THE COMPARISON OF HEALTH STATUS AND INDEPENDENCE BETWEEN THE ELDERLY IN THE NURSING HOMES AND LIVING WITH FAMILY

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ABSTRACT

Background: The elderly period is a gift in human life because not all humans can experience this period. The elderly period experience changes in anatomical and physiological functions, so the elderly are very vulnerable to health problems. Many factors cause health problems in the elderly, including decreased function of the elderly and elderly health problems that can affect the independence of the elderly in carrying out daily activities. This study aims to describe the health status and independence of the elderly in nursing homes and living with their families.

Method: This research is a descriptive analytic study with an elderly population. The number of respondents in this study were 19 elderly living in nursing home and 13 elderly living with their families. Data collection was carried out at one time, which are: measuring blood pressure, blood sugar levels, blood cholesterol, blood uric acid, and the independence of the elderly.

Result: The results showed that the health status of the elderly living in nursing homes was 19 people (100%) had normal blood sugar levels, 5 people (26%) had normal cholesterol levels, 8 people (42%) had normal uric acid levels, 9 people (47 %) had normal blood pressure, and independence shows that 10 people (53%) had the independence to carry out daily activities. The results of research at the elderly post for the data collection on the elderly living at home showed that 27 people (87%) had normal blood sugar levels, 16 people (52%) had normal cholesterol levels, 18 people (58%) had normal uric acid levels, 18 people (58%) had normal blood pressure, and independence showed that 31 people (100%) had the independence to do their daily activities. There are differences in the health status and independence of the elderly who live in nursing homes and those who live with their families.

Conclusion: The elderly who live with their family have better health and independence status than the elderly who live in nursing homes. For this reason, efforts are needed to improve the health status and independence of the elderly at nursing homes by holding regular health checks and practicing activities that can stimulate the independence of the elderly.

Keyword: elderly, health status, independence, nursing homes
INTRODUCTION

An elderly person is someone who has reached the age of 60 years and above. The elderly population in Indonesia is increasing every year\(^1\). The prediction of the elderly population in Indonesia in 2025 is 33.65 million people\(^2,3\). The increase in the elderly population causes problems, especially in the health sector, namely the emergence of problems with degenerative diseases or non-communicable diseases such as diabetes mellitus, hypertension, and mental health disorders (such as, dementia, depression, anxiety disorders, sleep difficulties). Health problems in the elderly who do not immediately get treatment for curative and preventive efforts can cause chronic and multi-pathological diseases, thus affecting the independence of the elderly in carrying out daily activities of the elderly\(^4\).

Aging or growing old is the process of changing body functions that include biological, physiological, mental, and psychological due to age addition that occurs naturally and can affect the health status of the elderly. Changes that occur in the aging process include:

1. Physical changes, including: a decrease in the number, function, and size of cells; decrease in body fluids and intracellular fluids; decrease in the proportion of protein in the body; decrease in the number of brain cells.

2. Changes in the functioning of body organs, including: a decrease in innervation function characterized by a decrease in nerve cells in the brain and the reduction of the five senses nerves; decreased hearing system due to atrophy of the tympanic membrane; a decrease in the vision system is characterized by a decrease in the pupil response to light, turbidity of the lens of the eye, an increase in the threshold of vision to light, a decrease in accommodation power, a decrease in field of view; a decrease in the circulatory system and cardiac activity is characterized by thickening and stiffness of the cardiac cathode, a decrease in the elasticity of the aortic wall, a decrease in the ability of the heart to pump blood, a decrease in cardiac output, a decrease in vascular elasticity, vascular resistance; the temperature regulation system is characterized by limited shivering reflexes so that the elderly are prone to hypothermia; a decrease in the respiratory system is characterized by a decrease in the activity of the cilia of the respiratory tract, a decrease in the elasticity of the lungs, a dilation of the size of the alveoli, a decrease in the elasticity of the bronchi, a decrease in reflexes and the ability to cough; the digestive system is characterized by tooth loss, decrease in taste buds, dilation of the esophagus, decreased sensitivity of hunger; a decrease in the reproductive system and a decrease in the camping system; decrease in the endocrine system; decrease in the integument and skin system; decrease in the musculoskeletal system.

3. Changes in psychological status, including: mental changes; psychosocial changes; spiritual change.

Changes that occur in the elderly due to the aging process can cause problems, such as easy falls, fatigue, discomfort, metabolic disorders, and psychological disorders. Problems arising from the aging process can affect the independence of the elderly. So that the health status of the elderly is closely related to the independence of the elderly\(^5-7\).

The health status of the elderly is a state of well-being of body, soul, and social that allows every elderly person to be socially and economically productive. Improving the health status of the elderly can be done by improving the social welfare of the elderly which aims to extend the life expectancy and productive period of the elderly, by realizing the
independence, welfare and health of the elderly. Efforts to improve the welfare of the elderly can be held in social care institutions or nursing homes and the community\cite{1}.

The independence of the elderly in carrying out daily activities is influenced by social conditions, family support, and the health conditions of the elderly. Social conditions affect the independence of the elderly because good social conditions can create feelings of happiness and hope for the elderly\cite{8}. Social conditions are shown by the participation of family, friends of the same age and society in creating a conducive social environment for the elderly to carry out communication and social interaction. Family support can affect the independence of the elderly because family support can improve the health condition of the elderly. However, for the elderly who do not have family, support from friends, neighbors and the community is indispensable to maintain and improve the health condition of the elderly. Health conditions affect the independence because healthy elderly people can carry out daily activities independently without the help of others\cite{8}.

The health status of the elderly can be maintained and improved in the elderly who live with family or the elderly who live in social care institutions or nursing homes with participation from family, friends, neighbors and the community. The elderly with good health status can affect the independence of the elderly in carrying out daily activities.

The purpose of this study was to determine differences in the health status and independence of the elderly in nursing homes and the elderly who live with their families.

\section*{METHODS}

This study is a descriptive analytical study with the elderly population in nursing homes and living with families. Sample in this study was determined using the total sampling technique of the elderly population in nursing home Aisyiyah and the elderly who live with family and are present in assessment of health status and independence at the RW 20 Elderly Post, Jebres District. The number of respondents in this study was 50 elderly consisting of 19 elderly living in Aisyiyah nursing home and 31 elderly living with their families and attending the RW 20 Elderly Post in the Jebres sub district. The researcher chose the research location in the Aisyiyah nursing home and the RW 20 elderly post in the Jebres sub district because these two locations are locations that provide routine health checks for the elderly.

Data collection is carried out by measuring blood pressure, blood sugar levels, blood cholesterol levels, and blood uric acid levels. The results of blood pressure measurements are adjusted to the classification of blood pressure from the Ministry of Health of the Republic of Indonesia. The results of measuring blood sugar levels, blood cholesterol levels, and levels are adjusted to standards on the GCU easy touch tool that has been licensed by the Ministry of Health of the Republic of Indonesia. Data collection on the independence was carried out using the interview method using the Activity Daily Life questionnaire. The Activity Daily Life questionnaire used is in accordance with the standard Katz Index of Independence in Activities of Daily Living which is used in examining the ability of individuals to carry out daily activities which include bathing, dressing, toileting, transferring, continence, and feeding.

Data analysis was carried out to describe blood pressure, blood sugar levels, blood cholesterol levels, blood uric acid levels and the independence in the
elderly in nursing home Aisyiyah and the elderly who live with families present at the Post Elderly RW 20 Jebres District by using excel.

RESULT
The results of this study are shown in the form of diagrams.

**Figure 1.** Results of Blood Pressure Measurement in the Elderly at the Aisyah Nursing Home in 2021 (Number of respondents = 19 people)

**Figure 2.** Results of Blood Pressure Measurement in the Elderly at the RW 20 Elderly Post, Jebres District in 2021 (Number of Respondents = 31 people)

**Figure 3.** Results of Blood Sugar Examination for the Elderly at the Aisyah Nursing Home 2021 (Number of respondents = 19 people)

**Figure 4.** Results of Blood Sugar Examination for the Elderly at the RW 20 Elderly Post, Jebres District in 2021 (Number of Respondents = 31 people)

**Figure 5.** Results of Blood Cholesterol Examination in the Elderly at the Aisyah Nursing Home 2021 (Number of respondents = 19 people)
DISCUSSION

The results of the study in figures 1 to 8 show that blood pressure in the elderly in nursing home Aisyah nursing home of 53% has blood pressure above normal or high values, 0% have high blood sugar levels, 74% have high blood cholesterol levels, 58% have high blood uric acid levels. And 42% of the elderly living with families have blood pressure above normal or high blood, 13% have high blood sugar levels, 48% have blood cholesterol levels high, 42% have high blood uric acid levels.

The results of the study showed the health status of the elderly. The health status of the elderly is a state of well-
being of body, soul and social that allows the elderly to live a socially and economically productive life\textsuperscript{11}. The health status of the elderly indicates the health condition of the elderly and the diseases suffered by the elderly. The health status of the elderly includes the type of disease, the frequency of the disease and the length of time they have been sick\textsuperscript{9}. The health status of the elderly can be studied by examining body mass index (BMI), blood pressure, blood sugar, uric acid, and cholesterol\textsuperscript{10}. The results of measuring blood pressure, blood sugar levels, blood cholesterol levels, blood uric acid levels indicate metabolic processes in the body that are at risk causes the appearance of a disease. The health status of the elderly is influenced by the lifestyle of the elderly, such as healthy lifestyle, diet, physical activity, sports activities, habits rest, smoking history and regular health checks\textsuperscript{11–13}. Apart from the behavioral factors of the elderly, the health status of the elderly is also influenced by family support, such as emotional support, appreciation support, informational support, and instrumental support.\textsuperscript{14} The health status of the elderly determines the ability of the elderly to carry out their daily activities. Elderly who have good health status will be more independent in carrying out daily activities. The health status of the elderly is related to the independence of the elderly in carrying out their daily activities\textsuperscript{5}.

The elderly's ability to do things on their own. The independence of the elderly is an integral part of the personality of the elderly that affects personal identity, integrity and responsibility. The independence of the elderly can be defined as an independence, independent action with strong authority control over the choices and actions carried out by the elderly. The independence of the elderly is supported by resources obtained from family, friends and the community.\textsuperscript{15} The independence of the elderly is influenced by age, health status or condition, ability to mobilize the elderly, family and social support, race, level of education, marital status and cultural aspects or social conditions\textsuperscript{8,9,16–19}.

Based on figure 9 and figure 10, the results showed that the elderly in nursing home Aisyiyah 53% have a good level of independence and the elderly who live with families 100% have a good degree of independence. The results of this study are in accordance with previous studies, that the health status and independence of the elderly have a mutually influencing relationship in determining the quality of life of the elderly. And in maintaining the quality of life of the elderly, family, community and community support is needed.

The results showed that the elderly in nursing home Aisyiyah and the elderly living with families need monitoring of health status and independence to assess the welfare of the elderly. Efforts to monitor the health status and independence of the elderly can be carried out by carrying out integrated services that require cooperation from all parties to maintain and improve health, well-being and independence of the elderly.\textsuperscript{20} Support from various parties can make the elderly feel happier and more prosperous\textsuperscript{21}.

The results of this study are a comparison of the results of the health status and independence of the elderly who live in nursing homes and live with their families. The elderly who live in nursing homes have less quantity and quality to get family support than the elderly who live with family. So from the results of the study, it can be seen the effect of family support on the health status and independence of the elderly.

**CONCLUSION**

The elderly who live with their family have better health and independence status compared to the elderly who live in nursing homes. Improving the health status
and independence of the elderly requires family, friends, and social support.

ACKNOWLEDGMENTS

We would like to thank LPPM UNS for providing funding for this research activity. As well as the administrators of the Aisyiyah Nursing Home nursing home and the elderly post cadre of RW 20 Jebres sub district who have assisted the research process in data collection activities.

The limitation of this research is that it does not involve the elderly's supporting environment such as family, friends, and health workers in the data collection. So that the research results are only based on data and information from the elderly.

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