

CBT, Exercise Reduce Fibromyalgia Symptoms

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ROME – A tailored combination of cognitive-behavioral therapy and physical exercise training has achieved the largest treatment benefit ever reported for fibromyalgia in a randomized, placebo-controlled trial.

The durability of the results was particularly impressive. The large improvements in psychological and physical functioning that were documented at the end of the 8-week treatment program were maintained at the 6-month follow-up, Saskia van Koulil said.

The success of this customized treatment approach hinged upon a two-stage screening process. First, patients who have had their fibromyalgia for fewer than 5 years and were at high risk of long-term dysfunction were selected because prior studies indicated that such individuals tend to have better treatment outcomes in general.

Within this group of high-risk patients, specific cognitive-behavioral patterns seemed to drive their fibromyalgia pain and disability. It is possible to screen for these patterns of thought and behavior. One school of thought among clinical psychologists, including Ms. van Koulil, holds that there are two main patterns: pain avoidance and pain persistence. The treatment programs for the two are quite different, explained Ms. van Koulil of St. Radboud University Medical Center in Nijmegen, the Netherlands.

The high treatment success rate in this randomized trial validated this concept of the pain-avoidance and pain-persistence fibromyalgia subtypes, she continued.

In her experience, close to two-thirds of patients with fibromyalgia of fewer than 5 years' duration have a high-risk profile. This is characterized by high levels of anxiety and/or negative mood on standard measures of distress, along with worse physical functioning, greater impact of fibromyalgia on daily life, and obvious maladaptive cognitive-behavioral patterns such as high levels of helplessness and worrying. This high-level psychological distress is an indicator of treatment motivation, according to Ms. van Koulil.

In the randomized trial, 158 high-risk fibromyalgia patients (95% of whom were women) were evaluated with a brief screening instrument for pain-avoidance be-

havior. Those with a high score were assigned to the pain-avoidance treatment group or a wait-list control arm, whereas patients with a low score were randomized to the pain-persistence group or the control arm.

The pain-avoidance subtype of fibromyalgia is characterized by fear of pain, hypervigilance, catastrophizing, and zealous avoidance of pain. In contrast, the pain-persistence subtype is characterized by an overactive lifestyle and low levels of pain avoidance. In fact, these highly self-demanding patients tend to ignore pain, ig-



Patients in the exercise session participated in aerobic exercises and relaxation techniques.

nore their physical limits, and display high levels of task persistence. Both subtypes end up via different routes at the same place, which is marked by functional disability, psychologic distress, fatigue, and chronic pain. The pain-persistence group, however, tends to be more physically fit. Of study participants, 53% were categorized as pain avoidant, whereas 47% were classified in the pain-persistence group.

Patients in both active-treatment arms received 16 twice-weekly treatment sessions in eight-patient groups, each session 4 hours in length, plus homework assignments. The first half of each session was devoted to cognitive-behavioral therapy (CBT), the second half to exercise training. Each exercise session included aerobic exercises, either strength or flexibility train-

ing, and relaxation techniques. The patient's significant other attended the 3rd, 9th, and 15th sessions. Also, a booster session was held 3 months after completion of the 8-week program.

The CBT was delivered by therapists with experience in CBT for fibromyalgia and other rheumatologic conditions. Therapy was guided by a written manual. The exercise training was provided by physical therapists.

The pain-avoidance treatment regimen was tailored toward achieving increased daily activities, reduced fear of pain and pain-avoidance behaviors through titrated exposure, and a gradual gain in physical condition. The emphasis in the pain-persistence group was on learning to improve pacing and regulation of activities of daily life and physical exercise, along with altering pain-persistence cognitions.

Five of the six primary outcome end points in the study were changes from baseline in pain, fatigue, functional disability, negative mood, and anxiety as measured on the Impact of Rheumatic Diseases on General Health and Lifestyle scale, which is derived from the Arthritis Impact Measurement Scales. The sixth outcome measure was change in the impact of fibromyalgia on daily life, as assessed by the 10-item Fibromyalgia Impact Questionnaire (FIQ).

The results were striking: In all, 60% of patients in the tailored-therapy arms experienced a clinically significant reduction in the impact of fibromyalgia on daily life, compared with 24% of controls. Of the tailored-therapy patients, 67% had a clinically significant improvement in the physical function domain combining pain, fatigue, and functional disability, compared with 33% of controls. And 62% of tailored-therapy patients demonstrated a clinically significant improvement in psychological function as reflected in reduced scores for negative mood and anxiety, compared with 33% of controls.

The size of the improvements in the various end points was consistently numerically greater in the pain-avoidance group than in the pain-persistence arm, but not statistically significantly so.

The study was financially supported by the Dutch Arthritis Association and the Netherlands Organization for Health Research. Ms. van Koulil reported having no conflicts of interest. ■

Gentle Yoga Poses Ease Pain in Women With Fibromyalgia

BY HEIDI SPLETE

FROM PAIN

Women with fibromyalgia who participated in an 8-week yoga program reported significant improvements on measures of fibromyalgia symptoms and function, based on data from a pilot study of 53 women.

The positive findings have become the basis of a grant proposal to the National Institutes of Health to fund a larger clinical trial, said lead investigator and lead study author James Carson, Ph.D.

Many fibromyalgia patients find standard medical care ineffective for reducing their symptoms, including pain and fatigue, Dr. Carson of Oregon Health and Science University in Portland said in an interview.

More effective treatments for fibromyalgia are needed, Dr. Carson said. "Exercise is often prescribed for fibromyalgia, but for many patients it is hard to find an exercise program that is tolerable for them. Yoga poses done in a

gentle way may be a good option."

Dr. Carson and colleagues randomized 53 women who met the American College of Rheumatology criteria for fibromyalgia in an 8-week Yoga Awareness program (25 women) or standard care (28 women). The program consisted of gentle yoga poses, modified as needed to accommodate conditions such as knee osteoarthritis or carpal tunnel syndrome (Pain 2010;151:530-9).

The primary outcome measure was the total score on the Fibromyalgia Impact Questionnaire Revised (FIQR). After 8 weeks, the mean FIQR total score dropped from 48.32 at baseline to 35.49 in the yoga group (a statistically significant difference), compared with a change from 49.26 at baseline to 48.69 in the control group. More than half (56%) of the yoga group had at least a 30% reduction in overall FIQR scores, which is slightly more than twice the 14% reduction that is recommended to show clinical significance, the researchers noted. In addition, 50% of patients in the yoga group

had at least a 30% reduction in the pain subscale of the FIQR.

The Patient Global Impression of Change (PGIC) scale scores for overall improvement in fibromyalgia symptoms were significantly higher in the yoga group vs. the control group (5.05 vs. 3.69). The PGIC was measured only once, at the end of the study. As part of the PGIC, approximately 90% of the patients in the yoga group reported feeling "a little better," "much better," or "very much better," compared with 19% of the controls.

The average age of the participants was 54 years, and 68% had been symptomatic for more than 10 years. Patients who were already engaged in a yoga practice, those who were too disabled for meaningful participation in the yoga program, and those who were scheduled for elective surgery were excluded from the study. "The most surprising finding for us was that most patients became so fully engaged in the home yoga practices they were assigned," Dr. Carson said. On average, the patients spent 40 minutes

practicing yoga at home, including about 19 minutes of postures, 13 minutes of seated meditation, and 8 minutes of breathing exercises. Those who practiced more had better results on several of the study outcomes, he noted.

"This finding suggests that yoga practices, if taught in a tailored, accessible manner, are not only well tolerated and effective; they are practiced with an unexpected degree of enthusiasm," he said.

The results also showed that patients in the yoga group were more likely to use positive pain-management strategies such as problem solving, religion, acceptance, and relaxation, and less likely to resort to negative pain-management strategies such as self-isolation, disengagement, and catastrophizing.

Dr. Carson said he and his colleagues are preparing a grant proposal to the National Institutes of Health to fund a larger trial that will include comparison with another active treatment.

The researchers had no financial conflicts to disclose. ■