How Exercise and Activity Go Together on ADVANCE for Occupational Therapy Practitioners

Vol. 25 • Issue 4 • Page 28

Exercise has never been my thing. As a child growing up in the 1930s and '40s, I never saw anyone in my family "work out" or go to a gym. Physical education classes were torture. Although I was a bit of a tomboy because I was the only girl playing touch football in the street with the neighborhood boys, my only exposure to organized girls' sports were a few intramural high school games, such as basketball and softball.

It was considered unfeminine at that time for girls to participate in athletic leagues. In fact, the title of the newspaper column I wrote as sports editor in my all-girls public high school was "Girls Sports in a Man's World".

As an adult, I tried a few group and individual exercise regimens. My summer water-aerobics class in the outdoor pool was wonderful, but during the winter the high chlorine index required for the indoor pool burned my eyes, made my skin itch and shredded my swimsuit. Dance/exercise tapes were convenient to do at home, but I could not stay committed.

Then, at age 74, everything changed. First, an informal photo taken from the side shocked me: Who is that old lady? I became truly worried about increasing generalized muscle weakness that had accelerated after my partial knee replacement. I also noticed more and more difficulty with functional skills involving posture and movement. Getting up and down from chairs required more use of upper extremities to compensate for weaker lower extremities. Gardening became more difficult since kneeling was contraindicated; moving out of the car required me to swivel, lean far forward and push up with my hands. Getting in and out of the bathtub presented new challenges to strength and balance.

A Personal Exercise Program

I searched for and found a qualified physical therapist to become my personal trainer. She designed an eclectic, supervised home program that included Pilates theory, proprioceptive neuromuscular facilitation (PNF) and weight-lifting. Within three months I began to see functional changes. My posture improved. I didn't need to lift my leg into the car anymore. Several months later I could climb a ladder from the lake to the dock at my son's cabin, impossible the summer before.

Today, at age 76, more than two years into the program, I can rise from the floor twice as fast and not nearly as awkwardly as I once did. Most importantly, I am still committed to the program and firmly believe that I will continue to improve.

The story of this journey included an essential partnership between the physical therapist and me, the patient/occupational therapist. As we fine-tuned the program at each session, I realized that she worked the way I always did with my pediatric patients, constantly observing, analyzing and modifying every single exercise to correct posture or movement and/or add a new challenge. For example, an important adaptation was for me to do bicep curls in a static squat position with my back against a wall, instead of during active squats, to avoid damage to my knee replacement.
Relationship to Pediatric Practice

I also found myself associating the exercises with ones I had used with my own patients. The big difference was that my own program had even more emphasis on active rather than assistive movements.

Breathing. So many children with severe cerebral palsy struggled with constant respiratory problems that were partially related to constricted rib cages. I used joint mobilization, especially at the sternocleido-clavicular joint, as well as Myofascial Release™ techniques to elongate intercostal muscles and allow the diaphragm to work. Allowing the breath to enter the lower lobes of the lungs results in better oxygenation to muscle tissues.

I too, needed to expand my rib cage to improve my posture and learn how to breathe deeply and correctly, integrating breathing with movement. However, I was able to accomplish this with cognitive instruction from my therapist, with occasional cuing.

Therapists at Camp Avanti, in Hudson, WI, emphasize this active movement when children with sensory integration disorders are offered a variety of blow toys and activities to support their respiratory function.

Bridges. As I performed this exercise in supine to strengthen my hip extensors, I remembered a little 2-year-old with spina bifida who was not expected to crawl or walk. Although only a trace of muscle activity was detected in her lower extremities, I assisted her in doing these same bridges, by stabilizing her knees and feet as she lifted her hips. By age 4 she was able to crawl, pull up to stand and cruise sideways along furniture.

Ab Work on the Ball. This imprint sitting position on the big therapy ball reminded me of Mary Quinton's NDT baby course. After all those years of emphasizing the strengthening of oblique abdominals and serratus anterior in my young patients to develop proximal trunk and shoulder control, I was amazed to learn of the existence of the transverse abdominus and that mine was pathetically weak.

Weight-lifting. Lifting weights should be an essential component of any geriatric exercise program, but I rarely included it in my pediatric plans. I thought children with spasticity did not need strengthening activities but eventually I learned that they use their spasticity in order to function, because they are extremely weak underneath. My PNF exercise used diagonal movements with gradually increasing weights to strengthen my arms and shoulder girdle.

Mirror. We've all used mirrors to motivate children and help develop their body image. Now my therapist insisted that I monitor myself to correct my posture and movements.

Occupational Performance

Why did this program work when others had failed? The simple answer is that I found a way to apply each exercise not only to function, but also to meaningful occupational performance (AOTA, 2008).

Breathing. I began practicing my breathing while standing and singing in the choir at church (social participation: community), and then incorporated it into walking in the park (leisure: leisure participation).

Bridges. In addition to this LE strengthening exercise, I was directed to walk down and up at least 3 steps daily (ADL: functional mobility). Ah, the irony of designing a home without stairs, to be accessible during aging (see "Aging in Place," March 31, 2008). Fortunately, I have basement stairs.

Ab Work on the Ball. Stronger core muscles helped facilitate getting in and out of the bathtub (ADL: bathing).

Weight-lifting. The PNF arm movements not only counteracted round shoulders but are the same movements for reaching up into a kitchen cupboard (IADL: meal preparation and cleanup).

Mirror. I discovered that I could remind myself to sit up straight by adjusting the rearview mirror in my car. If I glanced at it and couldn't see the road, I immediately straightened. Before long, the correct posture became automatic (IADL: community mobility).

So what can you, the clinical therapist, take away from this story of an occupational therapist/patient who decided to be proactive rather than a passive victim to the aging process?

• Empower your patients to partner with you, to contribute their own vital information during the assessment and intervention process, beginning with their occupational profile (interests, values and needs).

• View their intervention programs as ongoing assessment processes, characterized by adaptations, modifications and individualization of activities.

• Help them link all treatment activities to meaningful occupational performances that will motivate real commitment and result in successful outcomes.

In fact, without my current exercise program, I am convinced that I would not have been able to get a hit during the softball game at our recent family reunion!

References available at www.advanceweb.com/OT or upon request.

Rhoda P. Erhardt, MS, OTR/L, FAOTA, has a private practice in the Minneapolis/St. Paul area. She consults with health agencies, educational systems and national corporations, and teaches courses both onsite and online. She would like to thank Trish Becker, physical therapist at Fitness Focus Inc. of Mahtomedi, MN, for her skilled input. Readers may contact her by email at rperhardt@erhardtproducts.com or visit her Web site: www.ErhardtProducts.com.