Nordic walking in fibromyalgia: a means of promoting fitness that is easy for busy clinicians to recommend

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See related research by Mannerkorpi et al., http://arthritis-research.com/content/12/5/R189

Persons with fibromyalgia can enjoy the same improvements in strength, flexibility, aerobic capacity and perhaps postural control as can healthy persons. Symptom flares are commonly exacerbated, however, by exercise that is not modified for fibromyalgia. Specifically, aerobic activities that involve fast cycling, running, jumping, quick turns and certain dance moves may result in symptom flares, as can higher intensity exercise compared with lower intensity exercise [4,5].

What is less clear is how to design a ‘start low and go slow’ aerobic exercise protocol that is community based, of low cost, and does not require a high degree of specialized supervision. Moreover, the exercise should also provide significant fitness improvements without inducing a symptom flare. Ideally, this intervention would improve not only fatigue, sleep, mood/distress and quality of life, but also pain. Lastly, it should be easy for busy clinicians to recommend as a specific modality.

Mannerkorpi and colleagues may have designed such a program in Sweden. They randomized 67 women with fibromyalgia to a 20-minute, twice-weekly, 15-week program of either moderate-to-high-intensity walking (13 to 15 Rated Perceived Exertion) outdoors with Nordic walking poles or supervised low-intensity walking (9 to 11 Rated Perceived Exertion) without Nordic walking poles. Nordic walking poles activate muscles in the trunk and upper body while aiding balance. The poles also allow people to increase their stride length and employ a faster gait.

As expected, the group whose walking was supplemented with walking poles demonstrated significant improvements in a 6-minute walk test ($P = 0.009$) and the Fibromyalgia Impact Questionnaire Physical function ($P = 0.027$) compared with the group who walked without poles. What was novel was that significant fitness gains were garnered without inducing a symptom flare. In fact, both groups demonstrated clinically meaningful reductions in pain and fatigue. Nordic walking did not, however, produce greater symptom relief than lower intensity walking.
So where are we now? We have a safe, community-based intervention that will allow people with fibromyalgia to walk outdoors without avoiding hills and increasing the fall risk. People with fibromyalgia who walk with Nordic walking poles may experience greater fitness gains than those walking without Nordic walking poles. Clinicians have a specific intervention they can easily recommend that does not require proximity to a specialized academic center with extensive expertise in fibromyalgia exercise modifications. Patients have another form of exercise from which to choose that will help them regain significant loss of aerobic fitness while reducing fibromyalgia symptoms.

The physiologic effects of more intense exercise in fibromyalgia are being studied in an effort to better understand and manage exercise-induced symptom flares [6]. Of specific interest to an exercise program is how to modify exercise such that it reduces reducing peripheral pain generation from the muscle or myofascial trigger points within the muscle. Specifically, the milieu of myofascial trigger points have an acidic pH and contain elevated levels of bradykinin, calcitonin gene-related peptide, substance P, TNFα, IL-1β, serotonin, and nor-epinephrine [7]. It is further known that pain originating in the muscle, including latent or active myofascial trigger points, can induce or augment central sensitization in both healthy controls and persons with fibromyalgia [7,8]. This is especially true if adequate rest periods are not incorporated into more intense exercise in persons with fibromyalgia [9].

What is left to for clinicians to understand? Rarely can exercise alone adequately control fibromyalgia symptoms, especially pain. Access to a combination of fibromyalgia-specific analgesics and modified exercise are necessary to maximize functionality and symptom management [10]. Until the altered central and peripheral mechanisms in fibromyalgia can more fully understood and mitigated, exercise will continue to need to be modified for persons with fibromyalgia. Nordic walking, as tested by Mannerkorpi and colleagues, represents such a modification and offers patients a safe and effective means of regaining functionality and physical fitness.

Abbreviations
IL, interleukin; TNF, tumor necrosis factor.

Competing interests
The author declares that she has no competing interests.

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