ARTÍCULO DE REVISIÓN

Gac Méd Caracas 2025;133(Supl 1):S273-S285
DOI: 10.47307/GMC.2025.133.s1.24

A systematic review of psychological and physical factors associated with fibromyalgia

Una revisión sistemática sobre los factores psicológicos y físicos asociados a la fibromialgia

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SUMMARY

This systematic review aimed to determine the psychological and physical factors associated with fibromyalgia. The systematic review protocol PRISMA was used, considering reliable databases such as SpringerOpen, Web of Science, and PsycINFO. The keywords used were Fibromyalgia and chronic pain associated with psychological and physical factors. Following the selection process, based on the established inclusion criteria, the sample comprised 32 scientific articles. The studies emphasize the need to continue promoting interventions that involve managing symptoms, implementing healthy habits such as physical exercise, and utilizing pharmacological treatments. Not to mention the implementation of family therapeutic management, patient understanding, and education on self-care. This highlights the relevance of a comprehensive approach that incorporates psychology as a science to help individuals in their adaptation processes and face new challenges associated with fibromyalgia in a healthier manner.

Keywords: *Fibromyalgia, chronic pain, psychological factors, associated physical factors.*

RESUMEN

La presente revisión sistemática tuvo como objetivo determinar los factores psicológicos y físicos asociados a la fibromialgia. Se utilizó el protocolo de revisión

DOI: https://doi.org/10.47307/GMC.2025.133.s1.24

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Recibido: 13 de enero 2025
Aceptado: 18 de marzo 2025

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sistemática PRISMA teniendo en cuenta bases de datos confiables como SpringerOpen, Web of Science and PsycINFO. Las palabras clave utilizadas fueron: Fibromyalgia, chronic pain associated psychological and physical factors. Luego del proceso de selección de acuerdo con los criterios de inclusión establecidos la muestra estuvo compuesta por 32 artículos científicos. Los estudios encontrados hacen énfasis en la necesidad de seguir promoviendo intervenciones que involucran el manejo de los síntomas, la implementación de hábitos como hacer ejercicio físico y tratamientos farmacológicos. Sin dejar de lado, la puesta en marcha del manejo terapéutico familiar, la comprensión del paciente y la educación alrededor del autocuidado. Lo cual, pone en manifiesto la relevancia de un abordaje integral que involucra a la Psicología como ciencia que puede ayudar a los individuos en sus procesos de adaptación y de manera más saludable afrontar los nuevos retos que trae consigo la fibromialgia.

Palabras clave: *Fibromialgia, dolor crónico, factores psicológicos, factores físicos asociados.*

INTRODUCTION

Fibromyalgia is recognized as a chronic condition that causes widespread musculoskeletal pain. In addition to these symptoms, other related symptoms occur, such as allodynia, exhaustion, sleep disturbances, and cognitive difficulties, including memory loss. It also affects the emotional components, which can lead to mood swings and frequently interfere with daily activities. Fibromyalgia has some difficulties with chronic fatigue syndrome (1).

Currently, this pathology is more prevalent in women, especially in those in the age range of 20 to 55 years. The development of fibromyalgia involves frequent changes in the intensity of symptoms, leading to variations in clinical manifestations. Therefore, there are difficulties in achieving an accurate diagnosis of fibromyalgia. Importantly, these alterations lead to a significant deterioration in the quality of life (2).

There are psychological disturbances related to acceptance and coping with the disease. Fears and uncertainties can increase neurotic disturbances, leading to loss of control in coping with fibromyalgia. In addition, there are difficulties associated with anxiety and worries about chronic pain symptoms. Physical manifestations include cardiovascular disturbances, sweating, dizziness, and chills, as well as feelings of frustration and an inability to cope with the difficulties of daily life (3).

These alterations represent a significant problem for mental health, affecting both the family and personal spheres. These difficulties have an impact on decision-making and the ability to concentrate, which can have repercussions on executive functions. Additionally, there are dysfunctions in information storage, as well as memory disturbances and disorientation, which impact daily tasks and functions. Therefore, these symptoms manifest themselves more frequently and have a negative impact on the patient's quality of life and mental well-being (4).

On a physical level, fibromyalgia is characterized by a series of symptoms related to chronic pain that may involve the entire body or be concentrated in specific areas. Generally, these discomforts occur in the lower and upper limbs as well as in the head, back, buttocks, and chest. The pain is usually persistent, accompanied by burning sensations and throbbing, as well as muscle aches. Many people experience difficulty moving from one place to another and struggle to change their posture due to constant pain (5).

The pain experienced by patients can reach considerable severity, exceeding the normal threshold of human arousal. It is essential to note that the results of physical and muscular evaluations reveal specific areas that are sensitive to contact, corresponding to hypersensitive points. These points are characterized as areas that generate pain when pressure is applied to them. Their identification is fundamental for differential diagnosis, as it allows distinguishing fibromyalgia from other similar pathologies (6).

Taking into account the hypersensitive points that are related to fibromyalgia, there is an interrelationship with common bone and muscle pain, which can be confused or not give the required importance for review and care; within these, epicondylitis can be found, among others. Usually, many people fail to recognize the location of some hypersensitive pain. Therefore, it requires the evaluation of a medical specialist to determine the location of the pain you are experiencing (7).

Different types of intervention of utmost importance are related to pharmacological and non-pharmacological therapeutic procedures, which aim to reduce and alleviate the symptoms of fibromyalgia; pharmacological interventions are directed to increase the nociceptive inhibition mechanisms, that is, to promote the increase of substances with operation in the descending inhibitory mechanisms by stimulating the agonist receptors, such as inhibitors receptors of norepinephrine, dopamine, and serotonin (8).

The most used drugs in the treatment of fibromyalgia include mood stabilizers, antidepressants, and anxiolytics, as many patients face unstable emotional difficulties of a pathological nature that affect their functionality. Although many patients manage to improve their condition with these treatments, it is also essential to integrate complementary therapies to optimize the quality of life of fibromyalgia sufferers (9).

Non-pharmacological interventions are related to physical activity because their contributions are excellent for the management of mood changes in fibromyalgia; exercise programs take into account the elements that appear in fibromyalgia, such as chronic pain and muscle spasticity; on the other hand, psychotherapy can improve and relieve symptoms of depression and anxiety, in addition to this, working with different disciplines with other disciplines promote significant progress in basic daily activities and functionality of their work and social activities (10).

Considering the above, the following question about this problem that increasingly afflicts the population and the mental and physical health of all people who have fibromyalgia is elaborated. What are the psychological and physical factors associated with fibromyalgia?

Thus, this systematic review aimed to determine the psychological and physical factors associated with fibromyalgia.

METHOD

This research was conducted using the PRISMA method, which was selected for its scientific rigor. This method enables the search for data in scientific texts available on various open-access platforms, thereby facilitating the research process (11). The methodology is characterized by a quantitative approach based on an exploratory systematic review following the PRISMA (2020) statement. Additionally, Boolean algorithms were employed for the survey and the research document.

The texts and documents selected for this research are found in various scientific journals within the open-access category (OJS system). The databases used for the search include SpringerOpen, Web of Science, and PsycINFO, which enable an effective articulation of the different studies that examine the topic of fibromyalgia and its associated factors in depth.

The search focused on the following research variables: Associated psychological and physical factors; Chronic pain and Fibromyalgia

The sample comprised 32 scientific papers spanning the period from 2020 to 2025. The languages selected for the review were English and Spanish, and Boolean AND, OR, and NOT operations were highlighted, following the assigned algorithm (Table 1).

Table 1. Logical operators

Equations
"Alteraciones psicológicas" and "Físicos" or = "Fibromialgia" not = "Niños" "Trastornos Emociones" and "Fisiologicos" or Sensibilidad Muscular"" not = "Adolescentes" "Depression" and "Ansiedad" or "Dolor Cronico" not "Jovenes" "Deficit" and "Cognitivo" or "Malestar Fibromuscular" not Infancia "Psychological disorders" and "Physical" or = "Fibromyalgia" not = "Children" "Emotional disorders" and "Physiological" or Muscle Sensitivity"" not = "Adolescents" "Depression" and "Anxiety" or "Chronic Pain" not " Young People" "Deficit" and "Cognitive" or "Fibromuscular Discomfort" not Childhood"

Search strategies and selection criteria

The following outlines the research's selection and data collection procedures, as well as the inclusion and exclusion criteria. This allows for the identification of the elements to be considered in the sample of scientific papers. In addition, the search route and data collection are highlighted (Table 2).

The plan implemented is based on specific criteria related to the particularity of the papers found, the Subject of interest, the Time window, and the Variables articulated in the research (12). This approach increases the likelihood of identifying studies with stronger validity, thereby minimizing the risks associated with the selection of the reviewed literature. The careful application of these criteria ensures that the selected papers are relevant and of high quality, thereby significantly contributing to the robustness of the research (Table 3).

Table 2. Search and data collection process, inclusion and exclusion criteria.

Search procedure	Data collection process	Exclusion criteria	Inclusion criteria
- Research in open-access databases.	- Inquiry with PRISMA methodology.	Documents with the following criteria:	Research texts with the following criteria
- Works that respond and contribute to the variables of the work. - Period of the last 5 years English and Spanish languages.	- Starting point with synonyms of the conceptual notions, increasing the number of studies according to the objectives and problem question.	- Reflection type research - Books or book chapters - Essays - Research that is not pertinent to the research variables	- Research papers published within the last 5 years. Documents are available in both Spanish and English languages. - scientific texts coherent with the research variables

Table 3. Cross-referencing of search terms in databases.

Search	Databases	Final Result			
"Alteraciones psicológicas" and "Físicos" or = "Fibromialgia" not = "Niños" "Trastornos Emociones" and "Fisiologicos" or Sensibilidad Muscular"" not = "Adolescentes" "Depresion" and "Ansiedad" or "Dolor Cronico" not "Jovenes" "Deficit" and "Cognitivo" or "Malestar Fibromuscular" not Infancia "Psychological disorders" and "Physical" or = "Fibromyalgia" not = "Children" "Emotional disorders" and "Physiological" or Muscle Sensitivity"" not = "Adolescents" "Depression" and "Anxiety" or "Chronic Pain" not " Young People" "Deficit" and "Cognitive" or "Fibromuscular Discomfort" not Childhood"	SpringerOpen	1 120	1752	1480	1 268
	Web of Science	2 200	1 580	950	1420
	PsycINFO	1 300	1 980	1500	1 221
	Total	4 620	5 312	3 930	3 909

The exploration identified a variety of research papers in each of the selected databases. These studies made a significant contribution to the search for relevant documents for the research. Based on the above, the selected texts were transferred to a flow chart designed to facilitate data filtering. This flow chart allows the documents to be systematically organized and classified, ensuring that only those that meet the established criteria are included. This filtering process is crucial to guarantee the quality and relevance of the information gathered in the research (Table 4).

Table 4. Results of the total number of texts per database

Databases	Final result
SpringerOpen	5 620
Web of Science	6 150
PsycINFO	6 001
Total	17 771

Selection of the studies

This selection process was initially based on the last five years, considering the pertinent research variables. It was decided to use direct and open-access databases, which ensured the availability of the texts. As a result, duplicate documents were excluded, as well as those not directly related to the research variables. In addition, we worked only with complete documents, eliminating abstracts and authors' notes that did not contribute substantial content to the research (13). This meticulous approach ensures that the final sample is relevant and of high quality, thus contributing to the validity of the research findings (Table 5).

Table 5. Process of identification, elimination, and selection of items

Boolean operators	Algorithm AND, OR y NOT			
Number of Articles in	Spanish		English	
Language	9 571		8 200	
Databases	SpringerOpen	Web of Science	PsycINFO	Total
No filter	5 920	6 612	5 239	17 771
No Access	3 620	2600	2 621	8 841
Revisions/incomplete/ duplicates	1 700	2 800	2 080	6 580
Does not meet the criteria	590	1 202	526	2 318
Selection	10	10	12	32

Data extraction

This procedure is executed to highlight the identified scientific works; the objective is to filter them and determine those that are duplicated, eliminating duplicates. Therefore, the pre-selection of scientific works is carried out to obtain the complete scientific documents that contribute to the work. Finally, the complete research, articulated with the research variables, is taken.

RESULTS

A total of 32 articles were identified as relevant to the search combinations, and according to the established inclusion criteria, all were published between 2020 and 2025. The main topics of interest were psychological factors, physical

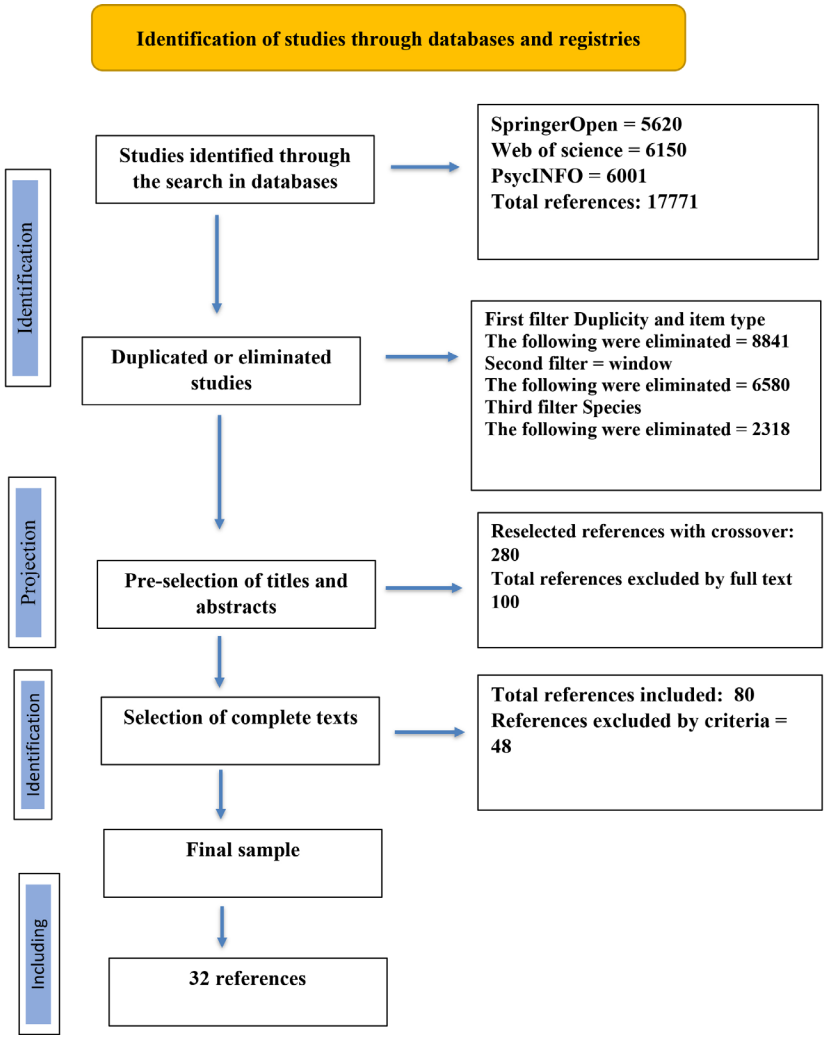

Figure 1. Study selection flowchart.

factors, fibromyalgia, and chronic pain. Figure 1 shows the study selection process, and the following table presents the characteristics of the studies.

Psychological factors

Within the process of psychological symptomatology in patients with fibromyalgia, symptoms can be present holistically and multiply. However, the major alterations are usually related to Mood failures, anxiety, stress, and cognitive impairments. These factors have a great impact on the mental state of people with fibromyalgia and affect their ability to perform daily activities, thus impacting their overall well-being (46). This highlights the need to address not only the physical symptoms but also the psychological aspects to enhance the quality of life for these patients.

Thus, it is important to highlight that psycho-affective disorders can increase the suffering of the disease; that is, difficulties appear at a social level due to distancing and the patient's little participation in the context that surrounds him, while his ties become more irritable. On the other hand, sudden mood changes due to the increase or decrease in the pain they suffer lead them to maintain emotional instability (47).

Table 6. Characteristics of the studies.

N	Authors	Year	Keywords	Contribution	Journal
1	Celenay et al. (14)	2020	Fibromialgia Ejercicio, Dolor, Kinesio tape.	In this study, exercise therapy combined with kinesio taping was shown to be more effective in reducing pain and fatigue, as well as improving health status and quality of life, compared to exercise therapy alone.	Complementary therapies in clinical practice
2	Norouzi et al. (15)	2020	Cognitive function, physical activity, dancing, depression, fibromyalgia.	Researchers suggest aerobic exercise training and Zumba dancing as supplements to usual care because they help working memory and decrease depressive symptoms in fibromyalgia patients.	European journal of sport science
3	Ceballos et al. (16)	2020	Fibromyalgia, physical therapy modalities, exercise, patient education.	The findings of this study may be useful in the decision-making process. Thus, patients with widespread pain who receive a treatment that combines exercise and education could reduce the need for pharmacological interventions in the short and medium term.	Journal of Clinical Medicine
4	Izquierdo et al. (17)	2021	Physical Exercise, Emotional Status, Fibromyalgia, Transcranial Magnetic Stimulation	Transcranial magnetic stimulation and physical exercise are effective in reducing the impact of fibromyalgia, reducing pain, and improving emotional state.	Physical Therapy
5	Sarmento et al. (18)	2020	Fibromyalgia, mind-body therapies, Qigong, widespread pain.	Intervention with the qigong mind-body program influences the main symptoms of fibromyalgia.	Integrative medicine research.
6	Hernando et al. (19)	2021	Chronic pain, fibromyalgia, exercise.	The Telerehabilitation program based on aerobic exercise allowed a decrease in pain and psychological distress in patients with fibromyalgia.	International Journal of Environmental Research and Public Health
7	Korucu et al. (20)	2021	Fibromyalgia, exercise, somatosensory temporal discrimination.	A short-term supervised dynamic exercise program had a positive effect on clinical parameters such as mood, pain, and functionality in patients.	Archives of Rheumatology
8	Izquierdo et al. (21)	2020	Pain catastrophizing, physical exercise, fibromyalgia.	A combined program of low-intensity physical exercise, including resistance and coordination training, improves pain catastrophizing in women with fibromyalgia. As well as other psychological variables, such as anxiety, depression, and stress.	International journal of environmental research and public health
9	Serrat et al. (22)	2021	Fibromyalgia, Cognitive Behavioral Therapy, Mindfulness, therapeutic Exercise,	Multicomponent intervention can be considered as a novel and effective treatment for fibromyalgia.	Physical Therapy
10	Kolak et al. (23)	2022	Aerobic exercise, resistance training, stretching exercises.	Supervised muscle and aerobic strengthening, combined with stretching exercises, minimizes the pain and severity of Fibromyalgia more effectively than home stretching exercises alone.	Archives of Rheumatology
11	Vilarino et al. (24)	2022	Fibromyalgia Brums, strength training, exercise.	Fibromyalgia patients have a more impaired mood profile compared to healthy women.	Rheumatism
12	Löfgren et al. (25)	2023	Exercise intervention, Pressure pain, Functional connectivity, Fibromyalgia.	Physical exercise influences the pain process by positively affecting the intracerebral cortico-striatal-occipital brain networks.	Neurobiology of Pain.
13	Kan et al. (26)	2023	Exercise therapy, Functional connectivity Fibromyalgia, Mesocortico-limbic system.	Exercise therapy, after several weeks of treatment, altered the functional connectivity of the brain, which may contribute to the improvement of fibromyalgia symptoms. It is suggested that this positive effect is related to functional alterations in the brain, including the mesocorticolimbic system, which is involved in the regulation of pain, emotions and pleasure.	Neurobiology of Pain
14	Argaman et al (27)	2022	Functional connectivity, fibromyalgia syndrome, resting state	The forebrain regions process emotional elements, levels of attention and pain intensity, functioning as key components of the resting state networks.	Scientific Reports

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…continuation Table 6. Characteristics of the studies.

N	Authors	Year	Keywords	Contribution	Journal
15	Peña-Muñante et al. (28)	2024	quality of life, meaning in life fibromyalgia, subjective well-being,	This research suggests that meaning in life may act as a partial mediator, attenuating the negative effect that fibromyalgia has on patients' subjective well-being. Fostering a sense of purpose and meaning may be crucial in therapeutic interventions, helping to improve the quality of life and emotional well-being of those suffering from this condition.	LIMIT, Interdisciplinary Journal of Philosophy and Psychology
16	Čeko et al. (29)	2020	Fibromyalgia, clinical pain	Altered connectivity of the default neural network in patients with fibromyalgia has been linked to the processing of pain experienced at that time.	Neuroimage
17	Oliveira et al. (30)	2024	Psychotherapy, Fibromyalgia, Quality of life, Chronic pain.	A large proportion of the diagnosed women were found to have psychological problems stemming from traumatic experiences, which played a significant role in aggravating their fibromyalgia condition. This highlights the importance of integrating psychological treatment into the management of fibromyalgia to address both physical symptoms and underlying emotional factors.	Cereus Journal
18	Costa (31)	2024	Fibromyalgia, Social Psychology, Therapeutics.	Pain, as a subjective phenomenon, complicates its legitimization, diagnosis, and treatment, which in turn increases the suffering of those who suffer from it.	Brazilian Nursing Journal
19	Monteiro et al (32)	2021	Fibromyalgia, Health Psychology Chronic Pain.	There was a prevalence of studies evidencing a positive correlation between anxiety and depression, as well as with pain intensity and other symptoms of fibromyalgia.	Mudanças
20	Dos Santos & Ribeiro (33)	2020	Fibromialgia, Psiquiatría, Terapéutica, Medicina psicosomática, Dolor.	There is sufficient evidence to suggest that patient education about the disease and treatment goals can be of great benefit. Classical and second and third generation Cognitive Behavioral Therapy interventions should be considered the cornerstone of treatment in these patients, especially if comorbid affective disorders are associated.	Psychosomatics and Psychiatry
21	Henao-Pérez et al. (34)	2022	Depression, Fibromyalgia, anxiety, gender.	Fibromyalgia has a great impact on the health of subjects, affecting their quality of life, psychological well-being and ability to carry out daily activities.	American Journal of Men's Health
22	Oliveira et al. (35)	2021	Fibromyalgia, Depression, Chronic pain.	Patients with fibromyalgia present high levels of depression.	Res Soc Develop
23	Moras et al. (36)	2024	Health Psychology, Existential Psychology, Narratives.	Words such as “achieve,” “can,” “work,” and “pain” seem to highlight the subjects' lived experiences and convey profound meanings. The way they understand life through work and domestic activities, along with their perceptions of action in the world, suggests a “knowing-being” approach characterized by limited contact with their own identity and essence.	Psychology Argument
24	De Oliveira et al. (37)	2022	Fibromyalgia, Chronic pain, Physical exercise.	Moderate physical activity helps in the impact of the disease and the quality of life in patients with fibromyalgia. Therefore, it is essential to complement pharmacological treatment with physical exercise in any modality.	E-Acadêmica
25	Boring et al. (38)	2022	Coherence, pain, purpose, meaning in life mattering,	They highlight coherence as a resilience factor in the context of pain and suggest a possible benefit of specific coherence interventions in clinical settings.	Journal of Pain Research
26	Costanza et al. (39)	2021	Mental health, suicide, protective factors, chronic pain risk factors.	Treatments that include practical measures and focus on maintaining interpersonal relationships can improve family life and thus reduce suicidal ideation in fibromyalgia patients.	JMIR Formative Research

Continued in page S281…

…continuation Table 6. Characteristics of the studies.

N	Authors	Year	Keywords	Contribution	Journal
27	Carro Castiñeira et al. (40)	2023	Psychosocial Impact, Quality of Life Occupational Therapy;	The activities most compromised in people with fibromyalgia are those related to housework, shopping, and driving. In addition, rest and sleep are areas that impact all other areas, disrupting habits and routines, exacerbating physical, cognitive, and emotional symptoms, and causing occupational imbalance.	Brazilian Occupational Therapy Journal
28	Gutiérrez et al. (41)	2022	Family medicine, fibromyalgia, primary care, treatment.	Patients experienced significant improvements in their clinical condition through a multidisciplinary approach that addressed their functional condition.	Chilean Journal of Rehabilitation and Physical Activity.
29	Rodríguez et. al (42)	2022	Physical exercises, quality of life, care, fibromyalgia.	The application of a physical exercise program for fibromyalgia patients in a community context contributed to the improvement of their quality of life.	Santiago
30	González et al. (43)	2022	Fibromyalgia, quality of life, and health-related physical exercise.	The importance of low-impact exercise in improving physical fitness and quality of life for individuals diagnosed with fibromyalgia is evident. Additionally, combined interventions that incorporate two or more types of exercise are significantly more effective.	Chilean Journal of Rehabilitation and Physical Activity
31	Cojocaru et al. (44)	2024	Fibromyalgia, anxiety, depression, cognitive-behavioral therapy, acceptance and commitment therapy.	Future lines of research should focus on enabling the development of personalized psychological interventions.	Medicine and Pharmacy Reports.
32	Albaje and Moix (45)	2021	Clinical Psychology, Fibromyalgia, Psychological Intervention, Chronic Pain.	Cognitive-behavioral therapy is the most common treatment for fibromyalgia. But there are other interventions with good results: mindfulness, guided imagery approaches, and educational procedures. In addition, encouraging results have been found for specific variables in new emerging approaches, such as Group music imagery, Recognition and exposure of emotional expression, Basic body-based awareness therapy, Psychotherapy together with spiritual attention, and Forgiveness education.	Mediterranean Journal of Clinical Psychology

Another problem that affect people with Fibromyalgia is information storage problems, that is, memory and attention problems which interfere with the patient's daily activities, affecting the cognitive and social in a shocking way for the patient; this is because the patient often finds it difficult to remember where he leaves the objects located and in the social processes in bonding activities he can easily lose the thread of the conversations (48).

Finally, we cannot ignore the fact that another of the most prevalent psychological factors is the suicidal risk in patients with fibromyalgia. This is the result of the stress and anxiety to end the pain they are going through, and this element generates a series of traumas and negative thoughts related to suicide. It is important to highlight that the reason for suicidal ideations is related to crises of despair and hopelessness in the face of the disease, which is why it is important to consider professional follow-up by an interdisciplinary team to stop the deterioration of patients with fibromyalgia (49).

Physical factors

Fibromyalgia affects muscle tone, leading to decreased muscle tone (hypotonia). On the other hand, a physical component such as fatigue affects the patient with fibromyalgia; in addition to this, the muscle mass is compromised due to its decrease, the integral articulation with locomotion

is also lost, the difficulties related to chronic pain at a given time can generate failures in balance and in the harmonic relationship with locomotion, in addition to balance and proprioception of the body (50).

Fibromyalgia is one of the frequent idiopathic difficulties and with a high level of complexity characterized by a constant chronic pain, this pain directly affects the bone and muscular system, in addition to the patient's movements, therefore it is important to work with aerobic physical activity with some components of strength to reduce fatigue, while allowing the muscle to function properly by increasing aerobic capacity (51).

On the other hand, fibromyalgia hinders in patients the aerobic and physical endurance skills that affect the body through the symptoms of fatigue and decreased physical performance, so it is important non-pharmacological therapeutic interventions that aim to improve the physical and muscular condition, the physical work of stretching can achieve significant progress in relation to pain, this leaves as a result of a positive sign in the patient's life while helping to improve mental health by reducing the alterations of mood that the patient suffers.

Fibromyalgia and chronic pain

Chronic pain associated with fibromyalgia has a fundamental characteristic: it is closely related to emotional, psychological and sensory aspects. However, these factors are often not considered within the traditional medical model of health. It is crucial to recognize their importance to develop clear and effective medical intervention strategies tailored to the problems and discomforts experienced by fibromyalgia patients. In this sense, biopsychosocial elements are essential to achieve an adequate diagnosis and treatment of the disease (52).

The alterations associated with chronic pain are closely linked to the subjective component as they depend on the individual experience of each patient. Psychological, physical, and cognitive factors influence this pain. The constant presence of chronic pain has a significant impact on the lives of fibromyalgia sufferers, generating changes in their quality of life and psychological well-being. In addition, persistent pain is often accompanied by increased sensitivity and discomfort that can be indeterminate (53).

Another significant alteration is the nervous system's inability to store short-term functional stimuli, as well as long-term dysfunctions, including nociceptive discomfort or pain. This type of pain is related to latent sensitization to pain. It is essential to note that in non-disciplastic pain, there is no clear activation of neuropathy, as the pain receptors do not send signals due to the absence of injured tissue or central nervous system involvement (54).

DISCUSSION

The causes of fibromyalgia vary in each patient due to the diversity of factors that influence it. Among these, biopsychosocial components play a crucial role as they can transform the perception of pain. Symptoms, which are often related to depression and anxiety, tend to intensify as the pain becomes more chronic. This is due, in part, to work and social demands that are affected by the symptomatic and pathological manifestations of the disease (55).

When addressing mood changes in fibromyalgia, it is important to highlight depression, which reduces the sense of psychological well-being. This condition is characterized by a lack of energy and persistent fatigue, as well as feelings of helplessness and guilt related to the condition. This emotional burden can lead to an explosion of frustration, as patients must learn to live with a disease that, over time, can become disabling. As a result, many individuals experience feelings of worthlessness and anhedonia, which alienate them from social interactions and create significant distance in their relationships (56).

On the physical level, the benefits of physical activity translate into positive results for fibromyalgia patients with symptoms of depression and anxiety. Establishing an exercise routine allows emotional tensions to be released, acting to sublimate symptoms. Additionally, physical activity enhances the patient's ability to cope with situations that evoke emotional

changes, facilitating better management of these experiences. This also contributes to developing greater resilience in the face of the disease (57).

Finally, chronic pain and physiological manifestations related to anxiety are directly proportional because their articulation occurs when there is a greater sensation of pain; therefore, the more pain, the higher levels of the anxious state, connecting the direct association that these two elements have in fibromyalgia, so it is important pharmacological interventions that are effective in the biological processes and promote well-being at the physical, muscular and locomotion level (58).

CONCLUSION

Fibromyalgia is a disease that affects many dimensions of a person's life and the environment in which he/she lives. It is characterized by generalized pain and physical and psychological difficulties that affect the quality of life. In addition to the catastrophizing of physical pain, there are other alterations, such as fatigue, unrefreshing sleep, and emotional and cognitive disorders, that can aggravate symptomatology.

Because fibromyalgia is a complex condition, most subjects require interdisciplinary interventions involving symptom management, implementation of new habits such as physical activity, and pharmacological treatments. Not to mention the numerous challenges in terms of therapeutic management, family support, and patient understanding.

It is currently necessary, in addition to drug treatment, to involve education on self-care for sufferers, the importance of physical activity, and cognitive-behavioral therapy. Additionally, providing family members with accurate information can foster a deeper understanding and facilitate the dismantling of stereotypes about the disease, ultimately leading to more effective patient care.

The results highlight the relevance of a comprehensive approach, without neglecting psychological science, to help individuals adapt more healthily to new challenges and to better manage the difficulties caused by the disease.

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