Does your school encourage fitness for all students, including those with disabilities?

Did you know that students with mental retardation are at risk for poor health related to a sedentary lifestyle?

Have parents and educators discussed student fitness at your school?

What resources do you need to promote lifelong fitness for all students?

What social, academic, and health benefits for students might follow from physical fitness?

Taking the last question first: The health-related benefits of physical activity are well known. Regular physical activity decreases the risk for health problems, such as coronary heart disease, hypertension, and obesity (U.S. Department of Health and Human Services, 1996). Participation in physical activity and sport can promote social well-being, as well as physical and mental health, among children and adolescents (Roberts, 2001).

Despite all these benefits of physical activity, students with disabilities are at risk for developing sedentary lifestyles (U.S. Department of Health and Human Services, 1996). Further, students with mental retardation constitute the third largest disability group and are at risk for unique motor needs more so than peers without disabilities. Even though health-related concerns are a focus of educational and community leaders, many schools and districts lack direction in how to eliminate inactivity in students with mental retardation.

This article attempts to provide some answers for educators who teach students with mental retardation. The article is based on original data collected on children with mental disability, teachers who work in public schools, and parents whose children rely on special education programs to take a role in facilitating lifetime physical activity skills (for background information, see box, "What Does the Literature Say"). For details about data collection and methodology, write to the authors. This article focuses on results and recommendations aimed at improving the physical activity habits in school-aged children with mental retardation.

Study of Physical Fitness

This study had three main objectives. First, we investigated the health-related fitness of children with mental retardation, using a recently developed criterion-related fitness protocol developed by Winnick and Short (1999). Second, we surveyed physical educators to gain their perspectives related to physical activity and other curricular issues. Finally, we surveyed parents of children with disabilities to determine their perspectives on physical education program focus and the types of activities in which they participated during free time.

We pooled three data sources to draw conclusions about the current status of fitness, issues of importance to physical educators, and parent perspectives on the nature of physical education focus for their child. These include fitness scores from 25 school-age children, a survey of 100 adapted physical educators (i.e., persons who provide direct services in the area of physical education for children with unique motor needs), and responses from 24 parents whose children were enrolled in a university-based motor program. See Tables 1 and 2 for sample responses of educators and parents.

What Did Our Data Show?

Data on physical fitness levels of children with mental retardation support low fitness levels in comparison to healthy standards set for students with disabilities (Winnick & Short, 1999). In all fitness areas assessed, at least two thirds of the sample was below the recommended levels.
What Does the Literature Say About Physical Fitness for Students With Mental Retardation?

Physical Fitness and Activity Levels in Students With Mental Retardation. People with mental retardation typically have the same fitness needs and capacities to perform daily work, leisure activities, school and play as their peers without disabilities. However, sources confirm that children and adults with mental retardation are below peers on virtually all measures of health related fitness (Winnick & Short, 1999). Improved physical fitness enhances the potential for people with mental retardation to lead productive and independent lives, particularly as the level of cognitive impairment increases (Jansma, 1999). A recent study by Kozub (2003) described the sedentary lifestyles of people with mental retardation and their limited opportunities to engage in leisure physical activity; Kozub found inactivity and isolation to be a common theme in a small sample of people with mental retardation.

Physical Education for Students With Mental Retardation. The most recent Individuals with Disabilities Education Act of 1997 (IDEA '97) addressed the physical education and recreational needs of students with disabilities. When schools and districts exempt children from physical education, based on disability, poor training for physical educators, and a lack of curricular resources, the school community undermines the importance of physical activity and the general concept of teaching children with mental retardation to be lifelong learners and movers consistent with national standards set for all children by the National Association for Sport and Physical Education (1995).

Burgenson, Wechsler, Brener, Young, and Spain (2003) found that as many as one in three school districts are using “cognitive deficits” as a rationale for exemptions from physical education class. In the case of students with mental retardation, it appears that those who need physical education the most to develop fitness may be prone to receive less instruction in many schools. The results in Burgenson et al. showed clear violations of IDEA '97 by school districts, as well as a disregard for physical education as a means to prevent childhood inactivity and later sedentary adult lifestyles (Nesbitt, 1999). Parents and educators need to take note of such exemptions in their school districts. From a functional skill and health-related perspective, Burgenson et al. provided evidence that many school districts are neglecting the physical development of children with mental retardation.

The motivational backlash of allowing exemptions in children with mental retardation may have health-related implications (Kozub, 2003). Exemptions may teach children that based on their differences from peers, physical activity is not for them. For this reason, it is important to begin to inquire what physical educators require to address the physical education needs of learners with mental retardation. Training is a critical component for physical educators responsible for teaching children with mental disabilities. This issue has received considerable attention by the recent Adapted Physical Education Standards project (Kelly, 1995). Further, researchers have not studied the adequacy of curricular resources to determine if physical educators have the necessary support to facilitate motor and leisure skills in children with mental retardation.

Family Perspectives. Families play a critical role in shaping their child’s physical activity experiences (Kozub, 2001). Opportunities and motivation to be physically active begin in the home and then expand to the broader community. Parents can take an active part in programming after-school activities, with the cooperation of adapted physical educators, to promote lifelong habits in their children.

In addition, if parents and educators develop collaborative plans and programs, parents will become not only advocates for their children, but learners and decision makers affecting individualized physical activity programming at home and in school. Therefore, educators should promote physical activity, not only for the students with disabilities, but also for family members who would reinforce programming at home. Formal instruction with support from caregivers is a key component because parents are in all likelihood “program deliverers” when the child exits school-based programming (Kozub, 2001).

Recommended standard for students with mental retardation (Winnick & Short). Considering the fact that employment opportunities for people with mental retardation involve working with their hands, lack of physical fitness has grave implications for the future of these students.

Results from the survey of adapted physical educators charged with providing services for children with mental retardation demonstrated a need for curricular resources. Helping students with disabilities develop lifetime physical activity skills was a priority for these teachers. Further, these educators believed that leisure recreational skills were important, even more so than other traditional sport related physical education. Moreover, 73% of these educators reported that it would be helpful to have a curriculum guide that promotes increased physical activity in students with disabilities.

Curricular resources would assist in transition planning for students with mental retardation. In this regard, 84% of adapted physical educators studied had participated in transition services. In light of the exemptions from physical education noted earlier (see Burgenson et al., 2003), it is encouraging that so many educators had taken part in transition service meetings. The physical educators who participated in the study—charged with providing physical education for learners with mental retardation—may be at a loss for lifetime curricular suggestions. Thus they might find it difficult to adequately advocate for reforms in district pro-
grams and support transition planning in the area of lifetime leisure skills.

Parents responded with a strong level of agreement to the need for promoting community physical activity involvement and learning skills that can be used at home (Table 2). Additionally, these 24 parents responded to the open-ended item related to the types of activities in a similarly consistent manner. Activities such as walking (selected by 17 of 24 parents) and bike riding (selected by 16 of 24 parents) occurred in higher frequency than other team and sport-related skills, supporting the need for more functional and community-type instruction. In this, physical education instruction may overlap with other life skills training.

For example, safe community walking requires an understanding of where to walk, when to cross a street, and perhaps pacing or intensity levels required to receive optimal health-related benefit. Physical educators can use task analysis and assessment strategies of these functional skills, as suggested by Kozub and Zelms (1999). Educators can also expand to other more formal community options, such as martial arts instruction, which researchers have found to be a successful option for families who have children with autism (Scott, Kozub, & Goto, in press).

### Table 1. Sample Responses of Adapted Physical Educators

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of program ideas to promote fitness</td>
<td>3.20</td>
<td>.92</td>
</tr>
<tr>
<td>Helping learners develop skills which lead to active lifestyles</td>
<td>3.72</td>
<td>.58</td>
</tr>
<tr>
<td>Specific sport skills</td>
<td>3.06</td>
<td>.65</td>
</tr>
<tr>
<td>Learning to manage behavior of learners</td>
<td>3.34</td>
<td>.83</td>
</tr>
<tr>
<td>Program ideas for segregated settings</td>
<td>3.39</td>
<td>.69</td>
</tr>
<tr>
<td>Manage behaviors of children with severe behavior disorders</td>
<td>3.39</td>
<td>.78</td>
</tr>
<tr>
<td>Dealing with transition services</td>
<td>3.18</td>
<td>.76</td>
</tr>
<tr>
<td>Develop lifetime leisure and recreation skills</td>
<td>3.66</td>
<td>.65</td>
</tr>
<tr>
<td>Program evaluation of physical activity levels</td>
<td>2.97</td>
<td>.84</td>
</tr>
</tbody>
</table>

**Note.** Scaling includes the following: 1 = not important, 2 = slightly important, 3 = important, and 4 = very important. Responses were to items in the Physical Education Issues Study (N = 64).

### Putting It All Together

Teachers and parents are aware of the need for physical activity for students with mental disabilities. Our study emphasized the importance of the potential supportive role that physical education therapists, are key individualized education program (IEP) team members who would help in this important transition area. To encourage social skills in students with mental retardation, physical educators need to provide activities that allow for interaction with peers.

Activity preference is an important educational consideration for children with mental retardation. Making choices and taking part in outcomes are important considerations if students with mental retardation are to become causal agents in their own lives (Wehmeyer, 1995). This is particularly important in younger children with mental retardation who are expected to engage in integrated playground, physical education, and other school-related physical activity options. Age-appropriate skills, followed by an ability to make choices are important areas in need of support if children with mental retardation are to take part in integrated settings.

Supporting the child with mental retardation and, in some cases, controlling the nature of activities is important if the child is to reach the desired target

### Table 2. Sample Items and Level of Parents' Agreement

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Programming which promotes community physical activity is important&quot;</td>
<td>4.50</td>
<td>.59</td>
</tr>
<tr>
<td>&quot;I would like my child to learn physical activity related skills that can be used at home...&quot;</td>
<td>4.62</td>
<td>.49</td>
</tr>
</tbody>
</table>

**Note.** Scaling includes the following: 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. Items were from the community and home physical activity options (N = 24).
Physical educators can provide support and substance in many areas while helping the child attain the target behavior of physical activity or a healthy lifestyle.

Motivation is essential. Students need motivation to learn skills, as well as motivation that comes from successful participation in physical activities.

It is debatable whether motivation comes before or after skill acquisition in humans. In the case of physical activity, however, educators and parents need to understand how difficult it would be for a child or adult with mental retardation to be truly motivated to choose physical activity over other sedentary activities that does not have some level of enjoyment.

Note that the model in Figure 1 places motivation after skill development. A child who cannot catch a baseball probably will not choose to play catch if safety is an issue. The old saying “Don’t be afraid of the ball” clearly depicts the contradictions that probably have kept many students from being motivated to play ball games. All people are afraid of and avoid things that hurt. Further, physical activity and leisure pursuits should not hurt if we want a child to choose to play later.

Ensuring enjoyment in physical activities will help children with mental retardation become “lifelong learners and movers.” Successful, “real life” experiences hold the potential for motivation to move that generalizes to independence and thus promote the concept of lifelong physical activity and learning.

The target for many learners with mental retardation often involves specific, family-centered activities that will lead to adequate physical activity throughout the lifespan.

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Parents can take an active part in promoting lifelong habits in their children.

Suggestions for Practice

We need to present a clear picture that helps students with mental retardation, family members, and educators take part in encouraging physical fitness. Here are several recommendations for implementing physical fitness activities. We hope that team members find these recommendations practical and helpful for educators and family members of children with mental retardation.

1. Use the IEP process to discuss differences in goals and ideas relating to a child's need for movement opportunities (Kozub, 2001).
2. Educators must expose students with mental disability to a variety of physical and recreational activity choices at an early age. Some learners, however, may need intense training in a few areas and transitional help to maintain physical activity into adulthood (Modell & Valdez, 2002).
3. An unlimited variety of age-appropriate activities are accessible to people with disabilities, based on personal abilities and preferences (Modell & Valdez, 2002).
4. Assessment has to be a part of community-based programming in physical activity (Kozub & Zelms, 1999).
5. Educators and parents must be prepared to assume the role of program deliverers. Family characteristics and resources are important considerations (Kozub, 2001).
6. Become district-level advocates to eliminate district policy that allows for students with disabilities to be exempt from physical education programming.
7. Understanding why all people choose to become physically active is important information that needs to be taken into account for students with and without mental retardation (Butler & Anderson, 2002).
8. Consider the role of sibling interests, skills, and influence on children's home physical activity.

Final Thoughts

Parents and educators need to collaboratively plan to change the negative physical activity patterns in students with mental retardation. In general, our society is faced with a growing epidemic of inactivity, followed by poor health. In learners with mental retardation, developmental and cognitive issues are coupled with a lack of opportunity. These conditions make it unlikely that traditional physical activity opportunities lead to lifelong moving and learning. Educators need to remember that parents of children with disabilities are resources who can help educators understand the nature of physical activity options suitable for their children.

References


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