

Challenge to impart physical training to challenged children: An over view

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Introduction:

The historical background of therapeutic exercise and physical education is highlighted by specific principles and practices. Physical education was used to improve body condition and health in old civilizations. Military preparedness was important, and men trained through military exercises. The early Grecian and Roman cultures associated physical activities with the values of mental effectiveness, aesthetics, entertainment, and state purposes. European philosophers expressed and practiced formal physical education for the total development of the individual during the sixteenth and seventeenth centuries. Therapeutic exercises originated in ancient china. They were practiced and taught by the priests and scribes there and in the Grecian and Roman cultures. The humanistic movement stressed the total individual with physical education a part of the academic curriculum for the student. Various systems of gymnastics were developed at this time. The Germans and the Swedes developed well-formulated gymnastic programs. Early physical education in the United States was patterned after the German and Swedish gymnastics programs.

Now the leadership role in physical education lies with persons trained in the fields of education, education psychology, philosophy, and physical education; doctor of philosophy (Ph. D.) trained person. Specialization with diversified training has arrived in both fields of physical education and therapeutic exercise. Several other milestones of the twentieth century which have added and identified new dimensions to therapeutic exercise and physical education are the ambulation techniques for paraplegic patients set up by Wilhelmina G. Wright of Boston when she was working with R. W. Lovett, orthopedic surgeon; Thomas DeLorme's progressive resistive exercise program has influenced the dimension of the isometric programs for the development of neuromuscular strength. Clinical therapeutic exercise prescribed by the physiatrist and orthopedic surgeon follows the pressure of the current epidemiology. If a focus can be stated, the upper motor lesion conditions, as cerebral palsy and brain damage, overshadow the lower motor neuron and peripheral nerve injury lesions. The incidence of paralytic poliomyelitis encountered before the Salk and Sabin vaccines of the early 1950's is almost gone.

Thus, the disciplines of physical education and therapeutic exercise have expanded beyond the therapeutic values of ancient times. Although adapted physical education has its own stated goals and sponsors studies which are not bound by the barriers of other academic areas, it has not expanded as much as some physical education programs.

Criteria for an adapted physical education program should include the needs of the individual as determined from the medical examination, the screening physical fitness test, the functional physical skill test, the interest of the student, and support from the parents in developing his motor abilities and physical capacity. The program design should include considerations for the student with physical conditions that are permanent, those with slight body deviations and the student with temporary body deviations so that the adjustment in physical activity will allow him to participate in sports and recreational activity now and later. Medical clearance for the participation of the student is necessary. The physical educator is a specialist in movement: (1) the analysis and assessment of basic movement patterns are his discipline; (2) the refined evaluation for improved skill in body dynamics, kinetic and static, for work and play uses therapeutic exercise, general exercise or sport. The teacher becomes one who sees, refers, confers, follows directions, and helps the child and the parents.

Injuries to the cortical areas are called "upper motor neuron lesions" presenting aberrations in voluntary motor functions. The upper motor neuron injuries in the brain cause a spastic paralysis; the lower motor neuron injuries present a flaccid paralysis with atrophy of the

skeletal muscles. Hypertonic muscular action is associated with brain injuries, and lack of movement comes with the spinal cord or lower motor neuron injuries.

Implication of Physical Education with the Mentally Retarded individuals: the physical education programs should be based on the nature and need of the learner so that he can achieve his maximal potential. The IQ has an educational expediency for the child's school placement but for the mentally retarded the differential diagnosis should help to understand the individual's needs. These areas may include the following: (1) the etiology, such as organic, genetic neurotic and / or psychotic or social neglect; (2) associated disorder such as sensory-motor impairment or cognitive impairment; (3) neurological assessment such as E.E.G. and neuromuscular reflexes; (4) psycho-motor evaluations of motor efficiency such as reaction time, dexterity, and accuracy; (5) perceptual development, as these disorders may be disruptive in learning motor skills (Kephart Perceptual-Motor Survey); (6) physical fitness tests such AAHPER test, Physical Fitness for the M. r. (Frank J. Hayden); (7) motor fitness test that measures the basic motor skills and explores movements, (8) adaptive behaviour scales.

Implication of Physical Education with Mechanical and Muscular Inefficiency (Physically challenged individuals): Adapted physical education can promote mechanical and muscular efficiency through personalized programs for posture improvements figure conditioning, and fitness. Correct body mechanics have aesthetic, psychological, health, and efficiency values. Screening tests aid in appraising back view and side view posture faults. Posture tests combined with medical examination and comparative performance tests to determine fitness enable the physical education teacher to develop the personal individualized exercise program. A variety of exercises for posture improvement of the neck, upper back, shoulders, low back and abdomen, hips, and feet are available. In weight control, caloric intake and energy expenditure and other factors to be consider. In programs for women special attention must be given to functional menstrual problems and functional low back pain. Frequently, relaxation and modified yoga exercises may achieve relaxation, as well as strength and flexibility. In planning any exercise program it must be remembered that some movement patterns are debatable and must be performed with caution.

Exercise for Individuals with Developmental Disabilities

Full Potential: Exercise is for everyone! Exercise provides an opportunity to develop an individual's full physical and mental potential despite having a developmental disability. For this reason scores, performance times and win-loss records are not the only measures of success. The importance of activities of leisure, recreation, and sport are seen in the opportunity for social growth and personal development. An exercise routine or fitness plan can inspire a person with a developmental disability to overcome misperceived limitations and allow for the opportunity to experience true growth. A relatively short time ago, the perception that people with developmental disabilities needed to be kept separate from the general population was pervasive. Today, communities are beginning to understand that having a developmental disability is merely based on not achieving certain developmental milestones of functioning by a specific age and that it does not warrant any form of segregation (DiLeo, 1993). Theoretically, there is no perfect definition of developmental disabilities due to the fact that every state develops their own legal definition. The general characteristic running through each state, or agency, definition is a childhood onset of a condition affecting general intellectual functioning or adaptive behavior that lasts a lifetime. Individuals with developmental disabilities often exhibit challenges in life areas such as self-care, expressive/receptive language, learning, mobility, and economic self-sufficiency. Mental retardation is most often associated with the label but the label also covers conditions such as cerebral palsy, epilepsy, autism, Down's syndrome, and other neurological disorders. The label of disability does not mean that the person is incapable of living, working, and participating in life given the proper support system. Surprisingly, the barrier to achieving optimal physical health for individuals with developmental disabilities is often the lack of

knowledge held by a person's support system. People with developmental disabilities are not generally encouraged by those around them to exercise, join health clubs, or participate in sporting events (Lovett and Harris, 1987). At times, attempts by individuals with disabilities to become physically active are met with resistance from instructors or coaches who do not fully understand how to develop beneficial exercise opportunities. Directly linked to this problem is the unfortunate fact that the level of physical fitness among people with developmental disabilities staggers far behind that of the general population. However, it is entirely possible for persons with developmental disabilities to vastly improve their physical condition. In fact, studies have shown that most people with developmental disabilities can improve their physical health, flexibility, coordination, motor control, endurance, and cardiovascular efficiency within several weeks of training. Perhaps even more striking are the improvements made in self-esteem, independence and the sense of accomplishment when a regular exercise routine is implemented. An appropriate and integrated fitness plan for people with developmental disabilities can only be developed once the barrier in the minds of support staff, families, teachers, and fitness professionals has been erased.

EFFECTIVE TEACHING PRACTICES

The foundation of all teaching and training should be respect and equal community partnership. The goal in teaching and training a person with a disability is never to *fix* that person to be like an able-bodied individual, but rather to empower the person by celebrating his or her own uniqueness and particular talents. The following are effective teaching practices that will allow you to provide optimal learning environments for people with developmental disabilities.

Use Age-Appropriate Activities

Individuals with developmental disabilities are at risk for being stigmatized or misunderstood. For this reason, be mindful of teaching methods that may make a person with a disability look childish or different. All lesson plans, activities, and events involving people with disabilities should be age- appropriate.

Your Role: Encourage individuals with disabilities to participate in team sports that are played exactly the same, or as closely possible, as that of an athlete without a disability. Do not use childlike toys, games, or teaching tools. Understand that your interactions and teaching practices affect the public perception toward people with disabilities.

Use Natural Environments

Too often instructors are quick to overcompensate for a person with a disability by creating specialized classes, events, and unnatural learning environments. Instead, learning should take place through natural opportunities and in real situations.

Your Role: · Arrange activities to take place within a natural environment to eliminate potential transference barriers as individuals with developmental disabilities sometimes have difficulty applying skills from one activity or environment to another. · Whenever possible, maintain the same rules, strategies, and steps of an activity that are followed by a person without a disability. · Emphasize cues that naturally occur within the environment to signal the start of an activity or a change from one step in a task to the next step.

Show Instead of Tell

The use of a variety of tactile and visual techniques often proves to be more beneficial for learning than the use of auditory teaching methods. A kinesthetic cue, such as a tap on the shoulder or physically leading a student through a desired motion, can drastically improve the student's ability to grasp the new skill.

Your Role:

- Practice a relaxed, yet enthusiastic, demeanor while acting as a model and motivator.
- Make use of demonstrations and visual signals, such as raising and lowering hands, blinking the room lights, and blowing a whistle to signal the start and stop of specific activities.
- When needed, and permission is granted, physically assist the participant with the desired range of movements by manipulating their trunk and limbs in the appropriate fashion.

Incorporate Reinforcements

The likelihood of a desired or non-desired behavior taking place is often a result of the manner in which an instructor reacts to that behavior. The frequency in which a person's behavior is decreased, increased, or maintained is a result of the consequences after that particular behavior has occurred (DiLeo, 1993). Reinforcements handled correctly, and in a swift manner, after the behavior has occurred can teach new skills and change ineffective behaviors.

A cautionary note on reinforcers: Artificial reinforcement, such as awarding food, "points" or "stars" for a desired action, make it difficult to transfer a desired skill to a natural environment that does not recognize rewards in such a way. In addition, singling a person out by receiving an artificial, inappropriate, or childlike reinforcement further distorts public perception of people with developmental disabilities.

Your Role:

Ensure that all reinforcers are delivered in the following manner:

- Individualized to fit the person's unique skills and characteristics.
- Delivered in a manner free of physical, emotional, or psychological harm.
- Enthusiastic and positive in scope.
- Appropriate to the time, place, and setting.

Use the Least Intrusive Measures

Training and assistance techniques should be implemented in a fashion that is respectful and delivered in the least intrusive fashion to meet the person's preferences. Often instructors will attempt to do too much, speak with a loud tone of voice, or exaggerate facial expression when working with an individual with a disability. As with interacting with any individual, it is always best to determine the boundaries and teaching techniques that are most acceptable to the person.

Your Role:

- Provide the least amount of support needed for the person to be successful and that allows for personal growth and independence.
- Ask for advice, input, suggestions, and permission before assuming teaching roles.
- Fade out of the picture by providing less prompting as the person begins to grasp the skill.
- Understand that the manner in which you interact with an individual tells the person, and the public, a lot about how you view that person.

SPORT-SPECIFIC ACTIVITIES: A non inclusive list of suggestions and strategies

Cautionary Note: A functional graded exercise test, body fat assessment, as well as heart rate and blood pressure responses to exercise are always advisable before starting fitness training. Epileptic conditions, health concerns, and current medications should always be discussed.

Weightlifting

Weightlifting, when performed properly, not only can improve the fitness and health of an individual with a disability but also can increase body awareness, control, balance, and reduce the susceptibility to injury.

A participant who is new to strength training may require prompting to adhere to suitable attire (t-shirts, shorts, shoes, sweats, etc.), rules against food and drink in the weight room, and proper locker/shower usage.

Monitor beginners, with and without disabilities, who have a tendency to see how much they can lift without regard to injury. A person with a developmental disability may not fully conceptualize the weight of an object or the inner workings of a piece of exercise equipment.

Emphasize and encourage the use of stretching and aerobics. Make stretching exciting with verbal praise, an energetic delivery, and music.

Develop a step-by-step schedule, visual aids, pictures, and instructions written in the primary language used by the participant so that he or she has a resource available to check off the correct combinations of exercises, sets, weights, and repetitions.

Heavy weights with fewer repetitions put too much strain on untrained muscles. Light weights with more repetitions should be encouraged. One set of 15-20 repetitions at a lighter weight is preferable for individuals who are first beginning weight training. When the exerciser has become more conditioned, progress to 8-12 repetitions using a heavier weight load. Resistance rubber bands and weighted bars offer acceptable alternatives to free weights and machines.

Aerobics: Aerobic exercise using cardiovascular equipment such as an Air Dyne bicycle, stair climber, elliptical trainer, or treadmill is always an exciting and beneficial exercise option. Using this type of equipment or participating in an aerobics class set to music is a fun and unique way to introduce a person to aerobic exercise.

Use music to encourage and inspire rhythmic aerobic movement. Percussion instruments produce vibrations, which can be felt easily. New students should be encouraged to associate the rhythmic patterns with the desired tempo of the aerobic activity.

When using a treadmill, instruct the individual in the correct techniques and foot placement for getting on and off the treadmill. · When working with an individual with epilepsy, make sure that the intensity of exercise will not elicit an epileptic attack. · Avoid using “left” and “right” terms. Instead, use directional arm signals and encourage students to imitate what the instructor is doing to the best of their ability.

With permission, physically guide the student’s body through a movement or sequence to introduce a new exercise. · Provide take-home videos that the student can use to practice in private. · Provide visual cues, color coded buttons, and/or large print on equipment to highlight “on” and “off” functions, emergency stop controls, and control settings.

Dance

Many individuals who are uninterested in sports and game-like events often find dance an inspiring form of exercise. The rhythmic sounds of contemporary music, oldies, gospel, and movie soundtracks can be a motivating factor for individuals of all ability levels. · Always start by training the student to perform an initial basic step. Do not change the familiar step with special kicks or fancy alterations until the student is ready. · Don’t overemphasize terminology such as “lead” foot or specific names of dance steps. · Emphasize basic steps in counts of four and eight. · Demonstrate good posture when standing and moving. · Encourage shoes that are appropriate for side to side movements of dance.

Swimming and Aquatic Exercise

· Continuously emphasize safety. The use of symbols, pictures, and sign postings should be used to mark deep water, prohibited areas, and safety concerns. Familiarize the individual with the layout of the pool and water depth. · With permission, demonstrate proper movements through the physical guidance and manipulation of the swimmer’s limbs and trunk. · Set up a buddy system and perform periodic buddy checks.

Yoga

Perhaps no other form of exercise or recreational pursuit provides the wealth and variety of benefits as does yoga. The therapeutic and physiological benefits of yoga include reduced stress, enhanced emotional well-being, improved balance, and positive effects on asthma, carpal tunnel syndrome, arthritis, and cardiac risk factors. Yoga is one of the best vehicles for improved health and well-being for everyone, especially those prone to living a sedentary lifestyle. · Emphasize

the importance of wearing loose clothing and appropriate attire. · Encourage the practice of yoga on an empty stomach. · Create an airy, spacious, and comfortable environment free from the distractions of telephones, television, and the noise of other activities. · Keep class size small and the duration of time to approximately twenty minutes for beginning students. · Teach each student to work at his/her own rate and apply individualized attention. · Emphasize the importance of proper breathing techniques by demonstrating the correct manner of inhaling and exhaling. Students may feel the effects of air entering their bodies by placing one hand on their stomach to “feel the balloon” rise and fall of their diaphragm while inhaling and exhaling. · Demonstrate to students the flowing style of sequencing postures while linking the breath component to each movement. Make sure students do not hold their breath after attaining the final posture. · Prompt students to release the posture or stretch if steadiness is lost or muscles feel uncomfortable or begin to quiver.

BIBLIOGRAPHY

1. Beasley, C.R. (1982). Effects of a jogging program on cardiovascular fitness and work performance of mentally retarded adults. *Education and Training in Mental Retardation*, 86(6), 609-613.
2. Croce, R.V. (1990). Effects of exercise and diet on body composition and cardiovascular fitness in adults with severe mental retardation. *Education and Training in Mental Retardation*, 25(2), 176-187.
3. Dattilo, J., & Rusch, F. R. (1985). Effects of choice on leisure participation for persons with severe handicaps. *Journal of the Association for Persons with Severe Handicaps* (JASH), 10(4), 194-199.
4. DiLeo, D. (1993). *Enhancing the Lives of Adults with Disabilities*. Training Resource Network, Inc. (TRN), St. Augustine, FL.
5. Fox, R., Switzky, H., Rotatori, A.F., & Vitkus, P. (1982). Successful weight loss techniques with mentally retarded children and youth. *Exceptional Children*, 49(3), 238-244.
6. Klein, T., Gilman, E., & Zigler, E. (1993). Special Olympics: An evaluation by professionals and parents. *Mental Retardation*, 31 (1), 15-23.
7. Lovett, D.L., & Harris, M.B. (1987). Identification of important community living skills for adults with mental retardation. *Rehabilitation Counseling Bulletin*, 31(1), 34-41.