

## Research Article

# Does the Revised Fibromyalgia Impact Questionnaire Correlates with the Patient's Opinion for the Monitoring of Fibromyalgia Syndrome?

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**\*Corresponding author:** José Eduardo Martinez, Department of Medicine, Pontifical Catholic University of Sao Paulo, Street Portugal, 63 Sorocaba, SP CEP 18045-280, Brazil**Received:** October 13, 2016; **Accepted:** November 03, 2016; **Published:** November 05, 2016**Abstract**

**Introduction:** Fibromyalgia (FM) is a chronic widespread musculoskeletal pain syndrome with cognitive, emotional and social impact. The clinical picture consists mainly of subjective symptoms. Therefore, questionnaires to assess its impact and the ones to evaluate quality of life have become useful tools to monitor this syndrome. The revised Fibromyalgia Impact Questionnaire (FIQR) is a specific questionnaire that has been used in published clinical studies.

**Objective:** To evaluate the usefulness of FIQR for monitoring patients compared to their own opinion.

**Methods:** It was studied 21 patients treated at the Outpatient Clinics Setting of the Pontifical Catholic University of Sao Paulo. Patients fulfilled the 1990 American College of Rheumatology Classification Criteria for Fibromyalgia. It was applied the FIQR and a Likert scale on patient's opinion regarding their evolution. It was considered a clinical state change when the FIQR scores ranged 20% up or down. Descriptive statistics were used.

**Results:** Nineteen percent of patients (19.04%) agreed on the evolution to the variation observed in FIQR. Conclusion: It was concluded that the patient's opinion about their evolution and FIQR measure different variables. The FIQR is a comprehensive tool that addresses issues that cannot be valued in the subjective assessment of the patient in the same proportion. So, it seems important the simultaneous use of both instruments.

**Keywords:** Fibromyalgia; Clinical Evolution; The Fibromyalgia Impact Questionnaire

**Introduction**

Fibromyalgia (FM) is a chronic generalized musculoskeletal pain syndrome present in 3 to 5 % of the global population. The other core symptoms are fatigue and non-restorative sleep. This clinical picture is often associated with other functional syndromes such as migraine, miofascial pain syndrome and irritable bowel syndrome [1,2].

Although, its complete etiopathogeny is unknown, the most frequently proposed mechanism of disease involves central pain processing disturbance with central sensitization and a chronic distress process [3].

The scientific literature on this syndrome had a major increase after the publication of the Classification Criteria for Fibromyalgia of the American College of Rheumatology (ACR) in 1990. It establishes that a patient to be included in researches shall present with widespread pain according to a specific definition for more than 3 months and also 11 of 18 specific tender points on palpation [2].

The impact of FM on quality of life has been recognized in the literature as an important feature at the patient's lives since the syndrome description [4]. This impact is generated by the symptoms intensity, mainly pain and fatigue and the interference on patient's ability to perform daily life activities. It also causes work limitation,

lower vitality and worst integration on society. The association with depression and anxiety can be an important aggravating factor [5,6].

The use of questionnaires to measure the impact of the disease has been recognized as an important tool in medical practice. They allow a valid assessment of FM subjective symptoms and their impact [5-7]. Their use also allows approaching a new theory that poses FM as a continuous and not a discrete clinical entity.

In 1991, Burckhardt et al published a specific instrument for assessing FM called The Fibromyalgia Impact Questionnaire™ (FIQ). It was translated and validated in Brazil in 2006 [7,8]. This questionnaire is composed by three main dimensions: functional capacity, occupational and symptoms severity [7]. It ranges from 0 to 100 where 100 is the worst possible scenario [7].

In 2009, a new version of the same questionnaire, entitled “Revised Fibromyalgia Impact Questionnaire” (FIQR) was published. It was translated, culturally adapted and validated to Brazil by the Commission for fibromyalgia, pain and other soft tissue injuries of the Brazilian Society of Rheumatology [9]. Although it was very well accepted by the FM researches, one question persists. Can the FIQ replace patient's own opinion about his/her evolution as a parameter to change the therapeutic planning?

**Table 1:** Results of the evolution each patient with the two applied tools.

Patients	Initial FIQR	Final FIQR	FIQR variation	Likert
1	94,3	88,4	Unchanged	Worsened
2	71,6	70,0	Unchanged	Worsened
3	87,5	85,7	Unchanged	Worsened
4	79,0	78,0	Unchanged	Worsened
5	87,6	92,3	Unchanged	Worsened
6	73,0	90,7	Worsened	Worsened
7	79,5	87,9	Unchanged	Worsened
8	56,8	89,8	Worsened	Worsened
9	56,8	77,8	Worsened	Unchanged
10	85,5	80,9	Unchanged	Unchanged
11	52,5	78,8	Worsened	Unchanged
12	91,0	90,0	Unchanged	Unchanged
13	46,5	52,8	Unchanged	Improved
14	58,8	50,0	Unchanged	Improved
15	84,0	90,28	Unchanged	Improved
16	91,0	87,0	Unchanged	Improved
17	77,83	80,3	Unchanged	Improved
18	71,0	68,0	Unchanged	Improved
19	86,0	78,9	Unchanged	Improved
20	71,6	80,0	Unchanged	Improved
21	68,3	70,5	Unchanged	Improved

The objective of this research was to evaluate the usefulness of monitoring of patients with the FIQR compared to patient's opinion on their follow up.

### Materials and Methods

It was studied 21 women who had fulfilled the 1990 American College of Rheumatology Classification Criteria for Fibromyalgia. They are being treated at the Rheumatology Outpatient Clinic of the Pontifical Catholic University of Sao Paulo (PUC-SP), located at Sorocaba, which is a city far 100 kilometers from the capital of the state, São Paulo.

The following research instruments were used: three points Likert scales about evolution of the severity of the syndrome and the intensity of pain (worsened - unchanged - improved) and the FIQR.

The instruments were applied at two consecutive visits with a minimum interval of three months. It was analyzed the coincidence of improvement or worsening measured by the two instruments. It was considered a minimal clinically significant variation of 20% for the FIQR total score.

The Research Ethics Committee of the PUC-SP approved the research protocol and the patient post informed consent formulary.

### Results

All patients are female with a mean age of 42.6 +/- 5,3 years old. Most of them have studied over 8 years of formal schooling (15 patients). Table 1 describes the results for each patient in relation to their perceptions on the syndrome evolution by the two tools used.

**Table 2:** Frequency of patients according to the patient's perception on the disease evolution compared to the FIQR total score n (%).

Likert Pain/FIQR	Worsened	Improved	Unchanged	Total
<b>Worsened</b>	2 ( 9,5)	0 ( 0,0)	6 ( 28,6)	8 (30,1)
<b>Improved</b>	0 ( 0,0)	0 ( 0,0)	9 ( 42,8)	9 (42,8)
<b>Unchanged</b>	2 ( 9,5)	0 ( 0,0)	2 ( 9,5)	4 ( 19,0)
<b>Total</b>	4 (19,0)	0 ( 0,0)	17 (80,9)	21 (100)

**Table 3:** Frequency of patients according to the patient's perception on evolution of the pain intensity compared to the FIQR total score.

Likert Pain/FIQR	Worsened	Improved	Unchanged	Total
<b>Worsened</b>	2 ( 9,5)	0 ( 0,0)	7 (33,3)	9 (42,8)
<b>Improved</b>	0 ( 0,0)	0 ( 0,0)	9 ( 42,8)	9 (42,8)
<b>Unchanged</b>	2 ( 9,5)	1 (4,8)	1 ( 94,8)	4 ( 19,0)
<b>Total</b>	4 (19,0)	1 (4,8)	17 (80,9)	21 (100)

Using the FIQR scores the majority of patients were considered unchanged (80,9%) followed by the ones that showed worst scores. The patient's perception showed different results since the majority of patients reported that there was an improvement followed by the ones that considered themselves to be worse.

Table 2 summarizes the results of the evolution of the global perception of the patient according to each instrument. FIQR values are read in the lines and the values of the Likert scale are read in columns. Only 4 patients presented the same results by the two instruments.

Table 3 summarizes the results of the evolution of the perception of the patient on pain intensity compared to the evolution of the FIQR global score. The FIQR values are read in columns and values of the Likert Scale for pain are read in the lines. When considering just pain intensity, it was observed the same discrepancy since there was a result coincidence only of 3 patients.

### Discussion

How to monitor fibromyalgia's patients has been subject of debate. The subjectivity of symptoms and the strong emotional influence hinders the physician and patient's perceptions on change of their intensity and impact in quality of life. The components that are most frequently responsible for this impact are pain and fatigue and secondarily the sleep disorders. The degree of influence of each symptom varies from patient to patient. Most often, pain is the leading symptom that stimulates patients to search for medical care. It is also the most often influential in patient's opinion regarding improvement or worsening.

The evaluation of each symptom has been accomplished through intensity scales of various kinds such as the visual analogue, numerical and Likert type. The latter has proven to be practical and to have easy applicability in clinical scenarios. The use of scales has been validated and proved to have a significant reliability [10].

On the other hand, the clinical and pathophysiological complexity of this syndrome leads the doctors to seek a more comprehensive assessment tool. Thus, the outcome evaluation tools should be included in the follow-up evaluation of FM patients has been studied by a group of researchers (OMERACT). It was concluded that the

following areas are important: pain, fatigue, multidimensional function, sleep disorders, cognitive disorders and depression [11]. These instruments must also have characteristics that facilitate its use, such as simplicity, brevity, scoring facility, reliability, validity, and responsiveness to changes [12].

The original FIQ and now FIQR have served this purpose, but often it appears the questioning about how to use this parameter in clinical practice. These questionnaires include functional capacity, occupational impact and intensity of pain and other symptoms, such as fatigue, sleep disorders, cognitive disorders, depression and anxiety on a scale of 0 to 100, where 100 is the worst outcome possible [9].

The role of multidimensional questionnaires is no consensus in the literature. In extensive Brazilian study it was observed that a visual rating scale of improvement (EVAM) would be enough to determine a positive evolution of the syndrome severity when compared to the FIQ score, the Medical Outcome Study Short Form Survey (SF-36) and Beck Depression Inventory [13].

In this study, it is observed that there is a significant discrepancy between the evolution shown by FIQR and the patient's opinion. About 80% of patients reported a different view of the conclusion drawn from FIQR. One possible explanation is the high weight given by the patients to the intensity of symptoms. In FIQR is also considered the impact on functional capacity and even those of occupational and emotional nature.

This observation is even a little more significant when we consider just the pain intensity. In only 3 patients we observed an agreement. Most patients report that pain worsens in the last three months while the FIQR score mostly showed stability. This supports the hypothesis of the prevailing value of pain intensity by patients.

Thus, it is concluded that the patient's opinion about their evolution and FIQR measure different variables. The FIQ is a comprehensive tool that addresses issues that may not be valued in the subjective evaluation of the patient in the same proportion, such as the intensity of the main symptoms as pain and fatigue.

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