Physical functionality in the daily life of the elderly in Azogues

Funcionalidad física en la vida diaria del Adulto Mayor de Azogues

Gloria Luzmila Pogyo-Morocho[1,2*], Andrés Alexis Ramírez-Coronel[1,2,3,4,5] Isabel Cristina Mesa-Cano[1,2] Marcia Veronica Pogyo-Morocho[1,2]

[1]Master in Postgraduate Care Management from the Catholic University of Cuenca, Ecuador.
[2]Nursing career at the Catholic University of Cuenca, Ecuador.
[3]Laboratory of Psychometry, Comparative Psychology and Ethology (LABPPCE), Cuenca, Ecuador.
[4]Center for Research, Innovation and Technology Transfer (CIITT) Cuenca, Ecuador.
[5]Health and Behavior Research Group (HBR), Cuenca, Ecuador.
**Correspondence: Ramírez-Coronel AA. Email: andres.ramirez@ucacue.edu.ec
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Abstract

Aging is a stage in which there are morpho-physiological changes that affect the functional capacity and significantly influence their well-being. The main objective was to determine the sociodemographic and clinical factors associated with the physical functionality of the elderly in the popular medical center of Azogues, with the purpose of generating a nursing action plan. Methodology: Quantitative, correlational, cross-sectional, retrospective study. With a population of 243 clinical histories of older adults 2019-2020, sociodemographic data, morbidity and performance of basic and instrumental activities of daily living were evaluated, in relation to clinical variables, most of the population studied did not present any pathology, but it is important to note that there are important data on arterial hypertension and diabetes mellitus, and these results should be considered for future research or action plans for these groups. The evaluation of the functionality of basic activities yielded important data equivalent to the need for help to perform basic activities, as well as the application of the Lawton and Brody Scale, which showed the need for support to perform instrumental activities, and the evaluation of geriatric depression showed mild depression. Conclusion: The functional capacity of the elderly in the Centro Médico Popular de Azogues is determined by age, sociodemographic characteristics and nutritional evaluation; generating an opportunity for intervention at the primary level of the elderly.

Key words: Aging; activities of daily living; elderly.

Resumen

El envejecimiento es una etapa en donde se presenta cambios morfo fisiológicos que afecta a la capacidad funcional e influye significativamente en su bienestar. El objetivo principal fue determinar los factores sociodemográficos y clínicos asociados a la funcionalidad física del adulto mayor del centro médico popular de Azogues, con la finalidad de la generación de un plan de acción de Enfermería. Metodología: Estudio cuantitativo, correlacional, de tipo transversal, retrospectivo. Con una población de 243 historias clínicas de adultos mayores 2019-2020, se evaluaron datos sociodemográficos, morbilidad y desempeño de actividades básicas e instrumentales de la vida diaria, En relación a las variables clínicas, la mayor parte de la población estudiada no presentaba ninguna patología, pero es importante señalar que existen datos importantes sobre la hipertensión arterial y la diabetes mellitus, y estos resultados deben ser considerados para futuras investigaciones o planes de actuación para estos colectivos. La evaluación de la funcionalidad de las actividades básicas arrojó datos importantes equivalentes a la necesidad de ayuda para realizar actividades básicas, así como la aplicación de la Escala de Lawton y Brody, que mostró la necesidad de apoyo para realizar actividades instrumentales, y la evaluación de la depresión geriátrica mostró una depresión leve. Conclusión: La capacidad funcional del adulto mayor en el Centro Médico Popular de Azogues están determinados por la edad, las características sociodemográficas y la evaluación nutricional; generándose una oportunidad para la intervención a nivel primario del adulto mayor

Palabras clave: Envejecimiento; actividades de la vida diaria; anciano**.**

Introduction

Aging is the chronological decline of the human organism's abilities, affecting the functionality of the elderly[1]. The World Health Organization (WHO)[2] indicates that the percentage of people aged 60 years or older will double from 10% to 21% by the year 2050. In Ecuador, an older adult is a person who has reached the age of sixty-five[3]. The Ministry of Economic and Social Inclusion (MIES) reports that in Ecuador there are 1'150,000 older adults (INEC 2010), where 53% are women and 47% are men, with a projection to double in the next 30 to 40 years[4].

The changes that occur in aging are complex at the physical[5], psychological[6] and social[7] levels, the structural changes of organs and systems[8] can affect activities of daily living (ADL), hence the importance of comprehensive geriatric assessment to identify physical dysfunctionality[9], to generate action plans aimed at the care of this vulnerable group, contributing to policies for the care of older adults promoting successful aging[10]. For this research, the following question was posed: ¿What are the sociodemographic and clinical factors associated with the physical functionality of older adults?

According to the literature on aging, it is approached from different perspectives, due to the characteristic physiological changes, in biological, psychological, and social aspects[11]. Changes in the different systems can lead to the appearance of different morbidities such as diabetes, hypertension, osteoporosis[12,13], which generate dysfunctionality due to reduced muscle strength[14]. Cognitive impairment and dementia also contribute to the loss of autonomy and independence in basic activities of daily living (ADL)[15].

When talking about physical dependence in relation to advancing age decreases the ability to adapt to the environment that can be physical as the residential or urban environment[16]. Women are more independent in relation to men who present greater physical dependence due to a higher prevalence of diseases[17], the older adult who lives in a familiar or accompanied environment feels more secure and protected, promoting self-esteem[18].

It is evident that diseases affect functionality[19], generating anxiety and depression[20]. Similarly, sensory impairment, such as impaired vision, makes it difficult to recognize the environment, preventing them from carrying out their activities autonomously[21]. Health limitations restrict self-care, affecting the independence and quality of life of the elderly[22,23].

In 2001, the (WHO) approved the International Classification of Functioning (ICF), which considers disability as an interrelation of elements such as "impairment, limitation of activities and personal assistance". In relation to activity (WHO) is a human or specific action in an autonomous habitual way[24]. According to the development plan 2017-2021 Toda una Vida en Ecuador aims to safeguard and ensure the welfare of older adults[25].

In this sense, it is important to assess the independence and severity of dysfunction to perform daily activities and the degree of support needed by older adults[26], it becomes a challenge because it includes several changes that need to be kept in balance, hence the importance of applying a nursing care model such as that of Pender[27], who talks about the importance of nursing action in the management of healthy behavior of older adults; to build guidelines that promote self-care behaviors according to the capabilities and risk factors with optimal physical functionality and healthy aging.

Therefore, the general objective was to determine the sociodemographic and clinical factors associated with the physical functionality of older adults in the popular medical center of Azogues, to generate a nursing action plan.

In relation to this, specific objectives were established: to characterize the clinical and sociodemographic variables of the older adult, to analyze if sex, age group, residence, living with, body mass index, diagnosis, disability and depression are related to the instrumental activities of daily living, to identify possible differences in the basic activities of daily living and depression according to residence and to design a nursing action plan in physical functionality of the older adult.

Methodology

Type of research

A quantitative, correlational, cross-sectional, retrospective, and non-experimental study was conducted.

Population

The population consisted of 679 medicales records of older adults attended at the Centro Medico Popular de Azogues from which clinical information of research interest was obtained, referring to the type of physical capacity of dependence or independence present in this type of population, for the development of activities of daily living during the period January 2019 to December 2020.

Sample

A non-probabilistic convenience sampling was carried out. The sample consisted of 243 medicales records of older adults, according to the Sierra Bravo formula of 1988, with the margin of error (5%) that we estimate the sample size, based on a confidence level of 95%.

The inclusion criteria were the medical records of the adults assessed with the Lawton and Brody instrumental functionality assessment scale and basic activities by the Katz index. Exclusion criteria were applied to medical record without assessment data from the scales and that were not within the time.

Instrument

Instrumental Activities Scale of Lawton and Brody: It was published in the year 1969 and was translated into Spanish in 1993, developed for older adults, in order to assess physical autonomy and instrumental activities of daily living, instrument that collects variables related to the ability of the older adult to perform autonomously of the ADLs, assessing 8 items or eight groups of activities in the case of women and five in men, which is considered to be: "ability to use the tele-

phone, shopping, meal preparation, housekeeping, laundry, use of means of transport, responsibility regarding medication and administration of their economy"[24].

Basic Activities of Daily Living: The Katz Index: Developed in 1958 by a multidisciplinary team led by Katz of the Hospital for the Aged and Chronically Ill, Cleveland, Ohio that evaluates the degree of dependence/independence, it assesses 6 basic functions related to: "bathes alone, dresses and undresses alone, takes care of personal appearance, uses the toilet, controls sphincters, transfers, lies down and gets up, walks and feeds" and a bodily function on continence being able to add another unspecified one, the results can be evaluated numerically where 8 or less reflects maximum dependence, 8-12 needs help, and from 14-16 independence, or with eight levels from A (minimum independence) to G (maximum dependence), highlighting that the minimum level is slight dependence[24]. The instruments used by the Ministry of Public Health (MSP) of Ecuador for the integral management of the elderly were used as a reference.

In addition, clinical and sociodemographic data of research interest were collected, such as: noncommunicable diseases, physical limitations, age, sex, urban or rural origin, and marital status. To determine the relationship between the presence of non-communicable diseases, physical limitations and their influence on the autonomous capacity of the older adult to carry out activities of daily living.

Statistical analysis

A statistical analysis was performed by means of absolute and relative frequencies, measure of central tendency (specific objective 1), then a Shapiro Wilk (W) test was performed with parametric tests by means of Pearson's relation coefficient for the relation of sociodemographic factors, morbidity and physical functionality (specific objective 2), and an analysis of difference of means for independent data, likewise to determine the differences of functionality of basic activities of daily living with sociodemographic variables, morbidity (specific objective 3). Statistical analyses were performed using the InfoStat program.

Results

Table 1 and 2 detail the results that respond to the sociodemographic, clinical, basic, and instrumental activities of daily living characteristics of the study population.

Table 1. Study variables.

Variable	Category	*f*	%
Sex	Male	124	48
	Woman	134	52
Residence	Urban	183	71
	Rural	75	29
Marital Status	Single	19	7
	Married	171	67
	Windowed	65	25
	Unmarried	3	1
With whom you live	Only	9	3
	With Children	24	9
	Couple	78	30
	Whit Family	147	57
Body Mass Index	Normal	75	29
	Overweight	129	50
	Obesity 1	42	16
	Obesity 2	12	5
Diagnostic	None	87	34
	Type 2 Diabetes	46	18
	High Blood Pressure	46	18
	Mental Illness	6	2
	Osteoarticular Diseases	20	8
	Metabolic Diseases	16	6
	Low Back Pain	13	5
	Other	24	9
Type of Disability	None	216	84
	Physical Disability	39	15
	Hearing Impairment	1	1
	Visual Disability	2	1

Prepared by the authors

From the review of the clinical history of 258 older adults, the following information was obtained 134 (52%) female sex, 183 (71%) urban residence, 171 (67%) married marital status, 147 (57%) living with a family.

In relation to the clinical variables, it was established that 129 (50%) were overweight, 87 (34%) had no pathology, but it is important to add that 46 (18%) had arterial hypertension, 46 (18%) had type 2 diabetes mellitus, and 216 (84%) had no disability.

Table 2. Measures of central tendency of age, Katz index, Lawton and Brody scale, Yesavage test.

Variable	M	D.E.	Mín.	Máx.	Md
Age	74,76	7,21	65	94	74
Katz Index	10,81	3,7	1	16	11
Lawton Scale	12,3	5,46	1	26	12
Yesavage test	6,28	3,7	1	15	5

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The mean age of the population was 74.76, the Katz Index 10.81, the Lawton and Brody Scale was 12.3 and the Yesavage Test was 6.28.

Table 3: Correlations of instrumental activity of daily living with sex, age group, residence, living with, marital status, Body Mass Index, diagnosis, disability and depression.

INSTRUMENTAL ACTIVITIES OF DAILY LIVING						
		Independent *f(%)*	**Need Help** *f(%)*	**Dependency** *f(%)*	**X²**	***p***
Sex	Male (n=124)	34 (13.17)	**85(32,94)**	5 (1,93)	79,37	**0,00**
	Woman (n= 134)	43 (16,66)	84 (32,55**)**	7 (2,71)	66,43	**0,00**
Age Group	65-70 (n=87)	29(11,24)	**53 (20,54**)	5(1,93)	39,72	0,00
	71-75 (n=59)	15(5,81)	44(17,05)	0 (0)	14,25	0,00
	76-80 (n=60)	16(6,20)	41(15,89)	3(1,16)	37,3	0,00
	81and more(n=52)	17 (6,58)	31(12,01)	4(1,55)	21,04	0,00
Residence	Urban (n=183)	53 (20,54)	**120 (46,51**)	10 (3,87)	100,75	0,00
	Rural (n=75)	24 (9,30)	49 (18,99)	2(0,67)	44,24	0,00
With Whom You Live	Family (n=249)	74 (28,68)	**163(63,17)**	12 (4,65)	132,82	0,00
	Only (n=9)	3(1,16)	6(2,32)	0(0)	1	0,31
Marital Status	Single (n=19)	7(2,71)	10(3,87)	2(0,77)	5,16	0,07
	Married (n=171)	50(19,37)	**115(44,57)**	6(2,32)	105,51	0,00
	Windowed (n=65)	19(7,36)	42(16,27)	4(1,55)	33,82	0,00
	Unmarried (n=3)	1(0,38)	2(0,77)	0(0)	0,33	0,56
Body Mass Index	Normal (n=75)	25(9,68)	46(17,82)	4(1,55)	35,28	0,00
	Overweight (n=129)	33(12,79)	**90(34,88)**	6(2,32)	85,53	0,00
	Obesity 1 (n=42)	13(5,03)	27(10,46)	2(0,77)	22,43	0,00
	Obesity 2 (n=12)	6(2,32)	6(2,32)	0(0)	0(0)	0,99
Diagnostic	Other (n= 24)	5(1,93)	18(6,97)	1(0,38)	19,75	0,00
	None (n=87)	26(10,07)	**58(22,48)**	3(1,16)	52,62	0,00
	Type 2 Diabetes (n=46)	15(5,81)	28(10,85)	3(1,16)	20,39	0,00
	High Blood Pressure (n=46)	14(5,42)	31(12,01)	1(0,38)	29,52	0,00
	Mental Illness (n=6)	4(1,55)	2(0,77)	0(0)	0,67	0,41
	Osteoarticular Diseases (n=20)	9(3,48)	9(3,48)	2(0,77)	4,9	0,08
	Metabolic Diseases (n=16)	2(0,77)	13(5,03)	1(0,38)	16,63	0,00
	Low Back Pain (n=13)	2(0,77)	10(3,87)	1(0,38)	11,23	0,00
Disability	With disability (n=42)	7(2,71)	27(10,46)	8(3,10)	18,14	0,00
	Non-disabled (n=216)	70(27,13)	**142(55,03)**	4(1,55)	132,33	0,00
Depression	Normal (n= 131)	51(19,76)	**72(27,90)**	8(3,10)	48,75	0,00
	Probable Depression (n=79)	15(5,81)	62(24,03)	2(0,77)	75,67	0,00
	Depression (n=48)	11(4,26)	35(13,56)	2(0,77)	36,38	0,00

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There is evidence of statistically significant relationships according to the x2 the instrumental activity of daily living in need of some help and the variables sex: male (x2= 79.37; *p*= .00; n=124), female (x2= 66.43; *p*= .00; n= 134). 00; n= 134) i.e. there is a higher percentage in female sex with 32.94%, age group 65-70 years (x2=39.72; *p*= .00; n=87), 71-75 years (x2=14.25; *p*= .00; n=59), 76-80 years (x2=37.3; *p*= .00; n=60), 81 and more years (x2=21.04; *p*=. 00; n=52), highlighting the age group 65-70 years with 20.54%, urban residence (x2=100.75; *p*= .00; n=183), rural

residence (x2=44.24; p=.00; n=75) with prevalence in the urban sector with 46.59%, in relation to cohabitation with family (x2=132.82; *p*=. 00; n=249) with 63.17%, marital status married (x2=105.51; *p*=.00; n=171), widowed (x2=33.82; *p*=.00; n=65) with a predominance of married with 44.57%, normal body mass index (x2=35.28; *p*=. 00; n=75), Overweight (x2=85.53; *p*= .00; n=129), Obesity 1 (x2=22.43; *p*= .00; n=42) with overweight standing out with 34.88%, in the variable Diagnoses: other (sutures, surgical control) (x2=19.75; *p*=. 00; n=24), without morbidity (x2=52.62; *p*= .00; n=87), Diabetes Mellitus 2 (x2=20.39; *p*= .00; n=46), Arterial Hypertension (x2=29.52; *p*= .00; n=46), Metabolic Diseases (x2=16.63; *p*= .00; n=16), lumbago (x2=11.23; *p*=. 00; n=13) with an incidence of no morbidity with 22.48%, with reference to disability (x2=18.14; *p*= .00; n=42), no disability (x2=132.33; *p*= .00; n=216) with most of no disability with 55.03%, and with reference to no Depression (x2=48.75; *p*=. 00; n=131), with Probable Depression (x2=75.67; *p*= .00; n=79), with Depression (x2=36.38; *p*= .00; n=48) showing that the normal state stands out with 27.90%.

Older adults living in urban areas have greater independence in basic activities in relation to those living in rural areas that present data indicating greater dependence, on the other hand, older adults living in rural areas have less depression than those living in urban areas. The results of the present investigation serve to propose a nursing care plan considering the conceptions of Nola Pender's Health Promotion Model that are focused on the well-being of the elderly. This plan will be focused on a systematized way with general interventions, but when applying them, the personnel should generate specific and individualized activities based on these approaches for the correct nursing intervention aimed at the physical functionality of the elderly in primary care with a psychological and social approach.

Through the application of the interventions, all the skills in the physical function of the elderly will be optimized to improve their nutritional status and define their social role so that they remain active and healthy, improving the primary health of the group studied.

Table 4. Proposal for nursing care for the elderly in primary health care.

Valuation	Objectives	Interventions
Moderate physical dysfunction related to the involution of the functions of devices and systems manifested by difficulty in performing daily activities independently.	Promote self-care of the elderly.	Interventions related to self-care will make it possible to prevent disease, live with the disease to maintain activity and independence, improve relationships with other people, adapt to life changes and disability, and improve lifestyle through physical, recreational and occupational activities that promote physical activity. Likewise, rehabilitation in healthy or sick older adults will be aimed at preventive, therapeutic, recreational, recreational and sports activities.
Inadequate nutritional status related to intake in excess of needs or inadequate diet manifested by overweight.	Improve the nutritional status of the elderly to maintain an adequate nutritional balance.	In the stage of older adulthood, nutrition is very important for physical and emotional health. Therefore, the diet to be managed with older adults should be balanced, varied and gastronomically acceptable according to the existing conditions of each older adult considering social factors.
Anxiety related to feelings of unmet needs due to changes in the environment manifested by affective behaviors.	Strengthen psychosocial adaptation with lifestyle changes, anxiety management, and social interaction skills.	Strengthening self-esteem allows to have a good relationship with oneself, with others and face the challenges of life to improve. Strengthen Self-Concept: for proper self-care, with positive thoughts, ideas, opinions, and beliefs about themselves. Maintain Self-Determination with the ability to make decisions at a personal level in all aspects of life, to meet the goals they have set for themselves.

Prepared by the authors

Discussion

The main objective of the present investigation was to analyze whether sex, age group, residence, living arrangements, body mass index, diagnosis, disability, and depression are related to instrumental activities of daily living. Subsequently, for each specific objective, the results of the present study and their relationship with similar studies carried out at international, regional and local levels are detailed.

The results of the study in relation to the sociodemographic characteristics show a higher frequency of females with 52%, while males have 48%, with an average age of 74.76 years and in relation to urban residence, 46.51%. A study conducted in the cities of Nariño[28] and Bogotá[29] presents data similar to the study with a prevalence of females, average age of 65-74 years, rural residence, differing in this data due to the geographical location in the urban area of the Centro Medico Popular de Azogues.

According to the variables marital status and cohabitation, there is a predominance of married with 67% followed by widowed with 25%. In relation to cohabitation, 57% lived with a family, 30% with a partner, similar data in Brazil showed the following results: 43.1% married, followed by 40.3% widowed, 40.6% living with children with or without a partner, and 22.4% living with a partner[30]. In relation to the body mass index in the population studied there is a prevalence of overweight with 50%, followed by normal with 29%. In a study in Santa Elena-Ecuador, an average weight of 33.33+3.19 kg/m2 was recorded. It was shown that 53.17% of the population was overweight, followed by grade I obesity with 11.91%, and 33.33% was within the normal range[31].

In the morbidity of the population studied, there was a high percentage of no morbidity with 22.48%, within the other group (consultations for surgical control, wound care) with 34%, followed by Arterial Hypertension 16%, Diabetes Mellitus type 2 with 16% and Osteoarticular diseases 8%. In Peru, a study was carried out in which there was a prevalence of arterial hypertension, arthritis and diabetes mellitus involving 67.6%, depression 28.9% and independence in basic and instrumental activities of daily living 83.4% and 60% respectively[32]. Similarly in Cuernavaca-Mexico the main pathologies that stood out in the study were arterial hypertension (40%), diabetes (24%), hypercholesterolemia (20%), depressive symptoms (17.6%), cognitive impairment (7.3%), dementia (7.9%). In relation to functional status, 26.9% meant difficulty in performing basic activities and 24.6% in instrumental activities[33].

Regarding the study variable of disability, 87% of the population had no disability and 15% had physical disability. In a study conducted by Rivadeneyra-Espinoza L, et al, [34]identified that 32.5% presented alterations in functionality, with the female sex prevailing. In relation to balance, 2 out of 10 older adults presented disorders that altered activities of daily living. 23.5% had visual disturbances that limited their activities. In the case of Ferreira B, et al[30], they showed that 96.2% of the older adults were independent for basic activities of daily living, in relation to functional disability, 3.2% had 1 to 3 disabilities, and 0.6% had four or more, which were related to urinary and fecal control (2.7%), use of the bathroom (1.4%), dressing (1.4%). It should be noted that there is no similarity with the data of the present study due to the fact that in several investigations carried out in relation to physical disability in the elderly, they are based on parameters related to basic and instrumental activities of daily living and not to physical, auditory, visual, etc. disabilities.

In relation to the results on functionality in daily activities in the present study, in the Katz Index the mean was 10.81 which is related to needing help to perform basic activities, likewise on the instrumental activities of daily living Lawton scale the average was 12.3 which refers to needing some help and the Yesavage Test the mean was 6.28 characterized by Mild Depression. Shirley R, et al[35], applied the Yesavage scale in their study where it was identified that 86.9% (571) had no symptoms, 11.7% had mild depression and 1.3% depression. To assess functional capacity, they used the Barthel scale for basic activities of daily living with the results of 86.3 % (567) are independent, 12.6 % (83) have mild dependence, 0.6 % (4) total dependence and 0.5 % (3) moderate dependence. They also applied the Lawton and Brody Scale related to instrumental activities of daily living, with data indicating that 60.8% (399) were independent, while 39.2% (258) had some degree of dependence.

Similarly, in argentina the Barthel test was applied to measure activities of daily living in 91 older adults, obtaining the following results: 25 men, 64 women. Age: 74.81±9.38, weight: 69.99±19.09, height: 155±13.06. As age increased, maximal strength decreased significantly (r-0.40 R2 0.16, $p<0.05$). Muscle strength is significantly greater in people who are independent in relation to those who have some degree of dependence (dependent Fmax 17.47 kg ± 6.58 $P<0.05$ with 95% CI 14.1-20, 85 vs independent Fmax 23.76 kg ± 6.3 $P<0.05$ with 95% CI 22.27-25.25) (35). Another study carried out in Chile on functionality shows that 83.3% (N:25) of the sample is found to be independent, while 16.7% (N:5) present some degree of functional impairment (36). A study carried out in Peru yielded similar data focused on functionality, where of the 100% (35), 49% (17) have a medium level, 34%[12] a high level, and 17% (6) a low level of functionality to perform basic and instrumental activities of daily living, with the former prevailing over the latter[37]. It could be indicated that in the older adult population, although there is a considerable percentage of autonomy, it should be considered that the literature reviewed agrees that muscular strength in the older adult decreases as age advances, which would have repercussions on the independence of their activities as time goes by.

When analyzing the relationship between instrumental activities of daily living and morbidity, sociodemographic variables, we can highlight the prevalence of the level of functionality of needing some help or medium level of functionality, highlighting significant data such as the case of the male sex with 32.94%, with regard to the age group 70 to 75 years, it stands out with 20.54%, likewise those of the urban area stand out with 46.59%, Likewise, the married marital status has an impact with 44.57%, family cohabitation is represented with 63.17%, overweight stands out with 34.88%, and in the area

of no morbidity stands out with 22.48%, but it is important to highlight that Arterial Hypertension and Diabetes Mellitus have a significant percentage of 12.01% and 10.85% respectively, in addition it can be indicated that in the variable of disability the parameter of no disability is found with 55.03%, and in no depression 27.90%. In Spain, a study was conducted on Functionality and degree of dependence in institutionalized older adults in welfare centers with a predominance of the age range of 75-84 years with 26.66% of 60 older adults, the male gender prevailed with (53.33%), in schooling, 53.3% studied primary school. Family contact with the family 70%; the longest time (55%) from 1 to 5 years of institutionalization. Cardiovascular problems stood out in 34% of the older adults; in the application of the Functional Autonomy Assessment Scale (EVA), the male gender predominated with slight dependence (26.66%) and 25% of the female gender as independent. The assessment of the degree of autonomy in the male gender shows a degree of autonomy 1, with 30% with respect to the female gender that has a degree of autonomy 3 with 16.66%, without statistical significance. It can be concluded that the male gender predominates in autonomy in relation to the female gender[7]. A study carried out in Mexico reveals that 92.9% of the population has mild dependence in relation to their basic activities of daily living, with greater frequency among women and diabetic patients. Forty-nine percent have dependence in instrumental activities of daily living (IADL), a situation that worsens among older individuals, and is associated with the fact that they have hypertension, diabetes, and are overweight[38]. In Querétaro, Mexico, the Barthel Scale, the Self-Care Abilities Scale, and the SF-36 Quality of Life Questionnaire were used, which showed that 54.3% of the participants were women. Of the older adults surveyed, 80.2% showed independence in performing activities of daily living and 19.8% showed mild dependence. In the self-care variables, 22.4% had good capacity and 76.6% had very good capacity. In the perception of quality of life in the physical dimension, 24% considered their health to be good and 56%, fair. There was a minimal relationship between self-care and dependence; little between self-care and schooling; positive correlation between dependence and quality of life, as well as quality of life and age, although the values were low[22].

From the results obtained in this study, and a review of similar investigations, we can point out that dependence in instrumental activities of daily living is not due to the alterations that incapacitate the older adult, but to the direct effects of age and sex, with controversial data because there are similar data in both men and women. However, in the present study, nutritional status, residence and coexistence are present in the performance of activities with medium dependence or in need of assistance.

Regarding differences in basic activities and residence, depression and residence, it was found that older adults living in urban areas have greater independence, while older adults living in rural areas have less depression. A research conducted in Mexico on aging with an environmental perspective indicated that the active older adult is favored in the urban area because there is a positive influence with positive social conditions such as spaces that favor a quality of life[39]. Viviana A.[40] used the Yesavage Geriatric Depression Scale to establish the presence of depressive symptoms in the evaluated population, obtaining satisfactory results (α =.73). Regarding the prevalence of depression, the rural sample obtained a mean score of 2.28 (SD= 2.06), which would indicate an absence of risk, while the urban sample achieved a mean score of 4.53 (SD= 2.76), which would reveal mild depression. The difference between both samples was statistically significant (t= 4.126; gl= 78; p< .001). An analysis shows the coincidence with other studies; although there is a normality index in relation to depression, there is a higher level of depression in the urban area, but with greater activity in daily life.

According to several bibliographic reviews, a proposal for a nursing care plan for older adults stresses the importance of promoting self-care, emphasizing physical activity and mental health of the older adult[41]. Self-care is necessary to maintain or correct the natural functional decline of older adults, favoring their independence in performing basic and instrumental activities of daily living[42,43].

Conclusions

According to the sociodemographic characteristics of the participants, it is evident that the average age was 74.76 years, female sex, married, urban residence and family cohabitation.

Regarding the clinical variables, most of the population studied did not present any pathology, but it is important to point out that there is considerable data on arterial hypertension and diabetes mellitus, and these results should be considered for future research or action plans for these groups.

The assessment of the functionality of basic activities yielded important data equivalent to the need for help to perform basic activities, as well as the application of the Lawton and Brody Scale, which showed the need for support to perform instrumental activities, and the assessment of geriatric depression showed mild depression.

There are statistically significant relationships with the instrumental activities of daily living with the age group of 65-70 years, male sex, married marital status, urban residence, overweight, which would indicate that functional decline occurs with the passing of the years with or without the presence of pathologies or disabilities in the older adult.

When analyzing differences in functionality and residence, it is evident that older adults living in urban areas have greater functionality in basic activities in relation to rural areas, while those living in rural areas have less depression.

The elaboration of the nursing care proposal is focused on the biological (mild dysfunctionality, overweight), psychological (self-concept, self-perception), and social (autonomy) dimensions of the elderly to maintain an independent life and improve the quality of life of the elderly.

On the other hand, it would be interesting to conduct empirical studies in older adults on the fear of COVID-19 in the face of the health emergency due to the COVID-19 pandemic both in confinement, estrangement, and vaccination stage in various populations[44,45,46] related to emotional[47] and educational[48,49,50] aspects.

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Conflict of Interest

There are no personal, professional, or other conflicts.

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