



## Review Article

## The Effectiveness of Myofascial Release in Managing Pain, Improving Mental Health and Quality of Life in Fibromyalgia Patients: A Narrative Review

Gulzar Ahmad<sup>1</sup>, Iqra Shahid<sup>1</sup>, Muqadas Ashraf<sup>1</sup>, Syeda Narjis Zahra<sup>1</sup>, Rabia Jawa<sup>1</sup>, Ghulam Muhyudin<sup>1</sup>, and Muhammad Usmaan Ali<sup>1</sup><sup>1</sup>University of Management and Technology, Lahore, Pakistan

## ARTICLE INFO

## Keywords:

Myofascial Release, Fibromyalgia, Pain Management, Mental Health Issues

## How to Cite:

Ahmad, G., Shahid, I., Ashraf, M., Zahra, S. N., Jawa, R., Muhyudin, G., & Ali, M. U. (2025). The Effectiveness of Myofascial Release in Managing Pain, Improving Mental Health and Quality of Life in Fibromyalgia Patients: A Narrative Review: Myofascial Release in Managing Pain, Improving Mental Health in Fibromyalgia Patients. Pakistan BioMedical Journal, 8(7), 03-08. <https://doi.org/10.54393/pbmj.v8i7.1276>

## \*Corresponding Author:

Gulzar Ahmad  
University of Management and Technology, Lahore,  
Pakistan  
[gulzarabbas8628@gmail.com](mailto:gulzarabbas8628@gmail.com)Received Date: 6<sup>th</sup> June, 2025Revised Date: 20<sup>th</sup> July, 2025Acceptance Date: 28<sup>th</sup> July, 2025Published Date: 31<sup>st</sup> July, 2025

## ABSTRACT

Fibromyalgia is a chronic condition characterized by widespread pain, mental health issues, and reduced quality of life. Myofascial release (MFR) has emerged as a potential treatment, targeting fascia to release tension and promote relaxation. This narrative review explores the impact of MFR on fibromyalgia symptoms, evaluating its efficacy, long-term effects, and comparative effectiveness. A comprehensive review of 14 studies published between 2021 and 2025 was conducted, including randomized controlled trials, quasi-experimental studies, systematic reviews, and case series. The results demonstrated that MFR significantly reduced pain intensity, improved mental health, and enhanced quality of life in patients with fibromyalgia. Specifically, MFR was associated with reduced pain, improved sleep quality, and better functional ability. The benefits of MFR were observed in various study designs, providing a promising approach for managing fibromyalgia symptoms. While MFR is a valuable addition to multidirectional treatment plans for fibromyalgia, further research is needed to establish standardized protocols. This review provides insights into MFR benefits and limitations, guiding clinical practice and future research. The findings suggest that MFR can be an effective treatment option for managing fibromyalgia symptoms, improving patient outcomes and quality of life. However, additional high-quality research is necessary to confirm the long-term efficacy and optimal application of MFR in clinical practice. By informing clinical practice and guiding future research, this review aims to contribute to the development of effective treatment strategies for fibromyalgia management. Overall, MFR shows promise in alleviating fibromyalgia symptoms and improving patient outcomes.

## INTRODUCTION

Fibromyalgia is a long-term and multi-system disorder and syndrome usually exhibiting widespread musculoskeletal pain, tenderness, cognitive issues, anxiety, depression, fatigue, sleep disturbances, joint stiffness and tender point [1]. Central sensitization, genetic factors, and psychosocial factors are some of the factors that have been cited recently to play a role in causing and sustaining fibromyalgia symptoms. Doctors identify fibromyalgia patients depending on two primary things namely: pain above the waist and below the waist and the duration of the

experienced pain must be over three months [2]. Doctors also examine 18 sites and will look to see that there is pain on at least 11 sites to validate the diagnosis of fibromyalgia [3]. Fibromyalgia affects a significant portion of the global population, with women being more likely to develop the condition than men. Women are more likely to get fibromyalgia due to hormonal changes, anxiety, depression, and different pain responses. Despite its prevalence, fibromyalgia remains poorly understood and challenging to diagnose [4]. The imbalances in the brain



chemicals which are characterized by increase in the excitatory signals and reduction of the pain-relieving signals contribute to the cause of fibromyalgia and cause increased sensitivity to pain [5]. Central sensitization is a very important aspect in developing and sustaining the symptoms of fibromyalgia, as the brain boosts the pain impulses, and as such, these pain impulses become painful over normal ones [6]. This increase in sensitization maybe in response to lentismines called trigger points, joint pain, spine pain, nerve-related pain sources, injuries or pain within the viscera [7]. Its occurrence can also be prompted by other factors such as emotional factors, psychosocial factors and factors involving attention [8]. Sleep disorders and fibromyalgia are also closely interrelated, with the studies showing that there is a kind of reciprocal connection between sleep disturbances and body-wide pain [9]. Fibromyalgia patients are characterized by a strong concentration on stimuli which concern pain, thereby enhancing the subjective feeling that they experience on pain. This increased awareness is frequently connected to cognitive-emotional sensitization, in which emotional and attentive aspects are critical to the perception of pains. The influence of social dynamics, e.g., family factors, on the sensitivity to pain can hardly be overestimated since it leads to the development of a vicious circle of anxiety and excessive pain. In addition, the prevalence of such mental illnesses like anxiety and depression among fibromyalgia patients is quite high, and they can further aggravate symptoms, such as sensation of pain and sensitivity. It has been revealed that depression may shift pain processing in the brain more specifically in the emotional parameters which may complicate addressing pain [10]. The insomnia, in particular, may be the prior condition of pain occurrence and determines the probability of its prolonged duration, which makes treatment of sleep disorders a priority in fibromyalgia treatment [11]. There are also studies which show that pain can be enhanced by sleep deprivation, spontaneous pain can also occur as well as mood changes, anxiety, and depression [12]. In fibromyalgia patients, disrupted sleep patterns, including frequent awakenings and abnormal brain activity during non-random eye movement sleep, may contribute to pain severity and poor sleep quality [13]. Fibromyalgia may involve fascial inflammation, triggering peripheral pain signals that lead to central sensitization. Fascia, a biological substance that supports connective tissue, can become injured, inflamed, or form adhesions, leading to pain and impaired function [14]. Fibromyalgia-diagnosed patient's often have adhesions in their fascia. These adhesions can cause the fascia to pull on surrounding structures, dysfunctional to healing process

which contributing to pain and discomfort. MFR, a gentle technique that targets fascia, has been explored as a potential treatment to alleviate myofascial pain and improve quality of life. More studies are needed to understand its potential benefits for this group [15]. MFR is a Relaxation technique that applies gentle pressure to release fascial adhesions, promoting benefits like, reduced pain, Improved posture, Increased range of motion, and Enhanced quality of life [16]. MFR is a gentle technique that targets fascia, releasing tension and promoting relaxation. It involves sustained holds, stretches, and gentle traction to quiet the nervous system and induce profound changes. This approach is effective yet gentle, making it suitable for sensitive individuals [17]. For best results, Myofascial intensity should be moderate to avoid exacerbating pain while promoting long-term benefits [18]. Given the complexity of fibromyalgia and the limitations of current treatment options, there is a need for effective and non-invasive therapies that can address the multifaceted nature of this condition. By targeting the fascia and releasing tension in the connective tissue, MFR may offer a valuable approach for addressing the underlying mechanisms of fibromyalgia.

This review aims to provide a comprehensive overview of the current evidence on MFR for fibromyalgia symptoms, highlighting its potential benefits and limitations, and informing clinical practice and future research directions.

### **Role of Physiotherapy and Manual Therapy in Fibromyalgia**

Pain, trouble sleeping and impairment in the quality of life are the most frequent fibromyalgia symptoms. The patients who have fibromyalgia can be treated through both pharmacological and non-pharmacological methods. This is very possible through manual therapy which is noninvasive in nature. Despite the fact that the term manual therapy is general and it encompasses the approach like joint manipulation, soft tissue manipulation, release of trigger points, massage therapy and myofascial release. This study specifically highlights the importance of one of the manual therapy techniques, myofascial release (MFR) in managing fibromyalgia symptoms. According to the available literature, MFR is recognized as a beneficial technique in managing fibromyalgia, but there are some variations in terms of the expected outcomes and methodology, which need close monitoring. Further high-quality research is needed to establish the optimal application of MFR for pain reduction, quality of life improvement, and mental health benefits in patients with fibromyalgia. Physiotherapy is proven to be effective in treating fibromyalgia patients. A review conducted by Antunes & Marques in 2022 has given insights into the

present and future perspectives of physiotherapy treatments, such as exercise therapy, manual therapy (MFR). This study demonstrated the impact of various manual therapy techniques and exercise for managing fibromyalgia and concluded that all of them Manual therapy were having a positive impact. However, further high-quality research is required to see more benefits of physiotherapy treatment on fibromyalgia management in the future [19].

### **Efficacy and Mechanism of Myofascial Release (MFR) in Pain Reduction**

Several studies, including randomized controlled trials and quasi-experimental studies, have demonstrated the effectiveness of MFR in reducing pain in patients with fibromyalgia [20, 21]. A randomized controlled trial conducted by Nina et al. demonstrated the effectiveness of MFR in modulating pain intensity and improving health status. Compared to passive stretching and a control group, MFR showed potentially greater benefits in reducing pain and enhancing overall health status, suggesting its value as a therapeutic approach for managing pain and promoting well-being [22]. MFR encompasses a spectrum of therapeutic techniques designed to address restrictions and tension within the fascial system. Three prominent approaches include direct myofascial release, indirect myofascial release, and trigger point therapy. Increased tissue length and better mobility are the results of myofascial release, which permits the collagen fibers in the fascia to undergo viscoelastic deformation. Chronic musculoskeletal pain can be effectively relieved by myofascial release via a number of physiological and biomechanical processes. These consist of increased blood flow, improved tissue flexibility and neuromuscular function modulation. Myofascial release has had beneficial results in a variety of disorders, including soft tissue injuries, osteoarthritis, and fibromyalgia, demonstrating its adaptability in treating a range of musculoskeletal problems. By releasing muscle knots and resolving hyperirritable sites, myofascial release can help desensitize pain receptors. The mechanistic rationale of MFR suggests that it works by breaking adhesions, increasing blood flow, and relieving pain pathways [23]. However, the variability in study findings and methodologies highlights the need for further high-quality research to establish the optimal application of MFR for pain reduction. These studies differ in the aspects that the systematic review study by Ughreja et al., which evaluates the effect of therapist-administered and self-administered myofascial release against Sham and no treatment and concluded that MFR shows better results when applied with adequate training [17].

### **MFR and Quality of Life Enhancement**

MFR has also been shown to improve quality of life in patients with fibromyalgia, with studies demonstrating significant improvements in physical function, emotional well-being, and overall quality of life. The systematic review conducted by Yangting Lv et al., and Yiwen Yin et al., summarizes the role in clinical settings and highlights the importance of MFR for being having fewer side effects as it does not involve medications but uses slow pressure and stretching. It also gives insights into the efficacy of MFR in improving patients' ADLs, life, and psychological status along with reducing pain [24]. A retrospective Cohort Study conducted by Fulvio Dal to explore the improvements in functional status after Osteopathic manipulative treatment (OMT) based on myofascial release (MFR) in patients with moderate to severe fibromyalgia. The results of MFR based OMT showed significant improvement in Functional status, reduction in pain severity and improved quality of Life over a period of 4 months' treatment [25].

### **Mental Health Outcomes of MFR**

In addition to its physical benefits, MFR has also been shown to have a positive impact on mental health in patients with fibromyalgia. The ten peer-reviewed studies (2021-2024) from the National Library of Medicine examined the relationship between MFR with pain, mental health, and sleep quality. These studies concluded with a positive relationship and MFR significantly improves mental status by reducing depression. Studies have demonstrated that MFR can reduce symptoms of depression and anxiety, and improve overall mental status [26]. As we know, Fascia oppositely responds to injury and repetitive use, which causes pain and stiffness. Usage of few kilogram pressure in MFR intervention over the fascia applied for a short duration, changes the characteristics of connective tissues. Thus, Pressure is reduced from painful areas when a stretch is produced during MFR that changes length of tissues that improves central sensitization in Fibromyalgia patients [17]. A review of 10 articles concluded that depression and anxiety are reduced by applying the MFR technique, that in result improves psychological health in fibromyalgia syndrome. Moreover, if MFR is combined with Relaxation techniques, it will help to better sleep quality and enhance quality of life as they are connected to Mental health. The combination of MFR with progressive relaxation techniques may be particularly effective in promoting mental well-being. Furthermore, it is suggested that MFR should be combined with progressive relaxation techniques [26].

### **Multidisciplinary and Guideline-Based Approaches**

Study by Winslow et al., on the management of fibromyalgia showed a multidisciplinary approach, incorporating helps

to dissolve symptoms of fibromyalgia. This study also highlights the potential benefits of myofascial release, in decreasing the symptoms of fibromyalgia. Myofascial release, in particular, has shown promise in reducing symptoms and improving quality of life for individuals with fibromyalgia [27]. The Guidelines on Treating Fibromyalgia with Non-Pharmacological Therapies in China, which include MFR as a recommended therapy, demonstrate a commitment to delivering patient-centered care that is effective and accessible. By incorporating feedback from 122 patients, clinical doctors, and members of the Chinese Fibromyalgia Association, these guidelines ensure that the recommendations are relevant, clinically significant, and aligned with patient needs. The guidelines recommend light to moderate MFR, depending on patient need and trigger points and tense muscle groups, given the evidence supporting MFR's benefits for both physical and mental health in patients with fibromyalgia [28]. While the evidence suggests that MFR is a beneficial technique in managing fibromyalgia symptoms, there are several limitations to consider. Despite of presence of such remarkable results, some researchers, such as Antunes & Marques and Ughreja et al., demanded additional high-quality RCTs with manual control groups in various geographical locations to validate and enhance generalizability. Moreover, studies with large sample sizes and diverse populations should also be considered. They also emphasized combining MFR with other interventions for future studies to draw the most definitive conclusions [19,17].

### Gender Differences and Comparative Effectiveness of MFR

A study evaluated the importance of gender differences among Egyptian fibromyalgia patients in 2022. It stated that female patients show greater disease severity, signs, and tender points in comparison with male patients. Higher prevalence and progression of disease in females show an underestimation of disease in males. Moreover, studies with a large sample size are needed to evaluate gender differences in fibromyalgia patients [29]. The studies by Michelle et al. and Samar Negm et al. highlighted the importance of MFR in gender based studies, particularly focusing on women. The study by Samar Negm compared the Muscle Energy Technique (METs) with MFR in premenopausal women with Fibromyalgia. Both of these studies concluded that MFR showed Greater effects in managing the pain and improved Quality of Life as compared to METs's [30,31]. Cabezas conducted quasi-experimental study to compare the effects of Myofascial release and Maitland mobilization to measure outcomes like pain, sleep quality, psychological, emotional,

and cognitive factors. Results of these studies concluded that MFR showed Greater effects in managing the pain and improved Quality of life [32].

### Clinical Guidelines

Fibromyalgia should be treated multidisciplinary, which involves pharmacological treatment approaches and non-pharmacological treatment approaches. It has been proposed that to improve the effectiveness of treatment, a combination of the liberal arts medicine (Western) and the Traditional Chinese Medicine (TCM) should be applied. TCM involves a number of non-drug methods that are in addition to mainstream medicine practices. Fibromyalgia could be managed under the numerous domestic and international guidelines, but Chinese guidelines are unique in the sense they include TCM practices like tai chi, acupuncture and cupping therapy. These standards preach a holistic approach to treatment that takes care of the physical, psychological, and emotional aspects of the situation. Based on these recommendations, non-drug treatment of fibromyalgia is believed to include the following: Tai chi, yoga, Pilates, among others, which facilitate relaxation, body awareness, and stress reduction. These include aerobic exercises, strength exercises to improve resistance strength, aquatic exercises, and the combined exercise programs that assist in enhancing physical function and dropping the pain levels. Along with acupuncture, cupping, and massage, designed to restore balance and relieve musculoskeletal pain. They are hyperbaric oxygen therapy, transcranial magnetic stimulation, transcranial direct current stimulation, low-level laser therapy, hydrotherapy, balneotherapy, newer methods, including virtual reality-based therapy and exergame therapy. Like cognitive-behavioral therapy (CBT), mindfulness-based therapies, internet-based delivery of psychological support, and structured health education. Including music therapy, dance therapy, etc., which increase expression of emotions and psychological well-being. This involves the consumption of food supplements and other complementary medicine products [28].

## CONCLUSIONS

This review highlights myofascial release as a promising adjunctive therapy in fibromyalgia care. It offers measurable benefits in pain reduction, mental health stabilization, and quality of life enhancement. However, its integration into standard care requires further validation through robust, large-scale trials.



## Authors Contribution

Conceptualization: RJ, SNZ

Methodology: MA

Formal analysis: GA

Writing review and editing: GA, IS, GM, MUA

All authors have read and agreed to the published version of the manuscript.

## Conflicts of Interest

The authors declare no conflict of interest.

## Source of Funding

The author received no financial support for the research, authorship and/or publication of this article.

## REFERENCES

- [1] Bennett RM, Jones J, Turk DC, Russell IJ, Matallana L. An Internet Survey of 2,596 People with Fibromyalgia. *BMC Musculoskeletal Disorders*. 2007Mar;8(1):27. doi: 10.1186/1471-2474-8-27.
- [2] Siracusa R, Paola RD, Cuzzocrea S, Impellizzeri D. Fibromyalgia: Pathogenesis, Mechanisms, Diagnosis and Treatment Options Update. *International Journal of Molecular Sciences*. 2021Apr;22(8):3891. doi: 10.3390/ijms22083891.
- [3] Wolfe F, Clauw DJ, Fitzcharles MA, Goldenberg DL, Katz RS, Mease P, et al. The American College of Rheumatology Preliminary Diagnostic Criteria for Fibromyalgia and Measurement of Symptom Severity. *Arthritis Care & Research*. 2010May;62(5):600-10. doi: 10.1002/acr.20140.
- [4] Wolfe F, Ross K, Anderson J, Russell IJ, Hebert L. The Prevalence and Characteristics of Fibromyalgia in the General Population. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*. 1995Jan;38(1):19-28. doi:10.1002/art.1780380104.
- [5] Meyer HP. Myofascial Pain Syndrome and Its Suggested Role in the Pathogenesis and Treatment of Fibromyalgia Syndrome. *Current Pain and Headache Reports*. 2002 Aug;6(4):274-83. doi:10.1007/s11916-002-0048-z.
- [6] Muir WW III, Woolf CJ. Mechanisms of Pain and Their Therapeutic Implications. *Journal of the American Veterinary Medical Association*. 2001Nov;219(10):1346-56. doi: 10.2460/javma.2001.219.1346.
- [7] Vierck CJ Jr. Mechanisms Underlying Development of Spatially Distributed Chronic Pain (Fibromyalgia). *Pain*. 2006Oct;124(3):242-63. doi:10.1016/j.pain.2006.06.001.
- [8] Brosschot JF. Cognitive-Emotional Sensitization and Somatic Health Complaints. *Scandinavian Journal of Psychology*. 2002Apr;43(2):n.p. doi:10.1111/1467-9450.00276.
- [9] Clauw DJ. Fibromyalgia and Related Conditions. *Mayo Clinic Proceedings*. 2015May;90(5):680-92. doi: 10.1016/j.mayocp.2015.03.014.
- [10] Giesecke T, Gracely RH, Williams DA, Geisser ME, Petzke FW, Clauw DJ. The Relationship Between Depression, Clinical Pain, and Experimental Pain in a Chronic Pain Cohort. *Arthritis and Rheumatism*. 2005 May; 52(5): 1577-84. doi: 10.1002/art.21008.
- [11] Finan PH, Goodin BR, Smith MT. The Association of Sleep and Pain: An Update and a Path Forward. *The Journal of Pain*. 2013Dec;14(12):1539-52. doi:10.1016/j.jpain.2013.08.007.
- [12] Haack M, Sanchez E, Mullington JM. Elevated Inflammatory Markers in Response to Prolonged Sleep Restriction Are Associated with Increased Pain Experience in Healthy Volunteers. *Sleep*. 2007Sep; 30(9):1145-52. doi: 10.1093/sleep/30.9.1145.
- [13] Parrino L, Grassi A, Milioli G. Cyclic Alternating Pattern in Polysomnography: What Is It and What Does It Mean?. *Current Opinion in Pulmonary Medicine*. 2014Nov;20(6):533-41. doi:10.1097/MCP.000000000000100.
- [14] Ge HY, Nie H, Madeleine P, Danneskiold-Samsøe B, Graven-Nielsen T, Arendt-Nielsen L. Contribution of the Local and Referred Pain from Active Myofascial Trigger Points in Fibromyalgia Syndrome. *Pain®*. 2009Dec;147(1-3):233-40. doi:10.1016/j.pain.2009.09.019.
- [15] Nadal-Nicolás Y, Rubio-Arias JA, Martínez-Olcina M, Reche-García C, Hernández-García M, Martínez-Rodríguez A. Effects of Manual Therapy on Fatigue, Pain, and Psychological Aspects in Women with Fibromyalgia. *International Journal of Environmental Research and Public Health*. 2020Jun;17(12):4611. doi: 10.3390/ijerph17124611.
- [16] Ceca D, Elvira L, Guzman JF, Pablos A. Benefits of a Self-Myofascial Release Program on Health-Related Quality of Life in People with Fibromyalgia: A Randomized Controlled Trial. *The Journal of Sports Medicine and Physical Fitness*. 2017Jan;57(7-8):993-1002. doi: 10.23736/S0022-4707.17.07025-6.
- [17] Lv Y and Yin Y. A Review of the Application of Myofascial Release Therapy in the Treatment of Diseases. *Journal of Multidisciplinary Healthcare*. 2024 Dec; 17: 4507-17. doi: 10.2147/JMDH.S481706.
- [18] Bervoets DC, Luijsterburg PA, Alessie JJ, Buijs MJ, Verhagen AP. Massage Therapy Has Short-Term Benefits for People with Common Musculoskeletal Disorders Compared to No Treatment: A Systematic Review. *Journal of Physiotherapy*. 2015 Jul; 61(3): 106-16. doi: 10.1016/j.jphys.2015.05.018.

- [19] Antunes MD and Marques AP. The Role of Physiotherapy in Fibromyalgia: Current and Future Perspectives. *Frontiers in Physiology*.2022Aug;13: 968292. doi: 10.3389/fphys.2022.968292.
- [20] Aljarallah SA, Alrobian SA, Alsaleem RI, Attamimi MR, Alsaleh RS. Evaluating the Efficacy of Myofascial Release Therapy in Managing Musculoskeletal Disorders: Impact on Pain and Mobility in Patients with Fibromyalgia and Chronic Neck Pain. *IJSAT-International Journal on Science and Technology*. 2024 Jul; 15(3): n.p.
- [21] Aslam S and Ilahi N. Effects of Myofascial Release on the Pain and Quality of Life in Patients with Fibromyalgia. *Iranian Rehabilitation Journal*.2024 Dec; 22(4): 701-8. doi: 10.32598/irj.22.4.2183.1.
- [22] Schulze NB, Barreto TD, Alencar GG, da Silva TA, Duarte AL, Ranzolin A, et al. The Effect of Myofascial Release of the Physiological Chains on the Pain and Health Status in Patients with Fibromyalgia, Compared to Passive Muscle Stretching and a Control Group: A Randomized Controlled Clinical Trial. *Disability and Rehabilitation*.2024Jul;46(16):3629-42. doi: 10.1080/09638288.2023.2255130.
- [23] Sur M, Roy SD, Singha P, Bhattacharjee K. Unlocking Relief: Myofascial Release in Chronic Musculoskeletal Pain Management. *International Journal of Orthopaedics and Physiotherapy*. 2024; 6: 17-20. doi: 10.33545/26648989.2024.v6.i1a.20.
- [24] Ughreja RA, Venkatesan P, Gopalakrishna DB, Singh YP. Effectiveness of Myofascial Release on Pain, Sleep, and Quality of Life in Patients with Fibromyalgia Syndrome: A Systematic Review. *Complementary Therapies in Clinical Practice*.2021 Nov; 45: 101477. doi: 10.1016/j.ctcp.2021.101477.
- [25] Dal Farra F, Chiesa A, Risio RG, Vismara L, Bergna A. Fast Improvements in Functional Status After Osteopathic Manipulative Treatment Based on Myofascial Release in Patients with Moderate or Severe Fibromyalgia: A Retrospective Study. *Journal of Complementary and Integrative Medicine*.2023 Dec; 20(4): 779-87. doi: 10.1515/jcim-2021-0139.
- [26] Takefuji Y. Exploring the Impact of Myofascial Release on Mental Health and Sleep Quality. *Sleep and Vigilance*.2025 Mar; 1: 1-4. doi: 10.1007/s41782-025-00301-1.
- [27] Winslow BT, Vandal C, Dang L. Fibromyalgia: Diagnosis and Management. *American Family Physician*. 2023 Feb; 107(2): 137-44.
- [28] Li X, Pan H, Wang L, Zhou Q, Ma Y, Wang Q, et al. Guidelines on Treating Fibromyalgia with Nonpharmacological Therapies in China. *Journal of Evidence-Based Medicine*.2025Jun;18(2):e70044. doi: 10.1111/jebm.70044.
- [29] Moshirif A, Shoaieir MZ, Abbas AS, Abdel-Aziz TM, Gouda W. Evaluating Gender Differences in Egyptian Fibromyalgia Patients Using the 1990, 2011, and 2016 ACR Criteria. *Open Access Rheumatology: Research and Reviews*.2022Apr;:67-74. doi:10.2147/OARRR.S358255.
- [30] da Silva Guarnaschelli ME, Contarim AT, de Oliveira Silva LB, Luiz GB, Graminha CV, de Carvalho EE. Effects of Myofascial Release Techniques in Women with Fibromyalgia: Case Series. *Brazilian Journal of Physical Therapy*.2024 Apr; 28: 100926. doi: 10.1016/j.bjpt.2024.100926.
- [31] Negm S, ElDeeb A, Shehata M, Abdou E, Kentiba E, Hassan E. Comparison of Muscle Energy Techniques and Myofascial Release in Premenopausal Women with Fibromyalgia. *Health, Sport, Rehabilitation*. 2025 Jan; 12(2): n.p.
- [32] Cabezas-Yagüe E, Martínez-Pozas O, Gozalo-Pascual R, Blanco EM, Paños RL, Jiménez-Ortega L, et al. Comparative Effectiveness of Maitland Spinal Mobilization Versus Myofascial Techniques on Pain and Symptom Severity in Women with Fibromyalgia Syndrome: A Quasi-Randomized Clinical Trial with 3-Month Follow Up. *Musculoskeletal Science and Practice*.2024;73:103160. doi:10.1016/j.msksp.2024.103160.