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# [ PRODUCTIVE AGING ]

# DAPTATION

# The art and science of living life to its fullest By Rhoda P. Erhardt

daptation has always been a key component of occupational therapy theory and practice. As I stated in a previous article ("How Exercise and Activity Go Together," Feb. 16, 2009), we are most successful when we view our clients' intervention programs as ongoing assessment processes, characterized by adaptations, modifications and individualizations. Many of us have found even more satisfaction by empowering our clients, teaching them how to adapt functional activities.

## **A Community Opportunity**

Nearly a year ago, I became a member of my local community center in order to have unlimited access to the daily water aerobics classes for 55+ year-olds. My primary motivation was to maintain my own health with a regular exercise regimen.

I am learning a variety of new exercises from different instructors nearly every day. Water aerobics not only improves cardiovascular function, balance, rhythm and range of motion, but it also provides a less-strenuous method for muscle strengthening. At the same time, the body can be challenged by grading equipment such as foam barbells, foam noodles, flotation belts, and neoprene webbed gloves.

I view water aerobics as an activity that provides many oppor-



Instructor Caryl Wedes guides her water aerobics class. Even at the age of 77, Wedes is able to balance on one leg by leaning against a chair for a modified Yoga Tree Pose.

tunities for occupation-based practice as defined by our Practice

- · Areas of Occupation: IADL, Leisure, Social Participation and Motor Skills
  - · Context and Environment: Physical, Social
  - · Performance Skills: Motor and Praxis, Cognitive
  - · Performance Patterns: Routines (AOTA, 2009).

#### **Case Story**

Caryl Wedes, one of my instructors, is 77. She began her lifelong interest in swimming at age 5 in a lake near her home in White Bear Lake, MN, and continued to enjoy it, even in the winter, by swimming laps at a nearby elementary school. This activity has always been a meaningful occupation, reflecting her ongoing values and

# TABLE: ACTIVITIES ADAPTATION FOR PARTICIPANTS IN A COMMUNITY WATER AEROBICS PROGRAM

Variables	Continuums/Adaptations	Examples
Activity structure	Directed → self-directed	Structured classes → independent workouts
Duration/frequency	Brief → prolonged; few → many	Repetition/duration/frequency levels increased → decreased
Equipment/materials	Adaptive → mainstream; compensations	Long water weights (both hands) instead of short ones in each arthritic hand
Gravity (G) factors	With $G \to G$ eliminated $\to$ against $G$	With increased immersion (less gravity factor), increased venous return and blood volume
Gross motor patterns	Homolateral, bilateral, contralateral	Different combinations of limb movements to challenge cognitive skills
Instructions/assistance	Auditory, visual, kinesthetic, multiple	Instructor speaking, demonstrating and, in case of private lessons, manually assisting
Interaction with others	Minimal → group; intermittent → continuous	Private lessons → group classes
Motivation	Extrinsic → intrinsic	Insurance rebate → personal satisfaction
Object properties	Large → small; light → heavy	Foam water weights of different sizes and weights; increased → decreased
Performance monitoring	Monitoring by other → self-monitoring	Instructor's feedback re: correct movements $\rightarrow$ self-awareness and self-correction
Sensory processing	Frequency, duration; coping strategies	"Accidentally" bumping people with foam noodle because of personal space boundaries
Type of movement	Modification of exercises	Jumping jacks in deep water instead of on pool floor to protect knee replacement

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needs. She decided to become certified by the National Exercise Trainers Association (NETA) to teach water aerobics at a St. Paul community center.

Realizing that the older persons in her classes needed modifications to traditional exercises, she acquired additional teaching certification from the National Arthritis Foundation. Caryl gives her students information about the importance of certain movements, and tips about correct posture and how to protect their joints. I believe she is a good example of "living life to its fullest," and helps the elderly persons in her classes engage in meaningful occupational performance as well.

#### **Personal Adaptations**

Because of my own aging process, a knee replacement and mild arthritis, it was important for me to adapt many of the exercises. For example, I used a long water dumbbell to prevent the pain I felt in my hands when using shorter ones. Performing jumping jacks in deep water avoids undue wear on my knee. I also began wearing foam earplugs, which reduced my sensory overload from a combination of loud music, the instructor's voice, and the effects of sound waves reverberating from the tiled walls of the pool area.

The table offers a guide for sequencing activities to ensure success with a just-right challenge for each individual. An expanded generic version of this chart, entitled Tips for Grading Activities, can be used in almost every area of practice, for many different activities, and with all age levels. You can download it from my web page: www.erhardtproducts.com/downloads.html.

## Summary

OT practitioners have exceptional skills for applying principles of task analysis in the therapeutic use of functional activities to facilitate change in people whose occupational performance may be compromised. I encourage you to refer your clients to appropriate programs, and assist them in their own process of individualizing activities within the context of real-life situations (Davis, 2010).

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

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For Rhoda Erhardt's story of adapting to her sensory needs during her water aerobics class, visit us online at www.advanceweb.com/OT.

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