# Fibromyalgia : A review

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## Abstract

This paper reviews guidelines of fibromyalgia. Fibromyalgia is a common medical condition which is still misdiagnosed with other rheumatological disorders. It can be complex and brings many challenges. Presentation can vary from patient to patient. It is estimated that around up to 5% of population may have fibromyalgia with more cases in women. Although there is no cure for this condition, more understanding of Fibromyalgia can contribute to a well-rounded effective treatment and therapy options via a multidisciplinary approach to help in relieving the symptoms.

Keywords : fibromyalgia, challenges, multidisciplinary approach, therapy, rheumatological disorders.

## Definitions and epidemiology

Fibromyalgia is a medical condition presenting with widespread musculoskeletal pain, tiredness, poor sleeping patterns and tenderness in different points in the body (1). It can be associated with other symptoms such as headaches, brain fog and increased sensitivity to sensations such as light, noise, temperature and touch (2). The cause is still unclear and undiagnosed with a high number of patients. There is no evidence of muscle inflammation and it is thought to be a disorder of pain processing (3). The prevalence of fibromyalgia is more in females than males and the percentage can be increased by age. The number of consultations of fibromyalgia is increasing over time due to increased public awareness (4).

## Aetiology

There is still no clear aetiology found that can cause fibromyalgia but some theories suggest there could be factors contributing in developing fibromyalgia such as:

- Genetic factors: this can run in families which can increase risk of fibromyalgia (5).
- Change in pain perception and threshold: Abnormal pain processing in the nervous system and hypersensitivity. However, the mechanism is still not clear. It seems that pain in fibromyalgia can mimic neuropathic pain and analgesia can be ineffective (6).
- Poor sleeping patterns which can affect healing process of muscles.
- Patients with history of rheumatic disorders such as arthritis, rheumatoid arthritis and analysing spondylitis.
- Triggers such as physical injuries, infections and emotional trauma.
- Mental health illnesses such as depression.

## Symptoms of fibromyalgia

(see Figure 1):

- Widespread pain which can vary in intensity. It can be worse in certain areas such as back and neck. It can flare up and get worse at various times.
- Fatigue.
- Poor sleeping pattern and may not feel refreshed after sleeping all night.
- Headache, dizziness, forgetfulness and poor concentration.
- Achiness and stiffness.
- Stress, anxiety and low mood.
- Constipation, diarrhoea or stomach cramps. It can be diagnosed as Irritable Bowel Syndrome IBS.
- Irritable or overactive bladder.

## Diagnosis

Diagnosis of fibromyalgia remains challenging due to the absence of definitive biochemical markers or imaging studies (8). However, physicians rely on the patient's reported symptoms by taking a detailed medical history and clinical assessment. The subjective nature of pain perception can make the diagnostic process complicated. The second challenge is that fibromyalgia shares symptoms with other medical conditions such as hypothyroidism, ankylosing spondylitis, systemic lupus erythromatous SLE, rheumatoid arthritis, multiple sclerosis, sleep apnea, chronic fatigue syndrome, depression and medications (high dose opioids, statins, letrozole). The diagnostic approach involves ruling out other medical conditions via tests such as urine, blood tests includes ( FBC, ESR, CRP, CK, LFT, TFT, Glucose, U&E), x-rays and other scans. The American College of Rheumatology (ACR) has set up a criteria for fibromyalgia diagnosis (See Figure 2). This criteria included identifying duration and sites of pain with associated symptoms then giving a total score to aid diagnosis. Patients play an important aspect of diagnostic approach. Effective communication with patients can help build a full picture. Also, a symptoms diary can be very effective in tracking patterns to make a diagnosis.

Fibromyalgia is a common condition in primary care. However, it may need a holistic approach and involve other specialties when there is doubt in diagnosis, such as rheumatologists, pain management team and neurologists.

**Figure 1 – Symptoms of fibromyalgia** (7)

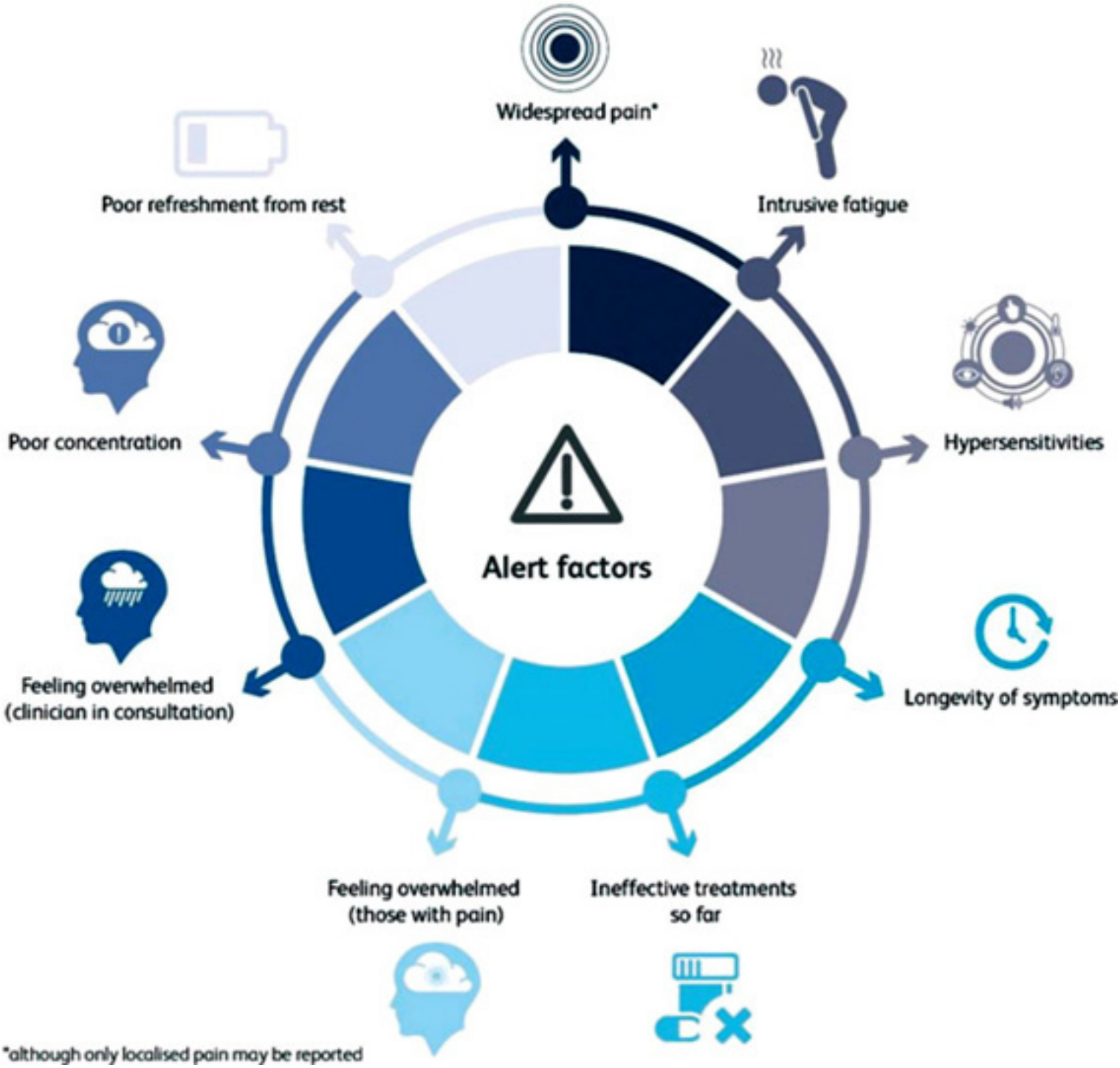

**Figure 2 – Fibromyalgia diagnostic worksheet** (7)

# Fibromyalgia syndrome diagnostic worksheet

## Symptom severity index (SSI)

**Have your problems with the symptoms below been present for 3 months or more?** ☐ Yes ☐ No

If yes, using the following scale, indicate the severity of each symptom over the past week by circling the appropriate number.

| | No problem | Mild | Moderate | Severe |
|---|---|---|---|---|
| Fatigue | 0 | 1 | 2 | 3 |
| Trouble thinking or remembering | 0 | 1 | 2 | 3 |
| Waking up tired (unrefreshed) | 0 | 1 | 2 | 3 |

**During the past 6 months, have you had any of the following symptoms?**

| | | |
|---|---|---|
| Pain or cramps in lower abdomen | ☐ Yes | ☐ No |
| Depression | ☐ Yes | ☐ No |
| Headache | ☐ Yes | ☐ No |

**Total score* for the SSI** _____

*The sum of the three scaled symptoms plus one point each for the other symptoms (pain or cramps, depression, headache). The total will be between 0 and 12.

## Body map

Use the figures to record where pain occurs in detail. Shade the areas of your body where you have felt persistent or recurrent pain for the past 3 months or longer (chronic pain).



## Calculating the WPI score

Use this checklist to calculate the widespread pain index (WPI) score. Tick the areas where you have had chronic pain for 3 months or longer.

**Region 1: left upper**
- ☐ L jaw
- ☐ L shoulder girdle
- ☐ L upper arm
- ☐ L lower arm and/or L wrist/hand, L elbow

**Region 2: right upper**
- ☐ R jaw
- ☐ R shoulder girdle
- ☐ R upper arm
- ☐ R lower arm and/or R wrist/hand, R elbow

**Region 3: left lower**
- ☐ L hip and/or L buttock
- ☐ L upper leg and/or L groin
- ☐ L lower leg and/or L ankle/foot, L knee

**Region 4: right lower**
- ☐ R hip and/or R buttock
- ☐ R upper leg and/or R groin
- ☐ R lower leg and/or R ankle/foot, R knee

**Region 5: axial**
- ☐ Neck
- ☐ Upper back
- ☐ Lower back
- ☐ Chest (L and/or R)
- ☐ Abdomen

**Total score* for the WPI** _____

*The total will be between 0 and 19.

L=left; R=right

A diagnosis requires widespread pain >3 months duration with currently either i) widespread pain index (WPI) ≥7 and symptom severity scale (SSS) score ≥5, or ii)WPI 4–6 and SSS score ≥9, with pain in 4/5 body regions.

www.rcp.ac.uk/fibromyalgia-guidelines

## Treatment

Fibromyalgia is a chronic condition which needs a multidisciplinary approach from primary or secondary care settings which involve an individualised care plan that focuses on improving symptoms and function with regular monitoring and follow up (9). Physicians and patients should agree on a treatment plan that focuses on goals to improve quality of life. The management plan can include pharmacological and non pharmacological treatments.

**Non pharmacological treatment includes :**

**1- Exercise:** Regular, low impact exercise can help improving symptoms and overall wellbeing. Activities that may help include aerobic activity (walking , swimming and cycling), strengthening training (using weights, rubber bands etc.), yoga, stretching and dance. They are recommended to promote flexibility, reduce stiffness and enhance mood. It is important to start slowly, tailor exercise as per individual capability and then gradually increase intensity by time.

**2- Physiotherapy:** physiotherapists can help patients to stay active and achieve desired goals. They will show patients different types of exercise in tailored treatment plan.

3- Occupational therapy: occupational therapists help patients to work out their usual daily activities without worsening of symptoms of fibromyalgia. They might suggest tools to cope with symptoms such as aids (mobility aids, rails, walkers) and home / work place adaptations.

4- Acupuncture: There is evidence that acupuncture can be used for a short term to improve symptoms.

5- Cognitive behavioural therapy CBT and counselling: Chronic pain of fibromyalgia can be a major factor which affects mood and behaviour. Physiological therapies used to manage symptoms of low mood, stress and pain. It helps patients to deal with symptoms in a different perspective and reduce the burden on overall health. It includes counselling, relaxation techniques and CBT.

6- Sleep hygiene: following practical strategies to address poor sleeping patterns, patients with fibromyalgia can experience improvement in quality of life like lowering pain reception and improve functionality.

7- Group therapy: Patients are encouraged to attend group therapy or support groups which may help them understand fibromyalgia by discussing it with other peers and professionals in a different environment setting. They may feel not alone and can share their experiences with others.

8- Education for patients and carers: It is important to explain and conduct information clearly to patients and their carers to increase chances of dealing effectively with fibromyalgia. This can be done by signposting patients to support groups, using leaflets, watching educational videos, listening to podcasts and reading self help books.

**Pharmacological treatments:**

It is recommended that non drug treatment should always be tried first. The pharmacological intervention of fibromyalgia includes a variety of medications to target symptoms. Anti depressants particularly amitriptyline and duloxetine are most common medications used for pain, improve sleep and mood disturbance. Anti convulsants such as gabapentin and pregabalin which can target target nerve pain. Although, there is no definite evidence of efficacy and safety of anti convulsants in reducing pain, sleep problems and fatigue (10). According to NICE guidance analgesia such as NSAIDs and opioids no longer recommended in treating primary pain disorder including fibromyalgia. Patient who are already on analgesia and declares benefit from medication, a shared care plan needed by shared decision making explaining to patients risks and lack of evidence. If there is little benefit, using same process and gradual reduction of established analgesia is recommended (11).

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