



ORIGINAL

## Disability and functionality of older adults

### Discapacidad y funcionabilidad de los adultos mayores

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#### ABSTRACT

**Introduction:** the population of all the countries of the Americas is in the process of aging, the Cuban population is no stranger to this social phenomenon that generates new damages to health.

**Objective:** to characterize the disability and functionality of older adults belonging to the medical office #8 of the Policlínico Fermín Valdés Domínguez, Viñales municipality in 2018.

**Methods:** an observational, analytical, and cross-sectional study was conducted, 256 older adults were identified as the universe, selecting a sample of 179 by simple random sampling. Theoretical and empirical methods were used to review the clinical histories and the Katz index and the Lawton scale were applied to determine functionality, descriptive and inferential statistics, the nonparametric Mann Whitney test and the Spearman test, all with a level of certainty of 95%; the data were included in tables and graphs for better understanding.

**Results:** an average of 67 years of age and prevalence of female sex was observed; 54,7 % of the older adults did not present disability; diabetes mellitus was associated with special sensory system disability, 72,6 % were independent when applying Katz index and 69,3 % the Lawton scale, functionality decreases with age.

**Conclusions:** most of the older adults did not present disabilities and maintained their functional capacity, which contributes to achieve a healthy longevity and better quality of life.

**Keywords:** Functional Capacity; Disability; Elderly.

#### RESUMEN

**Introducción:** la población de todos los países de las Américas se encuentra en proceso de envejecimiento, la población cubana, no está ajena a este fenómeno social que genera nuevos daños a la salud.

**Objetivo:** caracterizar la discapacidad y funcionabilidad de los adultos mayores pertenecientes al consultorio médico 8 del Policlínico Fermín Valdés Domínguez, municipio Viñales en el año 2018.

**Métodos:** se realizó un estudio observacional, analítico, y transversal, se identificó como universo 256 adultos mayores, seleccionando una muestra de 179 por un muestreo aleatorio simple. Se utilizaron métodos teóricos, empíricos al revisar las historias clínicas y se aplicaron índice de Katz y la escala de Lawton para conocer funcionabilidad, de la estadística descriptiva e inferencial, la prueba no paramétrica de Mann Whitney y la prueba de Spearman todas con un nivel de certeza de un 95 %, los datos se llevaron a tablas y gráficos para su mejor comprensión.

**Resultados:** se observó un promedio de 67 años de edad y prevalencia del sexo femenino; el 54,7 % de los adultos mayores no presentaron discapacidad; la diabetes mellitus se asoció a la discapacidad del sistema sensorial especial, el 72,6 % resultaron independientes al aplicar índice de Katz y el 69,3 % la escala de

Lawton, la funcionabilidad decrece con la edad.

**Conclusiones:** los adultos mayores en su mayoría no presentaron discapacidades y mantuvieron su capacidad funcional, lo cual tributa a lograr una longevidad saludable y mejor calidad de vida.

**Palabras clave:** Capacidad Funcional; Discapacidad; Adulto Mayor

## INTRODUCTION

The aging of the population is considered one of the humanity's most significant accomplishments. This process occurs gradually and is influenced by factors such as fertility, mortality, and migration. When these variables are combined over time, they determine the population growth and its age distribution. From a demographic perspective, population aging is defined as the increasing proportion of elderly individuals relative to the rest of the population. However, it is important to characterize it as an age pyramid inversion, as this phenomenon not only involves a rise in the proportion of elderly individuals but also a decline in the percentage of children and young people aged 0 to 14 years.<sup>(1)</sup>

Aging, in its individual manifestation, is defined as a series of morphological, psychological, functional, and biochemical modifications that result from the passage of time in living organisms. It is marked by the gradual decline in the organism's reserve capacity to adapt to changes. This process is dynamic and begins at birth, continuing evolving throughout one's entire life. The observed changes in the aging process are primarily attributed to psychosocial factors, rather than being exclusively biological in nature.<sup>(2,3)</sup>

At the World Assembly on Aging convened in Vienna in 1982, there was consensus to classify individuals aged 60 and over as the elderly population. However, it is worth noting that this categorization has not undergone enough discussion. It is acknowledged that individuals do not all age in a uniform manner, which implies that chronological age may serve as a helpful criterion but may not necessarily be precise, as it seems that there is a distinct aging process for each person.<sup>(2)</sup>

In 1950, the proportion of elderly individuals in both developed and developing countries was approximately the same. However, by the year 2000, two out of every three seniors were living in economically less advantaged regions. Projections indicate that in the upcoming 10 to 15 years (2015-2025), eight out of the eleven countries with the highest proportion of elderly populations will be in developing countries.<sup>(1)</sup>

Currently, Spain is home to 15,941 centenarians, with 80 % of them being women. This accounts for 0,03 % of the total population and 0,19 % of individuals aged 65 and older. Projections suggest that by the year 2050, the number of centenarians is expected to increase to 69,386.<sup>(4)</sup>

In Colombia, there is a trend of population aging, accompanied by an increase in life expectancy. Currently, the average life expectancy in Colombia is 74,3 years, with women typically having a life expectancy that is approximately 3 to 5 years higher.<sup>(5)</sup>

The aging process is affecting the populations of all countries in the Americas, although the pace and timing of this phenomenon vary among different countries. Notably, not only has the proportion of elderly individuals in the continent's population increased, but there has also been a significant rise in life expectancy both at birth and within specific age groups.<sup>(5)</sup>

Between 2010 and 2015, countries such as Canada, Cuba, Puerto Rico, and Martinique experienced aging indices exceeding 100. This indicates that these countries had a greater number of elderly people than children during that period. By 2025 the population aged 60 and older will constitute 18,6 % of the total population in the Americas. Additionally, in at least ten countries (Dutch Antilles, Barbados, Canada, Chile, Cuba, the United States of America, Guadeloupe, Martinique, Puerto Rico, and Uruguay), the population aged 60 years and over will outnumber the population under 15 years old. In the extreme case of Cuba, there will be two adults for every child under 15 years old, with a ratio of 183 adults per 100 children projected for 2025.<sup>(6,7,8,9)</sup>

In Chile, it is projected that the population of older adults (OA) in 2020 will reach 3,2 million individuals, which equates to one OA for every five people in the country.<sup>(10)</sup> Over the next 15 years, Cuba is expected to approach a demographic scenario where 26 % of its population will be aged 60 or older, making it the country with the oldest population in Latin America and the Caribbean. Looking further ahead to 2050, with 38 % of its population comprising older adults, Cuba will rank among the eleven countries with the oldest population in the world.<sup>(2,11,12)</sup> This will result in Cubans having one of the highest average ages on the planet, with significant economic and social implications stemming from this demographic condition.<sup>(13)</sup>

Despite grappling with economic limitations for half a century, Cuba has managed to attain living standards and health outcomes that are comparable to those of developed countries. As a result, it is not exempt from the global trend of experiencing a population aging profile resembling that of historic Europe. Additionally, there is a consistent increase in life expectancy, leading to a phenomenon referred to as "aging of aging" where there are more elderly individuals who are not only aging but are reaching older ages (80-85 years), and often

many of them share the same living spaces.<sup>(16,17)</sup>

In Cuba, 20,1 % of the population falls within the age group of 60 and older. The population reproductive rate is low, with 1,901 fewer births in 2017 compared to the previous year (2016). The birth rate currently stands at 10,2 live births per 1,000 inhabitants, representing a 1,9 % decrease year-over-year. The general fertility rate is 43,0 live births per 1,000 women aged 15 to 49. Fertility rates have declined across all age groups of women in their childbearing years, except for the 15 to 19 and 30 to 34 age groups. The total fertility rate is 1,61, and the gross reproduction rate is 0,77. In Pinar del Río, the population aged 60 and over accounts for 20,6 % of the general population.<sup>(18)</sup>

The situation is further exacerbated by the comorbidity of conditions associated with aging, although there are many diverse conditions, two that have a significant impact on the elderly are dementia and cerebrovascular diseases, which often lead to disability.

Dementia is considered as a condition associated with aging. While it is difficult to pinpoint its exact incidence levels, in general, its prevalence ranges from 5 % to 10 % among individuals aged 65 and older. This prevalence rate tends to double every five years as individuals age, eventually reaching a prevalence of 25 % to 50 % among population aged 85 and above. It is estimated that over 5 % of individuals aged older than 60 experience a cerebrovascular event, leading to motor and cognitive impairments in more than 50 % of cases.<sup>(16)</sup>

Aging fundamentally represents a triumph of life, where individuals living in improved conditions can attain advanced ages. However, it also presents challenges across various aspects of society, including the provision of services, material production, social security, and more. From a demographic standpoint, aging is defined as the increase in the proportion of elderly individuals relative to the rest of the population. However, it is crucial to acknowledge not only this proportion but also the decline in the number of children and young people under 15 years old. Regardless of the precision of population forecasts, population aging is an undeniable reality in Cuba. The extent to which it has evolved and the rapid transformation of the Cuban population pyramid raise significant concerns for the future. This poses decisive challenges for the country's economic and social politics, as well as for society as a whole.<sup>(19,20)</sup>

The concern mentioned earlier is not solely due to the accelerated aging of the Cuban population but also stems from the impacts this demographic phenomenon has on the country and the strategies that the state and government must pursue to mitigate potential negative consequences. The consequences of aging are directly intertwined with changes in the economic and social structure. This includes aspects related to the population's health profile, the availability of labor resources, social security systems, a substantial increase in the demand for geriatrics and gerontology services, and a significant rise in healthcare expenditures, among other pivotal factors that affect the social and economic dynamics of the country. All these factors are delimited in a redesign process of the economic model and a global economic crisis.<sup>(19)</sup>

Cuban society is in urgent need of reevaluating and nurturing existing intergenerational relationships while promoting greater respect among its members. This aspect should be considered to create and restore suitable working conditions that enable the still-capable older generation to reintegrate into the workforce, offering them roles and trades that may have faded over time. Additionally, adjusting gastronomic and recreational options to the demographic changes and meeting the demands of most-sought products by this population segment should be a priority. Furthermore, planning the urban landscape of the city is another avenue of action in response to this demographic shift, this entails removing architectural barriers, constructing more pedestrian walkways and parks, and defining traffic patterns that are less complex.

In response to this significant challenge, our State and National Healthcare System (SNS) are actively engaged in studying and implementing new strategies across all sectors of society to address the increasing levels of longevity in the population and improve the quality of the provided services in order to ensure the satisfaction of the population. This presents a substantial challenge that calls for concerted efforts in research, education, and healthcare delivery across all involved sectors.<sup>(21)</sup>

Currently, numerous individuals, organizations, and countries are committed to studying the characteristics of longevity. The objective extends beyond merely extending people's lives; it encompasses ensuring that individuals can enjoy their extended years in physical, mental, and social conditions that enable functionality in alignment with the principles of successful aging. In Cuba, the Elderly Care Program is actively implemented; within its community care subprogram, it undertakes actions designed to provide comprehensive care for the elderly, with the primary objective of keeping them actively engaged within their communities and promoting their integration.<sup>(1,22)</sup>

The aging of the Cuban population, a consequence of low fertility rates and increased life expectancy, is undoubtedly a noteworthy achievement and should be celebrated as such. However, while extended life expectancy has brought about improvements in development indicators, it also raises various issues from medical, social, economic, and psychological perspectives, primarily due to the high incidence of disabilities and reduced functionality within this aging population. This presents a significant challenge for our healthcare services. Both Pinar del Río and the municipality of Viñales are not immune to these challenges. Therefore, it

is of vital importance to conduct research that expands our understanding of this specific population group.

Based on the preceding information, the proposed objective is to characterize the disability and functionality of older adults belonging to the medical office #8 of the Fermín Valdés Domínguez Polyclinic in the municipality of Viñales in the year 2018.

## **METHODS**

An observational, analytical, and cross-sectional study was conducted with the objective of characterizing the disability and functionality of older adults belonging to the medical office #8 of the Fermín Valdés Domínguez Polyclinic in the municipality of Viñales in the year 2018.

### *Universe*

The universe comprised 256 elderly individuals from the medical office #8 of the Fermín Valdés Domínguez Polyclinic in the municipality of Viñales. Sample: A sample of 179 elderly individuals was selected using simple random sampling method.

### **Methods of information gathering**

*Theoretical Methods:* a literature review of the subject matter was conducted, encompassing journals and online articles, to establish a theoretical foundation for the research topic and to facilitate a comparative analysis of the findings from this study with others of a similar nature at both national and international levels. Furthermore, complementary methodologies such as historical-logical analysis, analysis-synthesis, and induction-deduction were employed.

*Empirical Method:* primary data were obtained through the administration of geriatric scales designed to assess the level of independence in elderly individuals. The Katz Index was employed as the tool for evaluating functionality in basic activities of daily living, while the Lawton Scale was utilized to assess the extent of dependence in instrumental activities.

The total score was the summation of “yes” responses, with one point allocated for each affirmative answer. A score of 6 and 5 points signified independence in activities of daily living (ADLs), 4 and 3 points denoted partial dependence, and 2 and 1 point indicated maximum dependence. Regarding the Lawton Scale, employed for assessing the ability to perform instrumental activities of daily living (IADLs), it consisted of eight inquiries pertaining to the capability to prepare meals, carry out household chores, manage laundry, handle medications, use the telephone, manage finances, shopping, and utilize transportation means. Similarly, the total score was derived from the summation of “yes” responses, with one point assigned for each affirmative response.<sup>(23)</sup>

Medical records were examined to confirm the existence of disabilities, non-communicable diseases, and certain sociodemographic variables.

### *Statistical Processing*

For the statistical analysis of the gathered information, considering its characteristics, the resultant outcomes were processed and presented in tables displaying distribution and frequency, with absolute frequency and percentage values as units of measurement for better a comprehension.

To assess the relationship between non-communicable diseases and the presence of disabilities, inferential statistics were applied, specifically employing the chi-square test. A significant association was considered when the p-value was  $\leq 0,05$ . To compare the means of the instrument results between the two genders, the non-parametric Mann-Whitney U test was utilized. In examining the correlation between the employed instruments and age, the Spearman test was employed. All analyses were conducted at a confidence level of 95%.

### *Ethical Aspects*

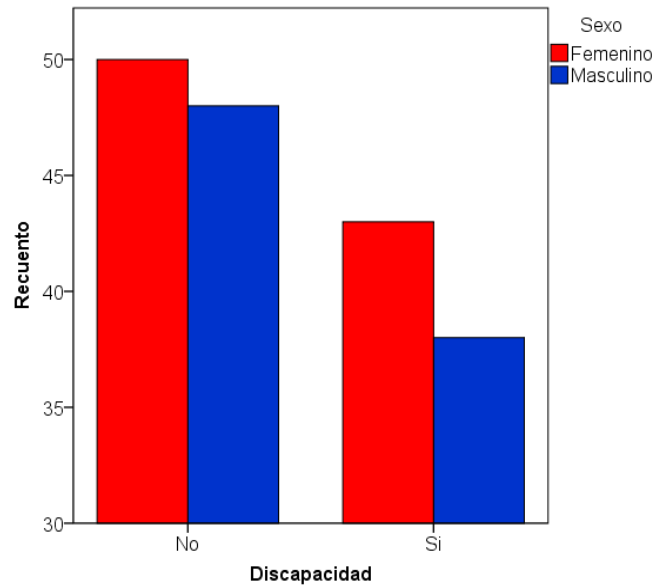
This research adhered to the fundamental ethical principles of the research process. It was grounded in scientifically substantiated evidence. A research project was developed, subjected to discussion, and subsequently approved by the Scientific Council, responsible of the healthcare domain and its corresponding Ethics Committee. All acquired data were employed exclusively for professional purposes, with utmost respect for the identity and confidentiality of the gathered information.

## **RESULTS**

Regarding age, the study revealed that 54,7 % of elderly participants exhibited no disabilities, with an average age of 67 years, which was lower than the average age of those with disabilities, at 78 years. As indicated in table 1, a higher prevalence of disabilities was observed among individuals over the age of 70.

**Table 1.** Distribution of older adults by age group and presence of disability. Disability and functionality of older adults. Medical office #8. Viñales. 2018.

Age group	Disability				Total	
	NO		YES			
	No.	%	No.	%	No.	%
60-69	71	39,7	14	7,8	85	47,5
70-79	25	14,0	30	16,8	55	30,7
80 and over	2	1,1	37	20,7	39	21,8
Total	98	54,7	81	45,3	179	100,0



**Figure 1.** Distribution of older adults by gender and disability

Figure 1 illustrates how within the older adult population, the female gender predominates in both groups, with a more pronounced disparity observed in the group of individuals with disabilities.

**Table 2.** Older adults by non-communicable diseases

Non-Communicable Disease	No.	%
Diabetes Mellitus	46	25,6
Cardiovascular diseases	79	43,9
Bone diseases	27	15,0
Psychiatric disorders	17	9,4
Respiratory diseases	29	16,1
Other diseases	13	7,2
(N=179)		

In the group of studied patients, it was observed that the most frequent diseases were cardiovascular diseases, followed by diabetes mellitus, representing 43,9 % and 25,3 % respectively. (table 2).

For a more comprehensive analysis, we investigated the association between chronic diseases in the studied patient group and the presence of disability (table 3).

**Table 3.** Non-communicable diseases and presence of disability

	Chi-square	p value	Contingency Coefficient (C)
Diabetes Mellitus	18,7	0,00	0,71
Cardiovascular diseases	0,7	0,40	0,06
Bone diseases	16,8	0,00	0,29

Psychiatric disorders	14,0	0,00	0,30
Respiratory diseases	0,6	0,44	0,06
Other diseases	0,3	0,61	0,04
(N=179)			

In table 3, it is evident that diabetes mellitus, bone diseases, and psychiatric disorders exhibit a statistically significant association with the presence of disabilities among older adults. Diabetes mellitus, demonstrates the strongest association with the presence of disabilities, as indicated by its higher contingency coefficient value. Conversely, the remaining non-communicable diseases do not exhibit a significant relationship with the presence of disabilities.

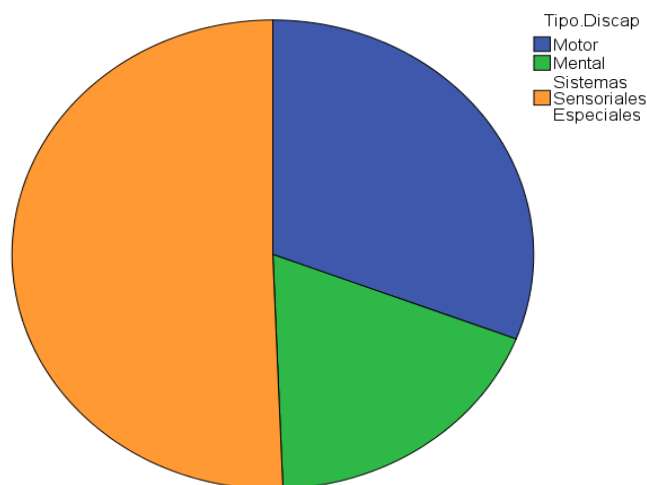


Figure 2. Type of disability presented in older adults

Figure 2 illustrates the diverse disabilities observed in the studied sample. Notably, the most prevalent disabilities are those associated with impairment of the special sensory systems, followed by motor disabilities.

The Katz Index and the Lawton Scale were administered, after the first application, the results were recorded in Table 4. It is noteworthy that the majority of older adults demonstrated the capability to independently perform basic activities of daily living, constituting 72,6 % of the sample. Additionally, an analysis of the Lawton Scale results revealed that a considerable proportion of older adults at Medical Office #8 in Viñales exhibit self-sufficiency in the execution of instrumental activities, accounting for 69,3 %.

	Katz Index		Lawton Scale	
	No.	%	No.	%
1-2	25	14,0	10	5,6
3-4	24	13,4	16	8,9
5-6	130	72,6	29	16,2
7-8	-	-	124	69,3
Total	179	100	179	100

To assess the level of functionality in activities of daily living and instrumental activities, the Katz Index and the Lawton Scale were employed, revealing that 124 older adults are completely independent in these activities.

Gender		Katz Index	Lawton Scale
Female	Mean	4,87	6,34
	Trimmed mean at 5 %	5,02	6,54
	Median	5,00	7,00

	Standard Deviation	1,408	1,959
Male	Mean	4,53	6,56
	Trimmed mean at 5 %	4,66	6,76
	Median	5,00	7,00
	Standard Deviation	1,692	1,740
	Mann-Whitney U test (p=)	0,22	0,69

The analysis of results obtained from the administered instruments also considered the gender and age of the elderly participants. To do this, a comparison of means was conducted, revealing no significant difference between the results achieved in both genders. Regarding age, the Spearman test was applied, uncovering an association between age and patients' functionality. In the examination of the association between the Katz Index and age,  $p=0,00$  and  $R=-0,423$  were obtained, while in the relationship between age and the Lawton scale,  $p=0,00$  and  $R=-0,6$  were given. These results indicate a correlation between the functionality of elderly patients and their age, but this relationship is not direct, as functionality tends to decrease with advancing age. Furthermore, it is notable that a stronger association is observed between the results derived from the Lawton Scale and age, as evidenced by the higher correlation coefficient.

## DISCUSSION

The results concerning to older adults categorized by age group and the presence of disability align with the demographic characteristics of the elderly population in the community, which shows a trend towards aging. The presence of disability is more common among individuals over the age of 70 years old. A positive outcome is that more than half of the population does not present a disability, which contributes to improving the quality of life for this population group with good levels of independence.

Studies on this subject suggest that people are not only experiencing increased longevity but are also generally healthier at their later years. Disabilities that once afflicted the elderly at earlier ages in the past are now manifesting at even later stages of life, affecting the very old. This trend mirrors the historical shift in age-related disabilities during the 20th century, where conditions that were prevalent in the 19th century at earlier ages became more common at later ages. The elderly population in cosmopolitan settings of the 21st century is healthier, and experience fewer disabilities compared to previous cohorts at the same ages. However, the number of disabled elderly individuals continues to rise in contemporary times. Additionally, more individuals in the 21st century are expected to survive well into their tenth decade and beyond, marking an unprecedented demographic shift.<sup>(16,24)</sup>

This article underscores the findings from the present research, where both the mean and median ages of individuals with disabilities are significantly higher than those without disabilities.

Evidently, disability is progressively occurring in later stages of life. The data further illustrates that as a greater number of individuals reach advanced ages, they tend to exhibit improved health, reduced frailty, and lower levels of disability compared to previous generations at corresponding ages.<sup>(16,25)</sup>

This distinction by gender also extends to the decline in genitourinary and reproductive functions, as well as digestive, endocrine, neuromusculoskeletal, and mobility functions as individuals age.

Some studies conducted in the United States of America have reported results akin to those observed in the current research. In one of these studies, involving non-institutionalized adults, it was revealed that among individuals aged between 65 and 74, 15 % of men and 18 % of women encountered difficulties in completing at least one activity of daily living. In contrast, among individuals aged over 85, 40 % of men and 53 % of women exhibited similar disabilities.<sup>(16)</sup>

The presence of non-communicable diseases plays a significant role in the emergence of various forms of disability. Many of these disabilities substantially curtail the capacity of affected patients to perform self-care tasks.

A reviewed study indicated that 33 % of individuals had diabetes mellitus,<sup>(53)</sup> a finding consistent with the observations in the present research.

With the rise in life expectancy, an increasing number of individuals reach this stage of life. Nevertheless, it is common for those reaching this stage to express difficulties about the emerging limitations. It is widely recognized that aging entails morphological, psychological, and functional changes, necessitating an adaptation process for the individual.

All individuals invariably undergo the aging process, which manifests through a multitude of changes: the appearance of gray hair, hair loss, diminished sensory functionality, deceleration of various metabolic processes, declining memory, reduced muscle strength and mass, and an increase in relative body fat. Furthermore, aging necessitates a gradual adaptation not only on an individual level but also within the familial and societal context. Consequently, certain chronic diseases begin to manifest.

The increase of chronic degenerative conditions and their consequent disabling effects in tandem with advancing age has been extensively documented among the elderly population. These non-communicable diseases continue to affect individuals who reach very advanced ages. Consequently, a growing number of people are reaching older ages while managing these conditions, and many are healthier and more active than ever before. However, chronic diseases in contemporary times predispose a larger proportion of individuals to heightened somatic stress, increased disability, loss of functional independence in activities of daily living, and a greater likelihood of experiencing frailty.<sup>(1,16,26,27)</sup>

The situation is exacerbated by the presence of comorbidities associated with age-related pathologies, with certain conditions exerting a more pronounced impact on the elderly population. Notably, studies have identified diabetes mellitus, dementia, and cerebrovascular diseases as primary contributors to disability among older individuals.<sup>(28)</sup>

In the early years of the 21st century, it has been observed that people, in general, are experiencing increased longevity, thereby elevating the likelihood of surviving even while contending with a disability. There is a higher prevalence of chronic diseases and an uptick in accidents. An example of this trend is evidenced in data provided by the National Institute of Statistics, Geography, and Informatics in Mexico (INEGI): out of every 100 people with disabilities, 39 have them due to some disease, and 23 due to old age. Furthermore, it is important to acknowledge that an individual can contend with multiple disabilities, and these conditions may result in either permanent, temporary, or intermittent limitations.<sup>(29)</sup>

However, the importance of mortality rates from non-communicable diseases is not the only indicator that alerts us to the seriousness of the phenomenon. Equally consequential is the incidence of complications that lead to functional or structural limitations in individuals, profoundly affecting their overall quality of life. This facet of the phenomenon underscores its severity and underscores the need for comprehensive attention.

Among the various diseases that impose substantial limitations on the elderly population, diabetes mellitus stands out prominently. Advances in the study and treatment of diabetes have resulted in prolonged longevity for patients who currently suffer from the condition. However, this extension of life has led to a higher prevalence of complications, like diabetic retinopathy.<sup>(28,30)</sup>

Visual impairments resulting from alternative causes constitute a substantial proportion of sensory disabilities in this investigation. In the quest for pertinent information on the subject, it has been discerned that age-related macular degeneration (ARMD) emerges as a frequent cause of severe visual impairment among elderly populations in Western nations. Certain studies have even reported the incidence of this condition over 21 % within the studied populations.<sup>(30)</sup>

Furthermore, there have been publications documenting a rise in age-related cataracts, with a heightened incidence observed in individuals aged over 60 years who exhibit varying degrees of dependence in basic activities of daily living, this increased incidence in cataracts has been associated with retinopathy and ARMD, particularly affecting instrumental activities.<sup>(30)</sup>

In addition to non-communicable diseases and disability, a range of general declines and alterations become evident after the age of 65. These encompass changes in motor coordination, spatial perception, visual and auditory acuity, muscle and bone strength, mobility, and sensory perception of environmental stimuli (heat and cold). These late-life issues are well-documented and often associated with an increased susceptibility to frailty and physiological senescence, impacting not only the elderly but also individuals who have not reached an advanced age.<sup>(7,16)</sup>

Beyond the cause, it is imperative to examine the effects of disability; among the Mexican population, limited mobility emerges as the most prevalent issue, with approximately half of reported limitations being associated with walking or physical movement. Research conducted in Mexico underscores the breadth of the disability phenomenon, revealing that 8,5 % of study participants exhibit mental health concerns such as behavioral or conduct disorders, 4,4 % are related to attention and learning difficulties, and 5,5 % encounter challenges in self-care, encompassing limitations or difficulties in tending to personal hygiene and daily activities such as bathing, dressing, or eating.<sup>(29,31)</sup>

Numerous research studies have explored the aging process in the context of basic and instrumental activities of daily living, alongside activities associated with leisure and leisure-time utilization. These investigations aim to identify predictive skills that can predict the degree of dependence, limitations, and support needs for care proposals in this population.<sup>(32)</sup>

In this context, a study revealed that among individuals aged over 65 years, 15 % encounter limitations in medication management, 12 % experience difficulties in activities such as shopping and self-care, and 11 % confront challenges related to transportation.<sup>(33)</sup>

In another study, noteworthy findings emerged concerning the level of dependence, with 80,7 % of individuals not experiencing limitations that impede their self-care. Nevertheless, functional decline becomes more pronounced among the very elderly, those aged 75 and older, with a heightened degree of dependence observed among men. Furthermore, the study revealed that 26,5 % of older adults encounter challenges in



performing instrumental activities of daily living, necessitating assistance from intermediaries who facilitate their interaction with the social environment.<sup>(34)</sup>

In the context of sociodemographic factors and functional performance, several studies have revealed a correlation between older age and a heightened likelihood of limitations. The functional capacity of older individuals in activities of daily living has been consistently associated with advancing age, suggesting a 'dose-response' relationship, wherein older age corresponds to an elevated risk of functional dependence. This argument is evident in both longitudinal and cross-sectional studies.<sup>(34)</sup> Additionally, it should be noted that the increase in disability with age is not uniform; it tends to accelerate, particularly in the later stages of life. Concerning gender disparities in functionality, it is often observed that women exhibit a higher degree of functional dependence. Despite women's longer life expectancy compared to men, they may experience more disadvantages and require increased care, frequently encountering difficulties in instrumental activities of daily living.<sup>(35,36)</sup> However, it is noteworthy that in the present study, no statistically significant difference in terms of gender was observed.

## CONCLUSIONS

In conclusion, the study revealed that a majority of the older adult participants maintained their functional capacity and did not experience disabilities. The study population was predominantly female, with an average age of 69 years. Disabilities were notably associated with diabetes mellitus, which, in turn, exhibited a correlation with impairments in the special sensory system. Additionally, the analysis underscored the impact of age on functionality, as older age was consistently linked to a greater decline in functional capacity among older adults.

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#### **CONFLICTS OF INTEREST**

No conflicts of interest exist.

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