

Functional Independence of Elderly: A Descriptive Survey

**Pooja.P¹, Mahima Rithi.S², Kanmani. S³, Dr. Kanchana. K⁴,
Dr. Girija Kumari. S⁵**

^{1,2}Lecturer, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, Tamil Nadu. Affiliated to the Tamil Nadu Dr. M.G.R Medical University

³Associate Professor, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, Tamil Nadu. Affiliated to the Tamil Nadu Dr. M.G.R Medical University

⁴ Vice Principal, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, Tamil Nadu. Affiliated to the Tamil Nadu Dr. M.G.R Medical University

⁵Principal, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, Tamil Nadu. Affiliated to the Tamil Nadu Dr. M.G.R Medical University

ABSTRACT

Functional Independence are fundamental self-care tasks that are essential for maintaining independence and quality of life among the elderly population. The decline in functional ability due to aging, chronic illness, or hospitalization significantly affects the ability of elderly individuals to perform these daily activities independently. The study highlights the importance of early assessment and intervention in improving functional ability and promoting independence among the elderly. The present study aimed to assess the level of functional independence among elderly patients at a selected hospital, Coimbatore. A quantitative descriptive research design was adopted for the study. A total of 100 elderly OPD patients aged 60 years and above were selected using a non-probability convenience sampling technique. Data were collected using demographic variables, clinical variables, and standardized ADL assessment scales including Katz Index and Lawton Instrumental Activities of Daily Living Scale. The findings revealed that the majority of elderly patients had moderate dependency in activities of daily living. Chi-square analysis revealed that there was a association between functional independence and selected variables such as age ($\chi^2=5.42$), gender ($\chi^2=4.26$), family type ($\chi^2=4.02$), dietary pattern ($\chi^2=4.21$), and comorbid illness ($\chi^2=4.68$) at 0.05 level of significance. Hence, the stated hypothesis was accepted. The study concludes that regular assessment, early rehabilitation, and supportive nursing interventions are essential to improve functional independence and enhance the quality of life among elderly patients.

INTRODUCTION

In India, the elderly population is increasing steadily. It is estimated that elderly individuals constitute a significant and growing percentage of the total population, and this number is expected to rise further in the coming decades. This demographic transition has important implications for healthcare systems, as older adults are more prone to chronic illnesses, disabilities, and functional limitations. As age advances, elderly individuals often experience a decline in physical strength, coordination, balance, and cognitive function. These changes, along with the presence of chronic diseases such as stroke, arthritis, diabetes me-

Illitus, and cardiovascular disorders, can significantly impair their ability to perform ADLs.

The number of elderly populations is increasing fast in whole world. By 2050, it is estimated to be double. The World Health Organization (2015) reports that the population aged 60 years and above is rapidly expanding, particularly in developing countries like India, where improvements in healthcare and life expectancy have contributed to population aging.

With advancing age, elderly individuals commonly experience a decline in muscle strength, balance, coordination, and cognitive function, which adversely affects their ability to perform daily activities. In addition, chronic conditions such as stroke, diabetes mellitus, arthritis, and cardiovascular diseases significantly contribute to limitations in Functional Independency performance. Lawton and Brody (1969) Hospitalization is another critical factor that contributes to deterioration in functional status. Covinsky et al. (2003) reported that a substantial proportion of hospitalized elderly patients experience a decline in their ability to perform ADLs during their hospital stay, often due to immobility, acute illness, and lack of adequate rehabilitation. This decline may persist even after discharge, leading to long-term dependency. Assessment of Functional Independence is therefore essential in clinical practice for evaluating the functional status of elderly patients and planning appropriate interventions. Standardized tools such as the Katz Index and the Barthel Index, developed by Mahoney and Barthel (1965), are widely used to measure independence in daily activities. Early identification of functional limitations allows healthcare professionals to implement timely rehabilitation strategies and supportive care.

NEED FOR THE STUDY

Aging is an inevitable biological process accompanied by progressive decline in physiological, psychological, and functional capacity. Globally, the proportion of older adults is increasing at an unprecedented rate, creating significant challenges for healthcare systems. Functional ability is one of the most important determinants of health and well-being in old age. Functional Independence are basic self-care tasks. The ability to perform these activities independently reflects the functional status of an individual, whereas difficulty or inability indicates dependency. A study by Preeti Usha et al. (2020) revealed that a considerable proportion of elderly individuals in India experience moderate to severe dependency in ADL, indicating the urgent need for improved geriatric care services.

Understanding their level of independence and associated factors will help nurses and healthcare professionals in planning individualized care, improving functional outcomes, and enhancing the quality of life of elderly individuals.

STATEMENT OF THE PROBLEM:

A Descriptive Survey to Assess the Functional Independence of Elderly Patients at Selected Hospital, Coimbatore.

OBJECTIVES OF THE STUDY:

- To assess the Functional Independence among elderly patients.
- To find out the association between Functional Independence and selected variables among elderly patients.

OPERATIONAL DEFINITION:**Assess**

In this study, assess refers to the systematic evaluation and measurement of functional independence. It is measured by using the Activities of Daily Living (ADL) tool.

Functional Independence

Functional Independence refer to the basic self-care tasks performed by an individual, including bathing, dressing, toileting, transferring, continence, feeding, telephone, shopping, food preparation, housekeeping, laundry, transportation, medication management, and financial management. In this study, Functional Independence is measured using a standardized scale.

Elderly

Elderly refer to individuals aged 60 years and above who are attending the OPD at selected hospitals, Coimbatore.

HYPOTHESIS:

H₁ - To find out the association between the level of Functional Independence and selected variables among elderly patients.

METHODOLOGY:

RESEARCH APPROACH: Quantitative Approach.

RESEARCH DESIGN: Descriptive Research design.

RESEARCH SETTING: Sri Ramakrishna Hospital, Coimbatore.

TARGET POPULATION: Elderly aged 60 years and above.

ACCESSIBLE POPULATION: Elderly OPD Patients at Sri Ramakrishna Hospital, Coimbatore.

SAMPLING TECHNIQUE: Non probability convenience sampling method.

SAMPLE SIZE: 100

TOOLS:**Section A: Demographic & Clinical Variables**

This section included demographic variables of elderly such as age, gender, family type, religion, financial status, educational status, marital status, occupation, place of living, dietary pattern, and comorbid illness. The clinical variable included diagnosis.

Section B: Activities of Daily Living Assessment Scale

The Activities of Daily Living (ADL) assessment scale was used to evaluate the functional ability of elderly patients in performing their daily activities independently. The tool included activities such as bathing, dressing, toileting, transferring, continence, feeding, and instrumental activities of daily living such as using telephone, shopping, food preparation, housekeeping, laundry, transportation, medication management, and financial management. Standardized tools such as the Katz Index and the Barthel Index, developed by Mahoney and Barthel (1965), are widely used to measure independence in daily activities.

DATA COLLECTION:

Descriptive research design was adopted. By using the convenience sampling technique, 100 study participants were selected based on inclusion and exclusion criteria. Permission obtained from hospital

authorities. Ethical clearance obtained informed consent taken from participants. Data collected through interview method using ADL scale.

SECTION A: Demographic & Clinical Variables

n=100

S.No	Variables	Frequency	Percentage (%)
1	Age		
	a) 60-69	52	52%
	b) 70-79	34	34%
	c) 80-89	12	12%
	d) 90 & above	2	2%
2	Gender		
	a) Male	68	68%
	b) Female	32	32%
3	Family type		
	a) Joint	50	50%
	b) Nuclear	50	50%
4	Religion		
	a) Muslim	6	6%
	b) Hindu	84	84%
	c) Christian	10	10%
	d) Others	0	0%
5	Financial		
	a) 30-40	12	12%
	b) 41-50	32	32%
	c) 51-60	34	34%
	d) >60	22	22%
6	Education		
	a) No formal education	12	12%
	b) Primary education	40	40%
	c) Secondary education	34	34%
	d) Higher secondary education	10	10%
		4	4%

	e) Graduate		
7	Marital status		
	a) Married	64	64%
	b) Divorced	36	36%
	c) Widow/widower	0	0%
8	Occupation		
	a) Private	26	26%
	b) Government	6	6%
	c) Self-employed	56	56%
	d) Unemployed	12	12%
9	Place		
	a) Urban	46	46%
	b) Rural	54	54%
10	Dietary pattern		
	a) Vegetarian	8	8%
	b) Non vegetarian	92	92%
11	Comorbid illness		
	a) Hypertension	34	34%
	b) Diabetes mellitus	20	20%
	c) Both HT and DM	32	32%
	d) No comorbid illness	14	14%
12	Diagnosis		
	a) IHD	8	8%
	b) CAD	40	40%
	c) ACS	34	34%
	d) CHB	18	18%

Section B: Assess the Level Functional Independence

n=100

S.No	Activity of Daily Living (ADL)	Frequency	Percentage (%)
1	Ability to use telephone		
	a) 0	40	40%
	b) 1	60	60%
2	Shopping		
	a) 0	30	30%

	b) 1	70	70%
3	Food preparation		
	a) 0	36	36%
	b) 1	64	64%
4	Housekeeping		
	a) 0	28	28%
	b) 1	72	72%
5	Laundry		
	a) 0	30	30%
	b) 1	70	70%
6	Mode of Transportation		
	a) 0	48	48%
	b) 1	52	52%
7	Responsibility for own medications		
	a) 0	38	38%
	b) 1	62	62%
8	Ability to handle finances		
	a) 0	36	36%
	b) 1	64	64%
9	Bath		
	a) 0	0	0%
	b) 1	100	100%
10	Dress		
	a) 0	0	0%
	b) 1	100	100%
11	Toilet		
	a) 0	0	0%
	b) 1	100	100%
12	Transfer		
	a) 0	0	0%
	b) 1	100	100%
13	Continence		
	a) 0	0	0%
	b) 1	100	100%
14	Feeding		
	a) 0	0	0%
	b) 1	100	100%

Association between the level of Functional independence and selected variables among elderly patients.

n=100

S. No	Variables	Level of ADL				χ^2 Chi-square	Degree of freedom	χ^2 table value
		Independent		Dependent				
		N	%	N	%			
1.	Age in years a) 60-70 b) 80 and above	52 6	52% 6%	34 8	34% 8%	5.42	1	3.84
2.	Gender a) Male b) Female	48 10	48% 10%	20 22	20% 22%	4.26	1	3.84
3	Family type a) Joint b) Nuclear	34 24	34% 24%	16 26	16% 26%	4.02	1	3.84
4	Dietary pattern a) Vegetarian b) Non-vegetarian	2 56	2% 56%	6 20	6% 20%	4.21	1	3.84
5	Comorbid illness a) yes b) No	52 6	52 6	34 8	34% 8%	4.68	1	3.84

RESULT AND DISCUSSION

This study focused on assessing the functional independence among elderly patients at selected hospitals in Coimbatore. The findings revealed that the majority of elderly patients had moderate dependency in activities of daily living. Most of the elderly patients were aged between 60–69 years and the majority were males. Elderly patients aged above 80 years, females, widowed individuals, and those with comorbid illnesses showed greater dependency.

Most of the elderly patients were independent in instrumental activities such as telephone use (60%), shopping (70%), housekeeping (72%), laundry (70%), medication management (62%), and handling finances (64%).

The chi-square analysis revealed that there was a association between functional independence and selected variables such as age ($\chi^2=5.42$), gender ($\chi^2=4.26$), family type ($\chi^2=4.02$), dietary pattern ($\chi^2=4.21$), and comorbid illness ($\chi^2=4.68$) at 0.05 level of significance. Hence, the stated hypothesis was accepted. The findings indicate that increasing age and presence of comorbid illness influence the functional independence of elderly patients.

CONCLUSION

According to the study, elderly patients experience varying levels of dependency in activities of daily liv-

ing. The present study result shows that the majority of elderly patients had moderate dependency in activities of daily living. Functional decline was more common among older elderly patients and those with comorbid illnesses. Assessment of functional dependence helps healthcare professionals identify the needs of elderly patients and plan appropriate nursing care and rehabilitation measures. Regular monitoring, early intervention, and family support are important to improve the functional independence and quality of life among elderly patients.

BIBLIOGRAPHY

1. Bowling, A. N. N., & Grundy, E. (1997). Activities of daily living: changes in functional ability in three samples of elderly and very elderly people. *Age and ageing*, 26(2), 107-114.
2. Ran, L., Jiang, X., Li, B., Kong, H., Du, M., Wang, X., ... & Liu, Q. (2017). Association among activities of daily living, instrumental activities of daily living and health-related quality of life in elderly Yi ethnic minority. *BMC geriatrics*, 17(1), 74.
3. Katz, Sidney, Downs, Thomas D., Cash, Helen R., & Grotz, Robert C.. (1970). Progress in development of the index of ADL. *The Gerontologist*, 10(1), 20–30.
4. Lawton, M. Powell, & Brody, Elaine M.. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179–186.
5. World Health Organization. (2022). *Ageing and health*. Geneva: World Health Organization.