



The Relationship Between Independence in Daily Activities and Quality of Life Among The Elderly at Budi Mulia 1 Senior Living Facility

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Abstract

Older adults experience various physical, psychological, and social changes associated with the aging process, which may reduce their ability to perform daily activities and subsequently affect their quality of life. Independence in Activities of Daily Living (ADL) is an important indicator of functional ability, particularly among older adults living in residential care facilities. This study aimed to examine the relationship between independence in daily activities and quality of life among older adults at PSTW Budi Mulia 1. This research employed a quantitative analytical design with a cross-sectional approach. The instruments used were the Barthel Index to assess independence in ADL and the Short Form-36 (SF-36) Health Survey to measure quality of life across eight domains. The sample consisted of 61 older adults who met the predetermined inclusion and exclusion criteria at PSTW Budi Mulia 1. Data were analyzed using Pearson's correlation test. The results showed a strong, positive, and significant relationship between independence in daily activities and quality of life among older adults at PSTW Budi Mulia 1, with a correlation coefficient of $r = 0.639$ and a significance value of $p = 0.000$. Higher levels of independence in performing daily activities were associated with better quality of life among older adults. These findings may serve as a basis for developing occupational therapy interventions aimed at improving functional ability, participation, and well-being among older adults in residential care settings.

INTRODUCTION

The elderly population in Indonesia has increased significantly from year to year. The Central Statistics Agency (2024) reported that the number of older adults reached 29.3 million people, accounting for 10.8% of the total population, and is projected to increase to 48.2 million people by 2045. This demographic transition requires improvements in healthcare services, rehabilitation programs, and social support systems to maintain functional independence and quality of life among older adults. The World Health Organization (WHO, 2021) emphasizes that quality of life among older adults is strongly influenced by the ability to maintain independent daily functioning as part of healthy aging.

With increasing age, the ability of older adults to perform daily activities tends to decline. Basic Activities of Daily Living (ADLs), such as bathing, dressing, eating, and mobility, may become challenging for older adults with certain health conditions. This decline can directly affect independence and self-esteem while increasing the risk of dependence on others.

Quality of life is a multidimensional concept that encompasses physical health, psychological well-being, social relationships, and environmental factors. Older adults with good quality of life tend to experience greater happiness, remain socially engaged, and report higher life satisfaction. Conversely, reduced independence may negatively affect daily functioning and social interactions, potentially decreasing quality of life through increased loneliness and dependence on others.

The aging process involves physiological, psychological, cognitive, and sensorimotor changes that may affect the ability of older adults to perform basic Activities of Daily Living (ADLs), including bathing, eating, dressing, mobility, and elimination control (Stanley & Beare, 2017; Guyton & Hall, 2016). Reduced ADL performance may increase dependence on others and affect emotional well-being, self-esteem, and social participation. From an occupational therapy perspective, ADLs represent fundamental components of occupational performance and significantly influence overall functioning (AOTA, 2020).

The relationship between independence and quality of life can be understood through the Person–Environment–Occupation–Performance (PEOP) Model. The PEOP model explains that occupational performance results from interactions among individual factors, environmental conditions, and occupational activities. Among older adults, physical changes such as frailty, impaired balance, or chronic diseases may affect individual capacity and reduce the ability to perform ADLs. In addition, residential care environments with limited facilities, social support, or opportunities for participation may influence occupational performance. Decreased ADL performance may subsequently affect quality of life across physical, psychological, social, and environmental domains. Therefore, the PEOP model provides a relevant theoretical framework for understanding how reduced independence among older adults may contribute to decreased quality of life (Bass et al., 2024; Cheong & Yu, 2025; Christiansen et al., 2024; King et al., 2026; Moon et al., 2026).

Independence in daily activities has been shown to have a significant relationship with quality of life. Individuals who are able to perform ADLs independently tend to have greater self-confidence, higher perceived control, and better social participation, which may contribute to improved quality of life (Ware & Sherbourne, 2021). Conversely, dependence on others may contribute to social isolation, reduced self-esteem, and increased risks of psychological problems.

Several studies have supported these findings. Darazat et al. (2025) found a significant relationship between independence levels and all domains of quality of life. Sumbara et al. (2019), Nurlianawati (2021), and Setiawati and Sri (2021) also reported that higher ADL independence was associated with better quality of life among older adults. Linata and Jalalin (2020) further demonstrated that independent older adults had a greater likelihood of achieving good quality of life compared with those requiring assistance.

Panti Sosial Tresna Werdha (PSTW) Budi Mulia 1 is an institution that provides care and support services for older adults. These services include healthcare, social activities, and empowerment programs designed to maintain older adults' independence. However, the level of independence among older adults living in residential care varies depending on physical conditions, psychological factors, and environmental support (Haghnia & Olfat, 2025; Moilanen et al., 2021; Nordin et al., 2017; Van Loon et al., 2021).

Reduced independence among older adults not only affects quality of life but may also increase the risk of health and psychological problems. Older adults who depend on others are more likely to experience anxiety, depression, and decreased motivation. Therefore, maintaining ADL independence is an important aspect of older adult care. Research examining the relationship between ADL independence and quality of life among older adults at PSTW

Budi Mulia 1 is important for identifying factors associated with their well-being (Amelia, 2020; Fadilla & Sianturi, 2026; Harini et al., n.d.; Murwani, 2020; Yuliati et al., 2026).

With the increasing older adult population and challenges related to maintaining independence in daily activities, PSTW Budi Mulia 1 requires evidence regarding the relationship between independence and quality of life among its residents. This research is expected to provide scientific evidence to support decision-making, program planning, and appropriate interventions aimed at improving independence and quality of life among older adults in residential care settings. Residential care environments may present challenges for older adults, including reduced family support, changes in routines, limited social interaction, and restricted access to functional support facilities. Therefore, empirical research is needed to specifically examine the relationship between ADL independence and quality of life among older adults living in residential care facilities.

Based on this background, this study was important for providing scientific evidence regarding the relationship between ADL independence and quality of life among older adults in residential care settings. The findings are expected to support the development of occupational therapy-based intervention programs that are more effective in improving function, participation, and well-being among older adults.

This study addressed research problems regarding the level of ADL independence among older adults at PSTW Budi Mulia 1, their quality of life, and the relationship between ADL independence and quality of life. The research hypothesis stated that H_0 indicated no significant relationship between ADL independence and quality of life, whereas H_1 indicated a significant relationship between the two variables. Generally, this study aimed to examine the relationship between ADL independence and quality of life among older adults at PSTW Budi Mulia 1. Specifically, the study aimed to assess respondent characteristics, determine ADL independence levels, evaluate quality of life, and analyze the relationship between the two variables. The findings are expected to benefit researchers by improving understanding of the role of ADL independence in supporting quality of life among older adults and the application of occupational therapy principles in geriatric care. In addition, this research contributes to the development of scientific knowledge in occupational therapy and older adult health and may serve as a reference for students and healthcare professionals in developing evidence-based interventions. For the community, the findings are expected to increase awareness of the importance of maintaining independence in daily activities as a factor supporting improved quality of life among older adults.

METHOD

Types of Research

The study employed a quantitative approach with a survey method and correlational design. Data were collected using validated instruments, namely the Barthel Index to assess independence in Activities of Daily Living (ADL) and the SF-36 Health Survey to measure quality of life among older adults. The study aimed to examine the relationship between ADL independence and quality of life among older adults at PSTW Budi Mulia 1 Cipayung. Data analysis was conducted to determine the association between the two variables objectively.

Population and Sample

The population in this study is all elderly people living in PSTW Budi Mulia 1 Cipayung with a total of 61 people. The sample determination technique uses purposive sampling, which is the selection of respondents based on certain criteria that have been set by the researcher. The inclusion criteria include the elderly who are registered as residents of PSTW Budi Mulia 1, aged 60–80 years, have a level of independence based on the Barthel Index with a score of ≥ 60 , and are willing to become research respondents by signing informed consent. The exclusion criteria are the elderly who have comorbidities such as dementia, Parkinson's, and Alzheimer's. Although based on the calculation using the Slovin formula with an error rate of 5%, a minimum sample requirement of 53 respondents was obtained, this study used the entire population that met the criteria, namely 61 respondents, so that the results of the study are expected to be more representative and have a smaller sampling error rate.

Data Collection Techniques

Data collection was carried out using primary data obtained directly from respondents through structured interviews and filling out questionnaires. The researcher assessed the level of independence of daily activities using the Barthel Index which consisted of 10 components of basic activities, such as eating, bathing, dressing, mobility, and elimination control. Furthermore, the quality of life of the respondents was measured using the SF-36 Health Survey which covered eight domains, namely physical function, limited role limitations due to physical problems, body pain, general health perception, vitality, social function, limited role limitations due to emotional problems, and mental health. During the data collection process, the researcher assisted the respondents in filling out questionnaires and making communication adjustments according to the respondents' conditions, including providing assistance to the elderly who have hearing loss or difficulty understanding questions, so that the data obtained remains accurate without changing the meaning of the research instrument.

Data Analysis Techniques

Data analysis was carried out after all data was collected through several stages, namely editing, scoring, coding, tabulating, and data entry into the Statistical Package for the Social Sciences (SPSS) software. The editing stage was carried out to check the completeness and consistency of respondents' answers, while scoring was used to give a score to each answer according to the instrument guidelines. Furthermore, coding and tabulating were carried out to facilitate the process of grouping and presenting data in the form of tables and frequency distributions. Descriptive analysis was used to describe the characteristics of respondents, the level of independence of daily activities, and the quality of life of the elderly. To test the relationship between the variables of independence of daily activities and quality of life, the Pearson Product Moment correlation test was used because the two variables were in the form of numerical data. The results of the analysis were then interpreted to determine the direction, strength, and significance of the relationship between the two variables studied.

RESULTS AND DISCUSSION

Univariate Analysis

1. Respondent Characteristics

To determine the distribution of respondents based on age and gender, the researcher presented data in the form of a table so that the characteristics of respondents could be seen more clearly and systematically. Table 1 shows an overview of the distribution of respondents in PSTW Budi Mulia 1.

Table 1. Characteristics of Respondents

Characteristics	Categories	Frequency (n = 61)	Percentage (%)
Age	Elderly (60–74 years old)	46	75,4
	Old Continued (75–80 years old)	15	24,6
Gender	Male	31	50,8
	Women	30	49,2

Source: Primary Data, 2026

Based on the results of data processing on 61 respondents, the majority of respondents were in the elderly group (60–74 years) as many as 46 people (75.4%), while the elderly group (75–80 years) amounted to 15 people (24.6%). Based on gender, male respondents were 31 people (50.8%) and female respondents were 30 people (49.2%). These results showed that the gender distribution was relatively balanced, while most respondents were in the age range of 60–74 years.

2. Data Distribution Based on Key Research Variables

To determine the distribution of data based on the main variables of the study, the researcher presents the data in the form of a table so that the distribution of data can be seen more clearly and systematically. Table 2 shows the distribution of data based on the main variables of the study.

Table 2. Data Distribution by Key Variables of the Study

Variable	Categories	Frequency (n = 61)	Percentage (%)
Independence Level	Moderate Dependency	19	31,1
	Mild Dependency	35	57,4
	Self-Sufficient	7	11,5
Quality of Life	Moderate Quality of Life	3	4,9
	Good Quality of Life	58	95,1

Source: Primary Data, 2026

Based on the results of data processing on 61 respondents, most of the elderly have a level of independence in the light dependency category of 35 respondents (57.4%), followed by the moderate dependency category of 19 respondents (31.1%), and the independent category of 7 respondents (11.5%). Meanwhile, based on quality of life, the majority of respondents have a good quality of life, namely 58 respondents (95.1%), while 3 respondents (4.9%) have a quality of life in the medium category. These results show that most of the elderly have a relatively good level of independence (mild dependence) and a good quality of life.

Table 3. Overview of the Independence Value of the Elderly Peraspect

Aspects	Red	Std. Deviation
Eating	9.92	.640
Shower	4.92	.526
Neatness/Appearance	4.97	.256
Dress up	9.46	1.501
Bowel movements	8.46	1.598
Urinate	8.46	1.598
Use of Bathroom/Toilet	8.72	1.171
Moving Places	13.77	1.543
Mobility	14.13	1.056
Up/Down the Stairs	8.59	1.542

Source: Primary Data, 2026

To find out the picture of the independence value of the elderly prospect, the researcher presented data in the form of a table so that the picture of the value can be seen more clearly and systematically. Table 3 shows an overview of the independence value of the elderly prospect. The average value of each aspect is presented based on the score range of each activity. The eating aspect has an average of 9.92 from the range of 0–10. The bathing aspect has an average of 4.92 from the range of 0–5, and neatness/appearance is 4.97 from the range of 0–5. The aspect of dressing shows an average of 9.46 from the range of 0–10. In the elimination aspect, defecation and urination have an average of 8.46 from the range of 0–10 respectively, while the use of the bathroom/toilet has an average of 8.72 from the range of 0–10. In the mobility aspect, moving places had an average of 13.77 from the range of 0–15, mobility of 14.13 from the range of 0–15, and climbing/descending stairs of 8.59 from the range of 0–10. Based on the average value, the aspect with the highest average was mobility (mean = 14.13 from the range 0–15), while the aspect with the lowest average was bathing (mean = 4.92 from the range 0–5).

Table 4. Overview of Quality of Life Values by Domain

Domain	Red	Std. Deviation
Physical Functioning	91.56	12.501
Role Physical	94.67	11.287
Bodily Pain	84.15	19.425
General Health	84.18	12.819
Vitality	84.02	12.807
Social Functioning	89.44	16.010
Role Emotional	98.38	7.195
Mental Health	91.80	9.728

Source: Primary Data, 2026

Based on Table 4, the overview of the quality of life values of the elderly based on each domain shows the variation in average values in each quality of life domain. The Emotional Role domain has the highest average score of 98.38 with a median of 100.00, a standard deviation of 7.195, a minimum score of 67, and a maximum of 100. Furthermore, the Role Physical domain has an average of 94.67 with a median of 100.00, a standard deviation of 11.287, a minimum score of 50, and a maximum of 100. The Mental Health domain has an average of 91.80 with a median of 96.00, a standard deviation of 9.728, a minimum score of 60, and a maximum of 100. The Physical Functioning domain shows an average of 91.56 with a median of 95.00, a standard deviation of 12.501, a minimum score of 50, and a maximum of

100. The Social Functioning domain has an average of 89.44 with a median of 100.00, a standard deviation of 16,010, a minimum value of 38, and a maximum of 100. Meanwhile, the General Health domain has an average of 84.18 with a median of 85.00, a standard deviation of 12,819, a minimum value of 45, and a maximum of 100. The Bodily Pain domain shows an average of 84.15 with a median of 90.00, a standard deviation of 19,425, a minimum value of 35, and a maximum of 100. The Vitality domain has the lowest average of 84.02 with a median of 85.00, a standard deviation of 12,807, a minimum value of 50, and a maximum of 100.

3. Frequency

To find out the descriptive statistical picture of the variables of daily activity independence (AKS) and quality of life of the elderly, a frequency analysis was carried out using the SPSS program. The results of the analysis are presented in the following table 5.

Table 5. Statistics

		AKS Independence	Quality of Life
N	Valid	61	61
	Red	91.39	89.38
	Median	94.00	91.00
	Std. Deviation	8.081	7.610
	Variance	65.309	57.905
	Minimum	62	67
	Maximum	100	100
	Sum	5575	5452

Source: Primary Data, 2026

Based on the results of data processing using the SPSS program on 61 respondents, it was obtained that all the data collected were in complete condition without any missing data (missing value = 0). This shows that all respondents provide complete answers to the instruments used in the research, so that all data can be analyzed further without the need for imputation or deletion of data.

In the variable of independence of daily activities (AKS), a mean value of 91.39 indicates that in general the level of independence of the respondents is relatively high. The median value of 94.00 indicates that most respondents have a high score and are above average. The standard deviation of 8.08 indicates that the variation in data is relatively small, so the level of independence between respondents does not differ much. The distribution of data that tends to be skewed (negatively skewed) shows that the majority of respondents have a high level of independence.

Meanwhile, the quality of life variable obtained an average score of 89.38, with a median of 91.00. This shows that in general, the quality of life of the respondents is in the good category. The standard deviation of 7.61 indicates a variation in the data, but it is still within reasonable limits. The distribution pattern, which also tends to be skewed to the left, indicates that most respondents have a high quality of life.

Bivariate Analysis

1. Overview of the Level of Independence Based on the Age of the Elderly at PSTW Budi Mulia 1

In this study, the data on respondent characteristics based on the level of independence with the age group in PSTW Budi Mulia 1 is contained in table 6. The data is presented in the

form of frequency and percentage to illustrate the proportion of the level of independence in each age group.

Table 6. Overview of Independence Levels by Age

Age		Independence Level			Total	Fisher P-Value
			K. Medium	K. Light	Self-Sufficient	
Elderly (60-74 years old)	Count		14	26	6	46
	%		30.4%	56.5%	13.0%	
Older Continued (75-80 years old)	Count		5	9	1	15
	%		33.3%	60.0%	6.7%	
Total	Count		19	35	7	61
	%		31.1%	57.4%	11.5%	

Source: Primary Data, 2026

Based on the results of cross-tabulation between age and independence level, the distribution of respondents is presented in the form of percentages in each age group. In the elderly group aged 60–74 years, most respondents were in the category of mild dependence at 56.5%, followed by moderate dependence at 30.4%, and independent at 13.0%. In the elderly group aged 75–80 years, the largest proportion was also in the category of light dependence at 60.0%, then moderate dependence at 33.3%, and independent at 6.7%. Overall, in both age groups, the light dependence category had the highest percentage, followed by moderate dependence, and the independent category had the lowest percentage. This distribution showed a relatively similar percentage pattern between age groups, with the dominance in the light dependence category. Based on the Fisher's Exact Test, a p-value of 0.910 ($p > 0.05$) was obtained, so there was no significant relationship between age and the level of independence of the elderly at PSTW Budi Mulia 1.

2. Overview of the Level of Independence Based on the Gender of the Elderly at PSTW Budi Mulia 1

To determine the distribution of the level of independence of the elderly by gender in PSTW Budi Mulia 1, a cross-tabulation analysis was carried out between the gender and the level of independence of the respondents. The results of the analysis are presented in Table 7 below.

Table 7. Overview of Independence Levels by Gender

		Independence Level			Total	Fisher P-Value
			K. Medium	K. Light	Self-Sufficient	
Gender	Male	Count	7	17	7	31
		%	22.6%	54.8%	22.6%	
	Women	Count	12	18	0	30
		%	40.0%	60.0%	0.0%	
Total		Count	19	35	7	61
		%	31.1%	57.4%	11.5%	

Source: Primary Data, 2026

Based on the results of cross-tabulation between gender and independence level, the distribution of respondents was presented in the form of percentages to illustrate the proportions

in each group. In the male group, most were in the light dependence category at 54.8%, followed by the moderate dependency category at 22.6%, and the independent category at 22.6%. Meanwhile, in the female group, the majority were also in the light dependence category at 60.0%, followed by the moderate dependence category at 40.0%, and there were no respondents in the independent category (0.0%). Overall, the distribution of independence level showed that the light dependence category was the largest proportion in both sex groups. Based on the Fisher's Exact Test, a p-value of 0.015 ($p < 0.05$) was obtained, so that there was a significant relationship between gender and the level of independence of the elderly in PSTW Budi Mulia 1.

3. Overview of Quality of Life Level by Age at PSTW Budi Mulia 1

To find out the picture of the level of quality of life based on the age of the elderly at PSTW Budi Mulia 1, a cross-tabulation analysis was carried out between the age group and the category of quality of life of the respondents. The results of the analysis are presented in Table 8.

Table 8. Overview of Quality of Life by Age

Age		Quality of Life		Total	Fisher P-Value
		Medium	Good		
Elderly (60-74 years old)	Count	3	43	46	0,569
	%	6.5%	93.5%	100.0%	
Older Continued (75-80 years old)	Count	0	15	15	
	%	0.0%	100.0 %	100.0%	
Total	Count	3	58	61	
	%	4.9%	95.1%	100.0%	

Source: Primary Data, 2026

Based on the results of cross-tabulation between age and quality of life level, the distribution of respondents was presented in the form of percentages in each age group. In the elderly age group (60–74 years), most respondents had a good quality of life of 93.5%, while respondents with a moderate quality of life were 6.5%. In the elderly group (75–80 years), all respondents had a good quality of life of 100.0%, and there were no respondents with a moderate quality of life (0.0%). Overall, the majority of respondents in both age groups had a good quality of life, with a total proportion of 95.1%, while moderate quality of life was 4.9%. In the Fisher's Exact Test test, an Exact Sig. value (2-sided) or a p value of 0.569 was obtained, indicating that the results of the statistical test had a significance value greater than 0.05, meaning that there was no statistically significant difference.

4. Overview of Quality of Life Level by Gender at PSTW Budi Mulia 1

To find out the picture of the level of quality of life of the elderly based on gender in PSTW Budi Mulia 1, a cross-tabulation analysis of the frequency distribution presented in Table 9 was carried out below.

Table 9. Overview of Quality of Life Levels by Gender

		Quality of Life		Total	Fisher P-Value
		Medium	Good		
Gender	Male	Count	0	31	0,113
		%	0.0%	100.0%	
	Women	Count	3	27	30
		%	10.0%	90.0%	
Total		Count	3	58	61
		%	4.9%	95.1%	

Source: Primary Data, 2026

Based on the results of cross-tabulation between sex and quality of life level, the distribution of respondents showed a difference in proportion in each group. In the male group, all respondents (100.0%) were in the category of good quality of life, and there were no respondents with moderate quality of life (0.0%). Meanwhile, in the female group, most of the respondents were in the category of good quality of life at 90.0%, while the other 10.0% were in the category of moderate quality of life. Overall, the proportion of good quality of life dominated in both sex groups, with a total percentage of 95.1%, while moderate quality of life was 4.9% of all respondents. The results of Fisher's Exact Test showed an Exact Sig. (2-sided) value or p value of 0.113 which is greater than 0.05, the results showed that the distribution of quality of life levels by gender in the study respondents did not show a statistically significant difference.

5. Correlation

To determine the relationship between independence of daily activities (AKS) and the quality of life of the elderly at PSTW Budi Mulia 1, a bivariate analysis was carried out using the Pearson correlation test. This analysis aims to see the strength and direction of the relationship between the two research variables, as well as the relationship between each component of independence and quality of life and the relationship between independence and the relationship of independence with each domain of the quality of life of the elderly. The results of the correlation analysis are presented in Table 10, Table 11, and Table 12.

Table 10. Correlations

		AKS Independence	Quality of Life
AKS Independence	Pearson Correlation	1	.639**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	3918.557	2357.951
	Covariance	65.309	39.299
	N	61	61
Quality of Life	Pearson Correlation	.639**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	2357.951	3474.328
	Covariance	39.299	57.905
	N	61	61

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data, 2026

Based on the results of bivariate analysis using the Pearson correlation test, the correlation® coefficient value between daily activity independence (AKS) and quality of life was 0.639 with a significance value (p-value) of 0.000. The significance value was smaller than

0.05 ($p < 0.05$), so it can be concluded that there is a significant relationship between daily activity independence and the quality of life of the elderly at PSTW Budi Mulia 1.

The correlation coefficient value of 0.639 indicates that the relationship between the two variables is in the strong category and has a positive relationship direction. This positive relationship indicates that the higher the level of independence of the elderly in carrying out daily activities, the better their quality of life. On the other hand, the lower the level of independence, the quality of life of the elderly tends to decrease.

In addition, the results of the analysis also showed that the correlation was significant at the level of 0.000 (2-tailed), which means that the level of confidence in the results of this study was quite high. Thus, the relationship between the independence of daily activities and the quality of life of the elderly did not occur by chance, but had a statistically strong relationship basis.

Based on a sample of 61 respondents, these results provide a fairly representative picture of the relationship between the two variables in the elderly population at PSTW Budi Mulia 1. The positive covariance value also strengthens that the two variables have a tendency to change in the same direction.

Overall, the results of this bivariate analysis show that independence in daily activities has a close relationship with the quality of life of the elderly. Therefore, increasing the independence of the elderly is one of the important factors that need to be considered in efforts to improve the quality of life of the elderly at PSTW Budi Mulia 1.

Table 11. Pearson Correlation Test Results between Each Component of AKS Independence and Quality of Life

Variable Relationships		Correlation Coefficient (r)	P-Value
Independence of Daily Activities and Quality of Life of the Elderly	Eating	-0,29	0,822
	Shower	0,546	0,000
	Neatness/Appearance	0,568	0,000
	Dress up	0,579	0,000
	Bowel movements	0,162	0,213
	Urinate	0,162	0,213
	Use of Bathroom/Toilet	0,076	0,561
	Moving Places	0,214	0,098
	Mobility	0,390	0,002
Up/Down the Stairs		0,187	0,149

Source: Primary Data, 2026

Based on the results of the Pearson correlation test between each component of daily activity independence (AKS) and quality of life, a variation in the correlation coefficient (r) and significance (p-value) values were obtained for each component. The bathing component showed a correlation value of $r = 0.546$ with $p = 0.000$, neatness/appearance of $r = 0.568$ with $p = 0.000$, and dressing of $r = 0.579$ with $p = 0.000$, which showed a positive and significant relationship with quality of life. In addition, the mobility component also showed a significant relationship with $r = 0.390$ and $p = 0.002$.

Meanwhile, some other components did not show a significant relationship, namely eating with $r = -0.29$ and $p = 0.822$, defecating with $r = 0.162$ and $p = 0.213$, urinating with $r = 0.162$ and $p = 0.213$, using the bathroom/toilet with $r = 0.076$ and $p = 0.561$, changing places with $r = 0.214$ and $p = 0.098$, and going up/down stairs with $r = 0.187$ and $p = 0.149$.

Overall, these results show that not all components of independence have a significant relationship with quality of life, with only a few specific components such as bathing, neatness, dressing, and mobility having a statistically meaningful relationship.

Table 12. Pearson Correlation Test Results between AKS Independence and Each Quality of Life Domain

Variable Relationships		Correlation Coefficient (r)	P-Value
Independence of Daily Activities and Quality of Life of the Elderly	<i>Physical Functioning</i>	0,514	0,000
	<i>Role Physical</i>	0,256	0,046
	<i>Bodily Pain</i>	0,512	0,000
	<i>General Health</i>	0,496	0,000
	<i>Vitality</i>	0,323	0,011
	<i>Social Functioning</i>	0,507	0,000
	<i>Role Emotional</i>	0,257	0,045
	<i>Mental Health</i>	0,164	0,207

Source: Primary Data, 2026

Based on the results of the Pearson correlation test between daily activity independence (AKS) and each quality of life domain in Table 4.14, a variation of the correlation coefficient (r) and significance value (p-value) was obtained in each quality of life domain. The Physical Functioning domain had a correlation value of $r = 0.514$ with $p = 0.000$, Physical Role of $r = 0.256$ with $p = 0.046$, Bodily Pain of $r = 0.512$ with $p = 0.000$, General Health of $r = 0.496$ with $p = 0.000$, Vitality of $r = 0.323$ with $p = 0.011$, Social Functioning of $r = 0.507$ with $p = 0.000$, and Emotional Role of $r = 0.257$ with $p = 0.045$. These results showed that these domains had a significant relationship with independence of daily activities because the p value < 0.05 . Meanwhile, the Mental Health domain had a correlation value of $r = 0.164$ with $p = 0.207$, thus showing an insignificant association due to the p value > 0.05 .

Based on the correlation coefficient value, the domain with the highest correlation value was Physical Functioning ($r = 0.514$), followed by Bodily Pain ($r = 0.512$) and Social Functioning ($r = 0.507$). The domain with the lowest correlation value was Mental Health ($r = 0.164$). Overall, most of the quality of life domains showed a positive relationship with independence of daily activities in the elderly at PSTW Budi Mulia 1.

Age

Based on the results of the study, most of the respondents were in the age group of 60–74 years old at 75.4%, while the age group of 75–80 years old was 24.6%. These results show that the majority of residents of PSTW Budi Mulia 1 belong to the category of early elderly people who generally still have better physical conditions and adaptability than the elderly age group. According to the World Health Organization, the age grouping of the elderly is carried out because each age stage has different physical, psychological, social, and adaptability characteristics. Elderly aged 60–74 years are usually still able to maintain bodily functions and social activities even though the aging process continues to take place gradually (World Health Organization [WHO], 2022).

The aging process is a natural biological process that takes place progressively and cannot be avoided by every individual. Aging causes changes in the structure and function of the body in almost all organ systems, such as the musculoskeletal, nervous, cardiovascular, and sensory systems. These changes result in a decrease in muscle mass, body strength, balance, and physical ability of the elderly to carry out daily activities (Papalia & Martorell, 2017). Elderly

people in the elderly group generally experience more pronounced physical changes, such as fatigue, limited movement, and an increased risk of degenerative diseases, including hypertension, diabetes mellitus, and osteoarthritis (Papalia & Martorell, 2017).

A decrease in physical condition in the elderly is also related to the occurrence of sarcopenia, which is a decrease in muscle mass and strength due to the aging process. This condition makes the elderly more susceptible to fatigue and limited mobility, affecting their functional abilities in daily activities (Cruz-Jentoft et al., 2019). In addition, a decrease in bone density and joint function makes the elderly more susceptible to joint pain and the risk of falling.

In addition to physical changes, the aging process also affects sensory functions, such as a decrease in vision, hearing, smell, and touch. The decline in sensory function can lead to a reduction in the ability of the elderly to receive information from the environment, thus affecting social interaction and adaptability to the surrounding environment (Stanley & Beare, 2017). In the older age group, physical and sensory limitations tend to be more severe than the early elderly age group.

The age characteristics of the elderly are also influenced by psychological and social factors. Elderly people aged 60–74 years are generally still actively participating in social activities and are able to establish good interpersonal relationships. According to Sunarti et al., this age group is still in the stage of adjusting to physical changes due to the aging process so that most of them can still maintain their bodily functions and social activities (Sunarti et al., 2021). On the other hand, the elderly tend to experience limitations in interacting due to declining physical conditions and certain health disorders. Good social relationships have an important role in helping the elderly maintain a positive psychological state during the aging process (WHOQOL Group, 2022).

The Budi Mulia 1 PSTW environment which provides health services, social support, and various routine activities helps the elderly stay physically and socially active. A safe, comfortable, and structured environment can help the elderly cope with changes due to the aging process and maintain their quality of life. This is in accordance with the Person-Environment-Occupation-Performance (PEOP) model which states that individual abilities are influenced by the interaction between personal factors, the environment, and the activities carried out (Christiansen & Baum, 2015). In the context of the elderly, personal factors include the individual's age, physical condition, and abilities, while environmental factors include social support and residential facilities.

From the perspective of occupational therapy, age is a factor that cannot be modified, but the impact of the aging process can be minimized through appropriate interventions. Occupational therapists play a role in helping the elderly maintain their daily activity abilities through activity exercises, the use of assistive devices, and environmental modifications so that the elderly remain active and independent according to their abilities (American Occupational Therapy Association [AOTA], 2020). Thus, services to the elderly need to be adjusted to their respective age characteristics so that their physical, psychological, and social needs can be optimally met.

Gender

Based on the results of the study at PSTW Budi Mulia 1, the distribution of respondents by gender showed a relatively balanced proportion between males of 50.8% and females of 49.2%. This condition shows that the residents of PSTW Budi Mulia 1 consist of almost the

same number of male and female elderly, so the characteristics of both are important to consider in this study. Gender is one of the demographic factors that can affect the biological, psychological, social, and life experiences of the elderly during the aging process (World Health Organization [WHO], 2022).

Biologically, men and women have different physical characteristics when entering old age. Men generally have greater muscle mass and physical strength than women due to the influence of the hormone testosterone, while women experience a decrease in estrogen hormone after menopause which increases the risk of osteoporosis, decreased muscle mass, and decreased bone density (Guyton & Hall, 2016; Whitbourne & Whitbourne, 2020). This condition makes elderly women more susceptible to musculoskeletal disorders and degenerative diseases in old age (Mauk, 2018).

In addition to biological aspects, gender differences are also seen in psychological and social aspects. Older women tend to have easier social relationships and express emotions than men, so they have better social adaptability (Røysamb et al., 2021). On the other hand, older men tend to be more introverted in expressing their feelings and are more dependent on their spouses or family to obtain emotional support. These differences in social interaction patterns affect the ability of the elderly to cope with psychological changes during the aging process.

WHO (2022) also explains that women have a higher life expectancy than men, so the number of women in the elderly age group is generally higher. However, a longer life expectancy causes women to be more at risk of developing degenerative diseases and physical limitations in old age, so they need greater health and social support.

In the Budi Mulia 1 PSTW environment, the elderly men and women get the same opportunity to participate in social activities, health services, and group activities available at the orphanage. A safe and structured environment helps the elderly maintain social interaction and adaptability to changes in old age. Good social environment support can help the elderly maintain a positive psychological condition and improve their well-being in old age (WHOQOL Group, 2022).

Gender characteristics in the elderly can also be explained through the Person-Environment-Occupation-Performance (PEOP) model which states that individual abilities are influenced by the interaction between personal, environmental, and social factors (Christiansen & Baum, 2015). In the context of the elderly, gender is a personal factor that affects an individual's ability to carry out activities and adapt to the environment. Therefore, services and interventions for the elderly need to consider the differences in the characteristics of men and women so that the physical, psychological, and social needs of the elderly can be optimally met.

From an occupational therapy perspective, an understanding of gender characteristics is important to determine the appropriate intervention approach for the elderly. Occupational therapists need to consider the physical conditions, life experiences, and adaptability of older men and women in designing meaningful activities. Occupational therapy interventions aim to help seniors maintain participation in daily activities and improve quality of life through an individual-centered approach (American Occupational Therapy Association [AOTA], 2020).

Overall, the results of this study show that the gender distribution of the elderly in PSTW Budi Mulia 1 is relatively balanced between men and women. Gender differences illustrate the variation in biological, psychological, and social characteristics in the elderly so that services

to the elderly need to be adjusted to the needs of each individual so that the quality of life of the elderly can be maintained optimally.

Independence Level and Quality of Life of the Elderly

Based on the results of bivariate analysis using the Pearson correlation test, a correlation coefficient value of $r = 0.639$ with a significance value of $p = 0.000$ was obtained. These results show that there is a strong, positive, and significant relationship between the independence of daily activities (AKS) and the quality of life of the elderly at PSTW Budi Mulia 1. This means that the higher the level of independence of the elderly in carrying out daily activities, the better their quality of life will be. On the other hand, the lower the level of independence of the elderly, the quality of life tends to decrease. These findings show that the ability of the elderly to maintain daily activities is not only related to physical function, but also affects psychological, emotional, social, and overall life functioning (WHOQOL Group, 2022).

The results of this study are in line with the research of Darazat et al. (2025), Sumbara et al. (2019), and Widyantoro et al. (2024) which shows a positive relationship between the level of independence of the elderly and quality of life. Elderly people who are able to carry out daily activities independently tend to have better confidence, feel more valuable, and are able to maintain social participation compared to the elderly who experience dependence. Independence provides a sense of competence so that the elderly still feel in control of their lives in the midst of various physical and social changes due to the aging process (Papalia & Martorell, 2017).

This study has a novelty because it uses SF-36 to look at the quality of life of the elderly in a multidomain manner. In contrast to some previous studies that used WHOQOL, the use of SF-36 in this study allows researchers to see the relationship between daily activity independence and various quality of life domains more specifically, including physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health. Thus, this study not only assesses the quality of life in general, but is also able to describe the quality of life domains that are most related to the independence of the elderly.

The relationship between independence from daily activities and quality of life can be explained through psychosocial and environmental mechanisms. Elderly people who are still able to bathe, dress, maintain appearance, and move independently will feel more confident and more likely to participate in social activities. On the other hand, excessive dependence can cause feelings of helplessness, inferiority, and loss of meaning in life, affecting the overall quality of life (Santoso, 2019).

In the theory of Person-Environment-Occupation-Performance (PEOP), quality of life is influenced by the interaction between personal factors, environment, activities, and occupational performance. Personal factors include individual physical condition, cognitive ability, emotions, and motivation. Environmental factors include social support, nursing home facilities, interpersonal relationships, and opportunities to participate in social activities. Meanwhile, occupation or daily activities are meaningful activities that help individuals maintain the functioning of their lives (Christiansen & Baum, 2015). Therefore, when the elderly are still able to carry out daily activities independently, their occupational performance and social participation also tend to be better so that the quality of life improves.

The Budi Mulia 1 PSTW environment also plays a role in supporting the quality of life of the elderly. Various activities such as studies, elderly gymnastics, group activity therapy, and daily social interaction provide opportunities for the elderly to remain physically and socially active. These conditions help the elderly maintain a sense of meaning, reduce loneliness, and improve psychosocial well-being. In the context of occupational therapy, simple social activities such as chatting, sharing experiences, and supporting each other are forms of occupational participation that have important value for the quality of life of the elderly (AOTA, 2020).

The results of the study also showed that several components of the Barthel Index had a significant relationship with quality of life, namely bathing ($r = 0.546$; $p = 0.000$), neatness/appearance ($r = 0.568$; $p = 0.000$), dressing ($r = 0.579$; $p = 0.000$), and mobility ($r = 0.390$; $p = 0.002$). These activities are closely related to the ability of the elderly to maintain social participation and positive self-perception. Elderly people who are able to maintain cleanliness and appearance tend to be more confident to interact with the surrounding environment. A neat appearance also helps the elderly feel valued and accepted in the social environment in the orphanage.

Mobility has a significant relationship because the ability to move allows the elderly to continue to participate in social and occupational activities at PSTW Budi Mulia 1. The elderly who are still able to walk independently are more likely to attend group activities, participate in religious activities, and interact with other residents. Mobility ability helps the elderly maintain social participation thereby reducing the risk of social isolation and loneliness (Christiansen & Baum, 2015).

On the other hand, some activities such as eating, defecating, urinating, using the toilet, moving places, and going up and down stairs did not show a significant relationship with quality of life. This may be influenced by the adequate environmental support at PSTW Budi Mulia 1, such as the assistance of officers, safe facilities, and an adaptive environment. With this support, limitations in some basic activities do not affect the perception of the quality of life of the elderly. In addition, activities such as elimination and eating are more basic needs so that they are not directly related to social participation and life satisfaction of the elderly.

The results of this study also show that most of the quality of life domains have a significant relationship with the independence of daily activities, namely physical functioning, physical role, bodily pain, general health, vitality, social functioning, and emotional role. The physical functioning domain has the strongest relationship because physical ability is the main basis for carrying out daily activities independently. The social functioning domain also shows a significant relationship because the elderly who are independent tend to be more active in interacting and participating in social activities in the orphanage environment.

The vitality domain in this study has a relatively lower value than other domains. This condition can be affected by the aging process which causes a decrease in energy, fatigue, and reduced stamina in the elderly. In addition, the relatively monotonous routine of life in the orphanage can also affect the spirit and energy level of the elderly (Papalia & Martorell, 2017). Meanwhile, the emotional role domain shows good results because most of the elderly are still able to adapt to the social environment in the orphanage and get emotional support from peers and orphanage staff.

Social support is one of the important factors in maintaining the quality of life of the elderly. The elderly who receive support from peers, orphanage workers, and the social environment tend to have better psychological conditions. Social activities such as studies, group activity therapy, elderly gymnastics, and community activities help the elderly feel valued, have a purpose in life, and be part of the social environment. The existence of peers also helps the elderly share experiences, provide encouragement, and maintain each other's emotional state (Mauk, 2018).

Overall, the results of this study show that the quality of life of the elderly is not only influenced by physical abilities, but also by environmental support and opportunities to continue to participate in social activities. The Budi Mulia 1 PSTW environment that provides facilities, group activities, and social support helps the elderly maintain their quality of life even though most are still in the category of mild dependence. These findings strengthen the PEO theory which emphasizes that occupational performance is influenced by the interaction between individuals, the environment, and the activities carried out (Christiansen & Baum, 2015).

From the perspective of occupational therapy, the results of this study show the importance of interventions that focus on increasing the independence and social participation of the elderly. Occupational therapists can help the elderly through daily activity exercises, environmental modifications, the use of assistive devices, and the provision of meaningful community-based activities. Social programs such as group activity therapy, religious activities, and recreational activities also need to be continuously improved so that the elderly not only maintain physical function, but also maintain a sense of life, good social relationships, and optimal quality of life (AOTA, 2020).

Research Limitations

In conducting research, there are limitations of research, namely:

1. Many factors affect the level of independence and quality of life that have not been paid attention to by researchers, namely disease history, educational history and lifestyle.
2. The limited number of respondents in PSTW Budi Mulia 1 which is only 61 people will affect the level of data diversity and the confidence level of the correlation test.
3. Difficulty finding instruments that are easy for respondents to understand and many respondents have difficulty understanding the meaning of the questions contained in the research instruments.

CONCLUSION

Based on the study results, the level of independence in Activities of Daily Living (ADL) among older adults at PSTW Budi Mulia 1 varied from independent functioning to partial or complete dependence. Most older adults were still able to perform basic activities independently, although some required assistance due to declines in physical condition, chronic diseases, or cognitive impairment. The quality of life among older adults was generally categorized as moderate to good, supported by the fulfillment of basic needs, access to healthcare services, and adequate social interaction. The results also indicated a significant relationship between ADL independence and quality of life among older adults, with higher levels of independence being associated with better quality of life across physical, psychological, and social domains. Therefore, PSTW Budi Mulia 1 is encouraged to continue

optimizing programs that support older adults' independence through physical exercise, occupational therapy, cognitive stimulation, and continuous improvement of healthcare, social, and emotional support services. Furthermore, future research is recommended to employ longitudinal or experimental designs, include additional relevant variables, and expand sample sizes and research locations to obtain more comprehensive findings with greater generalizability.

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