



by Jeff Schlicht, Ph.D.

Practical Strength Training for Adults With Disabilities

PROGRAM OVERVIEW

Practical Strength Training for Adults with Disabilities is a collaboration between the Connecticut State University system and Ability Beyond Disability (ABD), a regional nonprofit provider of day services and long-term care for people with mental (and often copresenting physical) disabilities. For the past 5 years, faculty instructors and student interns have worked weekly with consumers from ABD in Danbury, CT, to provide structured exercise in a typical gymnasium setting. Participants are seen once a week for approximately 1 hour and are led through a series of muscle-strengthening and muscle endurance-promoting exercises.

The purpose of the program is threefold. Community integration is one of the fundamental goals of all agencies that work with people with disabilities. Therefore, the class is held on the campus of Western Connecticut State University, rather than at one of the ABD facilities. Practical learning is one of the basic goals of the Health Promotion Studies major at our university, and this class allows our undergraduate students an opportunity to work with a population of exercisers with unique needs. Finally, and most importantly, exercise is a necessary component of a healthy lifestyle. The 2008 Physical Activity Guidelines for Americans recommends that people with disabilities get the same amount of physical activity as people without any physical or mental limitations (150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic exercise per week; muscle-strengthening activities of moderate or high intensity and involve all major muscle groups on two or more days a week [1]). One recent review

of the literature suggests that only “one third of adults or fewer with mental retardation were sufficiently active to achieve health benefits” (2).

PRACTICAL POINTS

The class is divided into four segments, or series of dumbbell- and body weight-resistance exercises, similar to what might be found in a typical body-sculpting class (e.g., standing bicep curls, shoulder raises, squats, seated wrist curls, reverse flys, knee extensions, supine chest presses, pec flys, and crunches). In our program, we begin with a series of upper-body exercises (standing), followed by a series of lower-body exercises (sitting and standing), returning to the upper body (sitting and standing), and finishing with chest, back, and abdominal exercises in a supine position. The class ends with a short stretching and relaxation segment.

What is important to note about this class is that nothing in the routine is exceptional. In other words, people with mental and physical disabilities do the same types of exercises that adults without disabilities do. Nothing is modified, although joint range-of-motion limitations are taken into account, where appropriate. That said, there are some things we’ve learned during the years working with this population that may help others create a successful class.

More Staffing Is Better

“Many hands make light work,” and that is particularly true in a class like this. Although we have one main instructor who leads the semicircularly arranged class, there also are ideally several (1–3) student interns AND

additional assistants (entry-level employees provided by the nonprofit agency that brings the consumers to class). The interns and assistants play a crucial role because many of the consumers have difficulty staying on task (because of cognitive or physical deficits). Unfortunately, turnover is high for entry-level employees at nonprofits who work with people with disabilities. This presents some challenges in our group exercise setting. Ideally, all of the employees provided by the nonprofit would assist individual consumers during the exercise class. It has been our experience that this is not always the case. Therefore, it is important to clarify at the onset of a program that the primary instructor needs assistance, and that this message is repeated periodically to inform new employees from the outside agency. In our class, at least one third of the consumers with disabilities require almost constant attention to keep on task, so a staffing total that equals one third of the class size would be appropriate.

Delays Are Possible at the Beginning of Class, but Not During

Our classes frequently start late because the consumers from ABD arrive late. One reason for this is because a consumer may

Photo courtesy of Kyle Juron/Western Connecticut State University.



Innovative Initiatives

present a disruptive behavior when getting on to the van that brings him or her to class. Disruptive behaviors are a possibility during class, but behaviors so disruptive that they interfere with normal class flow very rarely occur — fewer than five such incidents have occurred in the past 5 years of our program. No behavior with potential for injury to either the consumer or an assistant has ever occurred.

Modifications Are Made for People in Wheelchairs

During the lower-body segment of class, we use a variety of strategies to engage people in wheelchairs, including alternative upper-body exercises, playing catch, and allowing them to shoot baskets. As a way to include one participant who is severely disabled (extremely limited upper-body function only), we ask her to help count repetitions while the ambulatory students do squats or heel raises. Abdominal crunches can be done by people in chairs — we ask our consumers to imagine they are compressing a pillow as they flex their spines. During winter, we ball up their coats and have them compress their extra clothing during spinal flexion.

Engage the Mind and Spirit, Not Just the Body

The truth of the matter is that some of the consumers who come to class do not have the capacity to fully participate in all exercises. This may be caused by extreme physical or cognitive limitations. In any case, because community integration is a fundamental goal of programming for people with disabilities, an exercise class in a community setting is not just about providing physical activity — it also is about providing socialization.

Mind

During the seated knee extension and standing hip abduction/extension portion of class, one leg is designated the “American” leg and the other the “Spanish” leg. Repetition counting is done in the corresponding language. For a time, we had a Lebanese participant in class, leading to a rechristening

of the Spanish leg. Students are encouraged to count repetitions at any time they voluntarily begin counting.

Another example of integrating the mind into the process is when we ask participants to name the next set of exercises we are about to begin. Typically, our class segments contain three to four exercises that are completed sequentially (*e.g.*, 1 set, 10 repetitions of knee extension, hip abduction, hip extension) and then repeated so each set is done three times. As we near the end of one set, we may ask participants to name which set of exercises is next.

Spirit

All consumers are greeted at the beginning of each class by their first names. New consumers are introduced to the instructor and student interns on their first day in class. The instructor makes first name contact with students as often as possible. It is likely that many people with disabilities do not have frequent eye contact and interaction with people outside their immediate sphere of influence. This is an opportunity to provide that socialization. It is important to remember that you should communicate directly with the student whenever possible, rather than with the staff.

ADOPTABLE APPLICATIONS

The major benefit of a program like this to an academic institution is that it can provide students in exercise science and related fields an opportunity to work with a group of people they may not otherwise be exposed to, and having this background only can enhance their marketability in a competitive job environment (particularly the skill of group exercise instruction, which is often overlooked in undergraduate exercise science programs).

A history of group exercise leadership is necessary for the primary instructor of a program like ours because the position requires the confidence and skill to run a class where several students may need high levels of attention. Knowledge of appropriate strength training exercises also is

required to design a menu of activities that work the major muscles of the body.

Nonprofit agencies that work with people with disabilities are eager to create alliances with community partners to assist with the community integration portion of their mission. Anecdotal evidence suggests that adults with disabilities are a severely underserved population when it comes to exercise programming, and research shows that adults with intellectual disabilities fall far short of current physical activity goals.

It should be noted that our program also fails to meet 2008 physical activity guidelines for adults with disabilities. We only meet once a week because of space limitations on our campus (regular academic classes and recreation use of our facility limit our time), and because it is a university-based program, we do not offer classes during most of January and in the summer months (June to August). One way to overcome this would be to involve community fitness centers, town recreation centers, and/or for-profit gyms in partner programs.

If you are interested in working with people with disabilities, a good first step is to contact your local nonprofit agency. Your local nonprofit agencies need your assistance, and you can have a positive impact on the physical and psychological health of adults with disabilities in your community.

References

1. DHHS. 2008 *Physical Activity Guidelines Advisory Committee Report*.
2. Temple VA, Frey GC, Stanish HI. Physical activity of adults with mental retardation: review and research needs. *Am J Health Promot*. 2006;21(1):2–12.



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Dr. Schlicht's research focuses on the effects of exercise programs (specifically strength training) in special populations (older or disabled adults).