

# Clinical Characteristics And Health-Related Quality Of Life In Adults In A Colombian City

María Margarita Aguas<sup>1</sup>, Eustorgio Amed Salazar<sup>1</sup>, Jhon Jairo Feria Díaz<sup>2</sup>

<sup>1</sup>Faculty of Health Sciences, Universidad de Sucre, Colombia.

<sup>2</sup>Faculty of Engineering, Universidad de Sucre, Colombia.

---

## ABSTRACT

**Objective:** To bind quality of life related to health and clinical conditions in adults from Sincelejo city in Colombia. **Methodology:** Correlational study; A non-probabilistic sample was made up of 125 people with disabilities, older than 20 years with more than six months of limitation, for disability evaluation, the WHOQOL Bref validated by the World Health Organization was used. **Results:** The predominant medical diagnosis was nervous system diseases; the general life quality was evaluated with a score of 60.40 on a scale of 0 to 100. The domain with the best average was interpersonal relationships (68.06±14.7308 points), and the lowest average score was for the domain Environment (57.02±12.3902 points). The general life quality and the physical domain presented significant associations with the clinical variables. **Conclusion:** The longer the limitation, the lower the perception of life quality from the physical component and general life quality.

**Keywords:** Disability, clinical signs, and symptoms, quality of life, adults.

---

## 1. INTRODUCTION

Life Quality is a wide-ranging concept that is crossed in a complex way by the person's physical health, psychological state, independence level, social relationships, and relationship with their environment. It is conceived as the individual perception of the position in life, in the cultural context, and the value system in which one lives and its relationship with the goals, expectations, standards, and interests (WHO, 2015). It is made up of three fundamental aspects: objective (material conditions of the environment), subjective (a psychological component of the person), and social (state policies, plans, and programs) that are directly related to the political, social, economic and context cultural conditions in which a person is located, so, to assess life quality it must be borne in mind that said experience is individual, heterogeneous and subjective ("Quality of life for healthy aging", 2022). Likewise, life quality is related to economic, social, and cultural factors in the environment that develops; It must be considered from a multidimensional perspective, which in addition to the aforementioned, must include environmental, cultural, economic aspects, health services, satisfaction, leisure activities, among others (García et al., 2020).

The influence that the biopsychosocial model exerts within the life quality conceptualization, described above, and the health conception is clear; in such a way that a bidirectional relationship is established, mutually affecting each other, placing the human being as the central axis around which both concepts interact. This is how a new, more specific term is given way where the relationship already pointed out is concretized; therefore, we speak of life quality related to health (HRQoL). HRQoL focuses on the individual's perception of their own health and their abilities, without ignoring that there may be a difference between self-perception and the health professional's criteria, about what is considered a good life, and in turn, there may be interdependence between the two assessments (Cáceres et al., 2018). In this way, talking about health as referred to by the WHO, goes beyond the absence of disease and must be analyzed from a multifactorial perspective. This concept is built to be assessed requires the confluence of various elements that go beyond the biological, psychological, and social, in which physiological and structural aspects, feelings, self-esteem, self-concept, religion, and spirituality converge, in addition to interpersonal relationships; and they involve the environment sphere or the environment itself, referring to the family context, social security, accessibility, economy, leisure, and transportation. In that order of ideas, any imbalance in any of the elements will have a direct impact on people's perception of life quality.

Although the context presented is a common denominator for any individual in society. People with disabilities face a more complex picture if statistical data and scientific evidence are considered that considers the constant struggle for equality, stigmatization, non-discrimination, and social inclusion experienced by this group and its family. It makes it a much more vulnerable population. Disability implies a diverse condition present in the functioning or in the body structures, whose etiology is varied. In Colombia, in general, the disease is the main disability cause and most of these people suffer from some long-term illness (DANE, 2022). However, people with disabilities face a whole series of obstacles when trying to access health care, being prejudiced, stigmatized, or discriminated against by health service providers or other workers in health facilities. Many service providers do not understand or know the rights and health needs of people with disabilities and have poor training and professional experience in the field. It creates physical and communication barriers to access. In low-income countries, more than half of people with disabilities cannot afford adequate health care, many people with disabilities also report not being able to afford travel to a health facility or medication, let alone the cost of a consultation with a health care provider, among others (WHO, 2021).

The study's purpose was to determine the correlation between clinical characteristics and health-related life quality in adults with disabilities from Sincelejo city in Colombia; through the application of the WHOQOL BREF, an abbreviated version of the WHOQOL that includes 26 questions grouped into four domains: physical health, psychological health, social relationships, and environment.

## **2. MATERIALS AND METHODS**

Research that was developed with an analytical empirical approach. A cross-sectional descriptive and correlational study that established the relationship between clinical conditions and health-related life quality in adults with disabilities from Sincelejo city.

The population was comprised of people over 20 years with disabilities from Sincelejo city. The population projection of people with disabilities over 20 years in the participating towns corresponds to information from the location registry and characterization of people with disabilities reported by the Municipal Health Secretariat as of 2016. The sample calculation was estimated with the formula for the bilateral test (“estimation of a linear relationship”), it considers a confidence level of 95%, a statistical power of 90%, and an expected linear correlation of 0.3 considered by Mukaka (2012), as acceptable for this study type. Following the above, the sample consisted of 125 people with disabilities in Sincelejo city. Using the snowball technique, a non-probabilistic sampling was executed with volunteer subjects over 20 years from institutions, associations, and groups of people with disabilities in the municipality.

### 3. RESULTS

#### 3.1 Descriptive Analysis of Clinical Variables

The main medical diagnosis (ICD 10) to which the permanent limitation is attributed was diseases of the nervous system (36%). 50.4% of the participants stated the use of external aids of them. 16% refer to the cane use. More than half of the participants reported consuming medications, represented by 51.2%, of which 15.2% corresponded to anti-hypertensives. Table 1.

**Table 1: Descriptive summary of clinical variables**

Clinical Variables	Sub-variables	FA	%
Medical diagnostic (ICD 10)	Nervous system diseases	45	36.0
Time ranges of the permanent limitation	More than 121 months	94	75.2
Use of external aids	Yes	63	50.4
Type of external aid	None	61	48.8
	Cane	20	16.0
Medication use	Yes	64	51.2
	No	61	48.8
Medicines	None	61	48.8
	Anti-hypertensive	19	15.2
<b>Total</b>		<b>125</b>	<b>100</b>

#### 3.2 Descriptive Analysis of Health-Related Life Quality (Hrql)

To measure health-related life quality the 26-item WHOQOL Bref (World Heart Organization Quality of Life bref) was used. The domains included in the instrument are: Physical, Psychological, Interpersonal Relations and Environmental. The WHOQOL Bref contemplates the protocol for obtaining the scores in the 4 domains. In according to the items that each domain of the WHOQOL Bref contemplates the highest scores represent a better perception of life quality (scale from 0 to 100 points). In the participating sample, the general life quality was evaluated with a score of 60.40 on a scale of 0 to 100. The domain with the best average was interpersonal relations (68.06±14.7308 points), the lowest average score it was for the Environment domain (57.02±12.3902 points). Table 2.

**Table 2: Descriptive statistics total score by WHOQOL Bref domains**

WHOQOL Bref DOMAINS (0 to 100 points)	Minimum	Maximum	Media	Standard deviation
Overall quality of life	0	100	60.40	17.870
Physical Domain	3.57	96.43	62.51	18.4388
Psychological Domain	8.33	100.00	66.90	17.8847
Domain Interpersonal Relations	25.00	100.00	68.06	14.7308
Environment Domain	28.13	84.38	57.02	12.3902

n=125

Source: self-made

### 3.3 Bivariate Analysis: Relationship of Life Quality Related to Health by Domains and Clinical Variables

The general quality of life and the physical domain presented significant associations with the clinical variables. An inverse relationship was found between the limitation time with the physical domain. The rest of the associations, some statistically significant, showed a strength of less than 0.3, therefore they were not considered in this study. Table 3

**Table 3: Relationship of clinical variables with HRQoL dimensions**

Variables Clinics	HRQoL by domains					
	Statistical***	Physical Domain	Psychological Domain	Interpersonal Relations Domain	Environment	General CV
Medical diagnostic (ICD 10)	ETA	0.549	0.351	0.388	0.232*	-0.398**
	P Value	0.050	0.277	0.331	0.003	0.001
Evolution time of the permanent limitation (months)	Rho / r	-0.385**	-0.191*	0.178*	0.051	-0.336**
	P Value	0.000	0.005	0.004	0.571	0.001

Time ranges of the permanent limitation	Rho / r	0.415**	0.176*	0.219*	0.114	0.460**
	P Value	0.000	0.004	0.014	0.204	0.001
Use of external aids	ETA	0.495*	0.058	0.169	0.193*	0.282**
	P Value	0.004	0.520	0.060	0.003	0.000
External aid used	Rho / r	0.360**	0.222	0.379	0.315	0.383**
	P Value	0.001	0.378	0.282	0.094	0.001
Medication use	ETA	0.533**	0.216*	0.207*	0.072	0.430*
	P Value	0.000	0.003	0.005	0.422	0.001
Medications used	Rho / r	0.592**	0.253*	0.300	0.220	0.376
	P Value	0.000	0.005	0.078	0.283	0.050

Source: self-made

\* $P \leq 0.05$ \*\*  $P \leq 0.01$

\*\*\* expected linear connections of 0.3 considered by Mukaka as acceptable for this study type

r: Pearson connection coefficient

rho: Spearman's connection coefficient

#### 4. DISCUSSION

Regarding the clinical variables, the distinctive medical diagnosis corresponded to nervous system diseases (NS), the majority referred to the use of help, predominantly a cane; corresponding to Santos et al., (2019). In that order of ideas, Cerebral Vascular Disease is one of the NS conditions. It is considered one of the main death causes and acquired disability in adults, defined as a multifactorial pathological clinical disorder that affects the nervous system musculature. It produces ischemia and alteration of neuronal metabolism alteration with the results of a diversity of syndromes (Alvarado et al., 2020). Likewise, the support products use favor mobility and with it the autonomy and people functional independence with disabilities. It contributes to a better life quality. This is how, from the International Classification of Functioning, Disability and Health (ICF), whose foundation is the biopsychosocial model, the contextual factors component is specified. It involves environmental factors, constituted by the physical, social, and attitudinal environment in the one that the person lives and develops and that circumscribes the products and technologies aimed at improving the functioning of a person with a disability; and they are valued as facilitators of the participation and social inclusion of these people (WHO, 2001).

The results found in the study showed better average scores for the interpersonal relationships domains ( $68.06 \pm 14.7308$  points) and psychological ( $66.90 \pm 17.8847$  points), compared to life quality evaluated with the WHOQOL Bref. It was found that the lowest average score was for the Environment domain ( $57.02 \pm 12.3902$  points); a context like that referred to by Flores et al., (2018), Gil et al., (2018) and contrary to Orozco et al., (2019). One of the barriers that people with disabilities face daily is those of an attitudinal nature, a stigmatization product. It is perhaps one of the cruelest human actions because it leads to forming a distorted image of the other, which even generates harm. Because it can lead you to think and feel outside a space that should be shared by right, and yet it is not, for the reason that it is delimited by imaginary lines of self-rejection that inflict

psychological damage that in many cases is difficult to reverse (Awais, 2018). However, the results allow us to infer that people with disabilities have a good perception and feel satisfied with their relationships and their support networks, despite the adversity of the prevailing context, they are resilient and assume a positive attitude that becomes an essential tool. for the transformation of the paradigm that is opposed to what this group from its level of functioning can contribute to society.

On the other hand, the results obtained in the environmental domain show the disparity between the provisions of national and international regulations and the way in which society assumes its responsibility toward this group. The environment in which people live has a profound effect on the prevalence and magnitude of disability; Campaigns to change negative attitudes towards people with disabilities and large-scale changes to improve accessibility in transportation or public infrastructure reduce the barriers that prevent many people with disabilities from engaging and participating; environments-physical, social and attitudinal-can generate disability in people who have disabilities or encourage their participation and inclusion (WHO, 2011). People with disabilities seek well-being from various perspectives: the search for economic stability, to support their family, provide them with shelter and food; family well-being, approaching from the economic, emotional, and health; As well as self-realization, being able to feel useful, capable of being able to fend for themselves, feeling that they contribute and are not a burden in their family environment, being able to also be recognized for their achievements and having fulfilled their goals; along with comfort, referring to comfort from the perspective of managing their disability in the environment they are in, being able to have an infrastructure that allows mobility and managing their disability adequately in their daily activities (Gallegos & Salas, 2019).

When analyzing the correlations between the clinical variables and the determining domains of life quality, an inverse relationship was observed between the limitation time with the physical domain and general life quality, similar to that found by Nessi & Silva (2019). It reports that the longer the evolution time of Systemic Lupus Erythematosus, the lower the perception of life quality. Similarly, Hernández & Salazar (2020), found that the evolution time of cerebrovascular disease showed differences in the life quality perception related to health from the year of the event. In rheumatic diseases case, the comorbidities presence, and the involvement of the hips and knees negatively influence the perception of life quality, this aspect becomes more evident, with the increase in evolution time (Vásquez & Horta, 2018). Regarding the presence in time, the disease, as well as the limitations to the activity occur simultaneously in time, while the disease sequelae can persist beyond it; hence the user-centered care importance. It allows the latter to participate more and better in their processes, there will be greater satisfaction, greater functional achievements, and adherence to treatment programs, which would translate into a better health condition and therefore their life quality perception (Fonseca, 2022).

Finally, medications use, and medication type variable is the ones that most positively correlate with the physical domain and general life quality; that is, pharmacological therapy improves the perception of general life quality and from the physical domain. This inference is like that supported by a study executed in Brazil in which reduced life quality was associated with low adherence to

medication. It concludes that not using the medication correctly increases the disease symptoms perception and the damage appearance to physical, psycho-emotional, and social well-being (Pretto et al., 2020). Similarly, a case study accomplished in Spain revealed that through the SPD home pharmaceutical system the patient increased adherence to his extensive polypharmacy and consequently improved his life quality. It avoids possible problems related to medication, evades the negative results associated with it, and improves the patient's health by increasing adherence to treatments (Domingo & Campos, 2022).

## 5. CONCLUSION

After reviewing the results, it was possible to establish how the clinical conditions, represented in signs and symptoms, are determinants in life quality perception. It could be inferred that the longer the limitation, the lower the perception of life quality from the physical component and life quality in general. The greater the commitment to the health condition, the lower the life quality perception. Finally, it was specified that the use of external aids improves the life quality perception from the physical domain.

## REFERENCES

- Alvarado Esteban, Simental Esteban, Hernández Víctor & Rangel Alfonso. (2020). Grado de discapacidad en pacientes con enfermedad vascular cerebral y su territorio de origen, en dictámenes de invalidez, emitidos por la Coordinación de Salud en el Trabajo de la delegación Coahuila en 2019. *Revista Red de Investigación en Salud en el Trabajo*, 3(1), 33-34. Recuperado el 10 de septiembre, 2022. Disponible en: <https://rist.zaragoza.unam.mx/index.php/rist/article/view/284/186>
- Awais Rumbos, C. A. (2018). La Estigmatización del otro en los Procesos de Inclusión de Estudiantes con Discapacidad. *Revista Scientific*, 3(8), 273-289. <https://doi.org/10.29394/Scientific.issn.2542-2987.2018.3.8.14.273-289>.
- Cáceres-Manrique F, Parra-Prada L & Pico-Espinosa O. (2018). Calidad de vida relacionada con la salud en población general de Bucaramanga, Colombia. *Rev. Salud Pública*, 20 (2): 147-154. Disponible en: [https://www.scielosp.org/article/ssm/content/raw/?resource\\_ssm\\_path=/media/assets/rap/v20n2/0124-0064-rsap-20-02-147.pdf](https://www.scielosp.org/article/ssm/content/raw/?resource_ssm_path=/media/assets/rap/v20n2/0124-0064-rsap-20-02-147.pdf)
- Calidad de vida para un envejecimiento saludable. (2022). Recuperado el 4 de septiembre, 2022 de Instituto Nacional de las Personas adultas Mayores. Disponible en: [https://www.gob.mx/inapam/es/articulos/calidad-de-vida-para-un-envejecimiento-saludable?idiom=es#:~:text=De%20acuerdo%20con%20la%20OMS%20la%20calidad%20de%20vida%20es%3A&text=Es%20un%20concepto%20de%20amplio,%E2%80%9D%20\(OMS%2C%202002\)](https://www.gob.mx/inapam/es/articulos/calidad-de-vida-para-un-envejecimiento-saludable?idiom=es#:~:text=De%20acuerdo%20con%20la%20OMS%20la%20calidad%20de%20vida%20es%3A&text=Es%20un%20concepto%20de%20amplio,%E2%80%9D%20(OMS%2C%202002).).

- Departamento Nacional de Estadística. (2022). Estado actual de la medición de la discapacidad en Colombia. Recuperado el 03 de septiembre, 2022. Disponible en: [https://www.saldarriagaconcha.org/wpcontent/uploads/2022/04/abr\\_2022\\_nota\\_estadistica\\_Estado-actual\\_de\\_la\\_medicion\\_de\\_discapacidad\\_en-Colombia.pdf](https://www.saldarriagaconcha.org/wpcontent/uploads/2022/04/abr_2022_nota_estadistica_Estado-actual_de_la_medicion_de_discapacidad_en-Colombia.pdf).
- Domingo-Pueyo A & Campos-Martínez B. (2022). Mejora de la calidad de vida de un paciente domiciliario de 76 años tras 38 cambios de medicación con la ayuda de un Sistema Personalizado de Dosificación: Un caso de Atención Farmacéutica Domiciliaria (SPD). *Hosp. Domic.*; 6(2):93-7. Recuperado el 13 de septiembre, 2022. Disponible en: <https://revistahad.eu/index.php/revistahad/article/view/159/222>.
- Flores-Herrera BI, Castillo-Muraira Y, Ponce-Martínez D, Miranda-Posadas C, Peralta-Cerda EG & Durán-Badillo T. (2018). Percepción de los adultos mayores acerca de su calidad de vida. Una perspectiva desde el contexto familiar. *Rev Enferm IMSS*; 26(2):83-88. Recuperado el 10 de septiembre, 2022. Disponible en: <https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=80647>.
- Fonseca, G. C. (2022). Manual de Medicina de Rehabilitación: Calidad de vida más allá de la enfermedad. Editorial El Manual Moderno (Colombia) Ltda. [https://www.google.es/search?lr=lang\\_es&hl=es&tbo=p&tbm=bks&q=inauthor:%22Galia+Constanza+Fonseca%22&source=gbs\\_metadata\\_r&cad=6](https://www.google.es/search?lr=lang_es&hl=es&tbo=p&tbm=bks&q=inauthor:%22Galia+Constanza+Fonseca%22&source=gbs_metadata_r&cad=6).
- Gallegos-Erazo, F. y Salas-Díaz, D. (2019). Business-Career Transition of Poor People with Disabilities in Ecuador: An Exploratory Study. *The International Journal of Interdisciplinary Social and Community Studies*, 14(1), 13-35. <https://doi.org/10.18848/2324-7576/CGP/v14i01/13-35>.
- García-López L, Quevedo-Navarro M, De la Rosa-Pons Y & Leyva-Hernández A. (2020). Calidad de vida percibida por adultos mayores. *Revista Electrónica Medimay*, 27(1), 16-25. Disponible en: <https://www.medigraphic.com/pdfs/revciemehab/cmh-2020/cmh201c.pdf>.
- Gil Obando, L. M., López López, A., Barreiro Novoa, S., Molina Heredia, Y. P., & Solano Esparragoza, Z. del C. (2018). Discapacidad y calidad de vida en población adulta del Municipio de Soledad, Atlántico – Colombia. *IyD*, 5(2), 143–158. <https://doi.org/10.26620/uniminuto.inclusion.5.2.2018.143-158>
- Hernández, Elvira, & Salazar, Juan. (2020). Calidad de vida en pacientes con enfermedad cerebrovascular evaluados en un hospital venezolano. *Revista Ecuatoriana de Neurología*, 29(2), 52-57. <https://doi.org/10.46997/revecuatneurol29200052>
- Mukaka MM. A guide to appropriate use of Correlation coefficient in medical research. (2012). *Malawi Medical Journal*. 24(3):69-71.
- Nessi, F. S. C., Magallanes, A. W. A., & Silva, Y. J. F. (2019). Relación entre los factores sociodemográficos y la calidad de vida en pacientes con lupus eritematoso sistémico. *Medicina Interna*, 35(4), 135-144. Disponible en: [https://www.svmi.web.ve/wp-content/uploads/2022/07/V35\\_N4.pdf#page=14](https://www.svmi.web.ve/wp-content/uploads/2022/07/V35_N4.pdf#page=14)

Organización Mundial de la Salud. (2001). Clasificación internacional del funcionamiento, de la discapacidad y de la salud, versión abreviada. Recuperado el 12 de septiembre, 2022. Disponible en: [https://apps.who.int/iris/bitstream/handle/10665/43360/9241545445\\_spa.pdf](https://apps.who.int/iris/bitstream/handle/10665/43360/9241545445_spa.pdf).

Organización Mundial de la Salud. (2011). Informe Mundial de Discapacidad. Malta: Banco Mundial. Disponible en: [http://www.who.int/disabilities/world\\_report/2011/es/](http://www.who.int/disabilities/world_report/2011/es/)

Organización Mundial de la Salud. (2021). Discapacidad y salud. Recuperado el 05 de septiembre, 2022. Disponible en: <https://www.who.int/es/news-room/fact-sheets/detail/disability-and-health>.

Orozco-González, Catalina, Vagner-Ramírez, Basilio, & Salas-Zapata, Carolina. (2019). Calidad de vida en pacientes con esclerosis múltiple atendidos en una institución de salud de Medellín, Colombia. *Universidad y Salud*, 21(3), 226-234. <https://doi.org/10.22267/rus.192103.159>

Pretto CR, Winkelmann ER, Hildebrandt LM, Barbosa DA, Colet CF & Stumm EMF. (2020). Quality of life of chronic kidney patients on hemodialysis and related factors. *Rev. Latino-Am. Enfermagem*. 2020;28:e3327. Disponible en: <https://www.scielo.br/j/rlae/a/9JDNyTBwTMqt4br7svXJT4v/?format=pdf&lang=es>

Santos Álvarez M. del R., Bello Carrasco L. M., Sánchez Choez L. M., González Kadashinskaia G. O. y María Carolina. (2019). Propuestas de estrategias para mejorar la calidad de vida de las personas mayores. *Universidad Ciencia Y Tecnología*, 23(94),7. Recuperado el 12 de septiembre, 2022. Disponible en: <https://uctunexpo.autanabooks.com/index.php/uct/article/view/166>.

The World Health Organization. (1995). Quality of Life assessment (WHOQOL): position paper from the World Health Organization. *Soc Sci Med*; 41 (10): 1403-1409. Recuperado el 13 de septiembre, 2022. Disponible en: <https://www.who.int/tools/whoqol>

Vásquez-Morales A & Horta-Roa L. (2018). Enfermedad crónica no transmisible y calidad de vida. Revisión narrativa. *Revista Facultad Ciencias de la Salud: Universidad del Cauca*, 20(1)33-40. Disponible en: <https://dialnet.unirioja.es/servlet/articulo?codigo=6482759>