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Occupational Therapy's Role With People Who Live With Chronic Pain

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Learning Outcomes

- After this course, participants will be able to:
 1. Identify different kinds of pain
 2. List occupational therapy's roles with pain patients.
 3. Recognize the impact of pain on occupation and participation in the lives of people who chronic experience pain.
 4. List 5 things occupational therapists can do to contribute to pain management and education of patients in pain.

continued The CDC Limited Access to Opioid Pain Meds

- CDC Guideline for Prescribing Opioids for Chronic Pain (2016). Bottom Line:
 - Key Points for Practice:
 - “Chronic pain should be managed primarily with nonpharmacologic therapy or with medications other than opioids.
 - Physicians should routinely discuss the risks and benefits of therapy and the mutual responsibility to mitigate risk with patients who are receiving opioids.
 - When opioids are prescribed, they should be titrated to the lowest effective dosage.
 - Treatment should be offered or arranged for patients with opioid use disorder.”

Bredemeyer, M. (January 01, 2016). CDC Develops Guideline for Opioid Prescribing. *American Family Physician*, 93, 12, 1042-3.

Dowell, D., Haegerich, T. M., & Chou, R. (2016). CDC guideline for prescribing opioids for chronic pain—United States, 2016. *MMWR*, 65(1), 1–49. <https://doi.org/10.15585/mmwr.rr6501e1>

Impact of Limited Access to Pain Medication

- People with legitimate pain conditions can't get medications for their pain
- This may affect their participation and occupational performance
- Patients will not perform well if they are in pain
- Pain may further limit them - physically as well as psychologically
- May be referred to Occupational Therapy because of pain
- This opens the door to a whole area of practice for Occupational Therapy that we need to market to physicians

continued Occupational Therapy Roles in Chronic Pain Management

- A Canadian Scoping Review (52 sources) found OT's roles as:
 - Activities and Participation:
 - Enabling occupational engagement
 - Addressing occupational performance
 - Providing vocation rehabilitation
 - Promoting participation
 - Promoting functional independence, mobility, and autonomy
 - Addressing occupational balance
 - Restoring occupational identity
 - Limiting occupational injustice
 - Body functions and structures:
 - Improving/restoring function
 - Improving body mechanics and activity tolerance
 - Environmental factors
 - Modifying the nonhuman environment and ergonomic approach
 - Enhancing social support

continued Occupational Therapy Roles in Chronic Pain Management

- Results pointed to the main role of OT being improving activities and participation (76.9 %).
- Within the 30 reported interventions,
 - 73.3% related directly to the person,
 - 20% pertained to occupation (activities and participation), and
 - 6.7% addressed environmental factors.
- Conclusion: As an expert in enabling occupation, occupational therapists are particularly interested in how individuals living with Chronic Pain can perform and engage in their daily occupations....with a better emphasis on occupation as an end and as a means.

“Pain Interference”

- Study of “Pain Interference” defined as “a construct of the self-reported consequences of pain on activities and participation,” due to Musculoskeletal Disorders, found among other things:
 1. “Pain Interference (PI), psychosocial and motor factors were associated with disability.”
 2. “PI is how pain affects engagement, satisfaction and meaning of activities.”
 3. “PI had the strongest association with self-reported disability.”
 4. “Rehabilitative interventions should address PI to improve disability.”

“Our results suggest rehabilitation programs need to be tailored to patient's goals and activities including work and social aspects that impact the meaning, satisfaction, and social relationships associated with activities and participation to modify the effects of pain interference.” (Pelletier et al, 2020)

What is Pain?

- An unpleasant or noxious feeling
- “Pain is a uniquely individual and subjective experience that depends on a variety of biological, psychological, and social factors, and different population groups experience pain differentially” (IOM, 2011)

- Normal sensation triggered by the CNS to alert you of something you need to know about (AAPM, n.d.)
- Sudden onset and expected to last a short time.
- Usually related to an illness or injury
 - Kidney stone, sunburn, muscle strain
- Usually treated with over-the-counter or short term stronger meds (i.e. root canal).
 - (IOM, 2011)

Recurrent Pain

- Acute pain can be recurrent with episodes of pain and periods without pain.
 - Migraines, sickle cell, dysmenorrhea
 - (IOM, 2011)

continued^{ed} What is chronic pain?

- Lasts more than several months (variously defined as 3 to 6 months, but certainly longer than “normal healing”)
- Chronic pain can be a disease in itself.
 - Chronic pain has a distinct pathology, causing changes throughout the nervous system that often worsen over time. It has significant psychological and cognitive correlates and can constitute a serious, separate disease entity. (IOM, 2011)

continued[®] What is Neuropathic Pain?

- A type of chronic pain that results from a disease of the peripheral or central nervous system that arises when
 - a person's nerves, spinal cord, or brain is damaged or fails to function properly for any of a large number of reasons. (IOM, 2011)
- All neuropathic pain is associated with poor general health, comparable with other severe chronic diseases.

- All neuropathic pain is associated with poor general health, comparable with other severe chronic diseases.
- It is associated with worse health and quality of life than non-neuropathic pain, and its incidence, prevalence, and impact are likely to increase with the aging population. (Smith & Torrance, 2012)

continued[®] Neuropathic Pain

- The cause may be
 - an underlying disease process (as in diabetes) or injury (e.g., stroke, spinal cord damage),
- but neuropathic pain may not have an observable cause and can be considered
 - maladaptive “in the sense that the pain neither protects nor supports healing and repair” (Costigan et al., 2009, p. 3). IOM, 2011

Impact of Pain

- “Pain is a universal experience.” (IOM, 2011)
 - Pain affects people of all ages, including children (King et al, 2011)
- Acute & chronic pain affects a lot of Americans with at least 116 million U.S. adults burdened by chronic pain alone.
- The annual national economic cost associated w/ chronic pain is estimated at \$560–635 billion. (IOM, 2011)

Impact of Pain

- Chronic pain creates both physical and psychological problems that affect whether a person can engage in meaningful activities each day.
- Pain can decrease a person's strength, coordination, and independence in addition to causing stress that may lead to depression (AOTA, 2002)

Role of Occupational Therapy



Client: “It hurts when I do this”
Occupational Therapist: “Then don’t do that!”

Occupational Therapy's Core Beliefs

- “All people need to be able or enabled to engage in the occupations of their need and choice, to grow through what they do, and to experience independence or interdependence, equality, participation, security, health, and well-being” (Wilcock & Townsend, 2008, p.198)

continued Role of Occupational Therapy

- Look at how pain affects one's everyday life and one's ability to participate in the important everyday tasks of life and one's occupations
- Structure interventions to facilitate participation in important tasks of life or occupations (AOTA, 2002)
- Finding from a systematic review: Occupational therapy interventions should start from the identified needs of the person with chronic pain. (Hesselstrand, M., Samuelsson, K., & Liedberg, G. 2015).
- A study of veterans with chronic pain who attended an interdisciplinary program for chronic pain “most frequently described adopting new self-care or lifestyle practices for pain management and health.” Veteran participants often described “accepting pain, being better able to adjust and set boundaries, feeling more in control, participating in life....” (Penney S. & Harro E., 2019)

Hesselstrand, M., Samuelsson, K., & Liedberg, G. (2015). Occupational therapy interventions in chronic pain - A systematic review. *Occupational Therapy International*, 22(4), 183. <https://doi.org/10.1002/oti.1396>;

Penney, Lauren S., & Haro, Elizabeth. (2019). Qualitative evaluation of an interdisciplinary chronic pain intervention: outcomes and barriers and facilitators to ongoing pain management. Dove Press.

continued[®] Role of Occupational Therapy

- The aim/goal/focus of occupational therapists in pain management is “to enable individuals with chronic pain to participate in the activities that have value and meaning to them, despite their pain.” (Hill at 451)
- Occupational Therapy intervention include using “strategies including activity management, activity adaptation, the development of coping strategies and vocational rehabilitation” work simplification, pacing, etc. (Hill at 451+)
- This may involve working with patient/clients in their homes, school, or workplace in addition to the clinical setting. (Hill at 451)
- Hill discusses ergonomics, energy conservation, goal setting, assessments, problem-solving and pacing. This article is an excellent tool to use to promote your pain practice to physicians.

continued[®] Role of Occupational Therapy

- To plan appropriate intervention, the therapist assesses the individual's current performance and the barriers to successful participation. Those barriers will include barriers internal to the individual and those external barriers like those in the social and physical environments in which they need to function.
- The therapist will help the client understand the biopsychosocial nature of their pain and the importance of self-management.
- The therapist will teach techniques that enable the individual to successfully engage in occupation. These techniques can include things like problem-solving, grading activities, education regarding pacing, goal setting, ergonomics, and energy conservation.
- Although their goal may be to return to work/school, it is important that clients understand the effect their activities have on their pain and fatigue and the actions they can take to minimize those effects. (Hill & Macartney, 2019)

Hill, W., & Macartney, M. (August 01, 2019). The role of occupational therapy in enabling people with chronic pain to return to work or education. *Anaesthesia & Intensive Care Medicine*, 20, 8, 443-445.

Impact of Pain on Everyday Life Activities

- Person unable to perform specific activities – self-care, work, leisure
- Results in loss of independence in various roles
- May have both physical and psychological problems

Occupational Therapy Evaluation

- Occupational Therapists look at the:
 - Person
 - Environment - Context
 - Occupation or Task (Law et. al 1996)
- A qualitative study of occupational therapists who treat clients with pain found that activities of daily living, social participation, and meaningful activities were the areas they found their clients reported as the most limited by pain.

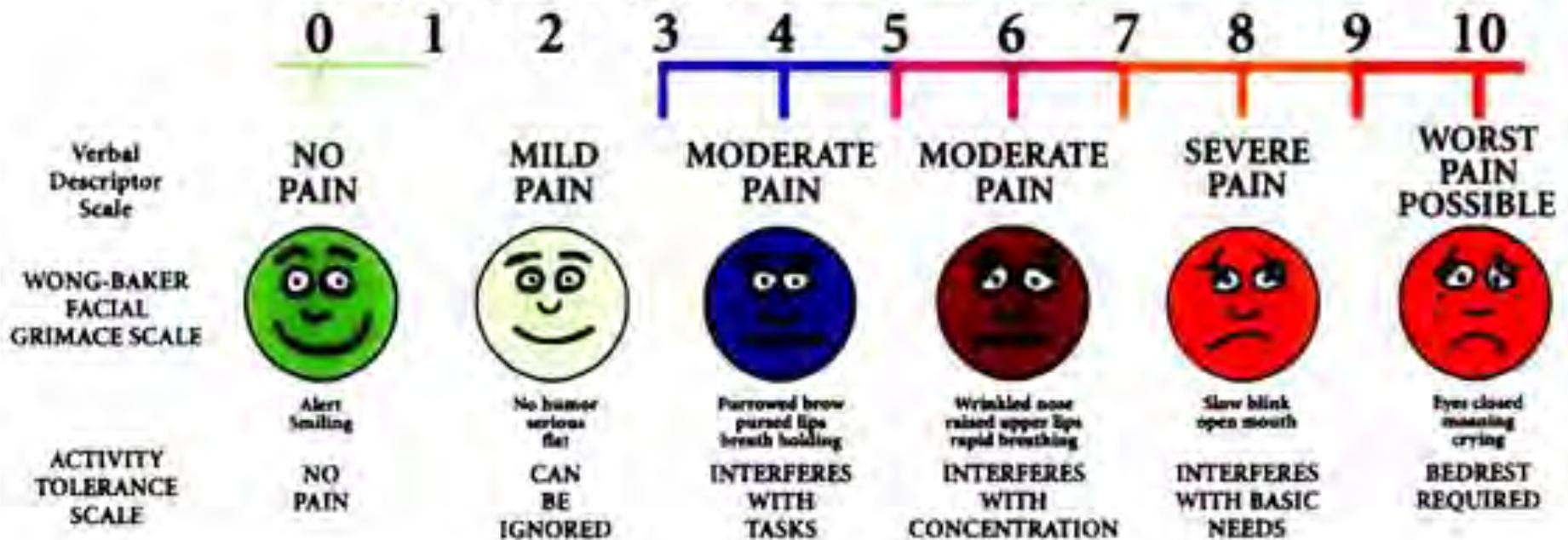
- Occupational Profile
 - Understand client's history, prior level of function, experiences, patterns of living, interests, values, and needs
 - Look at person's roles – i.e. mother, worker, student, caretaker, etc.
- Occupational Performance Analysis
 - Looks at problems in task performance skills and underlying body functions/structures which limit occupational performance

- Context
- What are the person's occupations?

- Interviews – structured and unstructured
- Observations of task performance
- Informal and formal testing
- Pain scales
- Environmental assessments

UNIVERSAL PAIN ASSESSMENT TOOL

This pain assessment tool is intended to help patient care providers assess pain according to individual patient needs. Explain and use 0-10 Scale for patient self-assessment. Use the faces or behavioral observations to interpret expressed pain when patient cannot communicate his/her pain intensity.



continued[®] Interventions & Approaches

- Interventions
 - Person – “change the person”
 - Environment – “change the environment”
 - Occupation – “change the way the task is done”
- Intervention Approaches
 - Health promotion
 - Remediation and restoration
 - Maintain
 - Teach compensatory techniques or adaptation
 - Prevent further disability

(AOTA, 2014)

- Person learns new ways of doing things – e.g. use proper body mechanics, ergonomic principles, pacing, assertiveness, relaxation techniques. Research shows:
 - Body Mechanics:
 - the efficacy of instructions on body mechanics was significant during work-hardening treatment; (Hesselstrand, Samuelsson, & Liedberg, 2015).
 - Pacing: by itself is not a panacea:
 - “The current evidence supports the use of pacing as a tailored intervention for adults with chronic pain to reduce the interference of fatigue, reduce joint stiffness, and decrease variability in physical activity.”
 - “The current evidence does not support the use of pacing as a learned strategy to reduce pain or influence psychological traits.”
 - “The evidence is not sufficient to determine whether pacing can improve a person’s average activity level, participation in life roles, participation in social functioning, or reduction in fatigue severity.” (Guy, McKinstry, & Bruce, 2019).

- Person incorporates new ways of “doing” into routine and/or habit
- Person restructures daily activities to provide a balance of activity and rest
- Person’s perception of disability changes through engagement in occupations

- Modify/rearrange furniture or equipment
- Modify social situations to facilitate participation
- Modify cultural expectations/behaviors
- Modify temporal aspects

- Use of tools, adaptive equipment and/or assistive devices to make it easier to participate in meaningful occupations
- Change type of materials used
- Modify timing or sequence of occupation/task
- Eliminate steps in task
- Change the way occupations are performed
 - i.e. put things on wheels
- Use meaningful occupation to improve health
- Lifestyle redesign

Outcomes of Occupational Therapy

- Occupational performance
 - Improvement or enhancement
- Adaptation
- Health and Wellness – occupational balance
- Participation
 - *“Achieving health, well-being, and participation in life through engagement in occupation is the overarching statement that describes ...occupational therapy in its fullest sense” (AOTA, 2014)*

Outcomes of Occupational Therapy

- Prevention
- Quality of life – “occupational autonomy”
- Role Competence –
 - “The ability to effectively meet the demands of roles in which the client engages.”
- Self-advocacy (AOTA, 2014)

Occupational Therapy

- Occupational Therapy can teach people with chronic pain to learn to manage the physical and psychological effects of their pain, and lead active and productive lives.
- Medication, surgery, heat, cold, nerve stimulation, and massage are not enough.
- What they need to learn is
 - How to manage daily activities and
 - Change their lifestyle to successfully cope with long-term pain (AOTA, 2002).

What Can Occupational Therapists Do?

- Identify specific activities or behaviors that aggravate pain, and suggest alternative activities or ways to perform them.
- Teach methods to decrease the frequency and duration of painful episodes.
- Implement therapy interventions that may decrease dependence on or use of pain medications.

What Can Occupational Therapists Do?

- May include
 - Relaxation techniques
 - Guided imagery
 - Yoga
 - “The results of our study shows 8-weeks of group yoga sessions contributed to improvements in multiple occupation-based outcomes in people who are living with chronic pain.” (Schmid et al., 2019)
 - Biofeedback
 - Mindfulness
 - “Utilizing mindfulness techniques allowed for more responsive approaches to pain management and a conscious choice about whether or not to engage with the experience of pain within the occupational performance.” (Goodman et al., 2019)

Schmid, A. A., Van, P. M., Fruhauf, C. A., Bair, M. J., Portz, J. D., & Rice, V. J. (June 19, 2019). Yoga improves occupational performance, depression, and daily activities for people with chronic pain. *Work*, 63, 2, 181-189

Goodman, V., Wardrope, B., Myers, S., Cohen, S., McCorquodale, L., & Kinsella, E. A. (April 16, 2019). Mindfulness and human occupation: A scoping review. *Scandinavian Journal of Occupational Therapy*, 26, 3, 157-170.

What Can Occupational Therapists Do?

- Facilitate the development of better function for daily activities at work and home.
- Collaborate with the client's team of health care professionals, such as physicians, physical therapists, psychiatrists, and psychologists, to determine the best course of treatment and intervention.
- Recommend and teach clients how to use adaptive equipment to decrease pain while performing tasks, such as reaching, dressing, bathing, and perform household chores.

Occupational Therapy for Clients with Chronic Pain

Case Study - Valerie

- Valerie is a 35 y/o women with Lichen Sclerosis.
 - She has burning, and itching in the anogenital area.
 - She is referred to occupational therapy because she is no longer able to participate in her normal occupations.
 - In particular, she can no longer ride her bike - her hobby and major exercise outlet.
 - She is having other difficulties with activities in sitting.

- The Occupational Therapist evaluates Valerie to see what she needs to do, what she wants to do, and what barriers prevent her from doing them.
- The occupational profile shows that Valerie can't ride her bike or exercise. She has difficulty with certain tasks while sitting. She is having difficulty with sexual relations, and feels very "stressed out."

- Together, Valerie and the Occupational Therapist look at the tasks she wants to accomplish, and her environment to see what they can change to enable her performance.
- They decide on
 - a recumbent bike,
 - an adapted seat cushion for work,
 - practicing mindfulness, and
 - referral to a closed, online, support group on Facebook, for women with Lichen Sclerosus, to look for solutions to Valerie's issues with sexual relations.
 - The occupational therapist teaches Valerie relaxation techniques and mindfulness.

continued Case Study - Allan

- Allan has XYY, “Supermale syndrome.” He hurt his back and has low back pain. He wants to return to work but is concerned that his job as a grocery store cashier will aggravate his back.
- He is referred to occupational therapy to see if he can return to work, and do some lifestyle redesign to learn to change the way he does things so he can manage. and rearrange the tasks that cause him pain.

- The evaluation shows that Allan has difficulty standing. Standing and bending exacerbate his pain (person). His back hurts when he stands at the sink to brush his teeth (task or occupation). An onsite job analysis (occupational performance analysis) provides a look at the tasks Allan must do in the (tasks or occupations) environment in which he must do them (environment).
- Reasonable accommodations to the workplace are discussed to enable occupational performance.

- Allan will need to sit while performing his job as a cashier. A specific chair was obtained for Allan and this was discussed with his employer. Allan needed a reacher to avoid bending. Body mechanics were discussed, demonstrated, performed and practiced within different contexts because of his size and XYY issues.



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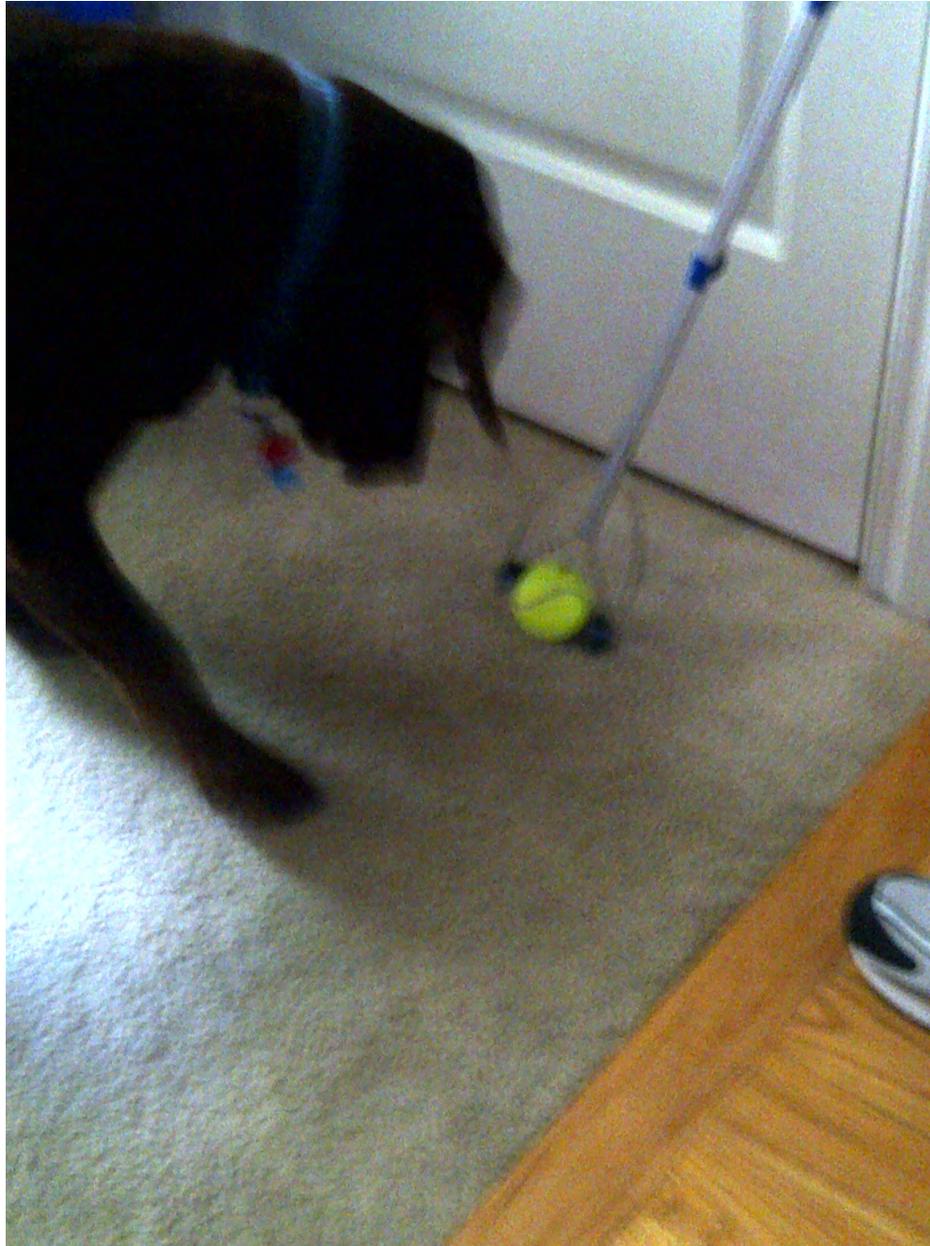


Photo by Barbara Kornblau

- Lila has Rheumatoid Arthritis. She is referred to occupational therapy because she is having difficulty with some activities of daily living – particularly meal preparation and other household tasks. She can no longer shift her car out of park because of the pain in her wrist.
- Her occupational profile and her activity diary show Lila is having difficulty opening cans and handling pots and pans in the kitchen. Both cause pain and are contributing to her deformities. Other household chores cause pain and fatigue. The deformities in her wrist and pain interfere with shifting her car out of park.

- Lila and the occupational therapist look at her kitchen and how she performs the tasks in her home. Her pots are very heavy.
- Lila is given a can opener that uses a grip that doesn't hurt and a tab-can opener. She agrees to change to a different, lighter set of pots, which have hollow handles that she can lift with 2 hands and/or to have a cart with an adjustable height that will allow her to slide pots to the stove, oven, and storage

- Lila and the occupational therapist review the patient's activity diary. Lila attempts to clean her entire house in one day, including 4 loads of laundry. The OT and Lila discuss energy conservation and review a new schedule to divide the tasks and distribute them over the course of a week to decrease pain and fatigue.
- The OT adapts the automatic shift knob in Lila's car to a ball grasp with a sponge and duct tape to change the grip so Lila can shift without pain.



Photo by Barbara Kornblau



Photo by Barbara Kornblau



Photo by Barbara Kornblau

- Maria has fibromyalgia. She is referred to occupational therapy because her pain and fatigue is making it difficult for do her job as a teacher. She is also having difficulty coaching her daughter's volleyball team.
- Her occupational profile shows her pain increases with carrying her briefcase and purse and other tasks on her job. Dhe is not sleeping at night.

- Maria and the occupational therapist complete a job analysis of Maria's job as a salesperson. They also review Maria's sleeping habits and coaching.
- The occupational therapist suggests putting Maria's sample case on wheels. She also suggests a smaller purse. Maria likes the idea of wheels on her briefcase but will have to get used to a smaller purse or not carry unnecessary items with her.

Maria's Intervention

From:



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- The occupational therapist also suggests that Maria
 - Not watch television or read in bed;
 - Keep the bedroom for sleep and related activities;
 - Develop a definitive bedtime routine; and
 - Incorporate time for mindfulness into her day
- The OT and Maria discuss coaching and agree that Maria needs to use a courtside chair and let the athletes carry the equipment and the Gatorade jug.
- The OT suggests that Maria participate in water exercise or water aerobics to help control her pain.

It's not magic; When it comes to pain,
Occupational Therapy can be powerful profession



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continued^{ed} Summary

- Occupational therapists work with people with chronic pain that interferes with their occupations and participation, and together, therapist and client can find strategies to decrease pain and increase participation and function
- The evidence shows that occupational therapists can help improve occupational performance, participation, and quality of life in people who experience chronic pain
- An occupational profile will show the areas that need attention, allowing occupational therapists to problem-solve ways to do things differently to improve function, in spite of pain, or with decreased pain
- Occupational therapy should address tailored patient goals and activities “including work and social aspects that affect the meaning, satisfaction, and social relationships associated with activities and participation, to modify the effects of pain interference.” (Pelletier et al, 2020)

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