The use of energy conservation and relaxation interventions for treating patients with Multiple Sclerosis.

By,
Michael Sterken, SPT
&
Nathan Augustine, SPT

According to O’Sullivan and Schmitz, 70% of patients with MS suffer from what is called relapsing-remitting MS (RRMS) which is characterized by periods of worsening neurological functions followed by periods of partial or complete abatement of symptoms without further progression.¹

Of these patients with RRMS, 80% develop secondary progressive MS (SPMS) which is characterized by a variable rate of continuous worsening of the disease with minor remissions and plateaus.¹

O’Sullivan and Schmitz contend that stress is one of many aggravating factors that can cause a relapse or exacerbation of symptoms in patients with MS.¹

In 2004, Mohr and colleagues published a meta-analysis in the British Medical Journal in which they found a consistent association between stressful life events and MS exacerbations.²

The National MS Society website advises patients to minimize their stress by scheduling rest periods throughout the day, to engage in deep breathing, and even to consider meditation, yoga, tai chi, and progressive muscle relaxation techniques.³

In May 2007, the University of Leeds in London published a report on complementary and alternative medicine use among people with MS.⁴ The data for this report was collected from 138 surveys that were gathered from people with MS who attended the MS Society UK’s National Biennial Convention in April 2006. The authors reported that most respondents who had undergone or a combination of alternative or
complementary therapies including: reflexology, massage, yoga, acupuncture, aromatherapy, and relaxation & meditation claimed that these intervention techniques helped them relax, induce a sense of well-being, and even to reduce some MS specific symptoms such as pain, spasms, poor sleep, and indigestion. The problem with this report is that it was not a controlled study, there were no pre-/post-test measures, and the participants were self-selected. More research is needed regarding the effects of these alternative therapies on patients with MS because most current evidence is subjective and anecdotal.

In 2008, Sauter and colleagues published a longitudinal study on the effects of a 6-week course for energy conservation for patients with multiple sclerosis. In this study, the authors put their patients through 6 weekly training sessions that lasted 2 hours each week covering the following topics:

1. The importance of rest
2. Communication and body mechanics
3. Environmental adaptations
4. Personal priorities and standards
5. Time management
6. Balancing self-care, work, and recreational activities

At both the conclusion of the course and at the 7-9 month follow-up, Sauter and colleagues found that patients had shown:

- Significant improvements in their levels of cognitive and physical fatigue as measured by the Modified Fatigue Impact Scale (MFIS)
- Significant improvement in their quality of sleep as measured by the Pittsburg Sleep Quality Index
- Significant decreases in levels of depression as documented by a self-rated depression scale

Therefore, the authors concluded that teaching patients energy conservation strategies is an effective intervention to utilize in the PT plan of care for patients suffering from MS.
The use of energy conservation and relaxation interventions for treating patients with Multiple Sclerosis.

Although the disease itself may not be altered by PT, there are ways that physical therapists can intervene to reduce impairments that patients with MS encounter. As previously stated, one way of doing this is through relaxation and energy conserving techniques. It is important to know what Dal Ballo-Haas stage the patient is in to determine the mode of physical therapy you will be providing.⁶

If the patient is determined to be in the **early stage**, physical therapy will be directed towards **prevention** and **restoration**:

- This stage promotes patient education to recognize and identify life stresses the patient encounters (physical stress, or emotional stress) which can be identified using a daily journal.
- Education should also be done regarding techniques used to perform energy conservation/relaxation.
  - Jacobsonian’s technique can be used to decrease muscle tension that produces anxiety in individuals with MS. This technique is performed by having the patient tense (contract) a specific region of the body & then having them relax that region of the body.
- This stage also involves preventing stress and learning how to better manage stress through positive thinking, massage, MS support groups, deep breathing, yoga, tai chi, and meditation.
The use of energy conservation and relaxation interventions for treating patients with Multiple Sclerosis.

- According to Jedrczak and colleagues, meditation should be performed 2 times per day 20 minutes per bout.\(^7\)

If the patient is determined to be in the **middle stage** of their struggle with MS, physical therapy should be directed towards **compensation** and **restoration**.

- Educate patient on planning their day. They must learn to think in 24 hour periods.
  - Activities with higher energy demands should be scheduled in the morning as they will fatigue as the day progresses.
  - Rest periods should be scheduled 15 minutes every hour.
  - Recommend an afternoon nap of at least 30 minutes.
  - A nap should also be scheduled before outings or company.
  - Maintain a cool environment; heat will increase the onset of fatigue.

- Encourage patient to not withdraw from all life activities because this will make their stress worse. Patients need to maintain social outlets.
  - Patients need to learn their own priorities and plan their day with these in mind.
  - Motorized scooters and other assistive devices can help patients conserve energy and participate in social outings.

- Teach patient energy conserving approaches to ADL’s. For example:
  - Making the bed from one side completely, then the other side completely to avoid making several trips side to side.
  - Storing things together & close to use; clothes stored by outfit; toilet paper & cleaners in the bathroom; shop & store by meals.
The use of energy conservation and relaxation interventions for treating patients with Multiple Sclerosis.

If the patient is determined to be in the late stage of MS, physical therapy should be directed towards compensation and prevention of further exacerbation:

- Educate caregiver on needs of patient both physically & emotionally. Education should include:
  - Recognizing the signs of stress & ways to relieve it as taught to the patient in previous stages.
  - Stretching the patient.
  - Involving the patient in regular outings: maintaining social circles, hair appointments, scheduling massages, going to their favorite places, etc.
  - Providing a soothing/relaxing environment (i.e. lightening/noise) and keeping the patients spirits up.

The ideal rehabilitation program considers the patient’s disease history, course, and symptoms; including impairments, functional limitations, and disability.
The use of energy conservation and relaxation interventions for treating patients with Multiple Sclerosis.

Bibliography


