Fibromyalgia and Mindfulness-Based Interventions

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Yunus M.B. coined the modern term Fibromialgia in 1981. Fibromyalgia is a syndrome without apparent aetiology, characterized by pain, fatigue, memory disorders, mood disorders, and sleep disturbances (de Baat et al., 2016). The perception of Fibromyalgic pain has psychological effects on mood, anxiety, and the degree of perceived control (Vilalta-Abella et al., 2015). They experience high negative affect and show signs of social inhibition (van Middendorp et al., 2016).

In addition to pain, patients with fibromyalgia frequently report that cognitive function, memory, and mental alertness have declined (Glass & Park, 2001). The subjective experience of cognitive dysfunction (“fibrofog”) is common in fibromyalgia (Walitt et al., 2016). Fibromyalgia patients suffer from reduced quality of life, daily functioning and productivity. They often have several comorbid illnesses (e.g. depression, anxiety and sleep disturbances), resulting in extreme escalation of overall health care expenditures (Skaer, 2014).

According to the American College of Rheumatology, fibromyalgia is widespread pain of at least 3 months' duration in combination with pain at 11 or more of 18 specific tender point sites on the body (Arnold, 2008). Fibromyalgia affects approximately 5% of the population and is the second most common disorder, after osteoarthritis (McCarthy, 2016). Regional pain, frequent headache, and persistent back or neck pain, sleeping problems, and overweight are predictors for having a cluster of symptoms consistent with fibromyalgia (Markkula, Kalso & Kaprio, 2016).

The pathogenesis and pathophysiology of fibromyalgia involves alterations in multiple ascending and descending central nervous system pathways, as well as peripheral pathways, leading to heightened pain sensitivity (Chinn et al., 2016). Neurobiological studies indicate that fibromyalgia patients have abnormalities within central brain structures that normally encode pain sensations in healthy pain-free controls (Harris & Clauw, 2006).

The use of magnetic resonance imaging (MRI) in fibromyalgia has allowed for the detection of neural abnormalities, with alterations in brain activation elicited by experimental pain and alterations in resting state connectivity related to clinical pain (Ichesco et al., 2016). Russell et al (1994) indicate that elevated substance P and glutamate are found in cerebrospinal fluid of fibromyalgia patients.

Current research has focused on regions of the fibromyalgia patient’s brain and the susceptibility of certain brain locations to pain sensitivity. The brain receives a pain signal from the muscles and stays in a state of alert. For unknown reasons and the brain fails to let go of the pain signal and sets up a chronic pattern or pain syndrome. The brain stays in a constant feedback loop and consisting of a system of amplified pain signals (Krehbiel, 2010). They experience high pain with low-grade stimuli.

Fibromyalgia management remains complicated and challenging (Glass & Park, 2001). It has been proposed that fibromyalgia could be managed by pharmacological and non-pharmacological interventions (Rain et al., 2015). Multiple pharmaco-therapies are available for the treatment of fibromyalgia including opioid analgesics (Goldenberg et al., 2016). However
Painter and Crofford (2013) elucidate that chronic opioid use is inappropriate in the treatment of fibromyalgia. In addition Fitzcharles and team (2011) observed negative health and psychosocial status in patients using opioids and labeled as fibromyalgia.

Cognitive behavioral therapy and antidepressant drugs are useful in fibromyalgia treatment, suggesting a close link between the syndrome and psychiatric, psychological and behavioral factors (Fietta et al., 2007). In addition meditation therapy is important to manage symptom of fibromyalgia and it has been identified as an effective method for reducing pain and improving in patients with fibromyalgia. Grossman et al (2007) conclude that mindfulness intervention to be of potential long-term benefit for fibromyalgia patients.

Cast et al (2015) indicate that Mindfulness Based Stress Reduction techniques that were originally founded by Dr. Jon Kabat-Zinn in 1979 at the University of Massachusetts ameliorated some of the major symptoms of fibromyalgia and reduced subjective illness burden.

Mindfulness-based stress reduction (MBSR) is a structured 8-week group program teaching mindfulness meditation and mindful yoga exercises. Yoga encourages musculoskeletal strength, flexibility and balance, as well as inner stillness (Lewis, 2006). MBSR aims to help participants develop nonjudgmental awareness of moment-to-moment experience (Schmidt et al., 2010). MBSR is rooted in the contemplative spiritual traditions in which the experience of conscious awareness is actively cultivated. Within a framework of nonjudging, acceptance, and patience, meditative practice often focuses awareness on the breath leading to a state of relaxation and observant detachment (Carlson et al., 2003).

According to Lush and colleagues (2009) MBSR may help reduce negative psychological symptoms and attenuate basal sympathetic activation in fibromyalgia.

**Conclusion**

Fibromyalgia is a disorder that causes muscle pain and fatigue. Although the causes of fibromyalgia are unknown it has been linked to stress and psychological trauma, repetitive injuries and Rheumatoid arthritis. Although Narcotic medications especially opioids are prescribed to the patients with Fibromyalgia it could cause addiction. Also some researchers believe that there is insufficient evidence to recommend the routine use of opioids in fibromyalgia. Therefore Mindfulness -Based Interventions can be recommended as a safe intervention. Numerous researches indicate that Mindfulness -Based Interventions may help individuals to cope with Fibromyalgia.

**References**


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