

FUNCTIONAL CAPACITY, QUALITY OF LIFE, AND DISABILITY IN FIBROSING INTERSTITIAL LUNG DISEASE: INSIGHTS INTO PULMONARY FUNCTION AND OUTCOMES

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ABSTRACT. *Objective:* This study aimed to evaluate lung function, functional capacity, quality of life, functionality, and disability in individuals diagnosed with Fibrosing Interstitial Lung Disease (F-ILD). *Methods:* The research employed a cross-sectional design and included participants with a confirmed diagnosis of F-ILD. Variables under investigation included: 1. Sociodemographic factors; 2. Pulmonary Function; 3. Functional Capacity; 4. Quality of life; 5. Functioning and Disability assessed using the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). Ethical approval for the study was obtained from the Research Ethics Committee of the State University of Bahia (UNEB). *Results:* The predicted distance in the six-minute walk test was significantly shorter than the distance covered (545.9±45.2 and 414.5±140.3 meters, respectively). Patients classified with a modified dyspnea scale (mMRC)=4 exhibited a significantly greater impact on functionality. The WHODAS 2.0 domains of social participation and activities of daily living were most affected in F-ILD patients. Statistically significant associations were found between the distance covered and WHODAS - locomotion ($r=-0.46$; $p<0.001$) as well as between the distance covered and WHODAS-self-care ($r=-0.51$; $p<0.001$). In terms of quality of life, mental health and vitality emerged as the most compromised domains. *Conclusion:* This study revealed a decline in lung function, functional capacity, quality of life, and overall functionality among individuals with F-ILD. Notably, the most substantial impairments were identified in domains directly related to quality of life and social interaction.

KEY WORDS: fibrosing interstitial lung disease, pulmonary function tests, quality of life, functional capacity, functionality, disability, respiratory outcomes, chronic lung disease

BACKGROUND

Interstitial Lung Disease (ILD) encompasses a spectrum of pathological conditions characterized by diffuse inflammation and/or fibrosis within the

lung interstitium, leading to physiological restriction and compromised gas exchange. Epidemiological studies suggest an estimated incidence ranging from 2.8 to 18 cases per 100,000 individuals annually in Europe and North America, and 0.5 to 4.2 cases per 100,000 individuals annually in Asia and South America (1,2) Patients diagnosed with Fibrosing Interstitial Lung Disease (F-ILD) endure substantial functional consequences attributed to respiratory involvement, often necessitating both pharmacological and non-pharmacological interventions. The management strategies may include supplemental oxygen

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and pulmonary rehabilitation (3). With disease progression, individuals may experience a decline in functional capacity and Quality of Life (QoL), potentially leading to premature mortality (1). A comprehensive, multidisciplinary approach is imperative for effective disease management, incorporating various assessment parameters to enhance the depth and precision of evaluation (3). Considering the public health perspective, disability holds equal significance to mortality, as understanding an individual's ability to perform occupational, daily, and social activities contributes valuable insights (4). Surprisingly, existing literature lacks studies presenting data related to Functioning/Disability, particularly assessed through the World Health Organization Disability Assessment Schedule (WHODAS 2.0) questionnaire, for individuals with F-ILD. Acknowledging that patient-centered outcomes are pivotal, as endorsed by the American Thoracic Society (ATS), there is a pressing need for investigations aimed at elucidating the functional repercussions of F-ILD (5). The knowledge gleaned from such studies can significantly contribute to the comprehension of the requisite for comprehensive and more efficacious support systems for affected individuals.

METHODS

This study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline. This is a cross-sectional study in a cohort of patients with existing F-ILD. The study was carried out in a private medical office located in the city of Salvador, Bahia, between November 2018 and May 2021. Patients with a current diagnosis of Interstitial Fibrosing Pulmonary (all fibrotic ILD) residing in the state of Bahia and who had previously performed a stress test were asked to participate. All patients gave written informed consent. Exclusion criteria were cognitive (dementia), cardiovascular (acute coronary syndrome in the last four months and syncope) and motor and neurological disorders (TBI, stroke, hemiparesis, upper and lower motor neuron diseases). The database included sociodemographic information, clinical information (time since diagnosis (in years), smoking, comorbidities, and physical activity), physical examination, 6-minute walk test (6MWT) and the WHODAS 2.0 and SF-36 questionnaires, collected by a physiotherapist. It should be noted that

for the present study, the following comorbidities were considered: pulmonary and cardiac diseases, systemic arterial hypertension, history of tumors, chronic kidney disease, liver cirrhosis, diabetes mellitus, history of venous thromboembolism and obesity (BMI \geq 30). The patients included in this database signed the Informed Consent Form. The forced vital capacity / forced expiratory volume at one second (FEV1/FVC ratio), TLC, and DLCO were measured during complete PFT (6). The performance of spirometry followed the recommendations and updates of the American Thoracic Society (7,8,9,10). Additionally, participants performed 6-MWTs according to American Thoracic Society (11,12). The predicted walk distance will be calculated according to the equation by Britto et al. (13). Additionally, the distance walked by each patient will be evaluated according to a normative value of 250 meters and 350 meters, based on the available literature on the cutoff point considered a prognostic factor for mortality in patients with F-ILD (11,14). During 6MWT the oxygen desaturation was defined as a decrease in the SpO₂ of 4% or more from baseline and the number of patients who experienced a drop in pulse oximetry saturation below 90% was also presented. The participants' quality of life was assessed using the SF-36 validity questionnaire and tabulated in the database (15). WHODAS 2.0. was applied through an interview and stored in the database. Instrument developed by the WHO that aims to measure the levels of health and disability in the population (range from 0 to 100) (16). Due to the absence of epidemiological data on the relative frequency of different interstitial lung diseases in Brazil, the sample size was calculated using the statistical package Epi Info Statistical Package version 7. This calculation considered an estimate of 90,000 cases of Interstitial Pulmonary Fibrosing Disease (F-ILD) in the Brazilian population, based on other studies for this population. With an acceptable margin of error of 0.05, a design effect of 1, and a 95% confidence interval, the required sample size was determined to be 76 patients. Data were analyzed using the statistical program SPSS - Statistical Package for Social Sciences - version 17.0 for Windows. Normality of variables was assessed using the Shapiro-Wilk test. Demographic characteristics were subjected to descriptive analysis and expressed as means. Categorical variables were evaluated through frequency and expressed as percentages. For the correlation between quantitative variables,

either Pearson or Spearman correlation tests were employed. In general, for Pearson's coefficients and Spearman's ρ , values between 0.00 and 0.25 were considered indicative of little or no correlation, 0.25 to 0.50 suggesting a weak degree of correlation, values between 0.50 and 0.75 indicating a moderate to good correlation, and values above 0.75 were considered indicative of a good to excellent correlation. Additionally, to understand the impact of desaturation and mMRC on functional variables, Student's t-test or Mann-Whitney were applied, respectively. The one-sample t-test was used to compare the distance covered in the 6-minute walk test by the sample patients with predictive mortality cutoffs previously described in the scientific literature for F-ILD patients. The critical level was set at 5% ($p < 0.05$) to admit a statistically significant difference in means. The research protocol was submitted to the Committee on Ethics in Human Research (CEP) and approved for execution by the CEP of the State University of Bahia with CAE 16731018.0.0000.0057 on July 19, 2021. The study adhered to ethical principles for human research in accordance with CNS Resolution 466/2012. All participants who agreed to be part of the study signed the Informed Consent Form (ICF) and were informed about all evaluative procedures. Participants were assured the right to withdraw from the study at any time. No information that could identify participants was disclosed, as only numerical codes were used for statistical analysis. Data usage was authorized by the volunteers. Our data may be subject to recall and selection biases and bias related to missing data or incomplete outcomes that may affect effect estimation.

RESULTS

This study encompassed a cohort of 79 individuals diagnosed with F-ILD, characterized by a median age of 67 years. Over the follow-up period, four deaths were recorded within the cohort. In the realm of comorbidities, 68 patients (86.1%) presented with some form of comorbidity, while 8 patients (10.1%) exhibited no comorbidities other than IPF. Comprehensive clinical and sociodemographic characteristics of the patients are explicated in Table 1. The patients were stratified based on the Modified Medical Research Council Dyspnea Scale (mMRC), revealing 24 patients (30.4%) reported no breathlessness except during vigorous exercise (mMRC 0) and

9 patients (11.4%) encountered severe breathlessness hindering them from leaving home or dressing (mMRC 4).

Regarding the results of the 6-minute walk test (6MWT), the participants demonstrated a mean covered distance of 414.5 meters ($75.3\% \pm 23.3$ of the predicted distance). The range of distances covered varied from a minimum of 3 meters to a maximum of 686 meters in the 6MWT. In the evaluation of the actual distance covered in comparison to the predicted distance, only a minority, comprising 6 individuals (7.5%), achieved or surpassed their predicted distance during the test. Upon delineating the profile of the participants undergoing the 6MWT, it was noted that two patients (2.5%) who experienced desaturation during the test were utilizing supplemental oxygen, while the remaining participants who exhibited a decline in saturation during the 6MWT ($n=50$) were not utilizing supplemental oxygen, as detailed in Table 1. Given that 250 meters is established as a prognostic indicator of mortality, it is noteworthy that within the current sample, 70 patients (88.6%) surpassed this predefined cutoff point (single sample t test, $p < 0.001$). Employing a cutoff of 350 meters, 58 patients (73.4%) exceeded this threshold (single sample t test, $p < 0.001$) within this cohort (Table 1 and Figure 1). Graphical representation of the comparison between the actual distances covered by the patients in the sample and the predicted distances based on Britto et al. (13) parameters during the 6-minute walk test (6MWT). The predicted distance in the six-minute walk test was significantly shorter than the distance covered (545.9 ± 45.2 and 414.5 ± 140.3 meters, respectively) (Figure 2).

Upon investigating the relationship between the modified Medical Research Council (mMRC) classification of patients and the distance covered in the 6-minute walk test (6MWT), it was observed that patients categorized with mMRC=0 demonstrated the highest mean distance covered, amounting to 456.2 meters. In contrast, patients classified with mMRC=4 covered significantly shorter distances compared to those with mMRC=0, 1, 2, and 3 (Figure 3A). Moreover, the mMRC classification displayed an association with the overall score of the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). Within this context, it is evident that patients characterized with mMRC=4 manifest a considerably more

Table 1. Sociodemographic, clinical characteristics, Dyspnea perception and the functional capacity of the sample.

Variable	Mean±SD	Median (IIQ)	n (%)
Gender (n= 79)			
Male			35 (44.3)
Female			44 (55.7)
BMI (n= 77)			
Normal			28 (36.4)
Overweight			30 (39.0)
Obesity grade 1			17 (22.1)
Obesity grade 2			2 (2.6)
Smoking (n= 78)			
Yes			3 (3.8)
No			75 (94.9)
Physical activity (n= 78)			
Yes			22 (27.8)
No			56 (70.9)
Comorbidities (n= 76)			
Yes			68 (86.1)
No			8 (10.1)
mMRC (n= 79)			
0			24 (30.4)
1			30 (38.0)
2			10 (12.7)
3			6 (7.6)
4			9 (11.4)
Distance covered in the 6MWT in meters (n= 79)	414.5±140.3		
Predicted distance in TC6 in meters (n= 79)	545.9±45.2		
Predicted distance in TC6 in % (n= 79)	75.3±23.3	79.8 (63.0–92.0)	
Desaturation (drop ≤ 4%) (n= 79)			
Yes			50 (63.3)
No			29 (36.7)
Desaturation (<90%) (n= 79)			
Yes			42 (53.2)
No			37 (46.8)
6MWT > 250 meters W (n= 79)			
Yes			70 (88.6)
No			9 (11.4)
6MWT > 350 meters (n= 79)			
Yes			58 (73.4)
No			21 (26.6)
Spirometry (N=16)			
CVF liters			71.0±18.0
FEV1 liters			87.0±21.0
FEV1/FVC %			84.0±6.0
DLCO			60.0±19.0

Abbreviations: SD= Standard Deviation; IIQ= Interquartile Range (25%-75%); n= Number

substantial impact on their functionality when compared to those classified with mMRC=0, 1, 2, and 3 (Figure 3B).

Regarding the assessment of quality of life, the analysis elucidated that mental health and vitality were the domains most significantly compromised within the studied sample. Conversely, the domains demonstrating the least impact were those associated with limitations in physical and emotional aspects (Table S1). Upon consolidating data from all domains of the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0), the mean total disability score attributed to the disease was determined to be 13.4 (n=60). This finding indicates a mild degree of disability impact. More specifically, within the WHODAS 2.0 domains, the social participation domain exhibited the highest degree of impairment among patients diagnosed with Idiopathic Pulmonary Fibrosis (IPF), with an average score of 24.8, whereas the cognition domain was least affected, registering an average score of 3.0 (Table 2).

A statistically significant association was identified between the distance covered in the 6-minute walk test (6MWT) and the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) in the mobility subitem ($r = -0.46$; 95% CI: -0.31 to -0.5 ; $p < 0.001$). Likewise, a significant association was observed between the distance covered and WHODAS 2.0 in the self-care subitem ($r = -0.51$; 95% CI: -0.51 to -0.7 ; $p < 0.001$). The correlations between the distance covered with other domains of WHODAS 2.0 and with the Predicted Distance are comprehensively detailed in Table 3.

Within the subset of patients experiencing desaturation (<90%) during the assessment, the mean total score on WHODAS 2.0 was determined to be 17.8 ± 18.2 . Conversely, for those not manifesting desaturation, the average total WHODAS 2.0 score was 9.1 ± 10.7 . Importantly, statistically significant difference was discerned between these two groups. A statistically significant difference between the groups was observed for WHODAS in the domains of mobility and social participation. Furthermore, upon scrutinizing variations in individual domains of WHODAS 2.0 between patients with desaturation and those without during the 6-minute walk test, no statistically significant differences were identified between the two groups. The comparative functional

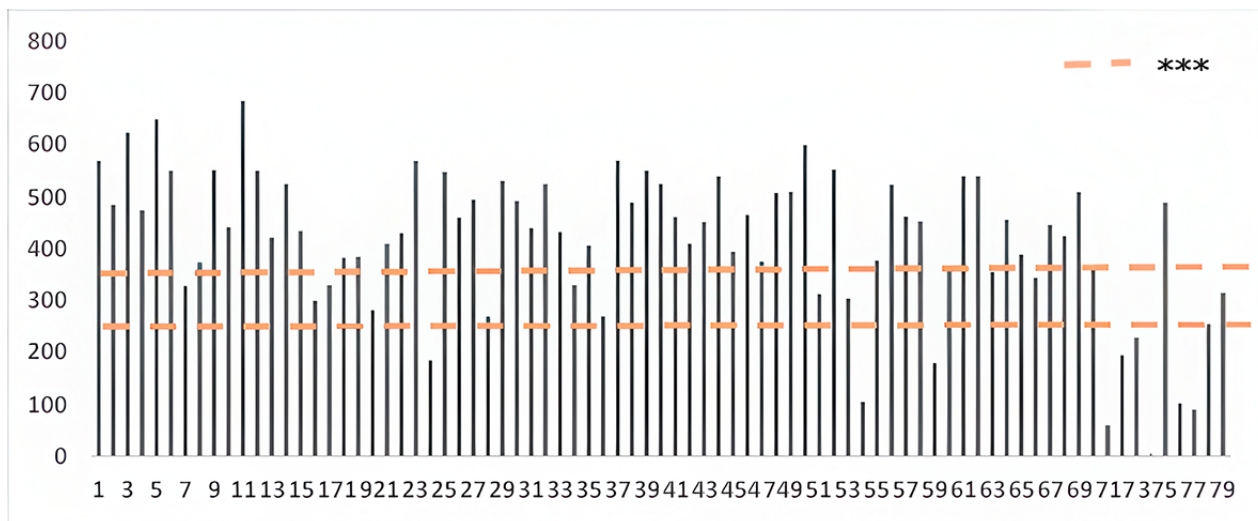


Figure 1. Comparison between the distance covered in the 6-minute walk test and the mortality predictive cut-off points of 250 meters (11) and 350 meters (14).
 ***= p< 0.0001.

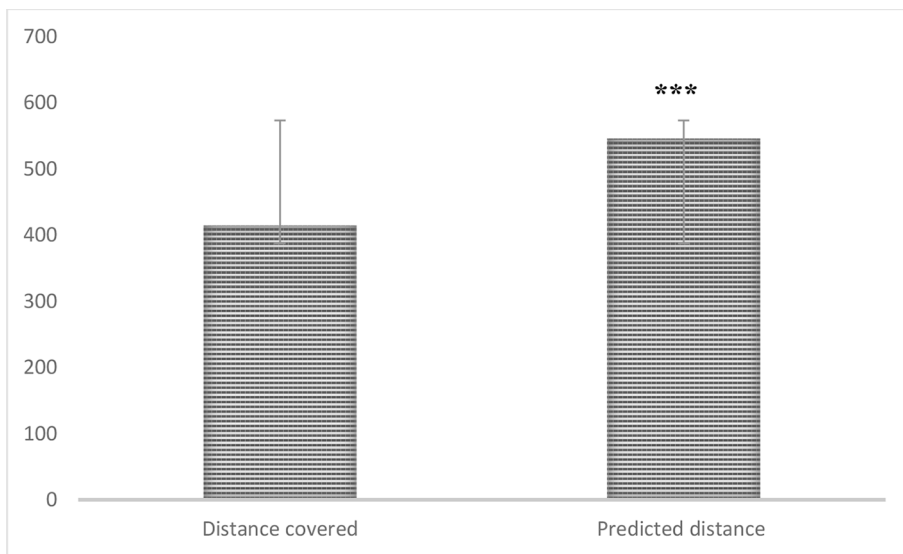


Figure 2. Comparison between the distance covered in the 6-minute walk test and the predicted distance according to Britto et Al (13). Mann-Whitney Test. ***= p< 0.001.

capacity between the two groups exhibiting distinct saturation patterns is delineated in Table 4.

Statistical comparisons for functionality and WHODAS were also conducted using a desaturation cutoff defined as a 4% drop in pulse saturation (Table 5), and no differences were observed between the groups. Concurrently, lung function metrics obtained during the initial assessment (Table 1). Specifically, the mean *Tiffeneau-Pinelli*

Index at the time of the initial evaluation was recorded as 84±6%.

DISCUSSION

The present investigation elucidates the impact of Idiopathic Pulmonary Fibrosis (IPF) on functionality, particularly emphasizing its association with activities of daily living and social participation, as

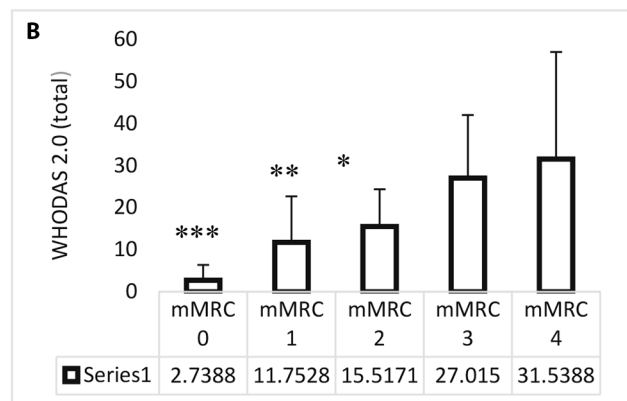
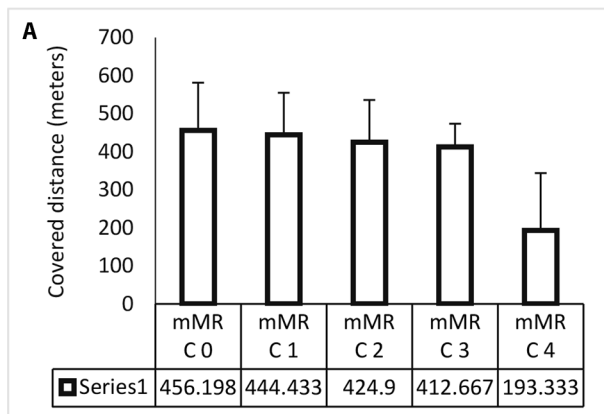


Figure 3. Impact of the perception of dyspnea on the distance covered in the 6MWT (A) and on functionality by WHODAS 2.0. *Abbreviations:* DC= Distance Covered; mMRC: modified medical research council, * = $p < 0.05$; ** = $p < 0.01$, *** = $p < 0.0001$. mMRC: modified medical research council. * = $p < 0.05$ (mMRC 2 x mMRC 4); ** = $p < 0.01$ (mMRC 1 x mMRC 4), *** = $p < 0.0001$ (mMRC 0 x mMRC 3).

Table 2. Distribution by WHODAS 2.0 domains.

Variable	Median (IIQ)	Mean±SD
WHODAS 2.0 (n= 60)		
Cognition	0.0 (0.0–4.2)	3.0±6.3
Locomotion	10.0 (0.0–20.0)	15.2±20.0
Self-care	0.0 (0.0–12.5)	10.1±19.5
Relationship with people	0.0 (0.0–0.0)	3.8±8.8
Life Activities	6.3 (0.0–43.0)	23.6±30.5
Social Participation	17.2 (3.1–37.5)	24.8±24.6
Total	7.9 (3.0–19.4)	13.4±15.4

Abbreviations: SD= Standard Deviation; IIQ= Interquartile Range (25%-75%); n= Number.

Table 3. Correlation between the distance covered with the WHODAS 2.0 domains and the predicted distance.

Variable	r ou ρ	p-value
DC × Cognition	0.3	0.018
DC × Locomotion	-0.5	<0.001
DC × Self-care	-0.5	<0.001
DC × Relationship with people	0.2	0.062
DC × Life Activities	-0.1	0.344
DC × Social Participation	-0.1	0.587
DC × WHODAS Total	-0.1	0.379
DC × Predicted Distance	0.6	<0.001

Abbreviations: DC= Distance Covered; r or ρ = Correlation Coefficient.

evaluated by the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). An inverse correlation was identified between the distance covered in the 6-minute walk test (6MWT) and mobility and self-care, indicating a potential link between lower covered distances and heightened

Table 4. Functionality among patients with F-ILD with desaturation and without desaturation during 6MWT.

Variable	Desaturation (<90%) (n=42)	No Desaturation (n=37)	p-value
Completed in the 6MWT in meters (n= 79)	406±141.0	421.9±140.9	0.623
Predicted Distance in 6MWT in % (n= 79)	73.7±24.2	76.8±22.6	0.55
WHODAS 2.0 (n= 60)			
Cognition	3.8±6.9	2.2±5.4	0.33
Locomotion	20.5±24.3	9.8 ±12.9	0.04
Self-care	14.6±24.8	5.6±10.8	0.075
Relationship with people	5.2±9.7	2.5±7.9	0.24
Life Activities	30.7±33.3	16.5±25.9	0.069
Social Participation	31.9.±28.5	17.7±17.8	0.024
Total	17.8±18.2	9.0±10.7	0.027

Abbreviation: n= Number

levels of locomotor and self-care dysfunction in IPF patients. Additionally, individuals with an mMRC score of 4 exhibited a significantly more pronounced impact on their covered distance and overall functionality according to the WHODAS 2.0. This study uniquely employs WHODAS 2.0 as an assessment tool in the IPF context, contributing novel insights to the literature. WHODAS 2.0 serves as a crucial

Table 5. Functionality among patients with F-ILD with desaturation and without desaturation during 6MWT.

Variable	Desaturation (drop \leq 4%) (n=50)	No Desaturation (n=29)	p-value
Completed in the 6MWT in meters (n= 79)	404.0 \pm 147.6	432.6 \pm 127.4	0.369
Predicted Distance in 6MWT in % (n= 79)	73.3 \pm 24.6	78.8 \pm 20.7	0.291
WHODAS 2.0 (n= 60)			
<i>Cognition</i>	3.3 \pm 6.4	2.2 \pm 6.1	0.529
<i>Locomotion</i>	17.5 \pm 21.9	9.1 \pm 13.0	0.072
<i>Self-care</i>	12.2 \pm 21.9	4.8 \pm 10.0	0.077
<i>Relationship with people</i>	4.8 \pm 9.6	1.5 \pm 6.1	0.120
<i>Life Activities</i>	25.9 \pm 32.0	17.8 \pm 26.2	0.322
<i>Social Participation</i>	27.7 \pm 26.0	17.6 \pm 19.8	0.115
<i>Total</i>	15.3 \pm 16.7	8.8 \pm 10.5	0.082

Abbreviation: n= Number

instrument, providing comprehensive parameters for evaluating patient functionality, especially in a disease where patient-centered outcomes are pivotal for effective support. The degrees of impairment in the domains of activities of daily living and social participation, categorized within the mild problem range (5–24% impairment) according to the International Classification of Functioning, Disability, and Health (ICF) codes, underscore the considerable influence of IPF on functional status and quality of life. Conversely, parameters such as cognition, mobility, and interpersonal relationships exhibited lower scores, classifying as mild problems, indicating a lesser impact of fibrosis on intellectual and physical mobility aspects. The assessment of functionality through WHODAS 2.0 underscores the significance of prioritizing patient-centered outcomes in IPF research, as these outcomes are not only pertinent to patients but also profoundly impact their lives (17). The lack of guidance on defining and incorporating these outcomes in IPF research necessitates further exploration, and our study endeavors to contribute to enhancing this underexplored area. Concerning functional capacity assessed through the 6MWT, a discernible reduction was observed in this sample,

with a majority of patients failing to reach the predicted distance according to Britto et al. (13) criteria. The documented limitation in functional capacity aligns with existing literature, indicating compromised functional capacity in IPF patients. Possible contributors to this limitation include pulmonary restriction, work of breathing, loss of muscle mass, and respiratory muscle strength (18,19). Additionally, a substantial proportion of patients (63.30%) experienced desaturation during the 6MWT, consistent with findings in the literature. Chronic hypoxemia impacts the prognosis of patients with interstitial lung disease (ILD). Many individuals with ILD exhibit significant desaturation during exercise, even in the absence of hypoxemia at rest. Desaturation during exercise is a significant risk factor for mortality in patients with interstitial lung disease (ILD) (20–23). Interstitial lung disease frequently represents a transformative diagnosis, linked to persistent symptoms, significant disruption to daily activities, and a potentially reduced lifespan. The unpredictable progression of many ILDs complicates prognostication, underscoring the necessity for care plans that are tailored to patients' individual goals, values, and preferences. (5) The significant impact on covered distance and functionality observed in patients with an mMRC score of 4 underscores the importance of this subjective parameter. Dyspnea scores, as suggested by Park et al. (24), can be a crucial determinant of 6MWT performance in patients with chronic respiratory disease, reflecting both physiological exercise limitation and the broader impact on daily life. Thus, acknowledging how patients perceive limitations in their daily lives becomes imperative, and this seems to be more closely associated with covered distance and functionality than saturation during the 6MWT. Notably, this study unveils a statistically significant inverse correlation between covered distance and the mobility and self-care domains of WHODAS 2.0. The association between lower covered distances and increased locomotor and self-care dysfunction highlights the potential impact of IPF in these domains. Although exploration of WHODAS 2.0 variables in IPF patients is lacking in existing literature, the well-established limitation of functional capacity in these individuals suggests plausible limitations in mobility and self-care. The absence of statistical differences in functional capacity and functionality between the group of patients who desaturated (drop in pulse saturation greater than or

equal to 4% or < 90%) and those who did not under-scores that saturation behavior alone may not be the exclusive limiting factor of functionality. A multidisciplinary assessment of fibrosis is crucial, as suggested by recent American Thoracic Society (ATS) guidelines, considering the potential influence of various physical performance aspects on these results. Regarding the prognostic implications assessed through the 6MWT, the adoption of cutoff points [250 meters (11) and 350 meters (14)] suggested a low risk of death in the studied population. We believe that, based on the information described in the scientific literature regarding the characteristics and course of ILDs, the patients in our sample likely represent individuals with early-stage and/or less severe disease or without significant vasculopathy (25). This is supported by the fact that most of the sample performed the 6-minute walk test above the cutoff point, which is defined in the literature as an indicator of poor prognosis. Harari et al. (24) argue that the decision to use 6MWT outcomes, such as 6-minute walk distance or oxygen desaturation, as primary endpoints should be contingent upon the characteristics of the study population (including the stage of ILD and the significance of vasculopathy), the extent of disease progression, and the anticipated effect of the study treatment. Moreover, the lack of well-established predictive cutoff points for mortality or clinical severity for the 6MWT in the literature necessitates caution in interpreting these findings, as other studies propose different cutoffs. However, it was possible to observe that, despite the absence of a statistical impact of desaturation (pulse saturation < 90%) on the distance covered in the 6-Minute Walk Test (6MWT), this drop in saturation resulted in a significant impact on WHODAS 2.0 (total score) and its domains of Locomotion and Social Participation. These findings highlight the need for a comprehensive evaluation of patients with interstitial disease, including various tools and domains of functionality, to better understand, assess, and intervene in patient health more effectively. Despite its contributions, this study has inherent limitations, primarily relying on secondary data from a specific subset of IPF patients who can afford specialized clinical and functional treatment. This limitation might overestimate the functionality of patients with fibrotic lung disease in this study. Data availability for some variables was also limited,

although ongoing data extraction aims to address this issue. Being a descriptive cross-sectional study, causal relationships and prognostic analyses were not feasible, given the lack of temporal assessment in disease progression. These limitations should be considered in the interpretation of the study's findings. In this investigation, a discernible decline was identified in pulmonary function, functional capacity, quality of life, and overall functionality (WHODAS 2.0) among individuals diagnosed with Idiopathic Pulmonary Fibrosis (IPF). A noteworthy finding was the inverse correlation observed between the distance covered in the 6-minute walk test (6MWT) and aspects of mobility and self-care.

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ANNEX

Table S1. Distribution by SF-36 domains.

Variable	Median (IIQ) (n=16)	Mean±SD (n=16)
<i>Functional capacity</i>	48.8 (48.6–49.1)	48.3±2.5
<i>Limitation due to physical aspects</i>	98.6 (98.0–99.0)	98.5±0.5
<i>Pain</i>	19.0 (19.0–19.2)	20.3±5.0
<i>General health status</i>	24.0 (24.0–24.2)	24.7±6.8
<i>Vitality</i>	19.1 (19.0–19.3)	18.8±1.6
<i>Social aspects</i>	24.0 (24.0–24.5)	29.3±18.3
<i>Limitation due to emotional aspects</i>	98.1 (98.0–99.0)	98.1±1.0
<i>Mental health</i>	19.1 (19.0–19.3)	10.1±0.2
<i>Total</i>	43.8 (43.5–45.1)	44.6±2.4

Abbreviations: SD= Standard Deviation; IIQ= Interquartile Range (25%-75%); n= Number.