















been shown to improve quality of life. Exercise in particular can increase feelings of energy and decrease fatigue across a variety of conditions. Aerobic exercise, resistance training, flexibility exercise, and body awareness therapy may help people with fibromyalgia manage their symptoms. (Ericsson, 2016). While current fibromyalgia treatment generally focuses on increasing the level and quality of physical activity in which a person engages, attitudes toward this method may prohibit its success. Instead, patients may benefit from a more behavioral approach - one that includes strategies for reducing negative emotions associated with the condition and assistance for structuring daily activities. (Verbunt, 2008). Many people affected with fibromyalgia also use complementary and alternative medicine (CAM) or the services of other allied health providers such as chiropractors, occupational therapists, and physical therapists. (Busse, 2008).

## **OCCUPATIONAL IMPLICATIONS**

The occupational implications of living with fatigue are widespread. A client's daily occupations, roles, habits, routines, and relationships will all be affected by fatigue. Consequently, clients will be faced with daily decisions about how they should spend their energy. Clients may passively decrease participation in leisure activities because such activities are often considered optional relative to activities such as grooming, dressing, parenting, homemaking, and work. Eliminating leisure activities may leave more energy for basic activities of daily living, but a client's quality of life may be negatively influenced as a result. Occupational therapy researchers have found that participation in meaningful leisure activities is more closely linked to well-being than participation in other occupations (Stout and Finlayson, 2011)

## **EXERCISE**

Exercise for individuals who have a muscular pain disorder may seem counterintuitive. However, most research indicates that certain types of exercise can actually improve FM symptoms. One type of exercise is resistance training. (Jones, 2015). Resistance training seeks to improve strength and endurance through progressive resistance applied through weights, bands, or even body weight. Resistance training also improves overall balance, coordination, and agility. (Jones, 2015). "Support for the benefits of resistance training in FM can be found in a recent Cochrane Database review. The authors concluded that resistance training improves multidimensional function, pain, tenderness, and muscle strength in women with FM. Having FM poses hurdles that need to be overcome before reaping the rewards of resistance training. People with FM are less physically active compared with age-matched controls. Deconditioned muscle is a potent pain generator owing to delayed-onset muscle soreness (DOMS). This is a result of an inflammatory response during the repair and adaptation process of building muscle (e.g.,



microtrauma, repair, and growth). Not surprisingly, sedentary persons may have difficulty in initiating or maintaining an exercise program because of both immediate pain and DOMS. Simply put, being inactive will eventually lead to more pain on exertion, and for many will result in a symptom flare. ” (Jones, 2015). Regular but smartly structured resistance training can help prevent this from happening.

Resistance training has also been shown to positively affect the fatigue component of fibromyalgia. “Participating in resistance exercise combined with working fewer hours per week at baseline predicted greater improvement in the MFI-20 subscale for physical fatigue. Variables that have been previously found to be associated with dimensions of fatigue were included in correlation analyses; however, only a few variables appeared to be associated with change over time in fatigue. The participants’ age or duration of pain did not appear to have an influence on change in fatigue, nor did their level of psychological distress or physical capacity.” (Ericsson, 2016). It is likely, then, that people with FM may be able to decrease fatigue by use of resistance exercise, despite differences in severity, age, or function. (Ericsson, 2016)

Aerobic activities are another type of exercise that may help people with fibromyalgia. “Aerobic exercise has been shown to improve the MFI-20 dimension of reduced motivation in female patients with FM and global outcome measures of physical capacity and, to some degree, pain and the number of tender points in FM. Resistance exercise has shown positive effects on limitations in activity, pain, global fatigue, depression and muscle strength in patients with FM” (Ericsson, 2016).

## **OCCUPATIONAL THERAPY AND EXERCISE:**

Occupational therapists can help patients with fibromyalgia work exercise into their daily lifestyles. “One of the biggest keys to patient success in a therapy program is the patient’s grasp of two concepts:

1) **Exercise is required.** Patients are instructed to think of exercise as a medicine, like high blood pressure pills. People with fibromyalgia must exercise.

2) **There is no magic cure.** If patients’ expectations are that they will be “cured”—have no pain or fatigue—they are destined to be disappointed. It is important that therapists work with patients to establish realistic goals.”

(<http://www.fmaware.org/articles/successfully-working-with-pt-and-ot/>) An occupational therapist’s skill in finding ways to embed interventions into daily routines will be valuable here.

## **LIFESTYLE INTERVENTIONS**

While medication is an option for people with fibromyalgia, it comes with a host of concerns. Typical treatments are usually costly, have side effects, and run the risk of causing addiction. Often, medications are not even fully successful. Because of this, more holistic options have been explored. “Kim and colleagues are the first to examine the association between alcohol consumption and FM symptom severity and quality of life. Among adult FM patients reporting low or moderate alcohol consumption ( $\leq 3$  or  $> 3$  to 7 drinks per week), there was lower FM symptom severity and better quality-of-life scores compared with those who reported no alcohol consumption (non-drinkers). However, these associations were not observed in patients who were heavy drinkers ( $> 7$  drinks per week) compared with non-drinkers. Interestingly, after exploring possible mechanisms for their findings, Kim and colleagues speculated that alcohol consumption may attenuate FM symptoms and improve quality of life by mediating psychological benefits and stress relief or by promoting factors associated with social integration. Another possible mechanism proposed is central nervous mediation via the modulating gamma-aminobutyric acid (GABA) system” (Chung, 2013). Though one must be careful with regulating the amount, it appears that controlled alcohol consumption may greatly increase the quality of life of individuals with fibromyalgia.

## **OCCUPATIONAL THERAPY AND FATIGUE MANAGEMENT INTERVENTIONS**

The goal for occupational therapy practitioners in fatigue management intervention is to maximize a client’s participation in meaningful occupations while minimizing the impact of fatigue. Occupational therapy interventions should work toward this overarching goal, using evidence-based strategies. There are a few fatigue management programs described in the literature that are designed for delivery in a group-based setting with specific patient populations (e.g., Managing Fatigue: A Six-Week Course for Energy Conservation and the Occupational Therapy Lifestyle Management Program). Managing Fatigue: A Six-Week Course for Energy Conservation was developed for patients with CFS and fibromyalgia. It contains six sessions, each 2 hours in length, and is designed for delivery in a community-based group format. Each session of the program covers various fatigue management strategies, including planning and scheduling rest, analyzing activity, understanding body mechanics, and using tools and technology to manage fatigue.

The Occupational Therapy Lifestyle Management program was developed for clients with CFS based on principles of cognitive behavioral therapy (CBT) and graded activity. The program focuses on client-identified problems, uses meaningful activity as an intervention medium, and consists of 10 sessions that can be delivered either individually or in a small group. A quasi-experimental study was conducted (N=97),

with 72% of the experimental group reporting better management of their CFS after participating in the program. (Stout and Finlayson, 2011)

“Occupational therapy focuses on the whole person through their activities of daily living (ADL). By learning adaptive techniques, energy conservation, pain management, relaxation techniques, problem solving, sleep hygiene, communication techniques, and goal-setting, patients are able to determine life changes that will allow them to optimize their function within their limitations. With therapist assistance, patients develop a daily and weekly schedule that they will continue after discharge. The schedule is designed to provide the balance of work, rest and play needed for optimal symptom management.”

<http://www.fmaware.org/articles/successfully-working-with-pt-and-ot/>

## CONCLUSION

Fibromyalgia, a common pain disorder, has many signs and symptoms, none of which are specific to the condition itself. Instead, FM must be diagnosed on an exclusionary basis. It is probable that FM is caused by a combination of physical and psychological etiologies. The most beneficial treatment for FM requires a multidisciplinary approach combining education, pharmacological treatment, exercise, and cognitive behavioral therapy.

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