Functional and Health Domains Among the Elderly: A Cross-Sectional Study

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Abstract

The global rise in life expectancy highlights the need to understand functional abilities and intrinsic capacity in older adults to promote healthy aging. This study examined physical activity engagement and functional status among elderly residents in selected barangays of San Fernando City, La Union, focusing on demographic profiles, activities of daily living (ADL), instrumental activities of daily living (IADL), and intrinsic capacity. A quantitative descriptive cross-sectional design included 359 adults aged 60 years and above from Barangays Carlatan, Catbangen, Lingsat, Poro, and San Francisco, using convenience sampling with quota allocation. Standardized instruments were employed, including the Katz ADL Scale, Lawton IADL Scale, Mini Nutritional Assessment, Mini-Mental State Examination, Geriatric Depression Scale, automated digits-in-noise hearing test, and Snellen Chart. Respondents were mostly of advanced age, predominantly female, with secondary education, low socioeconomic status, and multiple chronic conditions. Functional ability was largely preserved, with 94.2% maintaining independence in ADLs, whereas IADL independence was more variable, with 40.7% demonstrating high independence. Intrinsic capacity assessments revealed relatively preserved locomotion, with 64.1% able to sustain normal mobility, and vitality results indicated that several were at risk of malnutrition. Cognitive function was largely intact, with most individuals showing normal cognition, and psychological status remained stable, with minimal signs of depression. Sensory domains, however, showed a significant decline: 46.5% reported hearing impairment and 81.3% reported vision impairment. These findings underscore the need for community-based health programs that address sensory decline while sustaining nutrition, cognition, and psychological resilience to promote functional independence and healthy aging among the elderly.

Keywords: *Elderly, Functional Ability, Intrinsic Capacity, Activities of Daily Living, Instrumental Activities of Daily Living, Healthy Aging*

1. Introduction

Time moves quietly forward, carrying with it the traces of every moment lived. It softens voices, slows footsteps, and turns strands of hair to silver. Within these changes lies a certain kind of beauty, a sign of strength, wisdom, and years lived with meaning. Growing older is simply another part of the journey in life, a reminder that every stage has its own purpose, grace, and hardship.

As people grow older, changes in the body and mind begin to shape how they live each day. These changes can affect their ability to move, think, and care for themselves, influencing how they experience independence and well-being. By understanding these aspects of aging, family members, communities, and the healthcare system can lay the groundwork for finding effective ways to support the elderly, ensuring they continue to live meaningful and active lives. This study explores the various functional and health domains of the elderly to gain a refined understanding of how aging affects daily living and overall quality of life.

According to the World Health Organization (2024), the growing global elderly population has become a major public health concern, posing complex challenges for healthcare systems, families, and communities. As people live longer, many elderly individuals face multiple physical, cognitive, and psychological changes that threaten their ability to remain independent and maintain a good quality of life. Declines in functional ability, the presence of chronic illnesses, and limitations in performing daily activities often lead to increased dependency and reduced well-being. Understanding these functional and health domains among the elderly is therefore crucial, as it helps identify the factors affecting their daily living and guides the development of effective interventions that promote healthy and active aging.

According to the Census Bureau's 2024 estimates, the elderly population continues to grow rapidly. Adults aged 65 and older increased by 3.1% to 61.2 million in 2024, reflecting a steady rise from 12.4% of the population in 2004 to 18% in 2024. From 2020 to 2024, the older population expanded by 13%, outpacing growth in the working-age population and contrasting with a decline in the number of children. This demographic shift has led to more areas with larger elderly populations, with the number of states rising from 3 to 11 and the share of U.S. counties where the elderly now outnumber children rising from 31% to nearly 45%. These figures highlight the nation's ongoing transition toward an aging population.

Chowdhury (2023) describes multimorbidity as the coexistence of two or more chronic conditions in the same person; it is highly prevalent in older populations and is associated with poorer functioning, greater healthcare use, polypharmacy, and an increased risk of disability. Large systematic reviews estimate that more than half of people aged 60+ have multimorbidity, underscoring the need to account for multiple concurrent conditions when studying physical activity and functional capacity in this population.

Aging is a universal and inevitable process characterized by gradual changes in the body's physical, mental, and emotional aspects. These changes may lead to reduced independence and an increased vulnerability to illness. As individuals grow older, their capacity to engage in regular physical activities tends to decline due to the natural aging process, disease, or social and environmental barriers. Physical activity, however, remains one of the most effective ways to sustain well-being in older age, as it promotes muscular strength, mobility, endurance, and emotional stability, all of which contribute to a higher

quality of life, as explained by Huang et al. (2025). Despite its importance, a considerable number of older adults remain physically inactive due to health constraints, a lack of motivation, inadequate facilities, or misconceptions about the risks and benefits of exercise. Edemekong (2025) explained that Activities of Daily Living (ADLs) are the basic self-care tasks that individuals must perform daily to live independently and safely. For the elderly, inability or decline in ADLs is a key indicator of functional impairment: it often reflects physical decline, disease progression, or cognitive deterioration.

According to Plamen (2021), education is an important determinant of cognitive reserve and overall health in later life. Research indicates that higher levels of education are associated with better cognitive outcomes in old age and can help mitigate declines in memory and general cognitive function. Education on physical activity for the elderly involves teaching them how to incorporate and maintain a healthy, safe exercise routine to improve their physical, cognitive, and functional health.

Socioeconomic status (SES), commonly measured by income, wealth, occupation, or education, strongly shapes the elderly's opportunities for physical activity, access to health care, nutrition, and safe environments. Reviews and observational studies demonstrate that the elderly with lower SES have lower physical activity levels, higher burden of chronic disease, and worse functional outcomes; SES inequalities, therefore, contribute substantially to disparities in aging-related health, as stated by Stringhini et al. (2024)

The World Health Organization's concept of intrinsic capacity reframes healthy aging around an individual's composite physical and mental capacities—domains include locomotion/mobility, vitality/nutrition, cognition, psychological state, and sensory function. Intrinsic capacity provides a function-centered approach that complements disease-centered care and guides early screening, integrated interventions (ICOPE), and community programs that preserve independence in older people, as cited by Zhou et al. (2024).

Beard et al. (2022) stated that the locomotion domain—which includes balance and mobility—is one of the strongest determinants of independence in older age. Impaired locomotor capacity limits social participation, increases fall risk, and often precedes functional decline across other domains. Zhao et al. (2024) further demonstrated that regular movement and physical activity can sustain intrinsic capacity and delay the onset of disability, especially when combined with community-based exercise programs tailored for older adults. Evaluating locomotion, therefore, provides valuable insight into both physical resilience and overall adaptability in aging populations.

According to Guigoz (2021), vitality refers to the physiological reserves that enable the elderly to adapt to internal and external stressors. The Mini Nutritional Assessment (MNA) is widely used to evaluate nutritional status and identify malnutrition risk in older people, and malnutrition detected by the MNA is strongly associated with greater functional decline, frailty, and mortality. In longitudinal aging research, Beard et al. (2022) identified vitality as one of the five core domains of intrinsic capacity—alongside cognition, psychological, locomotor, and sensory—and reported that lower vitality predicts declines in both Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) performance.

Furthermore, the inclusion of the vitality domain through the Mini Nutritional Assessment (MNA) highlights the critical role of nutrition in maintaining functional

independence among the elderly. Poor nutritional status contributes to frailty, muscle loss, and reduced physiological resilience, ultimately increasing the risk of dependency in performing daily activities, as reported by Tsutsumimoto et al. (2023). Guigoz & Vellas (2021) also stated that adequate nutrition supports metabolic function, immune response, and recovery from illness, making it a foundational determinant of healthy aging. Hence, assessing vitality helps identify the elderly at risk of functional decline who may benefit from early nutritional interventions.

Cognitive functioning is a central domain in intrinsic capacity and is critical for older adults' ability to perform daily and instrumental tasks. The 30-point Mini-Mental State Examination (MMSE) remains one of the most commonly used tools for screening cognitive function in the elderly, particularly in cross-sectional and longitudinal studies of aging, as noted by Liang et al. (2023). The study emphasized that declines in MMSE scores are predictive of increased dependency in ADLs and IADLs, beyond the impact of age, multimorbidity, or other personal factors.

Based on Miller et al. (2022), cognition, as measured by the Mini-Mental State Examination (MMSE), remains an essential predictor of functional performance in old age. Studies have shown that even mild cognitive impairment significantly increases the risk of dependency in both ADL and IADL due to decreased executive function and decision-making abilities. Maintaining cognitive health through stimulation, education, and social engagement has been linked to prolonged autonomy and a higher quality of life in older adults, as reported by Liu et al. (2024). Therefore, incorporating cognitive assessment into the study's framework helps establish a clear link between mental capacity and daily functioning.

According to Huang et al. (2024), the psychological domain, as measured by the Geriatric Depression Scale (GDS), addresses the emotional well-being of the elderly, which is closely intertwined with physical and cognitive functioning. Depression in the elderly is associated with decreased motivation, reduced mobility, and higher levels of fatigue, all of which can impair their capacity to carry out ADL and IADL tasks. Furthermore, Jia et al. (2023) emphasized that psychological distress exacerbates chronic illnesses and accelerates the decline of intrinsic capacity, emphasizing the need for early screening and intervention to maintain functional stability.

The Journal of Affective Disorders (2024) reported that depressive symptoms are highly prevalent among older adults and can impair motivation, cognition, physical activity, and overall functional capacity. The Geriatric Depression Scale (GDS), particularly the 15-item version, is frequently used in gerontology research to screen for depression. The mental health burden among older adults remains significant, and psychological decline forms a central component of the intrinsic capacity framework, influencing future dependency and overall functional deterioration.

Chhetri (2022) explained that sensory domains—specifically hearing and vision—constitute the final major component of intrinsic capacity. Age-related sensory decline can directly affect communication, mobility, balance, and safety, thereby contributing to falls, isolation, and downstream functional loss. Simple screening methods, such as the whisper voice test for hearing and vision assessments like the Snellen chart, are commonly used to detect sensory impairments that might otherwise go unnoticed, yet have a meaningful impact on both Instrumental Activities of Daily Living (IADL) and Activities of Daily Living (ADL).

According to Chhetri et al. (2022) and Liang et al. (2023), sensory health—particularly hearing and vision—plays a crucial role in communication, balance, and overall functional safety. Sensory impairments can lead to social isolation, cognitive strain, and an increased risk of falls, all of which reduce independence in older adults. Early detection of sensory loss using simple screening methods, such as the whisper test or the Snellen chart, enables timely rehabilitation strategies that help preserve both mobility and quality of life.

In line with these domains, López-Ortiz et al. (2022) emphasized that the study employs standardized tools, including the Mini Nutritional Assessment (MNA), Mini-Mental State Examination (MMSE), Geriatric Depression Scale (GDS), Whisper Test, and Snellen Chart, to assess the intrinsic capacity of older adults holistically. These measurements reflect the five interconnected domains identified by the WHO, including locomotion, vitality, cognition, psychological, and sensory, directly corresponding to the study's questionnaire and statement of the problem. By analyzing these indicators, the study seeks to determine the level of functional difficulty in performing Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL), and to identify which health domains most strongly predict dependency among the elderly.

Moreover, Zhao et al. (2024) found in their cross-sectional study that intrinsic capacity scores are strongly associated with mobility performance and physical activity engagement among community-dwelling older adults. Their research, conducted across several countries in Asia and Europe, revealed that reduced locomotor capacity—measured through balance and gait tests—was significantly correlated with lower Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) scores. These findings indicate that maintaining mobility and vitality can extend independence and delay functional decline, thereby reinforcing the importance of conducting community-level assessments such as the present study.

Falls remain the leading cause of fatal and nonfatal injuries among elderly people aged 65 and above in the United States, according to the Centers for Disease Control and Prevention (CDC). More than 14 million older adults each year experience at least one fall, with over a third of these incidents resulting in injuries that require medical attention or limit daily activities. The rate of fall-related deaths in older adults has also risen from 55.3 per 100,000 in 2012 to 78.0 per 100,000 in 2021. These statistics highlight the growing public health concern about falls among the aging population. Although this incident is common and costly, it can be prevented through various interventions, including regular strength and balance exercises, medication reviews, and the removal of home hazards. Early preventive screening and action are crucial in maintaining mobility.

López-Ortiz et al. (2022) emphasized that assessing the functional and health domains of older adults through the framework of intrinsic capacity provides a clearer, evidence-based picture of healthy aging. By evaluating the levels of difficulty in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) alongside physiological, cognitive, and psychosocial measures, this study recognizes the multidimensional nature of aging. George et al. (2021) explained that understanding these domains helps identify which aspects of health most influence independence and provides baseline evidence for designing locally tailored health programs that promote active, resilient, and dignified aging. This study also addresses the research gap in community-based data on Filipino elders, particularly those residing in barangay settings, where

resources and access to geriatric services are often limited. In line with this, the World Health Organization (2024) calls for integrating intrinsic capacity monitoring into public health systems to ensure that older adults remain functionally capable and socially included throughout their later years.

In the Philippine context, limited local data exist on how the domains of intrinsic capacity interact with functional independence among community-dwelling seniors. Studies by Fabillar et al. (2025) and Lipardo et al. (2023) highlighted that Filipino elders with lower nutritional status and mental well-being tended to report greater difficulties with Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). However, few investigations have integrated these domains into a single framework, leaving a gap that this research aims to address. By situating these global frameworks within the realities of local barangays, the study aims to provide culturally relevant evidence to support the design of health programs that promote active aging and functional resilience among older Filipinos.

The number of people aged 60 years and above in the Philippines is projected to increase significantly—from 5.3% in the pre-pandemic period to 11.8% by 2050. According to the Philippine Statistics Authority (2025), individuals within this age group are considered part of the vulnerable population because they are more prone to developing various health conditions, including cancer, diabetes, and cardiorespiratory illnesses such as COVID-19. In response, the Philippine National Health Accounts (Fabillar et al., 2025) reported that PHP 171.5 billion was allocated to the healthcare needs of adults aged 60 and above, with approximately 26% of this amount intended for those with documented medical conditions. This growing financial demand underscores the urgent need for the Philippine government to establish a more efficient and sustainable system for resource allocation to address the challenges posed by population aging and the rising prevalence of age-related illnesses.

Despite policy progress, the Philippines remains inadequately prepared to address the complex and growing needs of this aging sector. Alcazar, M. D. P. (2025) emphasized that revising existing national programs—such as the Senior Citizens' Welfare Act—is crucial for aligning with the health-related needs of older Filipinos. Moreover, strengthening social welfare and wellness programs is essential to ensure that more elderly citizens receive comprehensive support, while addressing disparities in healthcare access between urban and rural areas promotes equitable and inclusive well-being among older adults.

Dino, M. J. S. (2025) reported that research on physical activity among older Filipinos remains limited, with most studies focusing on mobility and well-being rather than multidimensional health domains. In a phenomenological study conducted in Bataan, he also found that older adults faced both challenges and opportunities in engaging in physical activities due to health limitations, environmental barriers, and family responsibilities. Similarly, Fabillar et al. (2025) observed in Samar that while walking and stretching were common, irregular physical activity patterns and inconsistent sleep cycles hindered overall well-being. Psychological factors such as self-efficacy were also found to motivate exercise participation among retired military personnel in Zamboanga del Norte, as stated by Dino, M. J. S. (2025).

There is limited understanding of how cultural expectations, family roles, environmental contexts, and personal perceptions influence older adults' participation in

physical activity. Addressing this gap is vital to creating culturally sensitive, resident-centered interventions that support active and healthy aging in the Philippines. Exercise is a structured, regular activity aimed at improving fitness. In this study, we do not focus on these general definitions, but rather on people's own definitions of physical activity and what it means to them.

Exercising is important in ensuring the physical and psychological health of the elderly. In the Fabillar et al. (2025) study in Samar, Philippines, the physical mobility and well-being of the elderly population aged 60-80 were examined. The researchers found that although many participants engaged in stretching and walking exercises, the majority did not participate in household or community activities. In its turn, this implies that community-based interventions are urgently needed to promote the physical health, mental performance, and well-being of older residents. Thus, it is necessary to understand how elders' physical activity patterns are structured to inform health promotion strategies based on evaluations of physical mobility and Well-Being of Elders in Samar.

Older adults in the Philippines experience better well-being when they can stay functional and independent in their daily lives. In a study conducted by Moreno-Agostino et al. (2021), 2,825 elderly people were surveyed. The study found that older adults living in supportive physical and social environments reported significantly higher levels of life satisfaction and emotional well-being, mainly because these conditions helped preserve their functional abilities.

In addition, the levels of physical activity directly determine the quality of life of older adults. Lipardo (2023) conducted a cross-sectional study to evaluate the association between physical activity and quality of life among Filipino community-dwelling elders during the COVID-19 pandemic. The study employed the Physical Activity Scale of the Elderly in Filipino (PASE-F) and the Short-Form 36 Version 2 Philippines (Tagalog SF-36v2) and found that overall quality of life was rated significantly higher by more active elders. This observation demonstrates the significance of physical exercise as a major predictor of health in the elderly. Therefore, active lifestyles should be promoted in elder care programs.

Moreover, medical professionals, especially physical therapists, play an important role in promoting exercise among older adults. One study examined Filipino physical therapists' knowledge of the WHO physical activity guidelines and their use of behavior change methods to encourage physical activity among older adults (Lunar et al., 2023). The results showed that well-trained, knowledgeable therapists were more likely to implement effective interventions to enhance elderly participation in physical exercise. This highlights the relevance of continuous professional learning in advancing active lifestyles. As a result, empowering healthcare providers is essential to addressing obstacles to physical activity among the elderly. Moreover, the elderly's engagement in physical activity is highly dependent on lifestyle factors. Research that examined factors leading to physical inactivity in Filipino older adults revealed that alcohol use, lack of motivation, and sedentary lifestyles were the key obstacles (Ngo, 2022). The results from these studies suggest that a lifestyle intervention could increase physical activity levels and reduce sedentary time. Moreover, these factors may be considered within a broader preventive scope for chronic diseases and the maintenance of functional independence. Therefore, there is a need to explore the relationship between lifestyle and motivation to produce exercise programs for the elderly.

Furthermore, the paper by Isogon (2024) discusses the physical health of the elderly and serves as a vital source of information for developing intervention programs tailored to this age group. The research design is correlational, and the sample of 380 participants includes demographic profiles revealing diversity across age groups and civil statuses, which should be taken into account when developing specific programs. The research outcomes indicate that senior citizens have a positive attitude towards physical fitness and are therefore aware of its importance for maintaining health and overall well-being. These findings broaden the potential of community-based initiatives to promote physical activity among the elderly. Lastly, the study points out the necessity of such programs, as they not only enhance quality of life but also facilitate the management of age-related chronic health conditions.

While global literature offers extensive insights into aging and functional health, there remains a notable gap in localized research within the Philippine setting, particularly in barangay-level communities where access to geriatric services is limited. A review of related literature revealed a scarcity of studies that holistically examine intrinsic capacity and its relationship to functional independence among Filipino elders. This gap underscores the need for culturally relevant, community-based data to inform targeted health programs and policy development. Situated within this context, the present cross-sectional study provides foundational evidence to support the growing needs of older adults in local communities and contribute to the national dialogue on healthy aging.

This study is focused on exploring the functional and health domains among the elderly in Barangays Carlatan, Catbangen, Lingsat, Poro, and San Francisco, San Fernando City, La Union. While the government has implemented various initiatives to improve health facilities and systems that prioritize older adults, a significant number of older adults remain physically inactive and have low intrinsic motivation. This inactivity and low intrinsic factors pose serious health risks, including reduced mobility, increased vulnerability to chronic illnesses such as cardiovascular disease and diabetes, and overall decline in quality of life. Understanding the factors that contribute to these is essential to creating meaningful, responsive interventions that support healthy aging within the community.

On a practical level, this study aims to help families and caregivers understand the functional and health domains of the elderly, enabling the development of targeted health programs informed by the collected data. This can lead to small, meaningful changes that promote safe and sustainable programs for the elderly.

In a community setting, this study aims to serve as a tool for community leaders to design more inclusive and responsive health programs for the elderly, supporting vital planning and advocacy. By addressing specific obstacles, such as poor infrastructure or social isolation, they can foster an elder-friendly environment.

From a public health perspective, this study aims to develop appropriate health programs to prevent chronic diseases, reduce long-term healthcare costs, and promote healthy aging. It provides evidence that local government units can use to guide policy and resource allocation. This supports the development of elderly-focused programs that improve health outcomes and quality of life.

At the academic level, this research aims to add localized data to the fields of gerontology and community health, particularly for scholars and practitioners interested in studying aging populations. It serves as a foundation for future studies on aging, suburban

health, and physical activity. Linking theory with real-world insights encourages further exploration of elderly care in communities. Lastly, for future researchers, the study's findings will serve as a basis or reference for further investigation.

2. Objectives

This study aimed to determine the functional and health domains among elderly residents of selected barangays in the City of San Fernando, La Union. Specifically, it aimed to answer the following questions:

1. What is the profile of the respondents in terms of age, sex, education level, socioeconomic status, and multimorbidity?
2. What is the level of difficulty for the elderly in performing Activities of Daily Living (ADL)?
3. What is the level of difficulty for the elderly in performing Instrumental Activities of Daily Living (IADL)?
4. What is the level of intrinsic capacity of the elderly along locomotion, vitality, cognition, psychological, and sensory domains?
5. What health program can be designed to improve the functional abilities of the elderly?

3. Materials and Methods

The study employed a quantitative descriptive cross-sectional research design. This design allowed the researchers to collect all measurements at a single point in time, providing a clear "snapshot" of the functional and health status of elderly residents. By collecting data only once, the study effectively determined the prevalence of limitations in ADL, IADL, and intrinsic capacity domains.

The study was conducted in Barangays Carlatan, Catbangen, Lingsat, Poro, and San Francisco in San Fernando City, La Union. These barangays were purposely selected based on official data from the City Health Office, which identified them as among the top ten barangays with the highest number of registered senior citizens. A total of 359 elderly participants aged 60 years and above were included based on the following criteria: community-dwelling older adults aged 60 years and above, residents of the selected barangays, capable of providing informed consent, and not institutionalized. Exclusion criteria included individuals with severe cognitive impairment and those unable to participate in interviews or assessments.

Due to the absence of a comprehensive sampling frame, convenience sampling with quota allocation was employed to approximate proportional distribution across barangays. Trained midwives conducted screening of respondents after undergoing orientation on ethical conduct, confidentiality, cultural sensitivity, proper administration of screening tools, and informed consent procedures.

The main tool for data gathering was a structured survey questionnaire divided into four sections: Part I collected information on respondents' age, sex, educational attainment, and socioeconomic status; Part II assessed the level of difficulty in performing ADLs using the Katz Index of Independence in Activities of Daily Living. The Katz Index was interpreted using total scores ranging from 0 to 6, with 0-2 indicating severe functional impairment, 3-4 indicating moderate impairment, and 5-6 indicating full function. Part III focused on IADL difficulty using the Lawton and Brody IADL Scale, with scores ranging

from 0 to 8. Scores of 0-1 indicated high dependence, 2-3 significant dependence, 4-5 moderate dependence, 6-7 mild dependence, and 8 high functioning with full independence. Part IV measured intrinsic capacity across five domains: locomotion (gait speed test), vitality (Mini Nutritional Assessment), cognition (Mini-Mental State Examination), psychological (Geriatric Depression Scale), and sensory (automated digits-in-noise hearing test and Snellen Chart).

Data collection was conducted through a systematic, ethically rigorous sequence. Official permissions were secured from the Dean of the College of Nursing, the city mayor, and barangay captains. Approval from the Research Ethics Committee was obtained. Informed consent was obtained from each participant after a comprehensive explanation of the study's purpose, procedures, potential risks, and benefits. The questionnaire was administered audibly during structured interviews lasting 15 to 30 minutes. Responses were recorded directly on the questionnaire. All procedures adhered to the ethical principles of autonomy, beneficence, non-maleficence, justice, and respect for persons.

Descriptive statistics were used to analyze respondent profiles, with continuous variables analyzed using mean, median, and standard deviation, and categorical variables presented as frequencies and percentages. ADL and IADL scores were categorized into predefined ranges. Intrinsic capacity domains were analyzed using appropriate descriptive statistics for each instrument.

4. Results

The analysis of the 359 elderly participants yielded a comprehensive understanding of their functional and health domains across multiple areas. The researchers organized the findings according to the five problem statements, which served as the framework for presenting the results. The following presentation addresses: (1) the profile of the respondents, (2) the level of difficulty in performing Activities of Daily Living, (3) the level of difficulty in performing Instrumental Activities of Daily Living, (4) the level of intrinsic capacity across five domains, and (5) the health programs designed to improve functional abilities.

Table 4
Profile of the Respondents

Profile		Frequency (f)	Percentage (%)
Age Range	**60-65**	108	30.1
	66-70	71	19.8
	71+	180	50.1
Sex	**Male**	117	32.6
	Female	242	67.4
Educational Level	**No Formal Education**	7	1.9
	Primary Education	105	29.2
	Secondary Education	160	44.6
	Tertiary Education (College/ University)	84	23.4
	Vocational	3	.8
Socioeconomic Status	**Low**	311	86.6
	Middle	45	12.5
	High	3	.8
Multimorbidity	**.00**	5	1.4
	1.00	6	1.7

	2.00	2	.6
	3.00	4	1.1
	4.00	4	1.1
	5.00	67	18.7
	6.00	271	75.5
	Total	N=359	100%

Table 5

Level of Difficulty in Performing Activities of Daily Living

Activities	Points	Frequency (f)	Percentage (%)
Bathing	**1 Point**	346	96.4
	0 Point	13	3.6
Dressing	**1 Point**	344	95.8
	0 Point	15	4.2
Toileting	**1 Point**	347	96.7
	0 Point	12	3.3
Transferring	**1 Point**	339	94.4
	0 Point	20	5.6
Continence	**1 Point**	274	76.3
	0 Point	85	23.7
Feeding	**1 Point**	347	96.7
	0 Point	12	3.3
Scoring	**Severe Functional Impairment**	13	3.6
	Moderation Impairment	8	2.2
	Full Function	338	94.2
	Total	359	100.0

Note: The score ranges from 0 to 6. Scores of 0–2 indicate severe functional impairment, 3–4 indicate moderate impairment, and 5–6 reflect full functional ability.

Table 6

Level of Difficulty in Instrumental Activities of Daily Living

Instrumental Activities	Points	Frequency (f)	Percentage (%)
Ability to Use Telephone	**1 Point**	278	77.4
	0 Point	81	22.6
Shopping	**1 Point**	217	60.4
	0 Point	142	39.6
Food Preparation	**1 Point**	273	76
	0 Point	86	23.9
Housekeeping	**1 Point**	320	89.1
	0 Point	39	10.9
Laundry	**1 Point**	271	75.5
	0 Point	88	24.5
Mode of Transportation	**1 Point**	310	86.4
	0 Point	49	13.6
	1 Point	303	84.4
Responsibility for Own Medications	**0 Point**	56	15.6
	1 Point	285	68.7
Ability to Handle Finances	**0 Point**	130	31.3
Scoring	**High Dependence**	24	6.7
	Significant Dependence	24	6.7
	Moderate dependence	44	12.3
	Mild dependence	121	33.7
	High functioning and full independence	146	40.7

Note: The IADL scale ranges from 0 to 8, where 0-1 indicates high dependence, 2-3 significant dependence, 4-5 moderate dependence, 6-7 mild dependence, and 8 high functioning with full independence.

Table 7
Categorical Distribution of Locomotion, and Sensory Domains

Domains		Frequency (f)	Percentage (%)
LOCOMOTION	**Normal**	230	64.1
	Abnormal	129	35.9
SENSORY (Hearing)	**No Impairment**	167	46.5
	Impaired	192	53.5
SENSORY (Vision)	**No Impairment**	67	18.6
	Impaired	292	81.3
	Total	N=359	100%

Note: n=359

Table 8
Descriptive Statistics for Vitality, Cognition, and Psychological Domains

Domain	Mean	Std. Deviation	Minimum	Maximum
Vitality	10.46	2.29	3.00	14.00
Cognition Level	25.38	5.14	0.00	30.00
Psychological	2.81	2.42	0.00	15.00

Note: n=359

5. Discussion

The statement of the problem regarding the **Profile of the Respondents** examined the demographic and health characteristics of elderly participants in terms of age, sex, education level, socioeconomic status, and multimorbidity. Understanding these characteristics is essential for designing targeted health interventions that address the specific needs of the elderly population in San Fernando City, La Union, as demographic factors profoundly influence functional capacity, healthcare access, and overall quality of life among older adults.

The subcategory on **Age** examined the distribution of elderly respondents across different age groups. The finding that 50.1% of respondents were aged 71 years and above indicates that the majority of the elderly population in this study belongs to the older segment of the aging spectrum. Among Filipino elderly, advancing age is associated with increased physiological changes, including reduced muscle strength, slower mobility, and greater vulnerability to chronic diseases. Elderly Filipinos in this age group often rely more heavily on family support and community-based health services, as access to formal healthcare may be limited by financial constraints or transportation difficulties. The presence of respondents in very advanced ages, although small in number, further highlights the diversity of aging experiences within the elderly population, where some individuals maintain remarkable resilience while others experience significant functional decline.

The subcategory on **Sex** examined the gender distribution of elderly respondents. The predominance of female respondents (67.4%) reflects the demographic reality that women generally have longer life expectancy than men. Among elderly Filipinas, this longer lifespan often means extended years of widowhood, increased likelihood of living alone, and greater reliance on social support networks. Filipino elderly women traditionally serve as primary caregivers within families and are more actively engaged in community activities, which may contribute to their higher participation rates in health-related studies. This gender distribution has important implications for health program design, as elderly women may have different health needs, social support requirements, and preferences for healthcare delivery compared to elderly men.

The subcategory on **Education Level** examined the highest educational attainment of elderly respondents. The finding that the majority of respondents had secondary education (44.6%) indicates that most elderly individuals in this community have attained a basic level of formal education. Among Filipino elderly, educational attainment influences health literacy, which affects their ability to understand medical instructions, manage chronic conditions, and navigate the healthcare system. Elderly individuals with higher education levels are more likely to engage in preventive health behaviors and adhere to treatment regimens. However, even among those with formal education, deeply rooted cultural beliefs and traditional health practices may continue to influence their health-seeking behaviors, leading many Filipino elderly to integrate both modern and traditional approaches to healthcare.

The subcategory on **Socioeconomic Status** examined the monthly income classification of elderly respondents. The high percentage of respondents with low socioeconomic status (86.6%) indicates that the majority of elderly participants in this study come from economically disadvantaged backgrounds. Among Filipino elderly, low socioeconomic status translates into concrete barriers to healthcare access, including difficulty affording medications, inability to pay for transportation to medical appointments, limited ability to purchase nutritious food, and inadequate housing conditions that may pose safety hazards. Many elderly Filipinos rely on financial support from adult children who may themselves be struggling with economic challenges, or on government assistance programs such as the Social Pension for Indigent Senior Citizens. This finding highlights the urgent need for subsidized health services and community-based programs that reduce financial barriers to care.

The subcategory on **Multimorbidity** examined the number of chronic conditions experienced by elderly respondents. The finding that 75.5% of respondents reported 6 chronic conditions underscores the high prevalence of multimorbidity in this population. Among Filipino elderly, the accumulation of multiple chronic diseases such as hypertension, diabetes, arthritis, and chronic respiratory conditions is extremely common. The burden of managing multiple chronic conditions simultaneously presents significant challenges for elderly individuals, including complex medication regimens, frequent medical appointments, and the need for coordinated care across multiple specialists. For Filipino elderly with low health literacy and limited financial resources, managing multimorbidity becomes particularly challenging, often leading to poor treatment adherence, preventable complications, and reduced quality of life. This finding indicates that healthcare services for Filipino elderly must be structured to provide integrated chronic disease management rather than siloed, single-disease approaches.

The statement of the problem regarding the **Level of Difficulty in Activities of Daily Living** assessed the ability of elderly respondents to perform basic self-care tasks, including bathing, dressing, toileting, transferring, continence, and feeding. The finding that 94.2% of respondents maintained independence in basic ADLs indicates that the vast majority of elderly individuals in this community can perform essential personal care tasks without assistance. This high level of functional preservation is notable given the population's advanced age and multimorbidity. Among Filipino elderly, maintaining ADL independence is highly valued as it allows individuals to remain in their homes and communities rather than requiring institutional care. Filipino families traditionally provide support to elderly members, but the preservation of basic self-care abilities reduces

caregiver burden and allows elderly individuals to maintain dignity and autonomy. The lower independence observed in continence (76.3%) compared to other ADL domains suggests that this area represents the greatest challenge for elderly respondents in maintaining complete self-care independence. Among Filipino elderly, continence issues are often underreported due to shame or the belief that it is a normal part of aging. This finding indicates that community health programs should include education about continence management, access to absorbent products, and pelvic floor exercises to address this common but treatable condition.

The statement of the problem regarding the **Level of Difficulty in Instrumental Activities of Daily Living** examined the ability of elderly respondents to perform more complex tasks required for independent community living, including the ability to use telephone, shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility for own medications, and ability to handle finances. The higher independence observed in routine household tasks, such as housekeeping (89.1%), compared to more complex activities, such as shopping (60.4%) and handling finances (68.7%), suggests that task complexity significantly affects functional performance among elderly individuals. Among Filipino elderly, routine household tasks are often performed daily and have become deeply ingrained habits, allowing continued performance despite age-related changes. However, shopping requires leaving the home, navigating potentially unsafe environments, and interacting with unfamiliar people, all of which become increasingly challenging with declining mobility, vision, or confidence. The finding that only 40.7% of respondents achieved the highest level of IADL independence indicates that while most elderly individuals can manage basic self-care, a substantial proportion experience difficulty with the complex tasks required for fully independent community living. For Filipino elderly living in barangay settings, this has significant practical implications. Difficulty with shopping may lead to inadequate nutrition, difficulty with finances may result in missed bill payments or vulnerability to exploitation, and difficulty with transportation may lead to social isolation. This finding indicates that community support services should prioritize assistance with these complex IADL tasks, such as volunteer shopping assistance, financial management support, and accessible transportation options.

The statement of the problem regarding the **Level of Intrinsic Capacity** evaluated elderly respondents across five domains: locomotion, vitality, cognition, psychological, and sensory function. The findings reveal a pattern of relative strength in some domains and significant vulnerability in others. The findings indicate that while elderly Filipinos demonstrate resilience in mobility, cognition, and emotional health, sensory decline and nutritional risk require targeted intervention to preserve overall functional independence and quality of life.

The subcategory on **Locomotion** examined gait speed among elderly respondents as a measure of mobility and balance. The finding that 64.1% of respondents demonstrated normal gait speed indicates that the majority maintain adequate mobility for independent movement within their homes and communities. Among Filipino elderly, maintaining mobility is essential for continuing to participate in family activities, attend religious services, visit neighbors, and perform light household chores. Many elderly Filipinos remain physically active through daily walking to the market, tending small gardens, or caring for grandchildren, which may contribute to preserved gait speed. However, the

35.9% with abnormal gait speed require further assessment and intervention. For these individuals, falls are a significant risk, and fall-related injuries can lead to a rapid decline in overall function and quality of life. This finding indicates that community-based exercise programs focusing on balance training, strength exercises, and walking groups should be offered at accessible locations such as barangay halls or covered courts, with particular attention to including those with identified gait abnormalities.

The subcategory on **Vitality** examined the nutritional status of elderly respondents using the Mini Nutritional Assessment. The finding that 53.5% of respondents were classified as at risk of malnutrition indicates that more than half of the elderly population has nutritional vulnerabilities that could affect their energy, strength, and physiological reserve. The mean score of 10.46 falls within the "at risk" category, with scores ranging from 3.00 to 14.00 showing considerable variation in nutritional status across the population. Among Filipino elderly, malnutrition risk is often multifactorial, including reduced appetite due to medication side effects or depression, difficulty chewing or swallowing due to poor dentition, limited financial resources to purchase nutritious foods, and living alone with reduced motivation to prepare balanced meals. Many elderly Filipinos also hold cultural beliefs about food that may affect nutritional intake, such as avoiding certain "hot" or "cold" foods during illness. This finding indicates that nutrition programs for Filipino elderly should include regular nutritional screening, subsidized access to nutritious foods, community feeding programs, and education for families about age-appropriate nutrition.

The subcategory on **Cognition** examined the cognitive function of elderly respondents using the Mini-Mental State Examination. The finding that 65.7% of respondents demonstrated normal cognition with a mean score of 25.38 indicates that the majority maintain adequate memory, attention, and reasoning abilities. Among Filipino elderly, preserved cognitive function allows continued participation in family decision-making, management of personal affairs, and engagement in meaningful activities such as storytelling, crafts, or religious practices. Many elderly Filipinos remain cognitively active through social interactions with family and neighbors, participation in community events, and engagement in traditional games or crafts. However, 20.9% showed mild impairment, 11.4% moderate impairment, and 2.0% severe impairment, representing subgroups requiring varying levels of cognitive support. For Filipino families, caring for a member with cognitive impairment can be particularly challenging, as it requires constant supervision and may lead to caregiver burnout. This finding indicates that community health programs should include cognitive screening, cognitive stimulation activities such as puzzle groups and memory games, and education for families about dementia care and available support services.

The subcategory on **Psychological Status** examined the emotional well-being of elderly respondents using the Geriatric Depression Scale. The finding that 90.8% of respondents had normal GDS scores with a mean of 2.81 indicates that the vast majority maintain stable emotional well-being with minimal signs of depression. Among Filipino elderly, strong family ties, active community participation, and religious faith serve as important protective factors against depression. The Filipino cultural value of "pakikisama" (getting along with others) and the tradition of extended family living arrangements provide social support that buffers against loneliness and isolation. However, the 9.2% with scores suggesting depression represent a subgroup requiring mental health attention. For

these individuals, contributing factors may include loss of a spouse, declining physical health, financial worries, or feeling like a burden to family members. Depression in Filipino elderly is often underrecognized because symptoms may be attributed to normal aging or expressed through somatic complaints rather than verbalized sadness. This finding indicates that mental health screening should be integrated into routine geriatric assessments, and community-based psychosocial support services including peer support groups and counseling should be made available.

The subcategory on **Sensory Function** examined the hearing and vision abilities of elderly respondents. The finding that vision impairment affected 81.3% of respondents indicates that four out of five elderly individuals have some degree of visual limitation. Among Filipino elderly, uncorrected vision impairment is common due to barriers to eye care, including lack of access to eye examinations, inability to afford prescription glasses, and lack of awareness about treatable conditions such as cataracts. Vision impairment directly affects an individual's ability to read medication labels, navigate the home environment safely, recognize faces, and perform daily tasks such as cooking or cleaning. The finding that hearing impairment affected 53.5% of respondents indicates that more than half of the elderly population experiences auditory decline. Hearing impairment leads to communication difficulties, social withdrawal, and increased cognitive strain. Among Filipino elderly, hearing loss is often accepted as a normal part of aging, and assistive devices such as hearing aids are rarely used due to cost and limited availability. Together, these findings indicate that sensory decline represents the most prevalent functional impairment among this elderly population. This finding has critical implications for health program design, indicating that routine vision and hearing screenings should be prioritized, affordable assistive devices should be made available through an assistive device bank, and families should receive training on communication strategies for elderly members with sensory impairment.

The statement of the problem regarding **Health Programs to Improve the Functional Abilities of the Elderly** indicates that interventions should be community-based, low-cost, and multi-domain in scope, addressing the specific needs identified in each area of functional ability and intrinsic capacity while recognizing the demographic characteristics and resource constraints of the target population. Among Filipino elderly in barangay settings, the most effective health programs are those that are delivered through existing community structures, utilize barangay health workers as frontline providers, and respect cultural values of family interdependence and community cooperation. The finding that the majority of respondents have low socioeconomic status indicates that programs must be provided at no cost to participants, with funding sourced from local government units, the Department of Social Welfare and Development, and community donations. The high prevalence of multimorbidity indicates that programs should integrate chronic disease management rather than addressing conditions in isolation. The finding that sensory decline is the most prevalent impairment indicates that vision and hearing services should be prioritized, including annual community-based screenings, assistive device banks for eyeglasses and hearing aids, and communication skills training for families. The finding that 53.5% are at risk of malnutrition indicates the need for nutrition programs including community kitchens, home-delivered meals for homebound elders, and nutrition education. The program should be delivered through barangay health workers in coordination with the City Health Office and Rural Health Unit, with quarterly monitoring of outcomes

including ADL independence, fall frequency, nutritional status, and depression scores. This integrated, community-based approach recognizes that functional decline among Filipino elderly is not inevitable and can be delayed or managed with timely, culturally appropriate interventions delivered within the context of family and community support.

6. Conclusion

The elderly population in this study is primarily characterized by advanced age, female sex, secondary education, and low socioeconomic status. These factors collectively limit their access to healthcare and essential health resources. The high prevalence of multiple chronic conditions further emphasizes the vulnerability of this group and the increasing health challenges associated with aging. These results underscore the urgent need to enhance targeted health programs and support systems that address both the functional and comprehensive health needs of older adults, thereby promoting healthy aging and improving quality of life.

The findings highlight that a large proportion of elderly respondents remain functionally independent in performing Activities of Daily Living (ADLs), indicating that aging does not necessarily lead to complete dependence. This suggests that most older adults can still maintain their daily routines and personal care with minimal assistance. As a result, efforts in healthcare and community programs should focus on sustaining this level of independence while also addressing specific areas where some individuals experience difficulties.

The findings indicate that elderly individuals retain the ability to perform routine instrumental activities essential for independent living, reflecting preserved functional capacity in familiar tasks. However, decreased independence in more complex activities suggests emerging limitations in cognitive, physical, and environmental functioning. This underscores the need to address specific areas of decline to sustain independence and enhance the overall quality of life among older adults.

The findings show that aging affects different abilities in different ways, with strengths in mobility, thinking, and emotional health, but clear weaknesses in nutrition and sensory function. This means decline is not inevitable but can be managed with the right support. Community programs that provide nutrition care, regular eye and ear checks, assistive devices, and emotional support can help older adults stay independent and improve their quality of life. With timely and local action, seniors can continue to live with dignity, remain active, and avoid unnecessary dependence on institutions.

The program demonstrates that functional decline is not an inevitable consequence of aging but something that can be delayed, managed, or even reversed with timely, community-based, and locally embedded interventions. This suggests that policymakers and local governments can invest in stratified, low-cost programs within existing barangay structures. This will help preserve elderly independence, ease the burden on caregivers, and prevent costly institutionalization. The findings compel a shift in mindset from viewing aging as a problem of dependence to embracing it as an opportunity for dignified, active, and community-supported living, achievable even with modest budgets and sustainable local partnerships.

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9. Appendices

APPENDIX A
Approval Letter


LC-REC Form #024
APPROVAL LETTER

REC Reference #: 2025-188

December 10, 2025

To: **Jan Mavourneen Balignasay, Areane Jade Bejarin, Arvelynda Biag, Marie Erica Casilla, Angel Rose Castro**
LORMA Colleges, College of Nursing

Subject: Approval of the Research Study – "FUNCTIONAL AND HEALTH DOMAINS AMONG THE ELDERLY: A CROSS-SECTIONAL STUDY" – by the Research Ethics Committee (REC).

Dear Researcher/s,

The Research Ethics Committee (REC) has reviewed your application to conduct the above-mentioned research study in the Barangays Catbangen, Birunget, Parian, Poro, and Sevilla in the City of San Fernando, La Union with you as the Principal Investigators within a duration of December 10, 2025 to December 10, 2026.

The Following documents have been reviewed and approved:

1. Endorsement of the Research Coordinator
2. Title and Statement of the Problem/Objective
3. Literature Review
4. Methods and Procedures
5. Population and Locale
6. Exclusion/Inclusion Criteria
7. Data Analysis
8. Ethical Considerations

The institutional REC expects to be informed about the progress of the study, any revision in the protocol before implementation and participants'/respondents' information/informed consent. Likewise, you are required to provide the Board a copy of the final report.

Yours Sincerely,

P. VERA, LPT
Chairman, LC-REC

10. Author(s) Biodata

Ms. Angel Rose P. Castro, a Bachelor of Science in Nursing student from Lorma Colleges, leads a team of passionate peers alongside their research adviser, Mrs. Editha C. Sabalboro, in exploring the functional and health domains among elderly residents in selected barangays of San Fernando City, La Union. Together, they bring energy and commitment to their research endeavors, providing in-depth learning in geriatric assessment, functional independence, and intrinsic capacity across locomotion, vitality, cognition, psychological, and sensory domains.