

Fibromyalgia Patients' Quality of Life and Pain Intensity Variation

Variação da Intensidade da Dor e da Qualidade de Vida de Pacientes com Fibromialgia

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ABSTRACT

Introduction: One of the most reported issues on the Fibromyalgia syndrome is the pain intensity variation and its impact on patients' life quality. **Objectives:** 1) to establish the correlation among pain, anxiety and depression intensity perception; 2) to determine whether there is a correlation between pain intensity variation and the impact of fibromyalgia on patients' quality of life. **Material and Methods:** A study was carried out with 21 patients, who received a diary to register their perceptions on pain, anxiety and depression intensity. The patients have made this procedure three times a day, for a fifteen-day period. The impact on life quality was measured by the the Fibromyalgia Impact Questionnaire (FIQ). **Results:** It was observed a significant variation on pain intensity during the day periods. There was not a significant variation for anxiety and depression through the day periods. It was not observed any significant correlation between pain and depression or pain and anxiety intensity perception at any time of the day, during the study period. When considering the whole study period, it was observed that there was a correlation between pain and anxiety and pain and depression in the morning. **Conclusion:** It is concluded that there is a significant pain variation through the day periods and there is a correlation between pain and anxiety and pain and depression in the morning. There is a significant correlation of life quality with pain in the morning, anxiety in the afternoon and evening; and depression in all periods of the day.

Keywords: fibromyalgia, pain, quality of life, anxiety, depression.

INTRODUCTION

The fibromyalgia syndrome is a painful muscle-skeletal condition characterized by diffuse pain and tender points on digital palpation. Its main prevalence occurs in female

RESUMO

Introdução: Uma das questões mais relatadas é a variação da intensidade da dor no decorrer do dia e seu impacto na qualidade de vida. **Objetivos:** Estabelecer a correlação entre a percepção da intensidade da dor, da ansiedade e da depressão e determinar a correlação entre a variação da intensidade da dor e o impacto na qualidade de vida. **Material e Métodos:** Estudou-se 21 pacientes com fibromialgia. As pacientes receberam um diário para registrar suas percepções sobre a intensidade da dor, a ansiedade e a depressão por meio de escalas visuais analógicas. Esse procedimento foi realizado três vezes por dia durante o período de 15 dias. A qualidade de vida foi medida pelo questionário de impacto da fibromialgia (FIQ). **Resultados:** Observou-se variação significativa da intensidade da dor nos vários períodos do dia (manhã, tarde e noite) por meio do teste de Kruskal-Wallis. Não houve variação significativa para ansiedade e depressão ao longo do dia. Não foi observada correlação significativa entre dor e depressão ou dor e ansiedade em qualquer período do dia durante a duração do estudo. Quando se considera todo o período de estudo, observou-se correlação entre dor e ansiedade e dor e depressão pela manhã. Não se observou tal correlação nos períodos da tarde e da noite. **Conclusão:** Conclui-se que há variação significativa da intensidade da dor ao longo do dia e há correlação entre dor e ansiedade e dor e depressão no período da manhã durante o tempo do estudo. Há correlação significativa entre a qualidade de vida com dor durante a manhã, ansiedade à tarde e à noite e depressão em todos os períodos.

Palavras-chave: fibromialgia, qualidade de vida, dor, ansiedade, depressão.

patients around 45 years old, although it can be diagnosed at any age^(1,2).

Classification criteria were established by the American College of Rheumatology in 1990 and it includes widespread muscle-skeletal pain for three months, associated to

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the presence of at least eleven tender points from eighteen areas to be researched. These core symptoms are often associated to fatigue, sleep disturbances, muscle stiffness, depression, anxiety and others⁽²⁻⁵⁾.

The fibromyalgia's etiology and physiopathology are unknown. Recent evidences suggest that there is a pain processing disturbance leading to a pain perception amplification. Altered biological stress response is a central component of the disease mechanisms. These physiopathological processes are also influenced by genetic, hormonal and environmental factors^(2,5).

The accepted treatment interventions include pharmacological approaches, physical activity and health education programs. Among the pharmacological treatments, the anti-depressive agents and analgesics may be cited¹. As for non-medicine therapies, exercises and health education are the central tools⁽⁶⁾.

One major issue discussed on medical literature has been fibromyalgia's impact on patients' life quality. The repercussions include personal, familiar, professional and social aspects. What are the main influences on quality of life? Certainly, pain and fatigue intensity play important roles, but other questions, such as loss of physical capacity, familiar conflicts and job problems are also informed by most of the patients⁽⁷⁾.

How pain intensity fluctuates along the time and what influences this variation are interesting matters of study. Does it influence on patients' behavior pattern? Does it influence patients' quality of life? These questions have not been answered yet.

Flotation of pain intensity, generating fear of future pain and increasing anxiety, has been reported on medical literature. "How will I wake up next morning?" is a frequent question formulated by patients⁽⁸⁾.

This study objectives are: 1) to establish the correlation among pain, anxiety and depression perception; 2) to evaluate whether there is any association between pain intensity and daily physical activity and 3) to determine if there is any correlation between pain intensity variations and the impact of fibromyalgia on life quality.

MATERIAL AND METHODS

Patients: Twenty one female patients that fulfilled the American College of Rheumatology Classification Criteria for Fibromyalgia (ACR) were studied. These patients have been assisted at the Outpatient Rheumatology Clinic of the Pontifical University of São Paulo, Brazil. Patients

with concomitant incapacitating and painful diseases were excluded.

Procedures: the patients received a diary to register their perceptions on pain, anxiety and depression intensity. These variables were measured by Visual Analogues Scales (VAS). It was also registered what activity was being performed immediately before the symptoms evaluation. Patients were asked to make this procedure three times a day (morning, afternoon and evening) for a fifteen-day period.

The VAS was a 100 mm line with an extremity designed for no pain, no depression perception and no anxiety perception and on the other the "worst possible pain", "worst possible depression perception" and the "worst possible anxiety perception".

In the depression and anxiety perceptions variables, it is not being considered a medical diagnosis, but what patients considered depressive mood or anxious behavior and sensations. Although the ACR doesn't exclude the fibromyalgia diagnosis when other clinical or psychiatric diagnoses are present, this evaluation considers only patient's opinion.

Quality of life impact was measured, at the end of the evaluation period, by the Fibromyalgia Impact Questionnaire (FIQ). It is a specific quality of life instrument composed by questions about daily life activities, work absence, symptoms and humor disturbance intensity. Its scores vary from 0 to 100. Zero means no impact and a hundred the worst possible impact.

Data analyses: for the scores it was used the Kruskal-Wallis test and the Pearson coefficient for bivariate correlation. For the evolution, time series through graphic comparisons were performed. It was considered $p < 0, 05$ for statistical significance.

RESULTS

There was a significant variation on pain intensity through the day periods (morning, afternoon and evening) through the Kruskal-Wallis test ($p = 0, 02$). Figure 1 shows the time series of pain during the day periods.

There was not significant variation for anxiety and depression variation through the day periods ($p = 0, 98$, $p = 0, 93$).

There was no significant correlation between pain and depression or pain and anxiety intensity perception at any period of the day when considering the mean value of each day ($p > 0, 05$). Table 1 shows the range of values, mean and standard deviation of the studied variables.

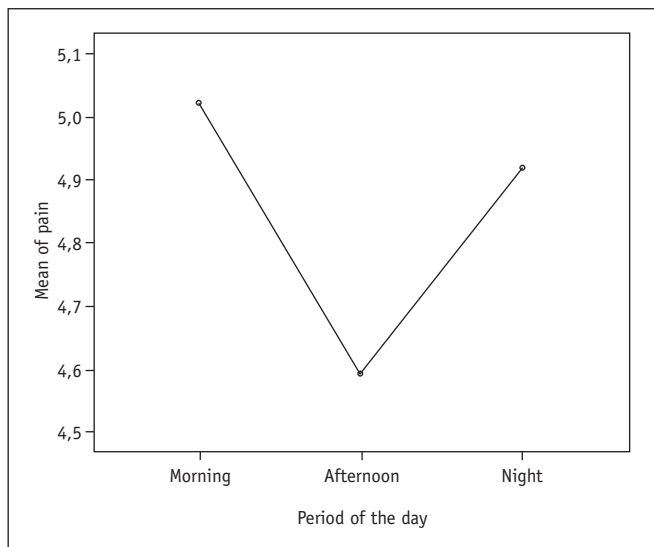


Figure 1 – Times series of pain during the day.

TABLE 1
VARIABLES VARIATION ALONG THE DAY PERIODS

	Least value	Biggest value	Mean	Standard deviation
Morning				
Pain	4,3	5,5	5,025	0,3590
Anxiety	3,4	4,5	3,903	0,3500
Depression	2,9	4,8	3,703	0,4929
Afternoon				
Pain	4,0	5,2	4,593	0,3056
Anxiety	2,9	5,3	3,873	0,5951
Depression	2,9	4,4	3,685	0,4983
Evening				
Pain	4,1	5,7	4,924	0,5647
Anxiety	2,9	4,4	3,860	0,3669
Depression	2,3	4,3	3,600	0,5322

When considering the whole study period, it was observed that there was correlation between pain and anxiety and pain and depression during the morning along the study period. At afternoon and evening there was not observed such correlation. Figures 2 and 3 shows the time series for pain and anxiety and pain and depression along the study period.

In relation to quality of life through the Fibromyalgia Impact Questionnaire, there was observed significant correlation to pain in the morning, anxiety in the afternoon and evening and depression during all the periods.

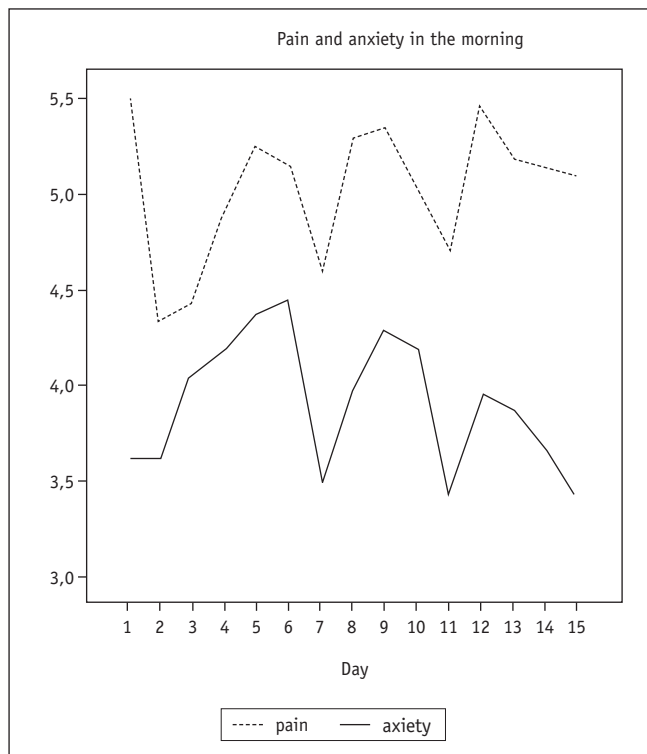


Figure 2 – Pain and anxiety intensity perceptions variation during the morning.

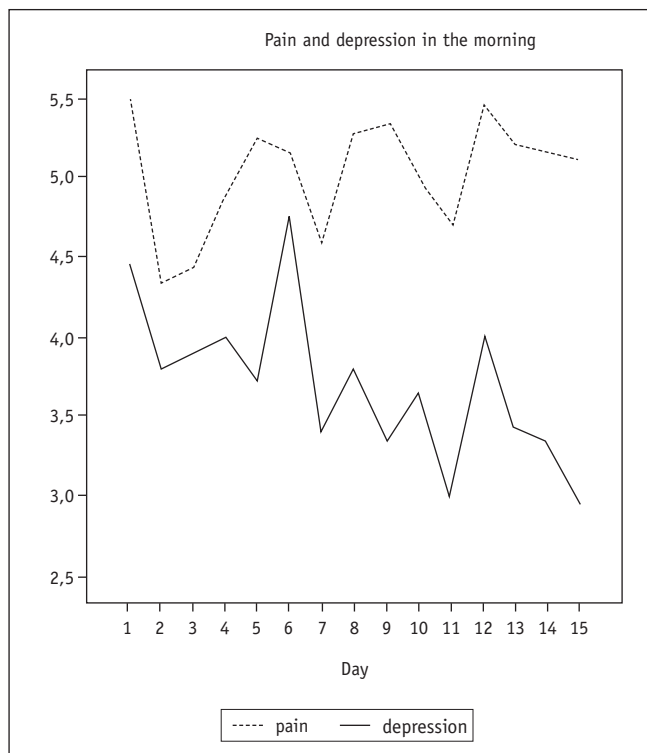


Figure 3 – Pain and depression intensity perceptions variation during the morning.

DISCUSSION

Measuring symptoms has been a big challenge for physicians along the time. This is particularly true for pain. The use of scales for these evaluations has been common. Pain is considered a sensorial and emotional experience. It can be easily quantified, but what really is the meaning of this quantification is a motive of controversy, due to its subjectivity. According to the National Institute of Health, the self evaluation is the most sensitive and reliable indication for pain intensity⁽⁹⁾.

In this study, we did not really measure pain, anxiety and depression, but the patients' perception of its intensity. The Visual Analogy Scales were chosen because of their sensibility, simplicity and reproducibility for pain. We considered that these characteristics could also be duplicated for anxiety and depression perceptions⁽⁹⁾.

This study central issue is to determine if pain intensity fluctuation is an important question for fibromyalgia patients' quality of life. Medical literature has pointed that fear of future pain causes a negative influence on life quality. Söderberg et al conclude that fibromyalgia patients refer as negative the following factors: daily pain intensity variation, lack of confidence on health professionals, type A personality and lack of coherence⁽¹⁰⁾. Fear of future pain is one of the most reported influencing factors. Patients comment that not knowing how they will be able to perform their tasks on the next day generates a lot of anxiety⁽¹¹⁾.

Several behavioral, emotional and environmental factors may determine pain variability. Low temperature,

humidity, intense physical activity and, on the other hand, prolonged immobility has been associated to pain worsening⁽⁸⁾.

The studied patients showed a significant pain intensity variation through the periods of the day. The period with less reported pain is the afternoon. It was not observed the same variation on depression and anxiety perceptions.

The relation of emotional disturbances and pain is well defined by medical literature on fibromyalgia. Its frequency varies from 40 to 80%, at several studies with fibromyalgia patients. There is a predominance of depression and anxiety. There are scientific reports of a clear association between depression and pain intensity⁽¹²⁾. Our data did not confirm this information for all periods of the day, since it was observed such significant correlations only for the morning. So, one could not assume that pain can be exacerbated according exclusively to the mood status. For sure, other factors have contributed to pain intensity besides the emotional aspects⁽¹³⁾.

In relation to quality of life, although it does not occur during the whole day, it correlates significantly with pain, depression and anxiety intensity perceptions.

It is concluded that there is a significant pain intensity variation along the day periods and that there is a correlation between pain and anxiety and pain and depression in the morning during the study period. There is a significant correlation of quality of life with pain in the morning, anxiety in the afternoon and evening and depression in all periods of the day.

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