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Disability And Quality Of Life-Related To Health In Adult People From Sincelejo, Colombia

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ABSTRACT

Objective: To relate disability and life quality in adults from Sincelejo city in Colombia. Methodology: Correlational descriptive study. Non-probabilistic sampling was executed. It consisted of 125 people with disabilities, over 20 years with more than six months of permanent limitation. For the disability assessment, the World Health Organization Disability Assessment Schedule version 2.0 was used and validated by the World Health Organization and the WHOQOL-Bref to determine health-related life quality. Results: Global disability and mobility areas, self-care, and participation. It showed a significant and inverse relationship with general QoL and all its domains ($p < 0.05$). The physical domain presented a significant relationship with all areas except cognition and relationships. Conclusion: The findings allow us to establish that the lower the disability level, the better the perception of life quality.

Keywords: Disability, life quality related to health, adults.

1. INTRODUCTION

The disability concept has evolved gradually according to the changes in society. It is based on facts such as the rights recognition, the different conditions understanding and the same concepts definitions. Likewise, it has evolved according to the model's study and theories that serve as explanation critical elements and prediction of the disability phenomenon (Felizzola, 2013). According to the World Health Organization, WHO (2015), the disability concept is explained by three different physical problems or mental impairments, activity limitations and participation restrictions. Impairments are problems that affect a bodily structure or function; the activity limitations are the difficulties that appear to execute actions or daily tasks. Finally, participation restrictions refer to obstacles to fully participating in life situations. Consequently, disability is a complex phenomenon that considers the interaction between the human organism characteristics and the society particularities in which it lives.

On the other hand, the meaning of life quality is assumed by Schalock and Verdugo (2002) as a well-being state that incorporates objective and subjective elements. It is influenced by personal and environmental factors. Along the same lines, health-related life quality (HRQoL) focuses on their own health individual's perception and their abilities. That is without ignoring that there may be a difference between self-perception and the health professional's criteria. About what is considered a good life. In turn, there may be interdependence between the two assessments (Cáceres et al., 2018). HRQoL emphasizes the well-being and satisfaction of the subject in living conditions improvement in the perception they have about their health. Also in their comprehensive recovery, which is especially important in people with chronic diseases and disabling conditions. Who must live with it permanently, so it is necessary to coexist with its limitations and its therapeutic or corrective processes in addition to significantly modifying the lifestyle (Gil et al., 2018).

Based on what the scientific evidence reports, it is estimated that 15.6% of the world population over 14 years lives with a disability and that about 3.8% have a severe disability. Disability affects women, the elderly population, and people with low economic resources to a greater extent. Regarding this last group, it has been shown that disability prevalence is higher in countries with lower incomes than in those with higher incomes. In addition, according to the United Nations, 80% of people with disabilities live in developing countries (WHO, 2011). In December 2019 in Colombia, the RLCPCD included 1.5 million people with disabilities, of whom 50.7% are men and 49.3% are women. In addition, 46.2% are older people. The departments with a higher proportion of people with disabilities are Quindío, Norte de Santander, Nariño, and Huila, where this population represents at least 8.5% of the total population (DANE, 2022). In the department of Sucre, according to the RLCPCD, approximately 2.7% of the total population that lives in the department has some type of disability.

Considering then the scenario in which the people group's reality with disabilities underlies, it is evident that in so much precariousness faced, it is to be expected that the perception of life quality shows serious difficulties. Understanding this and based on the biopsychosocial model disability and the ecosystem approach, it is essential to address this condition determined from a holistic and interactionist perspective. It considers the personal and contextual factors that constitute the human being's complex structure in his corporeal dimension, his psyche, and the environment around you; involving the person, their family, the state, and society as determining actors to guarantee the inclusion and of the disability group real participation. Thus, as a person with a physical disability, they may experience significant difficulties in various aspects including problems performing daily activities, chronic pain, anxiety, depression, and limitations for social participation, in addition to facing contextual and attitudinal barriers (Lima et al., 2020). Therefore, when talking about disability with the permanent limitation subsequent existence, and given the multidimensional and

subjective nature of HRQoL, the improvement of its conditions becomes a therapeutic objective that in turn shows a discrepancy between clinical aspects and what is reported by the person. It is reaffirming that HRQoL must be approached from their perspective and not from that of the health professional, caregiver, or family member, since from their subjectivity they build a particular assessment for their life and their health conditions (Lopera, 2020).

This study's purpose was to determine the existing correlation between disability and health-related life quality in adults with disabilities from Sincelejo city in Colombia. Through the application of WHODAS 2.0 and WHOQOL BREF (abbreviated version), it constitutes a valuable contribution as mentioned by Gil et al. (2018), the main results contributions of this project are summarized in the disability objectification from performance profiles by areas and global, the perception level of life quality based on the disability; the validated use batteries promotion with proven psychometric properties for the constructs evaluation (Disability and quality of life) among academic, research, individual and collective intervention communities and finally a look at disability from biopsychosocial models.

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 disability and sociodemographic variables in adults with disabilities from Sincelejo, Sucre. The population consisted of people with disabilities over 20 years from Sincelejo, Sucre. 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). It is acceptable for this study type. A non-probabilistic sampling was executed with volunteer subjects over 20 years from institutions, associations, and people's groups with disabilities in the city using the snowball technique.

2.1 Information Collection Techniques

a) Survey: General information, sociodemographic aspects

b) WHO DAS 2.0 Questionnaire: WHO Disability Assessment Instrument (World Health Organization Disability 2.0)

c) WHOQOL Bref Questionnaire

2.2 Process

a) Acceptance and signature of the informed consent.

b) Application of a sociodemographic survey and an instrument for evaluating disability and health-related life quality.

c) Systematization, tabulation, graphing, and information analysis.

d) Discussion of results.

e) Final report

2.3 Statistic Analysis

Information processing was done using SPSS software version 23.0 (Statistical Package for the Social Science). Univariate analysis: The sample was characterized by considering the disability variables and health-related life quality. For qualitative variables, proportions were calculated, and for quantitative variables, central tendency measures and dispersion. Bivariate analysis: Relationships were established between disability variables by areas, global with health-related life quality. For this, Pearson or Spearman correlation coefficients were applied, depending on the variable behavior. Normality tests were previously executed with Kolmogorov-Smirnov. For all cases, statistical significance was accepted with a p-Value less than or equal to 0.05.

2.4 Declaration on Ethical Aspects

The research fulfilled the Declaration ethical principles of Helsinki and with Resolution 008430, article 11; it was considered as “minimal risk research” due to the non-manipulation of biological variables.

3. RESULTS

3.1 Descriptive Analysis of Disability

In the 125 people participating in the study, the mean global disability (scale from 0 to 100) was 26.53±15.4415 points. Regarding the areas evaluated by WHODAS 2.0, the one with the highest average score was mobility 44.60±32.3139. The area with the lowest average score was relationships with 11.26 points. Table 1.

Table 1: Descriptive statistics global score and by WHODAS 2.0 areas

Áreas and Global Disability	Media	Desv. Tip	Minimum	Maximum
Cognition	12.64	16.0841	0.00	75000
Mobility	44.60	32.3139	0.00	100.00
Personal care	17.44	23.8579	0.00	100.00
Relaciones Relations	11.26	13.7280	0.00	58.33

Daily life activities	32.48	26.6293	0.00	100.00
Activities of daily living-Paid work	17.85	19.3640	0.00	78.57
Participation	36.53	16.9262	4.17	83.33
Global Disability Score -WHODAS 2.0-	26.53	15.4415	4.35	79.35

(Source: Author Self- Interpretation)

Regarding global disability re-coded from the 6 WHODAS 2.0 areas, it was found that 48% of the respondents presented mild disability. See table 2.

Table 2: Degree of Disability WHODAS 2.0

Grade of Discapacity	FA	%
None	2	1.6
Mild	60	48.0
Moderate	54	43.2
Severe	9	7.2
Extreme	0	0.0
Total	125	100.0

(Source: self-made)

The extreme degree highest proportion of disability was for the mobility area with 7.2%. The daily living-paid activities area work was the one that showed the highest mild disability proportion with 62.4%. See table 3

Table 3: Degree of disability by WHODAS 2.0 areas

Areas	Grade	FA	%
Cognition	None	46	36.8
	Mild	53	42.4
	Moderate	20	16.0
	Severe	6	4.8
	Extreme	0	0.0
	Total	125	100.0
Mobility	None	16	12.8
	Mild	28	22.4
	Moderate	17	13.6
	Severe	55	44.0
	Extreme	9	7.2
	Total	125	100.0
Personal care	None	53	42.4

Areas	Grade	FA	%
	Mild	36	28.8
	Moderate	21	16.8
	Severe	13	10.4
	Extreme	2	1.6
	Total	125	100.0
Relations	None	59	47.2
	Mild	39	31.2
	Moderate	23	18.4
	Severe	4	3.2
	Extreme	0	0.0
	Total	125	100.0
Activities of daily living-unpaid work	None	30	24.0
	Mild	21	16.8
	Moderate	35	28.0
	Severe	34	27.2
	Extreme	5	4.0
	Total	125	100.0
Activities of daily living-paid work	None	22	17.6
	Mild	78	62.4
	Moderate	17	13.6
	Severe	8	6.4
	Extreme	0	0.0
	Total	125	100.0
Participation	None	0	0.0
	Mild	31	24.8
	Moderate	68	54.4
	Severe	26	20.8
	Extreme	0	0.0
	Total	125	100.0

Source: Primary Data

3.2 Descriptive Analysis of Quality of Life-Related to Health

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. It is according to the items that each WHOQOL Bref contemplates domain. The highest scores represent a better

life quality perception (scale from 0 to 100 points). In the participating sample, the domain with the best average was interpersonal relationships (68.06±14.7308 points), and the lowest average score was for the Environment domain (57.02±12.3902 points). Table 4.

Table 4: Descriptive statistics total score by WHOQOL Bref domains

WHOQOL Bref DOMAINS (0 to 100 points)	Minimum	Maximum	Media	Standard deviation
The overall quality of life	0.00	100.00	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 Relationship between disability by areas and overall (0-100 points) and quality of life-related to health by dimensions (0-100 points)

Global disability and the mobility areas, self-care, and participation showed a significant and inverse relationship with general QoL and all its domains ($p < 0.05$). The physical domain presented a significant relationship with all areas except cognition and relationships. These findings allow us to establish that the lower the disability level, the better the life quality perception.

Table 5: Correlation between HRQoL by dimensions and disability by areas and overall

VARIABLES		HRQoL by domains					
Disability by areas and global	Statistical**	Physical Domain	Psychological Domain	Interpersonal relations Domain	Environment	General CV
Cognition	Rho	-0.142	-0.318	-0.135	-0.136	0.169
	P Value	0.113	0.018	0.134	0.131	0.060
Mobility	Rho	-0.584**	-0.389**	-0.359**	-0.354**	-0.379*
	P Value	0.000	0.001	0.000	0.000	0.002
Personal Care	Rho	-0.598**	-0.352**	-0.353**	-0.492**	-0.578*
	P Value	0.000	0.000	0.000	0.001	0.004
Relations	Rho	-0.112	-0.212**	-0.286**	-0.145	-0.119*
	P Value	0.214	0.000	0.001	0.106	0.004

Daily life activities	Rho	-0.588**	-0.348**	-0.342**	-0.275**	0.058
	P Value	0.000	0.000	0.000	0.001	0.020
Daily life activities Reminerated job	Rho	-0.392**	-0.219*	-0.077	-0.268**	0.222
	P Value	0.000	0.004	0.395	0.001	0.078
Participation	Rho/r	-0.576**	-0.429**	-0.472**	-0.553**	-0.058*
	P Value	0.000	0.000	0.000	0.001	0.002
Global Disability Score	Rho/r	-0.658**	-0.490**	-0.439**	-0.391**	-0.422**
	P Value	0.000	0.000	0.000	0.000	0.000

*p≤0.05 **p≤0.01

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

Rho: Spearman's correlation coefficient

4. DISCUSSION

The study findings allowed us to build a population profile according to the variables investigated behavior; This is how it was shown in the disability areas. The one with the highest average score (greatest disability) was mobility with 44.60±32.3139 points; This area also coincides with the degree highest proportion of extreme disability. Regarding the disability degree re-coded from the 6 areas of WHODAS 2.0, greater mild disability representativeness was found. Corresponding to these findings, those obtained by Páez et al. (2021), Mejía (2021), Gaviria et al. (2020), and Navarrete (2020) coincide. It contrasts with what was reported by Niño, González, and Potes (2020) who in their study found a higher moderate disability frequency, followed by severe disability and, to a lesser extent, mild disability.

Consistent with the above, the environment in which people live has a profound effect on the prevalence and disability magnitude. Important environmental changes, such as those caused by natural disasters or conflicts, also affect the disability prevalence, since they modify deficiencies and create barriers in the physical environment (WHO, 2011). This is how from scientific evidence and through various national and international organizations, they have insisted on working on the access barriers elimination for people with disabilities. The last ones in their daily lives face unfortunate mobility experiences in limiting environments. That very little takes universal design into account. It ignores the existing reality in our context in which, as indicated in the Persons Bulletin with Disabilities (2019). In Colombia, the most present permanent alterations in Persons with disabilities are related to the movement of the body, and consequently, the activity that is most difficult for people with disabilities is walking, running, or jumping. In this sense, Torres (2019), refers to the concept of mobility

to refer to the way in which citizens, present in the territory, move in the different levels of the city and of society.

Thus, the city should guarantee the citizens free movement in the territory. However, the reality is very different. Its spaces are fragmented as an occupation process results and power logic that generates constant physical and other barriers that prevent mobilization and free movement, a situation that decisively and imperatively affects the disabled group. Faced with this, it is necessary for the State, through the different competent public authorities, to exercise special surveillance, control, and regulations follow-up implementation on the spaces, services, and the public accessibility offer of its competence. All entities must oversee carrying out updated diagnoses on the barriers faced by people with disabilities to access social services and public offerings, to propose measures that positively impact the accessibility guarantee and full social inclusion (Art. 9 CRPD, 2008).

Regarding the health-related life quality (HRQoL). The domain with the best average was interpersonal relations (68.06±14.7308 points), and the lowest average score was for the Environment domain (57.02 ±12.3902 points), a similar situation described by Gil et al (2018) and Arakawa (2020), it diverges from what was stated by Quesada (2019). These findings show that despite attitudinal barriers existence that unfortunately accompanies the population with disabilities, they have not affected the establishment of their social relationships. Positive social relationships can be considered a health determinant and social interaction work as a vector of good health. It can also be valued as a life quality estimation, because social relationships are essential for social well-being, understood as a stimulus that satisfies needs and the feeling good fact; therefore, affective support is as important as instrumental or physical, to the extent that they fulfill specific social functions (Rondón et als, 2018).

There were significant correlations were found between the different domains established to assess disability and each one of the domains determined to assess the participant's life quality from Sincelejo city, between the disability domains: mobility, self-care, daily living activities (unpaid work), and participation in society, with the physical life quality domain. These correlations are high and negative, that is, these disability domains have an inverse effect on physical people's life quality who have these difficulties. This succinct relationship shows once again how the context is a fundamental factor that determines the barriers or facilitators against the participation and social people inclusion with disabilities and conditions their life quality perception in such a way that the higher the functioning level, the greater independence and autonomy and therefore better perception of HRQoL. Based on the current conceptions about people's rights with disabilities, the policies design should be based on information about their needs in such a way that from deficiency presence. The barriers that prevent the disability are eliminating people's participation in the different living areas and their capacities can be recognized, fundamentally to make their own choices (Bagnato & Córdova, 2020).

5. CONCLUSION

From the findings obtained in this study, it can be inferred that the greater the limitation in mobility activities, self-care, daily living activity, and participation. This lowers the life quality perception. Similarly, it follows that the greater the disability, the lower the life quality perception and vice versa.

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