

13 - CYCLISM PRACTICE BY FIBROMYALGIA CARRIERS

JOÃO BATISTA GARCEZ DOS SANTOS
UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL – PORTO ALEGRE/RS BRASIL
jbgarcez@gmail.com

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INTRODUCTION

Fibromyalgia is a chronic noninflammatory painful syndrome, with manifestations in the musculoskeletal system, and may present symptoms in other devices and systems, where the main characteristic is pain. It is a syndrome characterized by diffuse chronic muscle pain without a defined etiology.

Complications of fibromyalgia directly interfere with the patient's daily habits and as a result of the pain, he / she may have muscle mass loss and muscle atrophy, which can be avoided with an orientation and follow-up program to the patient with this syndrome (SOUZA; AMORIM). ; p.30, 2016).

According to Bressam (2008) physical exercises, especially resistance exercises, can be used to reduce symptoms and influence adaptation to a new life condition by reducing physical and functional limitations.

Resistance exercises, as well as helping to prevent pain, help patients to adapt to their new reality, reducing the social impact on their lives and their close relatives, as well as increasing their functional skills, as these patients they present lower quality of life prospects in relation to other degenerative diseases and provide patients with improvement in physical fitness and thus improvement in clinical status (VALIM, p. 52, 2006).

Cycling is a low impact exercise, being smoother with joints than running and other high impact aerobic activities. Many cyclists report that cycling regularly reduces their perceived stress levels and promotes relaxation.

The pedal is also indicated for the same reason for those who practice running, as the legs gain resistance to increase performance and prevent injuries during the practice of sports. Thus, cycling generates increased resistance to physical activity and exercise tolerance, improves clinical pain, decreased fatigue and improved sleep quality.

Thus, this study seeks to associate the practice of cycling as physical exercise capable of reducing the symptoms of fibromyalgia in individuals, favoring their well-being and quality of life.

GOALS

This research aims to analyze the contributions of cycling in a person with fibromyalgia, highlighting the benefits of sports in maintaining and preserving well-being and quality of life.

Thus, enable the understanding of the fundamental characteristics of cycling and its practice, focusing its contributions to health, as well as understand the particularities of fibromyalgia, its probable causes, symptoms and treatments, observing specifically the recommended physical activities. Following, associate the practice of cycling to people with fibromyalgia, highlighting aspects of this sport in the benefit of health and well-being.

METHODOLOGY

This research addresses the case study, in a context of cross-sectional study, in the qualitative research paradigm, in one male, diagnosed with fibromyalgia, aged 41 and 04 months, a civil servant, during the year 2019.

Case study involves in-depth and exhaustive study of one or a few objects, so as to allow them to have their full and detailed knowledge. This type of research is usually performed from a particular case, and then a comparative analysis is performed with other existing cases, phenomena or patterns (CAJUEIRO, 2016, p. 22).

During that year, during the first half of the year, several examinations were performed to ascertain the causes of pain in the upper and lower limbs, and in some cases shoulder and gastrocnemial injuries. Ultrasound examinations were performed on both shoulders and an electroneuromyography, preceded by 20 physiotherapy sessions. The diagnosis was made after laboratory tests ruled out any other causes, as well as imaging. The subject underwent clinical examinations in the hypersensitive points to pain, as well as subsidiary exams.

During the second semester, after the physiotherapy sessions, at the suggestion of the traumatologist and rheumatologist, was given the suggestion to look for physical activities that had little impact and that the involved would like to practice.

Due to his injuries and pain, he had not played sports regularly for a year. During the period of the diagnosis of fibromyalgia, this individual started looking for activities that reduced tiredness and, especially, pain.

As the activities that he previously practiced periodically were advised against, he sought the help of a Physical Educator who, following and following the medical recommendations, began to practice Pilates once a week and to pedal 4 times a week, with a program of interval training.

When it comes to the prescription of exercises, we face numerous peculiarities to conduct a case study, because one has to follow medical recommendations trying to reconcile the taste for sports practice of the person involved in the intervention, taking into consideration the most varied demands. and contexts (available time, weekly workload, family appointments, among other assignments).

After the anamnesis, it was found that the person involved was in the habit of pedaling short journeys with frequency of at least 3 times a week and this act was one of the few activities he could do, without feeling the other day. sore. For better positioning on the bike a bikefit was performed in order to avoid injuries. At this moment we opted for the case study in the case report molds.

It is the type of research in which an individual case (phenomenon or situation) is studied in depth to gain a broader understanding of other similar cases (phenomena or situations), enabling the creation of a model or new standard procedures. (CAJUEIRO, 2016, p.22).

All interventions were carried out in July, August and September, with 3 weekly sessions of speed, indoor and outdoor cycling, that is, if pedaling in the street and at home with the bicycle fixed on a static roller, as in the referred 3 months passed during the winter and it was not possible to cycle on the street, since the target of the intervention was only available from 19h until 21h. The activities followed the following routine, a stretching, warming up with the bike, the training itself and the warming up.

Interval training, which is also known by the acronym HIIT, for high intensity interval training consists of pedaling sessions with short periods of intense effort, which better targets strength, speed and endurance and we also include the Perception Rate of Effort (TPE), which measures from 1 (very light activity) to 10 (maximum effort), no specific cycling application was used at this stage so that the practitioner could feel his own perception.

RESULTS AND DISCUSSIONS

With guided practices, it is first noted that bikefit was instrumental in regulating the bike for the practice sessions, as the activities took place in indoor and outdoor situations, that is, with the static roller bike and pedaling in the street when weather conditions

allowed, however the equipment of all sessions was the same.

Over the three months of the sessions, they were divided into 13 weeks with four weekly sessions totaling 52 interventions lasting an average of 2 hours (120 minutes); always respecting the routine of the sessions and the perception of the involved according to the Effort Perception Rate (TPE).

The weekly sessions were organized as follows:

PRE-TRAINING (Heating)

5 minutes light spin

4 minutes TPE 2-3

1 minute TPE 4-6

1 minute TPE 6-7

1 minute TPE 7-8

20 seconds TPE 9

6 seconds Sprint TPE 10

1 minute recovery

All sessions will be preceded by pre-training.

Session 1:

Monday: 1 minute TPE 1 cadence above 80rpm; 1 minute TPE 2-3 at 80 rpm; 1 minute TPE 4-6 at 80 RPM; 1 minute TPE 7-8 at 80 rpm; 1 minute TPE 9 at 80 rpm; 1 minute full recovery (no pedaling); cooling down 10 minutes of light spin.

In the first week the session is repeated 3x; in the second week the session is repeated 4x; In the third week the session is repeated 5x, thus increasing until the fifth week with 7 repetitions. From the sixth week decreases the repetitions up to 3x and back up to 7x.

Session 1 (Monday) aims to increase the body's demand for oxygen without overloading the legs over the 5-minute interval.

Tuesday: The intervention participant does pilates1 once a week, he started practicing it right after the physiotherapy sessions ended, that is, he started doing it in June, so when we started the sessions interval training he had already done 4 Pilates classes. Session 2 (Wednesday): 40 seconds TPE 9 at 90 + RPM; 20 seconds of full pause recovery; Repeat 5 times, then move to the next interval; 30 seconds TPE 9-10 30 seconds full recovery; Repeat 5 times, then recover for one minute; Cooling down 10 minutes of light spin. In the first week the participant will repeat 3x; in the second week 4x. Go alternating repetitions between weeks.

Session 2 (Wednesday) aims for the leg muscles to work hard in this interval training, yet they have plenty of oxygen to breathe thanks to the recovery pauses.

Session 3 (Thursday): 45 seconds TPE 9 at 90 + RPM, 1 minute TPE 2-3 at 90 + RPM; 1 minute TPE 4-6 at 80 + RPM; 1 minute TPE 9 at 90 + RPM; 1 minute TPE 2-3 at 80 + rpm 1 minute TPE 4-6 at 80 + RPM; Repeat 3x, but in the last repetition do not perform the 2 final segments (TPE 2-3 and 4-6), substituting for 2 minutes of total recovery; Cooling down 10 minutes of light spin. In the first week repeat 2 x and in the second week 3x. Go through the repetitions between the weeks. Session 3 (Thursday) aims to improve respiratory muscle fatigue resistance.

Session 4 (Friday): 1 minute TPE 4-6 from 50 RPM; 5 minutes TPE 7-8 from 50 RPM; 1 minute full recovery; In the first week repeat 6x, in the second week 7x and in the third week 8x; when you reach the fourth week you decrease repetitions 1x to 6x, then add 1 repetition per week. Cooling down 10 minutes of light spin. Session 4 aims to provide low cadence training to develop muscle resistance to fatigue, resulting in better endurance.

CONCLUSION

The research intervention member, male adult, diagnosed with fibromyalgia, after the exams and physical therapy sessions, sought the help of a Physical Education teacher to elaborate a non-medication therapeutic modality, through the elaboration and prescription of a sports practice. During the anamnesis it was contacted that his goal was to go back to practicing a sport activity, however he did not want to be injured, or to be in great pain after the practical activities. Many of the sports I played were physical contact, basketball and rugby, and even a simple run resulted in calf injuries that I treated as shortening gastrocnemics, which resulted in the diagnosis of fibromyalgia. In this scenario, cycling was chosen as it was one of the few practices I could do, while I was already conducting Pilates sessions once a week.

The training was organized following the routine of the involved, always at night from 19h to 21h, divided into four sessions, in which the 1st and 2nd prioritize the cardiorespiratory system and sessions three and four the focus is on resistance. As the intervention periods were in July, August and September, it was decided to cycle on the streets (outdoor) and with the bicycle on the static roller (indoor).

During the 12 weeks of the experiment 70% of the sessions were with the bicycle on the roll, proving to be an advantage for the participant to understand their own perception of effort, as we were using the Effort Perception Rate (TPE) to measure the rhythm of the interval of the exercise. training sessions, but the remaining 30% of workouts were done on the street as the participant could better control their effort, feeling their perception of how extensive their interval training was being.

Interval training sessions consisted of short, hard-pedaling periods that helped improve speed, strength, and endurance, but as they were short-lived he could do them to the end.

Thus, the interval training sessions had a positive effect, as there were improvements in speed, strength and endurance; As the sessions had short intervals, but with intense effort did not result in injuries and many pains at the end of the interventions, since the goal was to avoid remedies to the involved in the practice, becoming evident the increase of the pain threshold.

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SUMMARY

Fibromyalgia is a chronic noninflammatory pain syndrome, with manifestations in the musculoskeletal system, and may present symptoms in other devices and systems, where the main characteristic is pain, requiring mechanisms that favor the patient's quality of life, such as physical activities. Thus cycling is a possibility of low impact activity. This research aims to analyze the contributions of cycling in a person with fibromyalgia, highlighting the benefits of sport in maintaining and preserving well-being and quality of life. This research addresses the case study, in a context of cross-sectional study, in the qualitative research paradigm, in a male, diagnosed with fibromyalgia, with 41 years and 04 months, a civil servant, during the year 2019. Due to his injuries and pain, he had not played sports regularly for a year. During the period of diagnosis of fibromyalgia, this individual started to search for activities that reduced tiredness and, especially, pain. With the oriented practices, it is first noticed that the bikefit was fundamental in the regulation of the bicycle for the practical sessions, since the activities took place in indoor and outdoor situations. Over the three months of the sessions, they were divided into 13 weeks with four weekly sessions totaling 52 interventions lasting an average of two hours (120 minutes), respecting the routine of the sessions and the perception of the involved according to the Effort Perception Rate. (TPE). It can be concluded that the interval training sessions had a positive effect, as improvements in speed, strength and endurance were observed; as the sessions had short intervals, but with intense effort did not cause injuries and pain at the end of the interventions.

KEY WORDS - fibromyalgia; cycling; quality of life.

Résumé

La fibromyalgie est un syndrome de douleur chronique non inflammatoire, qui se manifeste dans le système musculo-squelettique, et peut présenter des symptômes dans d'autres dispositifs et systèmes, où la caractéristique principale est la douleur, nécessitant des mécanismes favorisant la qualité de vie du patient, tels que les activités physiques. Ainsi, le cyclisme est une possibilité d'activité à faible impact. Cette recherche vise à analyser les contributions du cyclisme chez une personne atteinte de fibromyalgie, en soulignant les avantages du sport pour maintenir et préserver le bien-être et la qualité de vie. Cette recherche aborde l'étude de cas, dans le contexte d'une étude transversale, du paradigme de la recherche qualitative, chez un homme diagnostiqué fibromyalgique, avec 41 ans et 4 mois, un fonctionnaire, en 2019. En raison de ses blessures et de sa douleur, il n'avait pas pratiqué de sport régulièrement pendant un an. Au cours de la période de diagnostic de fibromyalgie, cette personne a commencé à rechercher des activités réduisant la fatigue et, en particulier, la douleur. Avec les pratiques orientées, on remarque d'abord que le bikefit était fondamental dans la régulation du vélo pour les séances pratiques, puisque les activités se déroulaient en intérieur et en extérieur. Au cours des trois mois de sessions, ils ont été divisés en 13 semaines avec quatre sessions hebdomadaires totalisant 52 interventions d'une durée moyenne de deux heures (120 minutes), en respectant la routine des sessions et la perception des personnes impliquées en fonction du taux de perception de l'effort. (TPE). On peut en conclure que les séances d'entraînement par intervalles ont eu un effet positif, car des améliorations de la vitesse, de la force et de l'endurance ont été observées; car les séances avaient des intervalles courts, mais avec un effort intense, elles ne causaient pas de blessures ni de douleurs à la fin des interventions.

MOTS CLÉS - fibromyalgie; le cyclisme; qualité de vie.

RESUMEN

La fibromialgia es un síndrome de dolor crónico no inflamatorio, con manifestaciones en el sistema musculoesquelético, y puede presentar síntomas en otros dispositivos y sistemas, donde la característica principal es el dolor, que requiere mecanismos que favorecen la calidad de vida del paciente, como las actividades físicas. Por lo tanto, el ciclismo es una posibilidad de actividad de bajo impacto. Esta investigación tiene como objetivo analizar las contribuciones del ciclismo en una persona con fibromialgia, destacando los beneficios del deporte para mantener y preservar el bienestar y la calidad de vida. Esta investigación aborda el estudio de caso, en un contexto de estudio transversal, en el paradigma de investigación cualitativa, en un hombre, diagnosticado con fibromialgia, con 41 años y 04 meses, un funcionario, durante el año 2019. Debido a sus heridas y dolor, no había practicado deportes regularmente durante un año. Durante el período de diagnóstico de fibromialgia, este individuo comenzó a buscar actividades que redujeran el cansancio y, especialmente, el dolor. Con las prácticas orientadas, se advierte por primera vez que el ajuste de la bicicleta era fundamental en la regulación de la bicicleta para las sesiones prácticas, ya que las actividades se llevaban a cabo en situaciones interiores y exteriores. Durante los tres meses de las sesiones, se dividieron en 13 semanas con cuatro sesiones semanales con un total de 52 intervenciones que duraron un promedio de dos horas (120 minutos), respetando la rutina de las sesiones y la percepción de los involucrados de acuerdo con la tasa de percepción del esfuerzo. (TPE) Se puede concluir que las sesiones de entrenamiento a intervalos tuvieron un efecto positivo, ya que se observaron mejoras en la velocidad, la fuerza y la resistencia; ya que las sesiones tuvieron intervalos cortos, pero con un esfuerzo intenso no causaron lesiones ni dolor al final de las intervenciones.

PALABRAS CLAVE: fibromialgia; ciclismo; calidad de vida.

RESUMO

A Fibromialgia é uma síndrome dolorosa crônica não inflamatória, com manifestações no sistema musculoesquelético, podendo apresentar sintomas em outros aparelhos e sistemas, onde a principal característica é a dor, necessitando mecanismos que favoreçam a qualidade de vida do portador, como atividades físicas. Assim, o ciclismo é uma possibilidade de atividade de baixo impacto. Esta pesquisa tem o objetivo de analisar as contribuições do ciclismo em uma pessoa portadora de fibromialgia, destacando benefícios da prática do esporte na manutenção e preservação do bem estar e qualidade de vida. A presente pesquisa aborda o estudo de caso, num contexto de estudo transversal, no paradigma de pesquisa qualitativa, em um indivíduo do sexo masculino, diagnosticado com fibromialgia, com 41 anos e 04 meses, funcionário público, no decorrer do ano de 2019. Devido às lesões e dores, fazia um ano que não praticava esportes com regularidade. Durante o período do diagnóstico de fibromialgia, este indivíduo partiu a procura de atividades que reduzissem o cansaço e, principalmente, as dores. Com as práticas orientadas, nota-se primeiramente que o bikefit foi fundamental na regulagem da bicicleta para as sessões práticas, já que as atividades se desenrolaram em situações indoor e outdoor. No decorrer dos três meses das sessões, elas foram divididas em 13 semanas com quatro sessões semanais totalizando 52 intervenções com duração em média de duas horas (120 minutos), respeitando a rotina das sessões e a percepção do envolvido segundo a Taxa de Percepção de Esforço (TPE). Conclui-se que as sessões de treinos intervalados surtiram efeito positivo, pois se observou melhoras na velocidade, força e resistência; como as sessões tinham intervalos curtos, mas com esforço intenso não acarretaram em lesões e dores ao final das intervenções.

PALAVRAS CHAVES – fibromialgia; ciclismo; qualidade de vida.