National
Multiple Sclerosis
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Clinical Bulletin
Information for Health Professionals

Occupational Therapy in Multiple Sclerosis Rehabilitation

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Multiple sclerosis (MS) is a chronic, frequently progressive disease of the central nervous system that is usually diagnosed between the ages of 20 and 50. While MS can result in considerable disability, it does not significantly reduce life expectancy. Consequently, people with MS are often required to manage some level of MS-related disability (and related activity and participation restrictions) for many years, making rehabilitation an important part of their healthcare.

Occupational therapists are integral members of the MS healthcare team, working with patients and their families to develop and implement practical solutions to the challenges of everyday living with MS. The intent of this clinical bulletin is to describe the general focus of occupational therapy, explain the process of occupational therapy service delivery, and give an overview of the typical roles and activities of occupational therapists in MS care.

FOCUS OF OCCUPATIONAL THERAPY

Occupational therapists focus on "occupation," which is defined as all of those tasks and activities that take our time and energy, and provide meaning and focus in our everyday lives (Townsend & Polatajko, 2007). Occupational therapists identify and evaluate functional challenges, and offer interventions in three broad areas of occupation:

- Self-care activities—including functional mobility, dressing, bathing, grooming, and eating
- Productive activities—including paid work, home management, caregiving, and volunteer activities
- Leisure activities—including involvement in social and recreational pursuits

Occupational therapy focuses on enabling people to participate in those occupations that have value and meaning to them. Evaluation by an occupational therapist identifies the current and anticipated occupational challenges an individual is experiencing due to disease, disability, injury or change in life roles. Intervention then focuses on removing or reducing those challenges to promote and enable participation in meaningful occupations. Intervention can be preventative, educational, compensatory, remedial, or consultative in nature, and involves the therapeutic use of purposeful and meaningful goal-directed activities to achieve therapy goals. For people with MS, intervention may also focus on maintenance of current functional abilities.

PROCESS OF OCCUPATIONAL THERAPY SERVICE DELIVERY

Occupational therapists offer their services in a wide variety of settings including community and home care agencies, outpatient clinics, rehabilitation hospitals, skilled nursing facilities, acute care facilities, school systems, and private practices. Occupational therapy services are covered by most health insurance plans. Regardless of the setting in which they work, occupational therapists in most states require a physician's referral in order to provide evaluation and treatment. In some locations treatment that is not medically related, or that is consultative or educational in nature, does not require a referral. For more information about the referral requirements in a particular jurisdiction, contact the state office of professional regulation or the state occupational therapy association.

Once a referral is received, the occupational therapy process starts with a thorough, client-centered evaluation. Initially, the occupational therapist focuses on learning about the specific tasks and activities a client is concerned about being able to continue to do, is having difficulty doing efficiently or safely, and/or is interested in starting to do again or for the first time. Typically, the occupational therapist will use a structured interview for this part of the evaluation process. Two commonly used tools include the *Canadian Occupational Performance Measure* (Law et al., 1998) or the *Occupational Performance History Interview II* (Kielhofner et al., 2004).

After learning about the tasks and activities a client wants or needs to perform, the occupational therapist will then move on to identify the factors that are restricting or supporting current performance. Occupational therapists focus on three specific types of factors (Townsend & Polatajko, 2007):

- Personal factors, including:
  - Symptoms of MS and other health conditions (e.g., fatigue, pain, balance),
  - Physical capacities (e.g., strength, joint motion)
  - Cognitive and perceptual capacities (e.g., memory, attention, problem solving, visual-spatial abilities)
  - Psychological and emotional issues (e.g., self-efficacy, mental health)

- Specific skills and knowledge relative to performance of the tasks and activities in question (e.g., knowledge of meal preparation)

- Environmental factors including:
  - Physical environment (e.g., accessibility, use of assistive technology)
  - Social environment (e.g., presence and type of social supports)
  - Cultural environment (e.g., values, expectations)
  - Socio-economic issues (e.g., cost)
- Occupational factors including:
  - The physical demands of the task or activity (e.g., need to bend, reach, lift, carry)
  - The cognitive and perceptual demands of the task/activity (e.g., need to multi-task, remember complex sequences, visual-spatial demands)
  - The steps and sequencing of the activity (e.g., number of steps, flexibility of sequences)
  - The temporal aspects of the activity (e.g., when it is performed, for how long)
  - The need for or use of specific tools and technology during the activity (e.g., computer, appliances, adapted devices)

The process of identifying factors that restrict or support current performance can involve a wide range of evaluative procedures. For example, the evaluation of personal factors may involve physical assessments such as goniometric measures for joint range of motion, or manual muscle testing for strength. An occupational therapist may also use questionnaires such as the Fatigue Impact Scale (Fisk, Pontefract, Ritvo, et al., 1994) or the MS Neuropsychological Screening Questionnaire (MSNQ) (Benedict et al., 2004) to evaluate relevant factors. Depending on the setting in which they work, some occupational therapists develop significant expertise in cognitive evaluations, particularly ones that involve the performance of contextually-relevant functional activities (Katz, 2005). Evaluation of environmental factors is ideally achieved through a home or workplace visit done together with the patient and family. If such a visit is not possible, interviews with the patient, family, or other relevant individuals can be used to obtain the information necessary for determining the extent to which the patient's environment is supporting or restricting performance of tasks and activities.

At this point in the occupational therapy process, the occupational therapist has worked with the patient to identify what tasks and activities he/she wants or needs to do, and the factors that are restricting or supporting performance. This information is then used to set goals for intervention. Occupational therapy interventions may focus on prevention, education for health and disease management, compensation or remediation for lost or restricted abilities, or maintenance of function (Pendleton & Schultz-Krohn, 2006; Radomski & Trombly, 2008).

OCCUPATIONAL THERAPISTS IN MS CARE

The focus of occupational therapy on the person's ability to participate in valued and meaningful everyday activities is relevant throughout the course of MS. Beginning with the diagnosis, the prevention of activity curtailment and secondary disability is critical; throughout the advanced stages of the disease, maintenance of function and compensation for lost function are necessary. To illustrate the different ways that occupational therapists may work with people with MS, several case illustrations will be shared.

Case #1: Elizabeth is a 35-year-old woman who was recently diagnosed with MS. She works part-time as a data processor and is the mother of an active two-year old. Visual and cognitive changes and extreme fatigue are making it difficult for her to fulfill her responsibilities. To enable Elizabeth to continue working and parenting, the occupational therapist offers several interventions: The therapist works with Elizabeth to make modifications at her workplace to accommodate her visual symptoms. Changes include adjusting the lighting in Elizabeth's office, repositioning her monitor and obtaining an anti-glare filter to reduce glare, and adjusting the accessibility options available through her computer settings to maximize contrast and font sizes. Adjustments in lighting and contrast were also made in Elizabeth's home to address her visual changes, particularly in the areas where she must supervise her child's safety. Elizabeth is comfortable using new technologies, so the occupational therapist works with Elizabeth to select and set up a personal digital assistant (PDA) to compensate for some of her memory problems. The PDA is set up to give Elizabeth reminders to take medications, go to appointments, and do shopping and banking tasks. The occupational therapist also teaches Elizabeth how to analyze and modify her activities and use adapted equipment in order to reduce her energy expenditure and effectively reduce the impact of fatigue on her daily activities.

Case #2: Mark is a 47-year-old man who has primary progressive MS. He lives alone and uses a power wheelchair full-time. Mark just hired a personal care attendant to help him with daily self-care tasks. Mark has not previously directed a personal care aide and wants to ensure that he gets the help he needs in a safe and respectful manner. The occupational therapist works with Mark to develop strategies for communicating his needs to his personal care attendant, for example, explaining what he needs, giving clear directions about how to help, and providing constructive feedback about the attendant's actual performance of duties. The occupational therapist has Mark role play different communication situations to increase his confidence in his ability to direct his personal care attendant. Once Mark feels comfortable giving direction and feedback, the occupational therapist works with Mark and the personal care attendant to practice safe and efficient techniques for dressing, transfers, and bathing that optimize and maintain Mark's current abilities. The occupational therapist corrects the personal care attendant's body positioning, offers tips to reduce back injuries during lifts and transfers, and demonstrates methods to minimize the effects of Mark's lower extremity spasticity during transfers. The occupational therapist also shows Mark and the personal care attendant how to check and maintain the safety of his wheelchair and transfer equipment.

Case #3: Georgia is a 67-year-old woman whose MS has recently become progressive. She is experiencing an increased number of falls, which has caused her to become quite fearful. Her fear has led to a curtailment of her activities and increasing social isolation. Since Georgia does not like to exercise, the occupational therapist shows her ways to increase her lower extremity strength and maintain her balance while doing everyday activities like cooking and cleaning. The occupational therapist also works with Georgia to select a walker that meets her needs and then teaches her to use it safely in different situations around her home, yard, and community. To address environmental hazards around Georgia's home, the occupational therapist completes a home safety checklist with Georgia, and together they make some simple changes to reduce her risk of falling (e.g., rearranging furniture, adding lighting on the stairs, tacking down loose flooring, throwing out worn shoes). Throughout these interactions, the occupational therapist utilizes cognitive behavioral techniques to address Georgia's fear of falling. Together they plan strategies for Georgia to use when she does fall so that she feels confident in her ability to handle the situation. Finally, the occupational therapist coaches Georgia on ways to reconnect with her friends and community activities in order to reverse her social isolation and prevent depression.

Case #4: Amy is a 50-year-old woman who has been hospitalized for a recent exacerbation that resulted in loss of function on her left side. It is very important to Amy that she be able to prepare simple meals and do her own dressing and bathing before she returns home. The occupational therapist works with Amy to teach her one-handed dressing and bathing techniques, and makes arrangements for Amy to obtain a shower chair and grab-bar for home. Amy learns how to transfer safely onto the shower chair using the grab-bar, and the occupational therapist coaches Amy during the practice sessions to ensure that she can do the transfer safely on her own. Amy is also given guidelines for selecting a contractor to install the grab-bar properly in her bathroom, and the occupational therapist leaves instructions about how to position the bar for Amy's maximum safety and functional independence. For meal preparation, the occupational therapist teaches Amy to use a number of assistive devices in the kitchen so that she can safely prepare simple meals with one hand, for example, a wall-mounted jar opener, a clamp-on peeler, a kitchen workstation,and a rocker knife. (To learn about a wide variety of devices available to facilitate performance of everyday activities, see: http://www.abledata.com) Together, they practice preparing simple meals using these devices so that Amy feels comfortable that she will be able to use them independently once she returns home.

These four case illustrations provide a glimpse into the potential interventions that occupational therapists might offer a person with MS from initial diagnosis through the remainder of the disease course. Many occupational therapists develop special skills in important areas that are relevant to people with MS, for example, home modifications, driver rehabilitation, wheelchair selection and prescription, cognitive rehabilitation, vocational rehabilitation, and assistive technology. In addition, occupational therapists often become involved in developing and implementing large scale, community-based programs such as

Gateway to Wellness (Neufeld & Kniepmann, 2001) and *Managing Fatigue* (Packer, Brink, & Sauriol, 1995).

Ultimately, occupational therapists work together with their clients to find ways to enable people with MS to continue to live active and productive lives despite the personal, environmental and occupational challenges that they face.

FINDING AN OCCUPATIONAL THERAPIST

To find an occupational therapist with expertise in MS care, contact the National MS Society at 1-800-344-4867.

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