

THE RELATIONSHIP BETWEEN OLDER ADULTS' INDEPENDENCE AND THEIR ABILITY TO PERFORM ACTIVITIES OF DAILY LIVING (ADL) AT RUMAH BAHAGIA KAWAL, BINTAN REGENCY IN 2024

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Abstrak

Older adults are individuals aged 60 years and over who have entered the later stage of life and may experience a decline in functional independence. A preliminary survey at Rumah Bahagia Kawal, Bintan Regency, identified 38 older adults, consisting of 26 women and 12 men, with varying levels of ability to perform Activities of Daily Living (ADL). This study aimed to determine the relationship between the level of independence of older adults and their ability to perform ADL at Rumah Bahagia Kawal, Bintan Regency, in 2024. This study employed an observational analytic design with a cross-sectional approach. The sample consisted of 38 older adults selected using total sampling. Data were analyzed using univariate and bivariate analyses with the Chi-square test. The results showed that 26 older adults (68.4%) had a high level of independence, while 12 (31.6%) had a low level of independence. Regarding ADL ability, 3 older adults (7.9%) were totally dependent, 7 (18.4%) severely dependent, 7 (18.4%) moderately dependent, 10 (26.3%) mildly dependent, and 11 (28.9%) were independent. The Chi-square test showed a significant relationship between the level of independence and ADL ability ($p=0.000 < 0.05$). Therefore, there is a significant relationship between older adults' independence and their ability to perform ADL.

Keywords: Ability, Activity of Daily Living, Carrying out, Elderly, Independence

Cite this Article Fikri, M et al. (2026). The Relationship Between Older Adults' Independence and Their Ability to Perform Activities of Daily Living (ADL) at Rumah Bahagia Kawal, Bintan Regency in 2024. *Zona Keperawatan: Program Studi Keperawatan Universitas Batam*,16(3), pp. 144-153. Retrieved from <http://ejurnal.univbatam.ac.id/index.php/Keperawatan/article/view/xxx>

Introduction

The March 2023 Susenas data shows that 11.75% of the population is elderly, and population projections show an elderly dependency ratio of 17.08%. This means that every 100 people of productive age (aged 15-59) support approximately 17 elderly people. There are more female elderly than male elderly (52.82% compared to 47.72%), and there are more elderly in urban areas than in rural areas (55.35% compared to 44.65%). A total of 63.59 percent of elderly are classified as young elderly aged 60-69, 27.76% are middle elderly aged 70-79, and 8.65% are elderly aged 80 and above. Yogyakarta is the province with the largest proportion of elderly at 16.69%, followed by East Java and Central Java (Central Statistics Agency, 2023). Meanwhile, according to Susenas in 2021, the number of elderly people in the Riau Islands was 5.53% of the total population in the Riau Islands (BPS Riau Islands, 2021).

According to the Head of the Coordinator of Social Welfare Activities (K3S) Bintan, Dewi Kumalasari Ansar, the number of elderly (Lansia) in Bintan Regency has reached 11,443, divided into women and men. This large number of elderly is being handled in stages by the Bintan Regency Government (Pemkab) by accommodating them at the Bintan Happy House, Karang Rejo Village, Kawal Subdistrict, Gunung Kijang District (Yuli Eka Yani and Ratna Dewi Silalahi, 2018).

Changes in body organs in the elderly can affect the elderly's ability to perform Activities of Daily Living

(ADL) is a measurement of activities carried out routinely by humans every day that are important for self-care, namely bathing, toileting, dressing and moving (Stanley, 2006 in Nina Dwi Setiany, et al., 2016). The elderly's ability to perform Activities of Daily Living (ADL) affects the quality of life of the elderly (Dewi, 2014). Quality of life is a person's personal perception of his life based on personal values and beliefs that cover all areas of life such as environmental and material components, physical, mental and social components. The concept of quality of life is closely related to successful aging which is generally always associated with physical health, independence and functional ability (Dewi, 2014).

The results of the pre-survey of researchers at Rumah Bahagia Kawal Bintan, the number of elderly people is 38 people, of which elderly grandmothers number 26 people and elderly grandfathers 12 people. Some elderly cannot do their activities because they are sick, some elderly can do moderate activities because they use wheelchairs, and elderly activities that cannot do Activity of Daily Living (ADL) because the elderly are sick so they need help from others and some elderly can do daily activities independently. From the data above, the author is interested in conducting research with the title "The Relationship between the Level of Independence of the Elderly and the Ability to Carry Out Activity of Daily Living (ADL) at Rumah Bahagia Kawal, Bintan Regency in 2024.

Research Methods

The research design used was quantitative with a cross-sectional approach. The data were collected through observation using an observation sheet. The population in this study was all elderly people at Rumah Bahagia Kawal, Bintan Regency. The sample in this study used research subjects taken using the Total Sampling technique with a total of 38 people. Data analysis used the Chi-square test. This study was conducted in accordance with the ethical principles for research involving human participants. Ethical approval was obtained from the Komite Etik Penelitian Kesehatan Universitas Batam No. 167/LPPMUNIBA/PI-EC/XI/2024. All participants were informed about

the purpose and procedures of the study, and their participation was voluntary. Confidentiality and privacy of participants' information were maintained throughout the research process.

Research Results

The results of the study entitled "The Relationship between the Level of Independence of the Elderly and the Ability to Carry Out Activities of Daily Living (ADL) in Rumah Bahagia Kawal, Bintan Regency in 2024" obtained data on the frequency distribution of respondents as follows:

1. Univariate Analysis

Table 4.1. Frequency Distribution of Independence Level

Knowledge	Frequency (f)	Percentage (%)
High Independence	26	68,4
Low Independence	12	31,6
Total	38	100

Based on the results of table 4.1 above, it can be explained that from 38 elderly people, the results are,

high elderly independence is 26 (68.4%), and low elderly independence is 12 (31.6%).

Tabel 4.2. Frequency Distribution of Ability to Perform of Daily Living (ADL)

Kemampuan Melaksanakan ADL	f	Persentase
Total Dependence	3	7,9%
Western Dependence	7	18,4%
Moderate Dependence	7	18,4%
Light Dependence	10	26,3%
Self-Dependence	11	28,9%
Total	38	100%

Based on the results of Table 4.2 above, it can be explained that out of 38 elderly people, the ability to perform ADLS was 3 (7.9%) with total dependence, 7 (18.4%) with severe dependence, 7 (18.4%) with

moderate dependence, 10 (26.3%) with mild dependence, and 11 (28.9%) with independence.

2. Bivariate Analysis

The Relationship Between the Level

of Independence of the Elderly and the Ability to Perform Activities of Daily Living (ADL) at the Happy

Kawal Home, Bintan Regency in 2024.

Table 4.3. The Relationship Between the Level of Independence of the Elderly and the Ability to Perform Activities of Daily Living (ADL) at the Happy Kawal Home, Bintan Regency in 2024

Relationship between the Level of Independence of the Elderly	Kemampuan Melaksanakan ADL										Total	P- Value	
	Total Dependence		Western Dependence		Moderate Dependence		Light Dependence		Self- Dependence				
	n	%	n	%	n	%	n	%	n	%	n	%	
High Independence	0	0	0	0	6	23,1	9	34,6	11	42,3	26	100	0,000
Low Independence	3	25	7	58,3	1	8,3	1	8,3	0	0	12	100	
Total	3	7,9	7	18,4	7	18,4	10	26,3	11	28,9	38	100	

The results of table 4.3 above can be seen that the number of respondents was 38 elderly people with a high level of independence of the elderly with the ability to carry out Activity of Daily Living (ADL) which totaled 0 (0%), the severe as many as 0 (0%), the moderate as many as 6 (23.1%) and the mild as many as 9 (34.6%) and the independent as many as 11 (42.3%) of 26 elderly (100%).The lowlevel of independence of the elderly with the ability to carry out Activity of Daily Living (ADL), the total obtained results as many as 3 (25%), the severe as many as 7 (58.3%), the moderate as many as 1 (8.3%) and the mild as many as 1 (8.3%) and the independent as many as 0 (0%) of 12 elderly (100%).

The results of the statistical test with Chi-Square obtained a p value = 0.000 <0.005, it can be concluded that Ho is rejected, meaning that there is a relationship between the level of independence of the elderly

and the ability to carry out activities of daily living (ADL) at the Happy Kawal House, Bintan Regency in 2024.

Discussion

Research Findings on Level of Independence Among the Elderly

Based on the research results presented in Table 4.3, it can be seen that among the 38 elderly participants, 26 (68.4%) demonstrated a high level of independence, while 12 (31.6%) demonstrated a low level of independence.

Independence is the ability or state in which an individual can manage or handle their own affairs without relying on others. An independent elderly person is one who is healthy in the broad sense and remains capable of managing their personal life. Independence among the elderly encompasses the ability to perform activities of daily living, such as

bathing, personal grooming, dressing, toileting, transferring, controlling bowel and bladder functions, climbing stairs, mobilizing or walking, and eating (Sari and Andica, 2013).

The results of this study align with research conducted by Rohaedi et al. (2016) regarding the level of independence among the elderly (aged 60–69) in performing Activities of Daily Living (ADL); the findings indicate that the majority-15 individuals (72%)—exhibited partial dependence, while 3 (14%) were independent, and another 3 (14%) were totally dependent. Thus, the majority of elderly residents at the Tresna Wredha Senjarawi Social Institution demonstrated partial dependence in carrying out their daily activities.

Research findings by Bahriah (2024) indicate that, among 52 respondents, more than half (51.9%) of the elderly individuals at the Mappakasunggu Social Service Center for the Elderly were independent. This high proportion of elderly individuals with a level of independence aligns with research conducted by Suryani (2018), which found that 51.9% of elderly respondents in institutional care were independent in performing daily activities.

The findings of this study are also almost the same as those conducted by Astika and Lestari, which shows that the level of elderly independence in the independent category using the Katz index is 29 (56.9%) in the independent category elderly people can carry out daily activities including the ability to use

the telephone, shop, prepare food, do housework and manage finances, independent of others and the environment. The ability to control one's own or other people's activities is called independence, while partial dependence is 22 (43.1%) in other cases requiring the help of others.

Independence is the ability or state in which an individual is able to manage or address their own needs without relying on others. An independent elderly person is an elderly person whose health, in the broad sense, is still able to lead a personal life. Independence in the elderly includes the elderly's ability to perform daily activities such as: bathing, cleaning themselves, dressing, toileting, transferring, controlling bowel movements and urination, climbing stairs, mobilizing or walking, and eating (Sari and Andica, 2013).

The results of the research obtained from previous theories and research are in line, that the number of elderly in the happy home from half of the elderly independence is high as many as 26 (68.4%). In the happy home of Bintan, more than half can do their activities independently, this is because the elderly in the happy home of Bintan already have activities that have been arranged and scheduled so that the elderly in the happy home of Bintan.

Ability to Perform Activities of Daily Living (ADL)

The results of this study showed that, among the 38 older adults, 3 (7.9%) were totally dependent in performing Activities of Daily Living (ADL), 7 (18.4%) were severely dependent, 7

(18.4%) were moderately dependent, 10 (26.3%) were mildly dependent, and 11 (28.9%) were independent. These findings indicate that the participants had varying levels of functional ability, with the largest proportion being classified as independent.

Activities of Daily Living (ADL) refer to routine activities performed throughout a normal day, including ambulation, eating, dressing, bathing, brushing the teeth, and grooming. These activities are essential for fulfilling personal needs and maintaining an individual's role within the family and community. The need for assistance in performing ADL may result from acute, chronic, temporary, permanent, or rehabilitative conditions (Potter & Perry, 2015).

The findings are consistent with those reported by Rohaedi et al. (2016), who examined the level of independence in performing ADL among older adults aged 60–69 years at the Tresna Werdha Senja Rawi Social Institution. Their study found that 15 older adults (72%) experienced partial dependence, while 3 (14%) were independent and 3 (14%) were totally dependent. In contrast, Wibowo (2018), in a study conducted among older adults at Posyandu Lansia RW 1 and RW 3, Gadingkasri Village, found that 70 older adults (92.1%) had a high level of independence in performing ADL. This high level of independence was associated with relatively good physical conditions and the absence of physical health problems that interfered with daily activities.

Physical condition is an important factor influencing the functional independence of older adults. Older adults with good physical functioning generally have greater opportunities to perform daily activities independently. Conversely, physical limitations or health problems may increase the need for assistance in performing ADL. The findings of the present study are generally consistent with the theoretical perspective and previous research. The relatively high proportion of older adults who were able to perform ADL independently, particularly the 11 participants (28.9%) classified as independent, may be related to their relatively good physical condition and ability to carry out daily activities at Rumah Bahagia Bintan. These findings highlight the importance of maintaining physical and functional capacity among older adults to support independence in performing daily activities.

Relationship Between Older Adults' Independence and Their Ability to Perform Activities of Daily Living (ADL)

The results of the Chi-square test showed a statistically significant relationship between the level of independence of older adults and their ability to perform Activities of Daily Living (ADL) at Rumah Bahagia Kawal, Bintan Regency, in 2024 ($p < 0.000$). This finding indicates that older adults with higher levels of independence tend to have better abilities to perform daily activities, whereas those with lower levels of independence are more likely to require assistance in performing ADL.

Increasing age is accompanied by physiological changes that may affect the functional capacity of older adults. Declines in the function of the nervous and musculoskeletal systems, including reductions in muscle mass and bone density, may limit mobility and increase the risk of osteoporosis and fractures (Dewi, 2014). These age-related changes can consequently affect the ability of older adults to perform ADL and maintain functional independence.

Reduced physical and functional capacity may increase dependence on others for daily activities. Older adults with significant mobility limitations may require assistance with personal care and other routine activities. Prolonged bed rest may also increase the risk of complications associated with immobility. Faridah, Sukarmin, and Murtini (2019) reported that prolonged pressure in individuals with limited mobility can impair blood circulation and contribute to pressure injury development. Therefore, maintaining mobility and providing appropriate repositioning and assistance are important aspects of nursing care for older adults with functional limitations.

The findings of this study are comparable with previous research, although differences were observed across study settings. Alfyanita et al. (2016), in a study conducted at Panti Sosial Tresna Werdha Sabai Nan Aluih Sicincin, reported that 45.5% of older adults were independent, while 54.5% were categorized as nonindependent. In contrast, Marlina, Mudayati, and Sutriningsih (2017) found that 57.6% of older

adults were independent in performing ADL, while 33.3% experienced mild dependence and 9.1% experienced moderate dependence.

The present findings generally support the results of previous studies, indicating that independence is closely associated with the ability to perform ADL. At Rumah Bahagia Kawal, most older adults demonstrated a relatively high level of independence, and this was reflected in their ability to perform daily activities. In this study, 10 older adults (26.3%) demonstrated mild dependence in performing ADL, while 11 (28.9%) were independent. Older adults with lower levels of independence tended to require greater assistance, ranging from partial to substantial assistance, in performing daily activities.

The relatively good ability to perform ADL among the older adults at Rumah Bahagia Kawal may be supported by the structured daily activities provided at the institution. Regularly scheduled activities may encourage older adults to remain active and perform daily tasks according to their functional capacity. Thus, maintaining independence through structured activities and appropriate nursing support is important to help older adults preserve their functional abilities and perform ADL as independently as possible.

Conclusion

Based on the findings of this study, the following conclusions can be drawn:

1. Most of the older adults at

- Rumah Bahagia Kawal, Bintan Regency, had a high level of independence, comprising 26 participants (68.4%).
2. Regarding the ability to perform Activities of Daily Living (ADL), 11 older adults (28.9%) were classified as independent, while the remaining participants demonstrated varying levels of dependence.
 3. There was a statistically significant relationship between the level of independence of older adults and their ability to perform Activities of Daily Living (ADL) at Rumah Bahagia Kawal, Bintan Regency, in 2024, with a $p\text{-value} = 0.000 < 0.05$. This finding indicates that a higher level of independence is associated with a better ability to perform daily activities.

Recommendation

As additional knowledge to always pay attention to the elderly so that they can carry out Activities of Daily Living (ADL) at the Happy Kawal Home independently and the results of this study are expected to be used as basic data for the development of science, especially regarding independence in carrying out sports activities in the elderly.

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