Occupational Therapy Interventions for Adults With Fibromyalgia

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Evidence Connection articles provide a clinical application of systematic reviews developed in conjunction with the American Occupational Therapy Association's (AOTA's) Evidence-Based Practice Project. In this Evidence Connection article, we describe a case report of a person recently diagnosed with fibromyalgia. The occupational therapy assessment and intervention process in the home setting is described. Findings from the systematic review (Poole & Siegel, 2017) on this topic were published in the January/February 2017 issue of the *American Journal of Occupational Therapy* and in AOTA's *Occupational Therapy Practice Guidelines for Adults With Arthritis and Other Rheumatic Conditions* (Poole et al., 2017). Each article in this series summarizes the evidence from the published reviews on a given topic and presents an application of the evidence to a related clinical case. Evidence Connection articles illustrate how the research evidence from the reviews can be used to inform and guide clinical reasoning.

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Jennifer is a 37-yr-old elementary school teacher recently diagnosed with fibromyalgia (FM). FM is one of the most common chronic rheumatic disorders, and it is characterized by widespread muscular and soft tissue pain, fatigue, and multiple areas of localized tenderness (i.e., tender points; Wolfe et al., 2010). FM affects up to 2.7% of the global population and is more prevalent in women (Queiroz, 2013). People with FM are often seen for other medical problems before being diagnosed with FM (Berger et al., 2010), and it is estimated that 11.3%–69% are treated with opioid pain medicines (Goldenberg et al., 2016).

Jennifer began to experience pain "all over her body" after she fell while training for a 5K fundraiser to purchase playground equipment for her school. She was seen at an urgent care clinic where she was given a prescription for oxycodone. The medicine provided only short-term relief from pain. She returned to the urgent care clinic, where a different provider gave her a slightly higher dose of oxycodone and recommended that she see her primary care doctor. She eventually got an appointment with her primary care physician, who explained that he was uncomfortable continuing to provide Jennifer with a narcotic pain medicine and suggested that they explore other options, including occupational therapy. He also initiated a referral for Jennifer to see a rheumatologist and started Jennifer on nonnarcotic pain medicine.

Occupational Therapy Assessments and Findings

Jennifer met with Terry in an outpatient occupational therapy department where Terry began the assessment with an interview using the Occupational

Profile (American Occupational Therapy Association, 2017) and then completed the Canadian Occupational Performance Measure (COPM; Law et al., 2005), which focuses on client-identified problems and collaborative goal setting between therapist and client. Jennifer is a single woman who lives alone and teaches sixth grade. Jennifer reduced her work schedule to half time 3 mo ago because pain and fatigue prohibited her from being able to work in the morning. She told Terry that she is having pain in her lower legs, shoulders, and elbows. She described being independent with activities of daily living and most instrumental activities of daily living, but she admitted to having difficulty with household tasks and social activities. She said that she has not been able to resume a full-time work schedule.

Before the onset of FM, Jennifer belonged to a recreational walk–jog group, swam a couple of times a month, and went on short hikes with friends. Since the onset of her pain from FM, Jennifer described feeling "isolated." She told Terry that she has difficulty sleeping, is gaining weight, and continues to struggle with pain. She said that she is afraid of what will happen when she runs out of narcotic pain medicine.

On the COPM, Jennifer identified three performance areas as being meaningful to her: leisure (being able to participate in leisure activities with friends); being able to complete a full day of teaching; and being able to clean her entire house, including vacuuming, mopping floors, and making her bed. See Table 1 for Jennifer's COPM performance and satisfaction scores.

In addition to the COPM, Terry asked Jennifer to complete the Revised Fibromyalgia Impact Questionnaire (FIQR; Bennett et al., 2009), a self-report survey that measures functional ability (i.e., occupational performance) as well as overall impact and symptom severity (see Table 1 for Jennifer's scores on the individual items). The areas that Jennifer indicated as presenting the most difficulty on the functional ability portion of the FIQR included being able to walk continuously for 20 min, vacuum, scrub or sweep floors, climb one flight of stairs, and change bed sheets. On the symptom portion of the FIQR, Jennifer reported that her pain was an 8 on a 0–10 scale. She also indicated that she was having difficulty with anxiety, that her energy level had decreased, that she was experiencing severe stiffness, and that she was waking from sleep still feeling tired. Depression level and tenderness to touch were rated at a 6 and 7, respectively, on a 0–10 scale. On the global impact portion of the FIQR, Jennifer rated FM as having a 7 out of 10 impact on preventing her from attaining goals for the week and being completely overwhelmed by symptoms of FM.

Table 1. Assessment Scores Before and After Intervention

Assessment	Evaluation	Discharge
FIQR[a]		
Vacuum, scrub, or sweep floors	10	6
Walk continuously for 20 min	10	2
Climb one flight of stairs	10	2
Change bed sheets	10	3
Pain level	8	2
Energy level	8	6
Stiffness	8	4
Sleep quality	8	3
Anxiety	9	3
Level of tenderness to touch	7	1
Depression	6	2
Global impact	7	2
COPM,[b] performance and satisfaction		
Participate in leisure activities with friends	3/1	8/8
Complete full day of teaching	1/1	7/9
Clean entire house	1/1	7/9

Note. COPM = Canadian Occupational Performance Measure; FIQR = Revised Fibromyalgia Impact Questionnaire.
[a]FIQR scores range from 0 (*no difficulty, never, or not a symptom*) to 10 (*very difficult, always, or severe symptom*). [b]COPM scores range from 1 (*with great difficulty or not satisfied*) to 10 (*with no difficulties or completely satisfied*).

Occupational Therapy Intervention

Jennifer received 14 occupational therapy sessions over the course of 10 wk. These sessions included the following interventions: instruction in routine development for household chores, exercise, and leisure tasks with a focus on participation without pain; instruction in using aquatic exercise for pain management, strength remediation, and increased endurance; mindfulness training for pain management and management of depression symptoms; and use of online tools and community groups to increase social participation. Terry planned these interventions, in conjunction with Jennifer, on the basis of the evidence she gathered after reading an article on FM by Poole and Siegel (2017) and the *Occupational Therapy Practice Guidelines for Adults With Arthritis and Other Rheumatic Conditions* (Poole et al., 2017).

Sample Intervention 1

Jennifer identified cleaning and completing household tasks, such as vacuuming and changing bed sheets, as important activities and reported that pain and fatigue limited her participation in these household management tasks. Terry worked with Jennifer to establish a structured household task schedule to allow time for completion of household tasks, exercise, and leisure (Lera et al., 2009). Terry used the following scheduling ideas to help Jennifer achieve her goal of weekly housecleaning:

1. *Plan tasks in advance.* Terry instructed Jennifer to use a journal to establish a plan for cleaning, including vacuuming and changing bed sheets, each week.
2. *Prioritize cleaning tasks, including vacuuming and changing bed sheets, for the week.* After a task from the journal was completed, Jennifer would rate the task on a scale of 1–10 to indicate how much time and energy she had spent with the task as well as her fatigue after the task. This documentation allowed Jennifer to see where she was spending her energy and which tasks created more fatigue for her.
3. *Plan and organize activities.* Terry instructed Jennifer to group tasks that required less energy (e.g., grading student papers, paying bills) with those that were more taxing, such as vacuuming. She also suggested that Jennifer schedule and plan rest periods during which she could do mindfulness training. This type of schedule allowed Jennifer to schedule vacuuming and changing bed sheets into her other daily tasks without increasing pain and fatigue (Lera et al., 2009).
4. *Use good posture and body mechanics during tasks.* Terry instructed Jennifer to avoid staying in one position for extended periods and to change her position often. She also advised her to use good body mechanics during vacuuming, including using larger joints to move the vacuum and lifting with her legs when picking it up.

Sample Intervention 2

Jennifer identified pain management and fatigue as considerable barriers to her occupational participation. Terry recommended participation in an online mindfulness program for pain management, coping skills, depression management, and improving social relations (Davis & Zautra, 2013; Menzies et al., 2006). To monitor completion, Terry had Jennifer demonstrate a new technique learned from the course during each therapy session.

Sample Intervention 3

To address Jennifer's goal of working a full day, Terry developed an exercise program to increase Jennifer's endurance, improve her pain, and decrease depression symptoms that affected participation. Terry recommended an indoor walking program (Mannerkorpi et al., 2010) and implemented an aquatic exercise program to improve overall physical function, pain, and stiffness (Bidonde et al., 2014). Jennifer was instructed in light resistance exercises in the aquatic environment and completed 20–30 min of indoor walking at least 4 times per week. Terry gave Jennifer a list of aquatic programs offered by the Arthritis Foundation and instructed Jennifer to incorporate the mindfulness strategies from her online course during physical activities.

Sample Intervention 4

During the assessment process, Jennifer indicated difficulty with the emotional impact of FM and that this condition was preventing her from participating in social and leisure activities as much as she would like. Terry worked with Jennifer to identify face-to-face support groups for people with FM or chronic pain to increase her social participation and to connect her with others who are experiencing similar challenges. In addition, Terry worked with Jennifer to identify strategies from her mindfulness course to use when her pain creates anxiety or when she is feeling overwhelmed.

Conclusion

With evidence-based and client-centered occupational therapy interventions, Jennifer met her goals at the end of her 14 visits. Jennifer increased her weekly work hours from 20 to 30, joined a weekly walking group, and was using mindfulness techniques for pain management. Jennifer's FIQR score on discharge was 39, indicating that FM had a mild impact on occupational performance. On the symptom portion of the FIQR, Jennifer reported having pain corresponding to 2 on a 0–10 scale. She continued to have some difficulty with energy, but her symptoms of stiffness and fatigue improved from the initial evaluation. She rated feeling depressed and very tender, between 1 and 2 on a 0–10 scale, a considerable decrease from the initial rating of 6 or 7. On the global impact portion of the FIQR, Jennifer rated FM as having a 2/10 effect on her weekly goals, down from 7/10 at evaluation. On her discharge COPM, Jennifer indicated that she was satisfied with her leisure activities and new work schedule and that she felt that the cleaning schedule helped her allocate vacuuming and other household tasks.

Jennifer's discharge recommendations included continued participation in the aquatic programs offered by the Arthritis Foundation for the management of pain and symptoms of depression and fatigue. Terry also recommended continued participation in online mindfulness groups and in-person support groups. ▲

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