in the elderly in Glintang Village, Sambu Boyolali District.

**Keywords :** *Quality of life of the elderly, Diet and Physical activity.*

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## I. INTRODUCTION

The elderly are people who have age Year to according to Number 13 of 1998 concerning Continue. Based on the results of the activity Social National, The National Labor Force Population (SP) and projections In 2021, Central Java became one province that entered the old population structure of 14.17% [1]. One of the regions in Central Java with a percentage of the elderly is more than 10%, namely Boyolali Regency. Based on the population census data of Boyolali Regency, in 2020 there were 145,754 residents aged 60 years and over out of 1,062,713 residents (13.7%) in Boyolali. Glintang Village, Sambu District, is one of the villages in Boyolali Regency that has entered the structure of the elderly population as much as > 35% [2]. An individual's assessment of pleasure and satisfaction in life and the environment in which he lives is referred to as quality of life [3]. Quality of life based on the World Health Organization Quality of Life (WHOQOL), can be assessed from four main components, namely physical, psychological, social, and environmental.

According to the Ministry of Health, a good diet is one that is balanced and has many of the same components [4]. The same indicates adequacy in quantity and quality, with appropriate energy, protein, vitamins, and minerals [5]. Diet has a great influence on a person's nutritional status, and one study in Iran explained that the nutritional status of the elderly has an influence on quality of life[6]. In addition to diet, physical activity is also an influential factor in the quality of life of the elderly. physical is consistently associated with capacity, live sum, past, present, future, relationship Mental, and psychological state, according to a systematic review of research articles on physical activity of the elderly from 2000 to 2012 [7]. In addition, the research of Kuan et al., which used -BREF Measure the level. The elderly life, emphasized that physical exercise has a great influence on the quality of life of the elderly [6]. this, considers to a study entitled " between Diet and with Life in the in Glintang Village, Sambu Boyolali District".

## II. METHODS

Is an in the form of analytical observation of *the cross sectional* method. This research was carried out in November 2022 in Glintang Village, Sambu Boyolali District. The population of this study is elderly community in Glintang Village, Sambu Boyolali District. This sample was taken using *a consecutive sampling* technique of 46 samples. The inclusion criteria in this study were that people aged 60-74 years in Glintang Village, Sambu Boyolali District, did not have chronic diseases, did not take drugs that affect weight, and did not depend on others. Meanwhile, the exclusion criteria are not willing to be a respondent and not communicative. This study used *Frequency* for dietary variables, *Global Physical Activity Questionnaire* (GPAQ) for physical activity variables, and *WHOQOL-BREF Questionnaire* for quality of life variables. This study uses *i* analysis *i* and bivariate *rank spearman*. This research has received permit from of Medicine Unimus with No. 088/EC/KEPK-FK/UNIMUS/2022.

## III. RESULT AND DISCUSSION

### A. Univariate Analysis

Table 1. Univariate

Variable	Freq.	%	Mean $\pm$ SD	Median (min – max)
<b>Age</b>			65.09 $\pm$ 4.45	63 (60 – 74)
<b>Gender</b>				
Male	19	41.3		
Female	27	58.7		
<b>BMI</b>				
Underweight	6	13.0		
Normal	36	78.3		
Overweight	4	8.7		
<b>Eating Pattern</b>				
Poor	6	13.0		
Adequate	32	69.6		
Excessive	8	17.4		
<b>Physical Activity</b>				
Light	12	26.1		
Moderate	9	19.6		
Heavy	25	54.3		
<b>Quality of Life</b>				
Low	11	23.9		
Moderate	6	13.0		
High	29	63.0		

In table 1, the majority of respondents are 65 years old. The majority were female, with a total of 27 respondents (58.7%), as many as 36 respondents (78.3%) in this study had a normal BMI, namely 32 respondents (69.6%) had an adequate diet, namely 25 respondents (54.3%) in this study had heavy physical activity, and 29 respondents (63%) had a high quality of life.

### B. Bivariate Analysis

Table 2. The Relationship between Diet and Life in, Sambu Boyolali District.

Eating Pattern	Quality of Life			Total	p	r
	Low	Moderate	High			
Poor	5	0	1	6	0,358	0,139
Adequate	2	6	24	32		
Excessive	4	0	4	8		
Total	11	6	29	46		

Based on table 2, it was found that the results of *the spearman's* correlation between diet and quality of life produced a *p value* of 0.358 and  $r = 0.139$ , *i p value*  $> 0.05$  that there was no between diet and quality of life.

**Table 3.** iPhysical and Life in Glintang Village, Sambu Boyolali District

Physical Activity	Quality of Life			Total	p	r
	Low	Moderate	High			
Light	9	3	0	12	0,001	0,602
Moderate	0	0	9	9		
Heavy	2	3	20	25		
Total	11	6	29	46		

Based on table 3, it was found that the results of the correlation *of* intermediate *iqi* *iqi*, *iqi value*  $< 0.001$  and  $r = 0.602$ , *p value*  $< 0.05$ , *i* there is a positive relationship between physical quality in, Sambu Boyolali District.

### Discussion

From the results of the diet analysis quality at Glintang, Sambu Boyolali District, uses a test *Rank Spearman* get results there is no dietary relationship quality at Glintang, Sambu Boyolali District. The results of this study are in line with previous research, based on bivariate results between diet and live in the research produced *P value* 0.303 ( $p > 0.05$ ). Diet is absent with Living for the elderly in Wonokromo [8]. Meanwhile, the results of This is in contrast to other results, where from the results of the bivariate between diet and quality of life in the elderly in the study, *value* 0.000 ( $p < 0.05$ ), meaning The relationship between diet and the quality of life of the elderly. with a good diet has live higher than the elderly eat good [9]. A good diet, according to the Indonesian Ministry of Health, includes staples, side dishes, fruits and vegetables, and consumed in quantities as needed. Nutritious food for the elderly must also include various elements such as calories, carbohydrates, fiber, protein, fat, vitamins and minerals. Perhaps this is one of the reasons why this study obtained no results between Dine with Live on, this may happen because in this study only assesses the diet based on the average daily calorie consumption and does not count other nutrients consumed by the elderly in the village [10]. From the results of the analysis physical activity and i life in Glintang Village, Sambu Boyolali District with the *spearman rank test*, the results were obtained that there was a strong positive relationship between i-physical and of life in.

Results of this study with the previous research, where from the results of the statistical test in the study obtained *P value*  $< 0.05$ , exist between physical with quality of life in [11]. In addition to the study, there are other studies in which the results of statistical tests in the study found an improvement in the quality of life of the elderly from before to after doing physical activity, from the initial 62.8% to 65.25%. So, physical activity affects the quality of life of the elderly [12]. Physical exercise according to WHO has a very vital function and is well done, especially for adults and the elderly, because the older a person is, the more likely it is that the person will be attacked by diseases. Meanwhile, doing enough physical exercise can help a person avoid or reduce the risk of disease. One of the benefits of doing enough physical activity for health is that physical activity can strengthen the heart. The stronger the heart, it only needs a little effort to pump more blood, and the less heart work, the less arterial blood pressure so that it can minimize one of the diseases commonly experienced by the elderly, namely hypertension. In addition to being good for health, doing enough physical activity is also good for a person's psyche, enough physical activity can reduce the risk of stress in a person.

Therefore, it can be concluded that physical effects with elderly life [13]. The majority of the elderly in Glintang Village, Sambu Boyolali District, do strenuous physical activities every day, this happens because the majority of the elderly in the village work as farmers, which according to *the Global Physical Activity Questionnaire (GPAQ)* gardening/farming is classified as strenuous physical activity. They admitted that in a day they work in the rice fields for approximately 5-6 hours, especially during the harvest season, they can work for more than 6 hours every day. In addition to working in the rice fields, sometimes they also go to the garden every day to plant or pick their crops to sell or consume. Therefore, it is not surprising that

the majority of the elderly in Glintang Village, Sambu Boyolali District, do quite strenuous physical activities every day and have a good quality of life, because sufficient daily physical activity can improve the quality of life of the elderly, especially in the domains of physical health, psychological health, and social health.

#### IV. CONCLUSION

There is a between and of life elderly in Glintang Village, Sambu Boyolali District. There was no between diet and life in Glintang Village, Sambu Boyolali District.

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