



Original Article

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Level of independence with respect to carrying out basic activities of daily life for institutionalized older Colombians

Nivel de independencia con respecto a la realización de actividades básicas de la vida diaria de adultos mayores institucionalizados colombianos

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ABSTRACT

Keywords:

Physical deterioration, activities, daily life, Elderly, aging, institutionalized.

Objective: To establish the level of independence of the older adult in carrying out the basic activities of daily living of institutionalized older adults. **Methods:** A quantitative investigation was carried out with a population of 112 older adults, who entered the study as part of the sample, 41 of them, distributed according to gender as 16 women and 25 men. On the other hand, the age range with the highest prevalence in the sample of older adults is between 75 and 84 years old. With the review of medical records and the application of the Barthel index. **Results:** in the activities of daily life and the level of dependency that is progressive, which leads the older person to a level of dependency that increases with age. The prevalence of these changes can be evidenced by determining the pathologies of Hypertension and Arthritis in the sample. **Conclusions:** The level of independence in the performance of daily life activities was qualified as independent in less than half of the older adults in the sample.

RESUMEN

Palabras clave:

Deterioro físico, actividades, vida diaria, ancianos, envejecimiento, institucionalizado.

Objetivo: Establecer el nivel de independencia del adulto mayor en la ejecución de las actividades de la vida diaria básicas de los adultos mayores institucionalizados. **Métodos:** Se llevo a cabo una investigación cuantitativa con una población de 112 adultos mayores, los cuales ingresan al estudio haciendo parte de la muestra 41 de ellos, distribuidos según género como 16 mujeres y 25 hombres. Por otra parte, el rango de edad de mayor prevalencia en la muestra de adultos mayores oscila entre 75 y 84 años. Con la revisión de las historias clínicas y la aplicación del índice de Barthel. **Resultados:** en las actividades de la vida diaria y el nivel de dependencia que es progresivo, el cual lleva a la persona mayor a un nivel de dependencia que incrementa con la edad. La prevalencia de estos cambios se puede evidenciar al determinarse en la muestra las patologías de Hipertensión y Artritis. **Conclusiones:** El nivel de independencia en el desempeño de las actividades de la vida diaria, se calificó como independiente en menos de la mitad de adulto mayores pertenecientes a la muestra.

Introduction

Physical dysfunction in the elderly begins with the aging process, because this “substantially and progressively transforms the individual health situation” (Galbán, Sansó, Díaz-Canel, Carrasco, & Oliva, 2007), this being the final stage of the life cycle, in which all living beings begin to suffer changes at the physical level and in the state of

health, the capacity to adapt is also affected due to the psychological and functional changes that are generated over time.

In connection with the above, it is evident that old age is often synonymous with the term “physical dysfunction”, thus showing how notions or perceptions have prevailed in society over the years, when it is observed that most people who

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reach late adulthood or old age, present one or more pathologies and body dysfunctions, such as "coronary diseases, pneumonia or bronchial pneumonia, high blood pressure, arthritis, epilepsy and cancer". (Asociación Probienestar de la Familia Colombiana - Profamilia, 2011, p. 50), which are more prevalent in Colombia; this leads to deterioration and deficiencies in body functions, activity limitations, participation restrictions which in turn translate into routine monotony, and reduced quality of life in institutionalized older adults, thus leading to a condition known as disability.

During the development of the human being there are diverse stages through which a series of changes and challenges are passed; being in the major adulthood the process of aging the principal challenge, where they are immersed the biological, psychological and social area being observed an influence of these in the performance of activities of the daily life in an autonomous and independent way in the major adult.

According to Rodríguez (2018), health or illness depends on historical, social conditions in which individuals find themselves. Economic, social and political aspects, as well as belonging to one social class or another, are determinants that influence the state of health and how the individual ages, as well as the fact of belonging to one gender or another, and above all the person's level of education (Álvarez-González, 2016).

Likewise, we see the need to define the term older adult, being that individual who is in the last stage of the life cycle of human development, where during this stage the body and cognitive processes are deteriorating, which is why, the "Chinese sages, King Solomon, the ancient Hindus, and the Greek historian Herotolus, the duration of life should be between 70 and 80 years" (Hechavarría, Ramírez, García, & García, 2018, p. 1176).

According to the Organización Mundial de la Salud (OMS, 2001), there are 841 million older

adults, representing 12% of the world population. This phenomenon assumed by the age-dependency ratio that begins to increase due to characteristics of declining fertility and reduced mortality at different stages of the life cycle, resulting in the process of population aging, called by García (2003), old age, defining

Ageing in functional terms as an inevitable and progressive process of undermining the ability to adapt, adjust and survive. Likewise, old age is a state in which the decline in functional, physical and mental capacity has become manifest, measurable and significant (p. 95).

This is due to the fact that the aging index is an indicator that shows the challenges that the State will have to face in order to supply goods and services to the elderly.

Currently, Paul, Teixeira, & Ribeiro's (2017) definition of active ageing has been adopted by many countries that have developed their ageing policies based on recommendations made by the OMS.

Likewise, the Golden Age Index is a complex indicator that makes it possible to estimate the contribution of people in advanced age. This index covers several indicators such as: employment, earnings, training (Núñez, 2017).

Furthermore, exclusion from the paid labour market does not detract from their inclusion in typical voluntary activities, municipal committees, residences, social centers, libraries and other institutions with a community, association and participatory approach as individuals and as citizens (Wiki Culturalía, 2013).

The professional retreat is also accompanied by a multitude of positive situations such as resting, making the most of lost time, being able to dedicate yourself to those activities that your work did not allow, travelling or staying at home, being with your

family, living as you wish... yes "living". (Fernández, 2017).

Aging here is defined as a process associated with a decrease in the efficiency of organic functioning that leads to death, specifically a decrease in physiological functions that occur in old age due to organic deterioration, hence Rodríguez (2010) defines primary and secondary aging,

Primary aging focuses on heredity, in which, despite influencing factors such as illness or trauma, there are also inevitable changes that occur over time, although at different rates between people, aging. Secondary aging, on the other hand, refers to the loss of capabilities caused by trauma, falls or disease. (p. 16)

According to OMS (2017), the proportion of older people is increasing rapidly worldwide, with the proportion estimated to rise from 12 per cent to 22 per cent between 2015 and 2050, with an increase from 605 million to 2 billion people over 60 years of age.

The decline in birth rates, changes in lifestyles and new health treatments have led to an increase in life expectancy, resulting in demographic ageing with a longer-lived population both nationally and globally (Pérez & Sierra, 2009). This aging process also faces the elderly to changes in their environment as would be the loss of roles, which is generated for example, when your spouse has died, therefore no longer perform activities for the development of the role of spouse, probably bringing with it significant consequences of occupational participation in daily activities; on the other hand, the situation of institutionalization brings about the assimilation of new roles such as that of friend, with people who were not usually known for this, and now being cared for by having to accept help from other people called caregivers, who are involved directly and indirectly in the performance of the older adults in daily activities.

That said, the term fragile patient has allowed for the care and preventive intervention that would keep them healthy after the age of 80. Interventions based on health care models, social network support, psychological help, and physical activity intervention can mitigate the loss of functionality and decrease the mortality associated with frailty syndrome, which is evidenced by the loss of mobility and increased physical, psychological and social dysfunction in the elderly.

Physical dysfunction begins with the physiological process of aging, because this "substantially and progressively transforms the individual health situation" (Galbán et al., 2007). This process is the final stage of the life cycle, in which all living beings begin to suffer changes in their state of health, both physically and in their ability to adapt, as well as psychological, functional and biochemical changes that are generated over time.

It is evident the problem that institutionalized older adults who present physical dysfunction in relation to the functional performance in the occupational areas, since they are restricted totally or partially in the independent execution of such activities; due to the physical deterioration and the abandonment of their families in the geriatric institutions consequent to the family disintegration (Hernández, Palacios, & Cajas, 2011), since changes are noted at the social and physical level such as progressive joint and cartilage degeneration, decreased muscle mass and strength, decreased heart rate, loss of lung elasticity and reduced visual acuity.

Having said that, physical, emotional, psychological and social dysfunction leads to the decrease and loss of skills to perform activities of interest, achieving results of restriction at the level of dependence in all occupational areas, also being affected the roles and patterns of execution as mentioned (Turner, Foster, & Johnson, 2003), this in turn linked to biological, psychological and

environmental factors that can disrupt the adaptation process at any time of the life cycle. When this adaptation process is altered, dysfunctionality in the execution of daily life activities can occur (García, 2005). Thus, the old age is one of the periods of the life more susceptible to the affective problems due to the circumstances that can concur: loss of dear beings, experience of the solitude, abandonment, disease, among others (García, 2005).

Yuni & Urbano (2016) (cited in Martínez, González, Castellón, & González, 2018) makes an analysis of the predominance of human development, expresses that the proactive position that the subjects have about their temporal occurrence and the attribute of vitality of that body, is in knowing that it has the capacity to be able to do something with that time that passes (p. 63), aspects that denote older people with passivity, disability, social and labor dissociation.

However, in order to understand this problem, there is literature at an international level that covers this population from different aspects, apparently physical dysfunction and its consequences would be the most studied. Diaz, Barrera, & Pacheco (1999), in the Republic of Cuba, mention one of the incidences of falls in the institutionalized elderly, which later lead to physical dysfunction, referring to the deficit in lighting, stumbling, falling, slipping, obstacles on the floor, high beds, visual disorders, vertigo and sudden fall attacks, causing consequences at the structural level (dislocation, fracture, etc.) and in the performance of basic daily life activities.

It is important to emphasize that the environment in which a human being develops can be catalogued as a barrier or a facilitator in the performance of the older adult, for this reason in the country of Mexico Ruelas-González, Pelcastre-Villafuerte, & Reyes-Morales (2014), investigated institutional elder abuse from the perception of health service personnel (doctors, nurses, therapists, speech therapists, physical therapists, specialists) and the perception of the elderly or older adults with respect to this issue.

The above shows that the continuous and permanent challenge of working for the well-being of this population is not taken up, for this reason:

Loneliness, lack of attention and abandonment are the problems that most older adults in Colombia face on a daily basis. This situation is exacerbated, according to the National Study on Health, Welfare and Ageing (Sabe), by the fact that by 2021, there will be one person over 60 for every two adolescents in the country, and that the conditions for providing them with comprehensive care are lacking (EL TIEMPO, 2018, p. 1).

Having said that, Castro, Brizuela, Gómez, & Cabrera (2010), conceived of nursing homes as:

A residence that provides room, meals and help with daily and recreational activities. In most cases, nursing home residents have physical or mental problems that prevent them from living alone. They usually need help on a daily basis (p. 8).

Furthermore, as a total institutionalized environment, being a "place of residence or work, where a large number of individuals in the same situation, isolated from society for an appreciable period of time, share in their confinement a daily routine, formally administered" (Goffman, 1961, p. 13).

Now to be able to analyze the activities that are framed in the most elemental and necessary self-care capacities that human beings carry out on a daily basis, such as those that we all carry out to a greater or lesser extent throughout the day, which restricts or prevents the execution of these by the elderly either because of their cognitive-behavioral and motor deficits. Thus, Acosta & González-Celis (2010), mention: ADLs are key elements in measuring quality of life and functional status in older adults (Acosta, 2009). The VDAs address a set of common daily tasks required for personal self-care and independent living (Wiener, Hanley, Clark, & Van, 1990).

For this reason, the government has encouraged the creation of participation and training bodies for the elderly with a view to promoting a successful, active and healthy old age of a public nature whose objective and purpose is "to ensure the full integration of the elderly into society, their protection from abandonment and destitution, and the exercise of the rights recognized by the Constitution of the Republic and the laws". (Mora, 2009, p. 8).

The OMS (2001) is currently working on a new terminology called "Active Ageing", which refers to:

Proceso de aprovechar al máximo las oportunidades para tener un bienestar físico, psíquico y social durante toda la vida. El objetivo es extender la calidad y esperanza de vida a edades avanzadas. Además de continuar siendo activo físicamente, es importante permanecer activo social y mentalmente participando en: actividades recreativas, actividades con carácter voluntario o remunerado, actividades culturales y sociales, actividades educativas, vida diaria en familia y en la comunidad. Tradicionalmente la vejez se asociaba con enfermedades, dependencia y falta de productividad. (p. 2)

Colombia is not unaware of the fact that its regulations include laws that cover the elderly population. For this reason, Law 1251 (2008) was created, "whereby regulations are issued to protect, promote and defend the rights of the elderly", as well as this law, there are others that protect this population, referring to the duties, rights and structure of the institutions that provide multiple services to this population. In addition, Law 1315 (2009) establishes the minimum conditions that "dignify the stay of the elderly in protection centers, day centers and care institutions" in order to guarantee the quality of life of the elderly and their timely care.

In order to comply with the Colombian legislation established by governmental entities, the intervention in geriatrics requires a "comprehensive and integrating approach, in which all disciplines

involved in the care of the elderly (which are not many) contribute their specific knowledge to improve the overall situation of the person at all times, the clinical, physical, mental and social implications of the disease or dysfunction". (Polonio, 2002).

Therefore, it is necessary that the older adult is involved in the execution of occupations such as activities of daily living promoting independence in occupational performance, which can generate a degree of personal satisfaction. Since Penny & Melgar (2012) propose that old age should be understood as a phase of the life cycle and not as an impediment to restrict occupational participation. Therefore, the dysfunction causes the decrease and loss of skills to perform occupational activities of interest, can give results at the level of dependence in all occupational areas, being affected also the roles and patterns of execution (Turner, Foster, & Johnson, 2003). In summary, the significant increase in the number of adults over 60 years of age and the estimated demographic influences in this regard indicate the importance that this group is acquiring in our country, which is evidencing a challenge for society where social exclusion and discrimination is observed.

Most authors agree that the most common clinical manifestations are an involuntary decrease in body weight, resistance and muscle strength, balance and gait disorders and a decline in physical mobility (Lluis & Llibre, 2004).

Bastidas-Bilbao (2014) in research carried out on medical diseases and depression in the elderly: Common characteristics and etiological relationship reaffirming the impact of chronic diseases on the life and social roles of the elderly, being those that can create living conditions that exceed the coping resources available to individuals and that act on previous vulnerability factors, which will finally determine the appearance of depressive symptoms or disorders.

Similarly, it has been observed that certain medical diseases such as Parkinson's disease, heart attack, stroke, endocrine disorders, diabetes, chronic lung disease, infectious diseases, etc. (Unsar & Sut, 2010; Unützer, 2002).

Materials and methods

Objectives

General: To establish the level of independence with respect to the performance of basic activities of daily living for institutionalized older adults.

Specific Objectives: To identify physical deterioration and through the review of medical records.

Applying the Barthel's index to institutionalized adults.

Analyze the level of independence in basic activities of daily living through the influence of variables.

Research design

The research is proposed as a study of a quantitative nature, with characteristics of descriptive research, through which it is intended to determine the level of independence. Based on the analysis and scope of the results, the research is of a descriptive nature. Lerma (2016), refers: its objective is to describe the state, characteristics, factors and procedures present in phenomena and events that occur naturally.

The type of research, according to Lerma (2016), is constituted as a systematic, rigorous and rational process of collection, treatment, analysis and presentation of data, based on a strategy of direct collection of reality.

Population and sample

According to Lerma (2016), "the population is the set of all the elements of the same species that

present a certain characteristic or that correspond to the same definition and to whose elements the characteristics and relations will be studied". Considering this definition, it can be stated that the population under study is made up of 112 older adults.

Taking into account that the sample is non-probabilistic, according to the (inclusion criterion), institutionalized in the Nursing Home of the city of Cúcuta, adults over 65 years of age and older, both genders will be taken into account, that is, female and male. Within the criteria of exclusion were found those also will not be able to be in the area of infirmary since they must have certain degree of independence and functionality; as well as the right of nonparticipation to the investigation is respected demonstrated in 6 users. In accordance with the above, a sample of 41 older adults was found, regardless of whether they were hospitalized or did not wish to participate. Where the objectives were explained and an informed consent was signed, where the patient and their caregiver declared to voluntarily participate in the study.

Ethical aspects

The following recommendations on ethical aspects of research involving human subjects will be taken into account. In practical terms, the three ethical principles commonly accepted in biomedical research involving human subjects are met:

- Principle of respect for the person or autonomy: each subject may decide voluntarily and in an informed manner to participate in the research.
- Principle of non-maleficence: the priority in this research is not to harm any of the study subjects.
- Principle of beneficence: the purpose of this research is to maximize the benefit to the subjects of the study.

Use of informed consent.

- Socialize in detail the conditions, benefits and risks of the process in simple language so that people can exercise their free will, likewise keeping open the decision to interrupt their participation at any time. This is in order to request the authorization of study participants to provide information that can be used in the research.

The following considerations will be taken into account:

- Notification of the person about the procedures to be performed, risks and discomforts, as well as their rights.

- Statement that participation is voluntary and that refusal to participate or to withdraw at any time does not imply retaliation, punishment or loss of benefit.

- Description of the benefits expected.

- Commitment of the responsible researcher on the confidentiality of the data (Fundación investigación biomédica, 2011).

Information collection instruments

The technique used for the development and applicability of the instruments will be observation, which is a "data and information gathering procedure that consists of using the senses to observe facts and social realities present and the people where they normally carry out their activities". (Soledad, s.f., p.3).

The review of medical records with the aim of evaluating the physical deterioration of the elderly population, through the socio-demographic profile, identified aspects such as age, sex, vision alterations, hearing, urinary incontinence, malnutrition, instability, strength, joint amplitude and record of falls, information recorded by the nursing staff, geriatrician of the institution.

Therefore, the Barthel index (Barrero, García, & Ojeda, 2005) was used to characterize independence in basic daily living activities. Later, the data will be presented through frequency tables, where the statistical package SPSS 18.0 and Excel program will be used, in order to analyze the physical deterioration of the older adult in the execution of the activities of daily living.

The Barthel's index is a generic measure that assesses a patient's level of independence with respect to performing some basic activities of daily living (ADLs), eating, grooming, dressing, toileting, bowel movements, walking, and climbing stairs. The score for each activity is different, assigning a score of 0, 5, 10 or 15 points, with lower scores for not being able to perform the activity or depending on another person to perform it, and total scores ranging from 0 (total severe dependence) to 100 points (independence). The information was obtained directly from the subject or his/her main caregiver.

In particular, it is a matter of assigning each patient a score according to his or her degree of dependence for a series of basic activities. The values that are assigned to each activity depend on the time spent on it and the need for help to carry it out.

Results

According to the physical impairment evidence in the medical records and according to the framework for the practice of Occupational Therapy indicates that activities of daily living are compromised such as: bathing - showering, bowel and bladder care, dressing, eating, feeding, functional mobility, care of personal care devices, personal hygiene and grooming, sexual activity and toilet hygiene. However, this needs to be interwoven with another aspect of the distribution of the population studied:

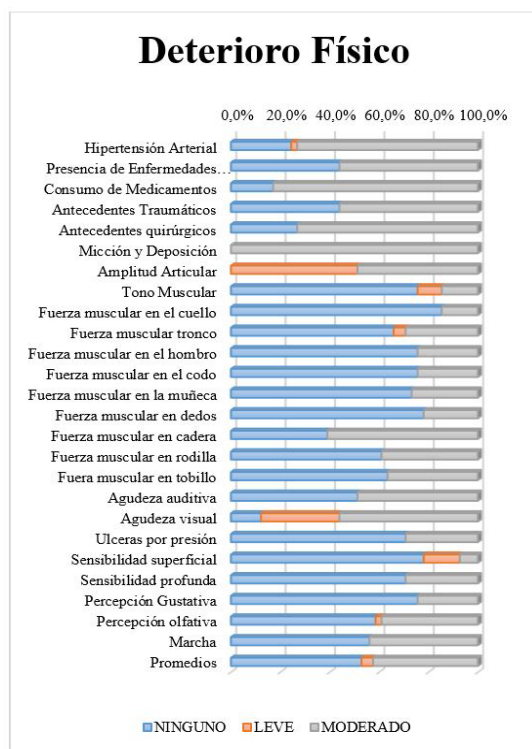


Figure 1. Physical deterioration of older adults

The physical deterioration in the elderly is observed that 100% of the population presents physical deterioration in mild and moderate levels, which can affect their level of independence.

With 29% of older adults in the age range of 65-74 years, 36% are between 75-84 years and finally 35% are over 85 years. This indicates that the majority of older adults are in the 75-84 year age range.

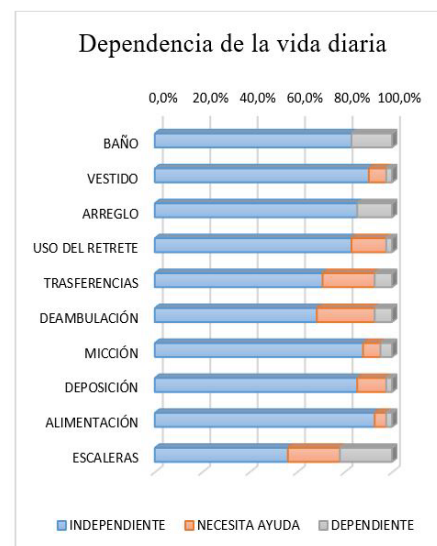


Figure 2. Dependence on activities of daily living

The graph shows that, in the basic activities of daily life of the elderly, there is an average independence of 80.2%; an average independence with help of 11.5% and an average dependence of 8.3% among the referred activities. This allows us to infer that the therapeutic activities should be oriented to maintain the level of independence of the Elderly.

On the other hand, with respect to the activity of dressing and undressing it is evident that 10% of the population requires help or is dependent for its execution, being a minimum percentage, it is of vital importance to offer alternatives and strategies to this population of older adults, since most of them present deficit in the balance during the change of position from sedentary to bipedal, which is demanded for the previously mentioned activity. Likewise, climbing closures and buttoning up requires precise movements and coordination of small muscle groups, which is affected by the progressive physical deterioration in the older adult. Also, when there is a deficit in the execution of complete movements at shoulder level, this prevents the activity of dressing since during the performance of this activity it is required to place the hand in the back area of the body, that is, behind the back, waist and contralateral shoulder.

With regard to functional mobility, this includes mobility in bed, in a wheelchair, walking, transfers and going up or down stairs, for the performance of these activities the elderly population has an elevator in each pavilion.

In the feeding activity, it requires the handling of utensils and this task is also affected by the presence of pathologies such as arthritis, therefore, it is demanded that the utensils such as spoons be light, with thick handle, curved or spherical handle. Finally, the activity of urination and deposition, nominated in this way according to the Barthel Index, requires training of the urination habit, for this reason it is suggested to use a sheet where the frequency in hours of voluntary urination is written.

Conclusions and discussion

The assessment carried out in a comprehensive way on health aspects of the elderly as an initial diagnosis allows to identify in a general way the health status of the institutionalized population.

With regard to physical deterioration in the elderly, it is observed that 100% of the population presents physical deterioration in mild and moderate levels, which may affect their level of independence, which allows evidence of the need to establish modifications in the care processes to avoid the physical deterioration of the referred older adults characterized by decreased vision and difficulty in joint width after osteoarticular problems. Among the changes in the aging process, the decrease in the hearing system causes different degrees of deafness, being found in more than half of the older adults studied.

Although the cause of falls and walking difficulties is multifactorial, being present in half of this population, conditioning risk factors such as those already mentioned have been identified with repercussions ranging from physical injuries, fractures, shame, greater social isolation, post-fall syndrome, hospitalization, in some cases even death.

The Barthel Index allowed us to observe results in terms of performance of older adults, evidenced by the interpretation suggested by Garcia (2012), which shows that 41% of the population is independent in the execution of all activities of daily living, 17% is qualified as mild dependence, 29% results in moderate dependence, 9% are dependent on severe level and 2% of older adults have total dependence.

It is also identified that the daily activities with the highest level of independence is the activity of feeding or according to the Barthel Index called "food", presenting a 93% of independence, since they execute it with more time than normally required, allowing the movements made with upper limbs to have more precision and coordination, in addition it is observed that they can perform this activity using cutlery and without it, so sometimes the food is grabbed with the hands.

On the other hand, the activity with the highest percentage of dependence or requirement of another person for the complete performance of the same refers to the activity of climbing and descending stairs, because this demands motor skills and practice in its majority, where muscle strength, joint amplitude, muscle tone, endurance, coordination and balance are components for the execution of such action, taking into account that the above mentioned skills present a progressive deterioration in the aging process, that is why the majority of the elderly take preventive actions such as moving from the second floor to the first floor of the ward using the elevator, being this an element of the physical infrastructure essential for the independence of the geriatric population that lives in this place.

Other activities that precede the above-mentioned one, is the activity of transfers and wandering with also a high index of dependence, since they require technical aids of support as cane and walkers, due to the fact that they show muscular fatigue and continuous dizziness at the moment of waking up and transferring to the chair or during the

wandering from one place to another in the dormitory or pavilion.

Based on the above, it can be concluded that the older adult population requires some form of assistance, either physical or human, to functionally participate in the activities of daily living.

Orosco (2015), conducted a study on depression and self-esteem in institutionalized and non-institutionalized older adults in the city of Lima, in order to compare the levels of depression and self-esteem in institutionalized and non-institutionalized older adults, where it is specified that there are significant and inverse relationships between self-esteem and depression among groups of older adults such as the institutionalized and non-institutionalized allowing to reach the conclusion that there are three types of it as it is the absence, mild and moderate being more evident in the non-institutionalized group with a total of 45 which compares these three levels of depression.

In accordance with the above and taking up theoretical foundations that support that the fragility generated during the life cycle of old age is usually linked to the limitation in participation in daily life activities or progressive functional deterioration, which leads the older adult to a level of dependency that increases with age. The above can be evidenced by determining the prevalence of Hypertension and Arthritis pathologies in the sample, which limit the performance of older adults in relation to the speed of the projected motor action sequences, joint amplitude and muscle strength in dressing, walking, bathing and minor hygiene activities, taken up as the research focus in this work.

In relation to the physical deterioration of older adults, it was possible to determine that they present a deterioration in mild to moderate levels, resulting from the aging process that occurs in that life cycle; on the other hand, factors that generate an acceleration in this process were identified, which are: the presence of pathologies such as hypertension

and arthritis with greater frequency, falls at the same height, decreased muscle strength and joint amplitude specifically in the trunk, hips and knees, reduced visual acuity, alteration in walking being of a weak type in most older adults. Consequently, the level of independence in the performance of daily life activities was qualified as independent in less than half of the adults belonging to the sample; also the activities with the highest level of dependence were the activity of climbing and descending stairs, transfers and wandering; on the other hand, the activity with the highest level of independence was the activity of eating.

Being the level of physical deterioration slight and moderate that present the older adults, they limit the participation and functional performance in independent in the activities of the daily life; although the physical environment allows the accessibility to the different spaces and counts on an elevator to favor the process of wandering; although it is certain that the multiplicity of simultaneous tasks that must be executed by the caretakers, prevent the direct and permanent accompaniment to the older adults who require of aids for the performance of these activities, this because few caretakers or workers exist.

References

- Acosta, C. (2009). Inventario sobre actividades instrumentales y avanzadas de la vida diaria en adultos mayores y su relación con la calidad de vida. En A. González-Celis, *Instrumentos de evaluación en psicogerontología*. México: El Manual Moderno.
- Acosta, C., & González-Celis, A. (2010). Actividades de la vida diaria en adultos mayores: la experiencia de dos grupos focales. *Revista enseñanza e investigación en psicología*, 15(2), 393-401. Recuperado de <https://www.redalyc.org/pdf/292/29215980010.pdf>
- Álvarez-González, C. F. (2016). La angustia, principio de posibilidad del conocimiento. *Revista Perspectivas*, 1(1), 30-37. <https://doi.org/10.22463/25909215.968>

- Asociación Probienestar de la Familia Colombiana - Profamilia. (2011). *Encuesta Nacional de Demografía y Salud* (ENDS 2010). Bogotá: Printex Impresores Ltda. Recuperado de <https://profamilia.org.co/wp-content/uploads/2018/12/ENDS-2010.pdf>
- Barrero, C., García, S., & Ojeda, A. (2005). Índice de Barthel (IB): Un instrumento esencial para la evaluación funcional y la rehabilitación. *Plasticidad y Restauración Neurológica*, 4(1-2), 81-85. Recuperado de http://www.sld.cu/galerias/pdf/sitios/rehabilitacion-doc/indice_de_barthel.pdf
- Bastidas-Bilbao, H. (2014). Enfermedades médicas y depresión en el adulto mayor: características comunes y relación etiológica. *Revista de Psicología*, 32(2), 191-218. Recuperado de http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S0254-92472014000200001
- Castro, M., Brizuela, S., Gómez, M., & Cabrera, J. (2010). Adultos Mayores Institucionalizados en el Hogar de ancianos Fray Mamerto Esquiú. *margen*, 59, 1-18. Recuperado de <https://www.margen.org/suscri/margen59/cast.pdf>
- Congreso de la República de Colombia. (2008, 27 de noviembre). *Ley 1251 de 2008. Por la cual se dictan normas tendientes a procurar la protección, promoción y defensa de los derechos de los adultos mayores*. Diario Oficial n.º 47186. https://www.icbf.gov.co/cargues/avance/docs/ley_1251_2008.htm
- Congreso de la República de Colombia. (2009, 13 de julio). *Ley 1315 de 2009. Por medio de la cual se establecen las condiciones mínimas que dignifiquen la estadía de los adultos mayores en los centros de protección, centros de día e instituciones de atención*. Diario Oficial n.º 47409. http://www.secretariasenado.gov.co/senado/basedoc/ley_1315_2009.html
- Díaz, D., Barrera, A., & Pacheco, A. (1999). Incidencias de las caídas en el adulto mayor institucionalizado. *Revista Cubana Enfermería*, 15(1), 34-38. doi:http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03191999000100006
- EL TIEMPO. (05 de mayo de 2018). En el 2021 habrá una persona mayor de 60 años por cada dos adolescentes. *En el país, cada vez más viejos y... desprotegidos*, págs. 1-2. Recuperado de <http://uvsalud.univalle.edu.co/comunicandosalud/wp-content/uploads/2018/05/05.05.18-Cada-vez-mas-viejos-y-desprotegidos.pdf>
- Fernández, V. (2017). Jubilación como afrontarla. *Revista de salud y bienestar*. Recuperado de <https://www.webconsultas.com/tercera-edad/envejecimiento-activo/efectos-de-la-jubilacion>
- Fundación investigación biomédica. (2011). *Aspectos éticos en la investigación biomédica*. Recuperado de <http://www.iisgm.com/wp-content/uploads/2011/09/Aspectos-Eticos-en-Investigaci%C3%B3n-Biom%C3%A9dica.pdf>
- Galbán, P., Sansó, F., Díaz-Canel, A., Carrasco, M., & Oliva, T. (2007). Envejecimiento poblacional y fragilidad en el adulto mayor. *Rev Cubana Salud Pública*, 33(1). Recuperado de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-34662007000100010
- García, C. (2012). Evaluación y cuidado del adulto mayor frágil. *Revista Médica Clínica Las Condes*, 23(1), 36-41. doi:[https://doi.org/10.1016/S0716-8640\(12\)70271-7](https://doi.org/10.1016/S0716-8640(12)70271-7)
- García, F. (2005). *Envejecimiento y sociedad en España, Siglos XVI- XXI*. España: Ediciones de la Universidad de Castilla de la Mancha.
- García, J. (2003). *La vejez: El grito de los olvidados*. México: Manufactura, A.C., Plaza y Valdés Editores.
- Goffman, E. (1961). *Internados: Ensayos sobre la situación social de los enfermos mentales* (1ra. ed.). Buenos Aires: Amorrortu editores. Recuperado de <https://sociologiaycultura.files.wordpress.com/2014/02/goffmaninternados.pdf>
- Hechavarría, M., Ramírez, M., García, H., & García, A. (2018). El envejecimiento. Repercusión social e individual. *Revista Información Científica*, 97(6), 1173-1188. Recuperado de <https://www.medigraphic.com/pdfs/revinfoie/ric-2018/ric186i.pdf>

- Hernández, E., Palacios, M., & Cajas, J. (2011). *Caracterización del adulto mayor con síndrome de abandono* (tesis de pregrado). Universidad de San Carlos de Guatemala, Guatemala. Recuperado de http://biblioteca.usac.edu.gt/tesis/05/05_8823.pdf
- Lerma, H. (2016). *Metodología de la investigación: Propuesta, anteproyecto y proyecto* (5a ed.). Bogotá: Eco Ediciones.
- Lluis, G., & Llibre, J. (2004). Fragilidad en el adulto mayor: Un primer acercamiento. *Revista cubana de medicina general integral*, 20(4). Recuperado de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21252004000400009
- Martínez, T., González, C., Castellón, G., & González, B. (2018). El envejecimiento, la vejez y la calidad de vida: ¿éxito o dificultad? *Revista Finlay*, 8(1), 59-65. Recuperado de http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2221-24342018000100007
- Mora, T. (2009). La evolución de los derechos de las personas de edad en el contexto internacional: El caso de CHILE. III *Reunión de Seguimiento de la Declaración de Brasilia*. Santiago, Chile: CEPAL. Recuperado de <https://www.cepal.org/sites/default/files/events/files/tmora.pdf>
- Núñez, J. (16 de enero de 2017). *Conocimientos, experiencias y jubilaciones: la Edad de Oro*. Recuperado de CUBADEBATE. Contra el Terrorismo Mediático: <http://www.cubadebate.cu/opinion/2017/01/16/conocimientos-experiencias-y-jubilaciones-la-edad-de-oro/#.WIX7UBI-i1s->
- Organización Mundial de la Salud (2001). (2001). *El abrazo mundial. Envejecimiento y Ciclo de vida*. Ginebra: OMS. Recuperado de https://www.who.int/ageing/publications/alc_elmanual.pdf
- Organización Mundial de la Salud (OMS). (12 de diciembre de 2017). *La salud mental y los adultos mayores*. Recuperado de <https://www.who.int/es/news-room/fact-sheets/detail/la-salud-mental-y-los-adultos-mayores>
- Orosco, C. (2015). Depresión y autoestima en adultos mayores institucionalizados y no institucionalizados en la ciudad de Lima. *Persona*(18), 91-104. Recuperado de <https://www.redalyc.org/articulo.oa?id=147143428004>
- Paúl, C., Teixeira, L., & Ribeiro, O. (2017). Envejecimiento activo en la vejez y la relevancia de los aspectos psicológicos. *Frontiers in Medicine*, 4, 181. doi:<https://doi.org/10.3389/fmed.2017.00181>
- Penny, E., & Melgar, F. (2012). *Geriatría y gerontología para el médico internista* (1a ed.). Bolivia: Grupo Editorial La hoguera.
- Pérez, V., & Sierra, F. (2009). Biología del envejecimiento. *Revista Médica de Chile*, 137(2), 296-302. doi:<http://dx.doi.org/10.4067/S0034-98872009000200017>
- Polonio, B. (2002). *Terapia Ocupacional en geriatría: 15 casos prácticos*. Madrid. España: Editorial Medica Panamericana .
- Rodríguez , N. (2018). Envejecimiento: Edad, Salud y Sociedad. *Horizonte sanitario*, 17(2), 87-88. Recuperado de http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-745920180002000087&lng=es&tlng=es
- Rodríguez, K. (2010). *Vejez y envejecimiento*. Bogotá: Editorial Universidad del Rosario.
- Ruelas-González, G., Pelcastre-Villafuerte, B., & Reyes-Morales, H. (2014). Maltrato institucional hacia el adulto mayor: percepciones del prestador de servicios de salud y de los ancianos. *Salud Pública de México*, 56(6), 631-637. Recuperado de http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342014000600013&lng=es&tlng=es
- Soledad, M. (s.f.). *Las técnicas de investigación: La observación* . Recuperado de https://www.academia.edu/36157300/Las_t%C3%A9cnicas_de_investigaci%C3%B3n_la_observaci%C3%B3n
- Turner, A., Foster, M., & Johnson, S. (2003). *Terapia ocupacional y disfunción física: Principios, técnicas y práctica* (5a ed.). Madrid: Elsevier Science.
- Unsar, S., & Sut, N. (2010). Depression and health status in elderly hospitalized patients with

- chronic illness. *Archives of Gerontology & Geriatrics*, 50(1), 6-10. Recuperado de <http://dx.doi.org/10.1016/j.archger.2008.12.011>
- Unützer, J. (2002). Diagnosis and treatment of older adults with depression in primary care. *Biological Psychiatry*, 52(3), 285.
- Wiener, J., Hanley, R., Clark, R., & Van , J. (1990). Measuring the activities of daily living. Comparisons across national surveys. *Journal of Gerontology*, 45(6), 229-237.
- Wiki Culturalia. (13 de marzo de 2013). *Cuál es el Significado de Adulto Mayor - Concepto, Definición, Qué es Adulto Mayo*. Recuperado de <https://edukavital.blogspot.com/2013/03/adulto-mayor.html>
- Yuni, J., & Urbano, C. (2016). *Envejecer aprendiendo. Claves para un envejecimiento activo*. Uruguay: Grupo Magro Editores.