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## Original Articles

### DEMOGRAPHIC CHARACTERISTICS AND INDEPENDENT ACTIVITIES OF ELDERLY'S DAILY LIFE IN NURSING HOMES: A CROSS SECTIONAL STUDY

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**Abstract**

**Background:** The independence of the elderly in carrying out their daily activities can show the ability of the elderly to fulfill their needs independently. There are several variables related to the independence of the elderly, both from internal and external of the elderly.

**Objective:** This study aimed to determine the relationship between age, gender, educational level, history of disease, independent activities of the elderly's daily life.

**Methods:** This study used a correlational research design with a cross-sectional study approach. This research was conducted at UPT PMKS Mojopahit Mojokerto from March to April 2022. The target population in this study were all elderly people living in UPT PMKS Mojopahit Mojokerto. The sampling technique used by the researchers was purposive sampling technique, in order to obtain a total sample of 25 elderly people. This study used demographic data and the Katz independence index as instruments. The statistical test used in this study was the Pearson Product Moment Correlation Test.

**Result:** Based on the research data, it was found that only age was related to the independent activities of the elderly's daily life ( $r = .578$ ,  $p\text{-value} = .002$ ).

**Conclusion:** Age is the main variable that can affect the changes experienced by an elderly person, so that it can affect the ability of the elderly to carry out their daily activities.

## INTRODUCTION

Elderly is someone who is > 60 years old and has experienced changes physiologically, socioeconomically, psychologically, and spiritually (Riesmiyatiningdyah et al., 2022). With these changes, the elderly will experience difficulties in carrying out their daily activities, starting from difficulties in moving, difficulty remembering, the emergence of diseases caused by decreased organ function, depression, and many other difficulties (Merdiekawati, 2008). There are several factors that can affect the difficulty of an elderly person in meeting the needs of their daily activities, including age, health, knowledge/cognitive, social support (including family support, closest friends support, and support from the surrounding environment), economy, excessive stressors, and others (Kodri &

Rahmayati, 2017; Sekunda, 2022; Sonza et al., 2020). This condition will be exacerbated by the elderly who do not live with their families, for example living in nursing homes (Murtiyani et al., 2022).

Based on the above, the researchers conducted a study that aimed to determine the relationship between age, gender, educational level, and history of diseases with the independence of the elderly in daily activities in nursing homes.

## **METHODS**

### ***Study Design***

The design of this study used correlational research with a cross sectional approach.

### ***Settings***

This research was carried out at UPT PMKS Mojopahit Mojokerto from March to April 2022.

### ***Research subject***

The population in this study were all elderly people living at UPT PMKS Mojopahit Mojokerto. Purposive sampling technique was used in determining the sample of this study. Purposive sampling was chosen in this study because the researchers provided several criteria/considerations for determining the sample in conducting this study. The inclusion criteria set by the researchers in determining research respondents were the elderly who were able to carry out their daily activities independently with minimal assistance and were able to participate in the research until it was completed. Based on these criteria, the sample in this study was 25 people.

### ***Instruments***

The instrument used in this study was in the form of demographic data containing age, gender, educational level, and history of disease. To measure the independent activities of elderly's daily life, researchers used the Katz independence index which contains a checklist of six basic daily activities, including bathing, dressing, going to the toilet, moving, continence, and eating (Wallace et al., 2007). Based on the checklist on the Katz independence index, the level of activity daily living is divided into 7 levels.

### ***Data collection***

In the process of collecting data, the researchers informed the purpose of the study and asked the respondents for their consent. The researchers also explained about the rights of the respondents in this study. The researchers guaranteed the confidentiality of the respondent's data. After obtaining approval from the respondents, the researchers began to collect data by distributing questionnaires in the form of demographic data and conducting observations for data on the independence of the elderly in carrying out daily activities.

### ***Data Analysis***

The statistical test used in this study was Pearson Product Moment Correlation with a significance level of  $\alpha < 0.05$ .

**Ethical Consideration**

This research has been approved by the research ethics commission from the Health Polytechnic of Kerta Cendekia with the number 072/KEPK/KC/III/2022.

**RESULTS**

*Examining the Relationship between Age, Gender, Educational Level, and History of Disease with the Independent Activities of Elderly's Daily Life in Nursing Homes (UPT PMKS Mojopahit Mojokerto) from March until April 2022 using Pearson Product Moment Correlation.*

**Table 1.** The Relationship between Age, Gender, Educational Level, and History of Disease with the Independent Activities of Elderly’s Daily Life in Nursing Homes (UPT PMKS Mojopahit Mojokerto) from March until April 2022.

Research Variable	Independent Activities of Elderly’s Daily Life								r	p-value
	Fully Independent		Less Independent in One Activity		Less Independent in Two Activities		Less Independent in Three Activities			
	f	%	f	%	f	%	f	%		
Age									-.578**	.002
51-60 Years	1	4.00	0	0.00	1	4.00	1	4.00		
61-70 Years	7	28.00	2	8.00	3	12.00	0	0.00		
≥ 71 Years	10	40.00	0	0.00	0	0.00	0	0.00		
Gender									-.064	.759
Male	8	32.00	1	4.00	2	8.00	0	0.00		
Female	10	40.00	1	4.00	2	8.00	1	4.00		
Educational Level									-.192	.357
No School	8	32.00	0	0.00	1	4.00	0	0.00		
Elementary School	8	32.00	1	4.00	2	8.00	1	4.00		
Junior High School	0	0.00	1	4.00	0	0.00	0	0.00		
Senior High School	2	8.00	0	0.00	1	4.00	0	0.00		
History of Disease									.317	.122
No Disease	4	16.00	1	4.00	1	4.00	1	4.00		
Diabetes Mellitus	2	8.00	0	0.00	2	8.00	0	0.00		
Hypertension	4	16.00	1	4.00	0	0.00	0	0.00		
Gout	1	4.00	0	0.00	1	4.00	0	0.00		
Cholesterol	1	4.00	0	0.00	0	0.00	0	0.00		
Other Disease	6	24.00	0	0.00	0	0.00	0	0.00		

\*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

Sources: Primary Data, 2022.

Based on the research data in table 1, it was found that most of the respondents in this study were aged 61-70 years as many as 12 respondents (48.00%), but there were also those aged ≥ 71 years as many as 10 respondents (40.00%). In terms of gender and educational level, most of the research respondents were female, 14 respondents (56.00%) and 12 respondents (48.00%) had an elementary

school level of education. For history of disease, most respondents did not have a history of disease as many as 7 respondents (28.00%).

Based on the research data above, it was found that only age had a relationship with independent activities of the elderly's daily life ( $r = -.578$ ,  $p\text{-value} = .002$ ). Meanwhile, gender, educational level, and history of disease are not related to independent activities of elderly's daily life ( $r = -.064$ ,  $p\text{-value} = .759$ ;  $r = -.192$ ,  $p\text{-value} = .357$ ;  $r = .317$ ,  $p\text{-value} = .122$ ; respectively).

## DISCUSSION

Based on the results of the research above, it was found that age has a relationship with the independent activities of the elderly's daily life. From the results of this study, it was also found that the relationship between age and the independent activities of the elderly's daily life is a negative relationship. This can be interpreted that the older a person's age can result in a decrease in ability in independent activities of the elderly's daily life. Age will affect the function of the organs of the human body, so that it can cause a decrease in the ability of the elderly in fulfilling the activities of the elderly's daily life. The results of this study are in accordance with research conducted by Purnanto & Khosiah (2018) which states that there is a relationship between age and the level of independence of the elderly on the fulfillment of Activity Daily Living (ADL). Susyanti & Nurhakim (2019) in their research results also said that most of the elderly who live in Social Institutions for Elderly Rehabilitation aged 60 years and over have a moderate level of independence. According to Widyastuti & Ayu (2019), elderly aged 60-70 years often experience increased dependence on fulfilling Activity Daily Living (ADL) caused by their illness, for example Cerebrovascular Accident (CVA), dyslipidemia, and others.

The results also showed that there is no relationship between gender and independent activities of elderly's daily life. Gender is not a barrier for the elderly in independent activities of the elderly's daily life. According to Purnanto & Khosiah (2018), male and female sexes have the same ability in independence to carry out their daily activities. The results of this study are also supported by the results of research conducted by Suardana (2013) which states that gender has no relationship with independent activities of elderly's daily life. Suardana reasoned that in this gender factor there are previous factors that encourage an elderly person to be able to carry out their daily activities. However, the results of this study contradict the opinion of Darmojo & Martono (2004) which states that men will have a greater level of dependence than women and that dependence increases with age.

Based on the research results, the educational level is not related to the independent activities of the elderly's daily life. The level of education will affect the level of understanding of an elderly towards fulfilling their daily needs. However, the increased understanding of the elderly did not have an impact on the ability of the elderly to carry out their daily activities. This statement is in line with the results of research conducted by Purnanto & Khosiah (2018). Purnanto and Khosiah said that the level of education will affect an elderly person's ability to obtain information and manage this information for

their benefit. However, the ability of the elderly in managing information does not have an impact on the independence of the elderly in carrying out their daily activities.

The results of this study indicated that there is no relationship between history of diseases and independent activities of elderly's daily life. The ability of the elderly to fulfill Activity Daily Living (ADL) is often related to the precursor factors that enable them to fulfill Activity Daily Living (ADL) independently. In addition, the elderly who have a history of disease are able to adapt to the conditions they experience when they have had the disease for a long time. With these adaptations, an elderly person will still be able to fulfill the Activity Daily Living (ADL). The results of this study are different from the results of research conducted by Jumita et al. (2012). Jumita et al. states that the health condition of the elderly has a relationship with the independence of the elderly in carrying out their daily activities. This is related to the complaints felt by the elderly due to their illness, so that the elderly experience a decrease in their ability to fulfill their Daily Living Activity.

### **LIMITATION**

There is no limitation.

### **CONCLUSION**

In this research, it was found that age is related to independent activities of the elderly's daily life. This proves that age is the main variable that can affect the changes experienced by an elderly person, so that it can affect the ability of the elderly to carry out their daily activities.

This research was conducted in a limited setting and number of respondents, namely only in one nursing home. Further research is needed with larger research setting and number of respondents. In fact, a comparative study is needed between several settings so that the research can be used in general. In addition, health workers still pay attention to the age side in providing assistance to the elderly in carrying out their daily activities.

### **AUTHOR CONTRIBUTION**

**Kusuma Wijaya Ridi Putra:** Literature review, design of the work, investigation, analysis and interpretation data, and drafting the work.

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### **CONFLICT OF INTEREST**

The researchers stated that there was no conflict of interest in conducting this research.

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