Applied Sport Psychology
and Persons With Mental Retardation

Cheryl A. Travis and Michael L. Sachs
Temple University

One of the largest groups of persons with disabilities is that of persons with mental retardation. More than 1,000,000 athletes with mental retardation, for example, participate in Special Olympics each year. Sport psychology can help with performance enhancement as well as enhancing the quality of the sport experience for persons with mental retardation. Additionally, participation in exercise and sport can result in increased benefits such as enhanced self-esteem, self-reliance, and willingness to take risks. The literature in this area is reviewed, and extensive suggestions on working with athletes with mental retardation are offered. Due to the cognitive limitations that are one characteristic of persons with mental retardation, the sport psychologist faces particular challenges in providing sport psychology services for this population. A case study is provided to illustrate some of the challenges and rewards in working with athletes with mental retardation.

The opportunity for enrichment and self-enhancement that sport participation provides is well documented (Asken & Goodling, 1986). This universal acknowledgment of the positive effects of athletic competition holds true for physically disabled as well as able-bodied athletes. In considering athletes with mental retardation, however, little attention has been given to them as serious athletes. In fact, even among Special Olympics coaches there is a difference of opinion as to whether emphasis should be placed on participation and socialization or intensity and competition (Miller, 1987). These divergent approaches can and should coexist through the application of sport psychology with athletes with mental retardation.

The objectives of this paper encompass defining mental retardation, providing some background through a review of the literature, and sharing some thoughts on working with persons with mental retardation, highlighted through a case study. Our philosophy of service delivery for persons with mental retardation is that they are indeed persons, who happen to have as one of their characteristics a disability termed mental retardation.

Persons with mental retardation are like other individuals with respect to such characteristics as gender, race, religion, geographical region, and so forth.

The authors are with the Dept. of Physical Education at Temple University, Broad & Montgomery Sts., Philadelphia, PA 19122.
This is not to minimize the cognitive disability present, but rather it seeks to avoid stereotyping individuals as mentally retarded. The focus is upon the person with a particular characteristic rather than the disability. Indeed, there are great differences among persons at each level of mental retardation (e.g., mild, moderate, severe, and profound), as there are differences between individuals from one level to another. Our approach is that sport is available to all, and sport psychology can help enhance athletic performance as well as the quality of life in general and the sport experience in particular for all individuals.

**Definition of Mental Retardation**

The definition of mental retardation encompasses three dimensions (Beck, 1983): (a) significantly subaverage general intellectual functioning (usually operationalized as two or more standard deviations below the mean on standardized intelligence tests), (b) deficits in adaptive behavior, and (c) manifestation by age 18 (to differentiate mental retardation from disorders occurring in adulthood). However, this definition may be revised soon. The American Association on Mental Retardation (AAMR) has proposed the first revision of the definition of mental retardation since 1983:

Mental Retardation refers to substantial deficits in certain aspects of personal competence. It is manifested as significantly subaverage abilities in cognitive functioning, accompanied by deficits in adaptive skills. These deficits in adaptive skills may occur in one or more of the following areas: communication, self-care, social skills, functional academics, practical skills, leisure, use of community, self-direction, work, and independent living. Specific adaptive deficits often coexist with strengths in other adaptive skills or other areas of personal competence. The existence of deficits in adaptive skills must be documented within the context of community environments typical of the individual’s age peers, and indexed to the person’s individualized needs for support. Mental retardation begins prior to age 18, but may not always be of life-long duration. With appropriate services over a sustained period of time, the life functioning of the person with mental retardation will generally improve. (American Association on Mental Retardation, 1990, p. 1)

This revision focuses not only on limitations that a person with mental retardation may have but also on strengths and possibilities for improvements in life functioning over time. Sport and exercise are areas enjoyed by many people, including persons with mental retardation. Sport is an area of strength for many persons with mental retardation, particularly those with deficits in cognitive functioning and adaptive skills but few or no deficits in physical functioning per se. The percentage of the population with mental retardation has been debated at length, but it is possible that approximately 1% of the population would meet the above definition. This obviously represents a fairly considerable number of individuals (more than 2,000,000) who might be the subject of this paper.

There is an extensive body of work in adaptive physical education and play for persons with mental retardation (e.g., Hirst & Michaelis, 1983; Sherrill, 1986). The value of these areas for persons with disabilities has been established through decades of theory, research, and practice. This work can be extended for those
with the potential to use sport psychology in improving their sport performance and the quality of their sport experience.

As noted by Vealey (1988), interest in applied sport psychology, or mental skills training, greatly increased during the late 1970s. Psychological skills training (PST) refers to a set of "techniques and strategies designed to teach or enhance mental skills that facilitate performance and a positive approach to sport competition" (Vealey, 1988, p. 319). Vealey also provides a description of skill areas addressed through PST, including imagery, arousal control, goal setting, attentional control, self-esteem, and motivation. The application of PST with athletes with mental retardation will be examined in this paper.

### Review of the Literature

An attempt to review the literature regarding the application of sport psychology techniques for performance enhancement with athletes with mental retardation proved quite revealing. No articles could be found. While this was somewhat disheartening, other research findings suggest that PST techniques can be applied to individuals with mental retardation in other settings.

One promising study investigated the usefulness of traditional relaxation procedures for individuals falling within four IQ ranges (Rickard, Thrasher, & Elkins, 1984). Individuals in each IQ range (40–54, 55–69, 70–84, 85–100) were studied to determine their ability to follow instructions related to progressive relaxation, breath control, imagining pleasant scenes, and external suggestions of relaxation. Even individuals in the lowest IQ range were able to demonstrate some appropriate responses, although with some difficulty. An activity that was especially difficult for the lowest IQ group was self-rating of the relaxation response (Rickard et al., 1984).

Groden and Cautela (1984) found imagery procedures such as covert modeling and covert reinforcement to be successful in modifying aberrant behaviors of subjects labeled as trainable retarded. These subjects proved capable of mentally rehearsing appropriate behavior and imagining rewards for refraining from behaviors such as rocking and wrist-bending.

Clearly, attempts to apply mental training techniques with persons with mental retardation have been limited. While Surburg (1989) suggests the application of imagery techniques toward the acquisition of motor skills, he falls short of considering the potential benefits for athletes with mental retardation. Given the nonexistent relationship between PST and sport competition for persons with mental retardation, attention should be turned toward implementation of such programs.

Although recent efforts toward integration and normalization of persons with mental retardation have led to a better quality of life for many, we should not ignore the continuing need for improvement of educational, work, and social programs. Considering these needs, one might question the relative importance of involvement in competitive sports or noncompetitive exercise and sport participation. However, just as many nonhandicapped athletes have credited sport experiences for later career and personal success, athletes with mental retardation have much to gain through their exercise and sport experiences. Sherrill (1986) clarifies this point in noting that successful Special Olympics experiences carry over into the participant's social experiences as well as to educational and work settings.
There are some questions about how the Special Olympics program is structured from the point of view of empowering the individual and adhering to an athlete-centered sport psychology framework (Berkeley & Sachs, 1990). However, given that more than 1,000,000 athletes worldwide participate in Special Olympics meets each year (Cratty, 1989), the potential for personal gain among these athletes with mental retardation is certainly noteworthy.

The self-enhancing qualities of sport are important for all athletes, but perhaps even more so for athletes with mental retardation, many of whom have not enjoyed the same opportunity for self-expression as their nonhandicapped counterparts. Sport psychology, while sometimes viewed as a discipline dedicated solely toward skill enhancement, also directs considerable attention toward athletes’ relationship with their sport and the resulting effects on the individual. Vealey (1988) notes the importance of personal development within the sport experience. While she acknowledges the importance of factors such as self-awareness, self-esteem, and motivation toward the athlete’s sport performance, she also discusses gains in areas such as communication skills and self-reliance.

The subject of self-reliance is critical to a discussion of the self-enhancing qualities of sport for athletes with developmental disabilities, due to a general unwillingness in our society to allow persons with mental retardation to tackle situations in which success is not guaranteed. As noted by Greenwood (1987, p. 185), “individuals with disabilities are entitled to experience the same risks as other people and to participate in life as normally as possible.” Greenwood also notes that persons with disabilities are often not afforded the opportunity to take everyday risks. Sport experiences may therefore represent the first opportunity for many individuals with mental retardation to take risks. A sport psychologist can help athletes use their sport participation to gain self-esteem, self-reliance, and independence.

Although opportunities for personal development of athletes with mental retardation may be facilitated through sport psychology, one should be cautious in applying techniques originally developed for elite athletes. Asken and Goodling (1986) caution against a wholesale application of PST techniques with physically disabled athletes because the two groups of athletes come from vastly different sport backgrounds. The same could be said for athletes with mental retardation.

Given that certain PST techniques have been used with persons with mental retardation in settings other than sport, and the caution against blanket application of PST with athletes with disabilities, the key to successful implementation of PST with athletes with mental retardation may rest in the knowledge, experience, and creativity of the trainer. Successful use of PST with this population requires that the sport psychologist have a considerable level of comfort or experience in working with persons with mental retardation. Individuals unaccustomed to interacting with persons with mental retardation may present material in a way that is difficult to understand, unintentionally creating a learning environment in which the athlete is likely to fail. As noted earlier, Rickard et al. (1984) found that individuals in lower IQ ranges had difficulty in making self-assessments of relaxation. Their findings suggest that relaxation instructions that include examples and illustrations are more readily understood than those dealing in abstractions.

In preparing PST programs for athletes with mental retardation, sport psychologists could borrow guidelines used for counseling individuals with developmental disabilities. Lombana (1989) suggests that in counseling individuals with
disabilities, one needs to recognize that all individuals possess functional limitations in some areas. Lombana states that this would result in less time being wasted on developing different services in favor of building on skills already possessed. "Persons with disabilities need what every individual needs—respect, encouragement, satisfying experiences, and the opportunity to develop his or her abilities" (McDowell, Bills, & Eaton, 1989, p. 151).

Moody (1972) suggests that therapists first consider the client’s degree of intellectual deficit. In what is likely a reflection of the negative attitudes held toward persons with mental retardation in the early 1970s, Moody also states that successful counseling will proceed when the therapist assumes an active, directive role.

Although it appears that the sport psychologist would indeed need to assume an active role in preparing the athlete for PST, a paternalistic attitude in which the interactive process of rapport building is ignored is not appropriate. In order to gear programming to the athlete’s needs and wishes, the athlete/sport psychologist relationship must be characterized by effective communication. It is important to develop rapport with clients on the behavioral, content, and cultural levels of communication in order to demonstrate respect and develop an atmosphere of mutual trust (McDowell et al., 1989). Several suggestions for effective communication, which are also good advice for working with athletes who do not have disabilities, can be identified:

1. With clients who are verbal, it is helpful for the sport psychologist to request that such clients repeat any instructions in their own words.
2. Only vocabulary that is familiar to the athlete should be used.
3. Requesting that the athlete repeat instructions provides some degree of assurance that the information is clearly understood. In addition, this helps to eliminate subjects’ tendency toward acquiescence to please the sport psychologist.

A frequent concern expressed by professionals in the field of mental retardation centers on problems in motivating clients. Similarly, counselors of persons with disabilities frequently note problems with dependency, which can be described as a lack of involvement or motivation on the part of clients (McDowell, Coven, & Eash, 1979). Given that many individuals with mental retardation display poor motivation, and considering that sport experiences lead to improved self-esteem and self-reliance, one might suggest that involvement in a structured sport training program (including PST) could improve an athlete’s overall level of independence. In applying PST to the problem of motivation, a good example comes from the field of rehabilitation medicine, in which guided imagery has been used extensively to deal with problems of motivation and refinement of newly acquired behaviors among persons with physical disabilities (McDowell et al., 1989).

Our philosophy of service delivery focuses, then, on viewing the person with mental retardation as a potential consumer of our services in several areas: (a) performance enhancement for those seeking to excel in Special Olympics or in mainstreamed activities; (b) enhancement of the quality of the sport experience for those who participate but may not be deriving all the benefits that exercise and sport can provide; (c) the use of exercise and sport as a tool to enhance self-esteem, facilitate risk taking, and generally enhance the overall quality of life for the individual. Persons with mental retardation are as deserving of our attention as are individuals with other disabilities or persons with no disabilities.
We agree with Vealey’s (1988) assertion that PST should be targeted for populations other than elite athletes. Given the potential personal gains that may be attained by sport participants, this extension can and should be made to athletes with mental retardation. Several issues involved in both research and practice with persons with mental retardation are helpful to review.

First is the problem of client/subject identification. Unless one is currently employed in an agency that serves individuals with mental retardation, identification of a client/subject will likely be difficult. In our work we have made countless telephone calls to a variety of agencies, facilities, and sport organizations in an effort to obtain even one appropriate client/subject. Whereas with the non-handicapped athlete one generally deals directly with the athlete and his/her coach, interaction with an athlete with mental retardation may involve the participation of many individuals such as parents, house counselors, case managers, or program staff.

Although client/subject identification represents a critical first step in beginning work, other factors must also be considered. Once the athlete has been identified, the researcher/practitioner may need to obtain the permission of families, program staff, and caseworkers to schedule meeting times and training sessions. Additionally, depending on the client/subject’s residence and employment status, development of a regular training schedule may prove difficult. Even if these barriers are overcome, one cannot guarantee that the client/subject will not drop out of the session.

A final critical concern of which the researcher/practitioner must be aware is the potential difficulty in assessing behavioral change. Hazards of reliance on the athlete’s self-assessments have been addressed previously, but these data could prove useful in combination with other forms of analysis such as performance records (times, distances, personal bests). For example, one might compare performance records before and after initiation of PST. However, one would need to guard against inferring a causal relationship between PST and improved performance when other variables cannot be controlled.

Although the field of sport psychology has a variety of standardized assessment measures, none have been adapted for use with athletes with mental retardation. In adapting a particular measure for these athletes, one must be aware of validity and reliability issues and consult the test manual or the test’s author with any special concerns. While the use of standardized instruments in this area could prove extremely helpful to sport psychologists, it would likely prove useful only if considered as one facet of a multimethod assessment approach.

In developing such an approach, one may again borrow from the field of counseling. In an educational setting, multimethod assessment refers to the use of varied techniques such as standardized testing, observations, rating scales, and interviews (Guidubaldi, Perry, & Walker, 1989). Several articles ( Guidubaldi, Kehle, & Murray, 1979; Guidubaldi et al., 1989) suggest that in conducting assessments of noncognitive factors, the process could be enhanced by including direct observations and reports of the observations of significant others.

**Case Study**

One way to make the above information more salient is to review case studies of work in this area. Although the literature reveals no studies of PST for athletes with mental retardation, such a project has been ongoing at Temple Univer-
sity. Work with one athlete was completed by spring 1991 and is reported in the case study below. Attempts to select a second athlete with whom to work have not succeeded. One athlete had behavior problems that made it impossible to work with this person. A second athlete indicated a lack of interest; it appeared that the coach was more interested in the potential of PST than the athlete was. These types of problems will be encountered in working with athletes with mental retardation and need to be considered. For the moment, however, the case of T.W. is instructive:

Background Data

T.W., a swimmer active in Special Olympics, is a 28-year-old woman functioning within the mild range of mental retardation. Although T.W. reports that she enjoys practicing and competing in Special Olympics, her participation is characterized by irregular practice attendance and erratic performances. Coaches and staff members of her residential facility report that T.W. is extremely self-critical and becomes tense and anxious in pressured situations. Although her verbal skills are quite good, T.W. has difficulty expressing her own thoughts and feelings and is generally quite shy when dealing with strangers. Due to her shyness and resistance to the possibility of negative evaluation, a considerable amount of time was devoted to building rapport so that T.W. and the first author could communicate about sport related difficulties.

Session 1

After securing the permission of T.W.’s case manager and residential staff, an initial meeting was held with T.W. It was a get-acquainted session in which T.W. was encouraged to talk about herself as much as possible. Open-ended statements such as “Tell me about yourself” confused her. She required more structured questions such as, “What types of things do you like to do?” and “What kinds of jobs do you do at work?” Although able to respond to probes of this nature, her shyness seemed to limit her ability to engage in conversation. T.W. listed swimming as an activity she enjoys, but when asked if she liked racing she dropped her eyes and responded “I don’t know.” She did volunteer that she liked her coach and stated that he is not “mean.”

Reactions to Session 1. It was quickly apparent that a critical first step in developing a PST program for T.W. would be to establish trust and rapport. Although she was informed that I (first author) would like to help her improve her swimming, I felt it necessary to emphasize that we should get to know each other so that we could “say what’s on our minds.” When asked to repeat this last statement, T.W. demonstrated understanding by stating that we would talk to each other and become friends. Impressions of T.W., based on both verbal and nonverbal cues, were that she is greatly concerned with pleasing others and is uncomfortable when placed in threatening situations. Her obvious physical tension (rigidity, squirming) when asked about racing and her concern with her coach not being mean appear to verify this point. Focus for the next session was to continue to build rapport and encourage further discussion of competitive anxiety.

Session 2

Upon arrival for Session 2, T.W. greeted me (first author) warmly and was apparently happy to see me. She willingly talked about events at home and work.
Upon inquiry, she stated that she had practiced swimming but offered no further information. Following further probing, she characterized her performance at practice as okay. When asked to list likes and dislikes associated with swimming, she responded that she liked swimming by herself and that she liked her coach. Further probing was required for her to divulge that she didn’t like racing because it scared her. However, after eliminating the possibility of fear of physical injury, she noted that she feared losing because her coach might be angry and “not be my friend.” When asked if her coach was ever angry or mean to her, she said no but that he wants her to win.

In an effort to determine whether T.W. could describe any thoughts, feelings, or sensations experienced in anxiety-producing situations, she was asked, “Tell me how you feel and what you think about when you’re scared.” T.W. responded that she thought about “being yelled at” and wanted to go home when she experienced these feelings. When probed to describe any associated physical sensations, she was unable to do so other than to say she “didn’t feel good” at these times.

**Reactions to Session 2.** T.W. clearly felt threatened by the competitive aspects of swimming due to her concern for displeasing her coach and losing his friendship. Judging from the coach’s accounts of practice sessions as well as T.W.’s own admission that he was not mean to her, her concern in this area seemed irrational. Also, although she was unable to pinpoint any physical sensations experienced at these times, she displayed the same types of physical responses whenever the stressful situation was discussed. Her posture became much more rigid, she had difficulty sitting still, and her facial expression became strained as if she was squinting to observe a distant object.

It was decided that in order to quell T.W.’s irrational concerns about having to win to keep her coach’s approval, she would need to learn to control her anxiousness through relaxation training. This was explained to her as, “I’d like to help you with your swimming so that you can learn to not be scared of losing your coach as your friend. I think we can do this by learning to relax—not getting so excited when it’s your turn to swim.” T.W. agreed to try.

**Session 3**

To determine whether T.W. could differentiate between relaxation and tension, she was asked to identify an activity or event that made her feel good and calm. After some time, she noted she liked going to the park and sitting by the lake. Although able to offer that this made her feel good and that she was quiet at these times, she apparently could not grasp the concept associated with pinpointing any bodily sensations experienced during the relaxed state. When asked to compare sitting by the lake to the way she feels when she is going to race, she noted she wants to stay by the lake but when she’s scared about racing she wants to move somewhere else. She also acknowledged that at the lake she is very still and quiet, while at practice and competition she “can’t stand still.” She also admitted to feeling the same way at home and work when she’s scared or “might be in trouble.”

We next tried an experiment in which T.W. was asked to make a fist for several seconds and tell if her arm felt the same when she was squeezing as when she let go. She noted it felt different and was able to say that her arm felt warm when the fist was released. This was taken as a very positive sign in that T.W.
could differentiate between sensations of tension and relaxation. It was decided, with T.W.'s consent, that training in progressive muscle relaxation would be undertaken. A staff member at T.W.'s home who was familiar with relaxation training agreed to help her practice between sessions.

**Reactions to Session 3.** I (first author) was extremely pleased with several breakthroughs. First, T.W. was able to identify an ideal state that could be used as a basis of comparison against the tension and anxiety associated with competitive swimming. Second, she could acknowledge experiencing tension in settings other than athletics and indicated she would like to eliminate or control these feelings. Finally, T.W. was able to discriminate between muscular tension and relaxation and provided a cue word—warmth—for the relaxation response.

**Sessions 4 and 5**

Sessions 4 and 5 consisted mainly of training and practice in progressive muscular relaxation. Most of the time was spent on developing cues to assist T.W. in becoming able to tense the correct muscles at the appropriate times. The concept of warmth, which T.W. had identified as an indicator of relaxation, was frequently associated with the pleasant sensations she experienced at the lake. For example, "Notice the warm feeling flow into your arm; the same calm, warm feeling you get at the lake." It was felt that this pairing helped make the concept of relaxation even more concrete for T.W. Her self-reports of relaxation during training indicated a grasp of the concept, although these reports cannot be considered completely reliable.

Another cue that proved helpful in increasing T.W.'s understanding of the connection between her feelings of warmth and relaxation was the introduction of a stress card which changes colors in response to one's body temperature. Since T.W. had already said her favorite color was blue, and the color blue indicated greater warmth and relaxation on the stress card, it was used as a visual cue in the training process. T.W. enjoyed testing herself prior to training and then using the card afterward to see how close she had come to her favorite color. This not only was a useful cue but also provided immediate feedback and reinforcement.

**Interruption of Training.** Although T.W.'s grasp of relaxation training was quite exciting and promising, we did not have the opportunity to transfer the relaxation process to the athletic realm (through imagery or in actual practice) due to an unexpected interruption in training. Another resident of T.W.'s home, of whom she was very fond, died suddenly. In grieving for her friend, T.W. finds it difficult to cope with her loss. Residential and vocational workers reported considerable agitation on her part, which led to her being placed on medication (Mellaril). Since her friend's death, T.W. has expressed no interest in swimming or any other recreational activity. She needs counseling to place her friend's death in perspective. At present it seems doubtful she will ever resume swimming.

This case study provides important lessons for applied sport psychologists in working with persons with disabilities. These highlight points made earlier in this paper. First, the development of rapport and trust is critical. Second, working with the person on his/her level, in communicating effectively, must always be kept in mind. Third, soliciting help from parents, siblings, case managers, residential staff, and others is important; in T.W.'s case, arrangements for meetings had to be made and help was available for practicing relaxation. Fourth, using all tools at your disposal (such as the stress card) can be very helpful.

The suggestions in this paper indicate that work in adapting sport psychol-
ogy to athletes with mental retardation is a worthwhile endeavor. However, the potential gains to the athlete will not be known until sport psychologists take an active interest in this area. Until research and practical interests are developed, one’s best investigative tool may well be a creative ability to establish rapport, trust, and communication with the athlete while adapting assessment strategies to that athlete’s specific needs. The result would likely be an invaluable experience for both athlete and sport psychologist.

References


