

Physical Activity in the School Environment and the Community

Chapter objectives:

- To briefly describe how our changing society is influencing the effect of schools on the behaviour of modern day children.
- To describe the strengths and limitations of school-based approaches for the promotion of physical activity.
- To describe the importance of physical education in schools and outline the differences between the “traditional” approach to physical education and the more effective “modern” approach.
- To discuss adult perceptions of physical education and physical activity for young people.
- To discuss various further methods of promoting physical activity within schools and the community.
- To outline recommendations for promoting physical activity in young people in schools, communities and home settings.

1. The changing influence of schools on behaviour of modern day children

It is important to understand that changes in modern day society have changed the roles that schools have in shaping the attitudes, beliefs and behaviour of school-children, including their levels of physical activity. Many believe that much of the traditional authority of schools and education has been eroded by the increasing influence of the media, marketing, television and the internet on our children. In essence, schools are now competing for the hearts and minds of young people against an increasingly powerful corporate-media culture. Therefore, for governments and schools to continue to play the most effective role in shaping the attitudes and beliefs of pupils, they must attempt to understand the current forces influencing modern youth and

adapt to our changing socio-cultural environment. Stubbornly sticking to old principles will likely result in failure.

An interesting example is that of computer and internet use in youngsters. Though having been indicated as a contributor to physical inactivity and obesity in children, this medium, if used responsibly by young people, may ironically end up helping to curb the problem in the future. Internet websites have been developed with the goal of educating children and adolescents about issues relating to physical activity and nutrition that are designed to be fun and informative for this population (for examples, see [110-119]). Young people will not be prevented from using computers, so we must work with this new feature of modern day life and attempt to turn it to our advantage in the fight against physical inactivity.

Within the school curriculum, physical activity and physical education has an advantage in comparison to more traditional classroom pursuits. This advantage is that it is well placed to offer pleasure, and pleasure is at the core of the current consumer culture with which schools are competing. If physical activity offers more pleasure to children, more will likely take part.

2. Strengths and limitations of school-based approaches for the promotion of physical activity

Schools present unique opportunities for physical activity for young people. The strengths of school-based approaches for promotion of physical activity include [107, 120]:

- schools contain people at ages where change is most likely to occur,
- children and adolescents spend a large portion of their time in this environment,
- schoolwide strategies should enable virtually all members of an age cohort to be targeted,
- most young people are likely to see teachers as credible sources of information,
- schools provide access to the facilities, infrastructure and support required for physical activity,
- a delivery structure (through physical education, other curriculum areas and school practices) is already in place, and
- schools are the workplace of skilled educators.

Possible limitations of school-based interventions include [120]:

- those students who like school the least are the most likely to engage in health-compromising behaviours and the least likely to be influenced by school-based programs,

- there are about 20 more hours per week available for physical activity outside schools hours than during school hours,
- enormous demands are already being made on schools,
- many teachers may have low levels of perceived competence in teaching concepts related to physical activity, and
- opportunities for being active at school may not be consistent with how and when students prefer to be active.

It must be pointed out that most of these limitations can be reduced by many of the physical activity promotion strategies suggested in this guide. The broad classroom-based approach, for example, is designed to educate children and adolescents about the nature and importance of physical activity and that a “lifestyle” approach towards activity, one that does not necessarily involve competitive or organized sports, is often the most effective way of adopting and maintaining physical activity during one’s youth and adulthood. This approach does not require great expertise on behalf of the schoolteacher, is designed to be fun, and has the core goal of assisting youngsters in discovering the types of physical activity that they like and motivating them to participate both within and outside school. A critically important point is that this process is done without any form of coercion – the pupils are encouraged to participate of their own volition.

As a schoolteacher, you will likely find that this process may be very educational for you too and if this encourages you to become more physically active and become a role model for your students then everyone wins!

3. The importance of physical education in schools

There have been growing concerns about the declining availability of physical education and participation in physical education in schools worldwide. Very few countries offer at least two hours per week of physical education in both primary and secondary schools and even this amount is far from the current recommendations of daily physical education classes for young people [93]. In Spain, current law regarding primary education stresses the importance of “valuing health and hygiene, accepting your own body and those of others, respecting differences and use of physical education and sport as methods for encouraging personal and social development” (Spanish Law 3rd May 2006; published in BOE 4th May 2006). For secondary education, the law states that schools should “reinforce habits associated with bodily health and incorporate physical education and sports practices to encourage personal and social development”. At the time of publication of this guide, the national Physical Education Curriculum required a minimum of two hours a week in both primary and secondary education respectively. The new national curriculum of physical education may be modified before the 31 December 2006, as stated in the governmental files (Real Decreto 806/2006, June 30; published in BOE 14th July 2006).

In a recent meta-analysis of interventions designed to increase physical activity, school-based physical education was found to be effective [82]. In other words, *meas-*

ures designed to increase the amount of time students spend in moderate or vigorous activity while in physical education classes are successful in improving levels of physical activity and improving physical fitness. Therefore, physical education must remain an important tool within schools for promotion of physical activity and physical fitness.

There is a perception in some circles that the time spent in physical education classes in school may harm academic performance or would be better spent on other academic pursuits. However, there is no evidence in the literature for such a claim. In fact, the opposite may even be true. There is evidence that a substantial increase in the amount of school time devoted to health related physical education does not have detrimental effects on students' academic performance, and confers significant health benefits [121]. In addition, research has shown that children with higher physical activity levels are more likely to have better cognitive functioning. A meta-analysis of 44 studies concluded that there is a significant positive relationship between physical activity and cognitive functioning in children, with a mean effect size of 0.32 (standard deviation of 0.27) [22]. Similarly, regular participation in sport does not appear to compromise academic achievement [122].

Therefore, overall, the research literature indicates that increased physical education, physical activity or physical fitness is more likely to have a positive, rather than negative, influence on academic performance in young people.

4. “Traditional” vs. “modern” physical education

Modern physical education classes must be different from the older, more traditional approach. Physical education teachers have usually grown up with the traditional emphasis on team sports, skills and competition but must be sensitive to the fact that their interests may be very different from their current students' needs. Modern physical education must be [93, 107]:

- Educational – students must learn *why* physical activity is important and *how* it is beneficial. The traditional approach told students *what* to do, but not *why*.
- Health oriented – health-related physical fitness must be emphasized in addition to the skill-related focus of traditional programs.
- Individualized – students must be helped at their own ability levels for optimal personal improvement. The traditional approach provided the same instruction for all students at the same time.
- Fair – students are assessed based on personal improvement and assisted in goal setting for improvement of health-related fitness. The traditional approach used fitness test scores to determine grades and awards.
- Enjoyable – students must enjoy the physical education experience and be provided with variety and choices whenever possible. The traditional approach used the same drills and games regardless of student interest, offering little choice. In addition, physical activities were often used as a form of punishment.

- Realistic – students must be encouraged to explore different ways to be physically active and improve health-related fitness for optimal transfer to real-life settings. Traditional physical education offered a narrow curriculum, often repeating the same activities with the goal of achieving basic performance competence.

Health-related physical fitness education focuses on the process of having students assume progressively more responsibility for their own health, fitness and well-being [107]. The “stairway to fitness” shown in figure 13 outlines the process through which students must be guided to achieve this goal. Of course, the level of dependency will likely be related to the age of the student. The younger the student is, the more likely he/she will be on a lower, more dependent step. The older the student, the more he/she needs to be operating on a higher step and the teachers involved must be responsible for facilitating this.

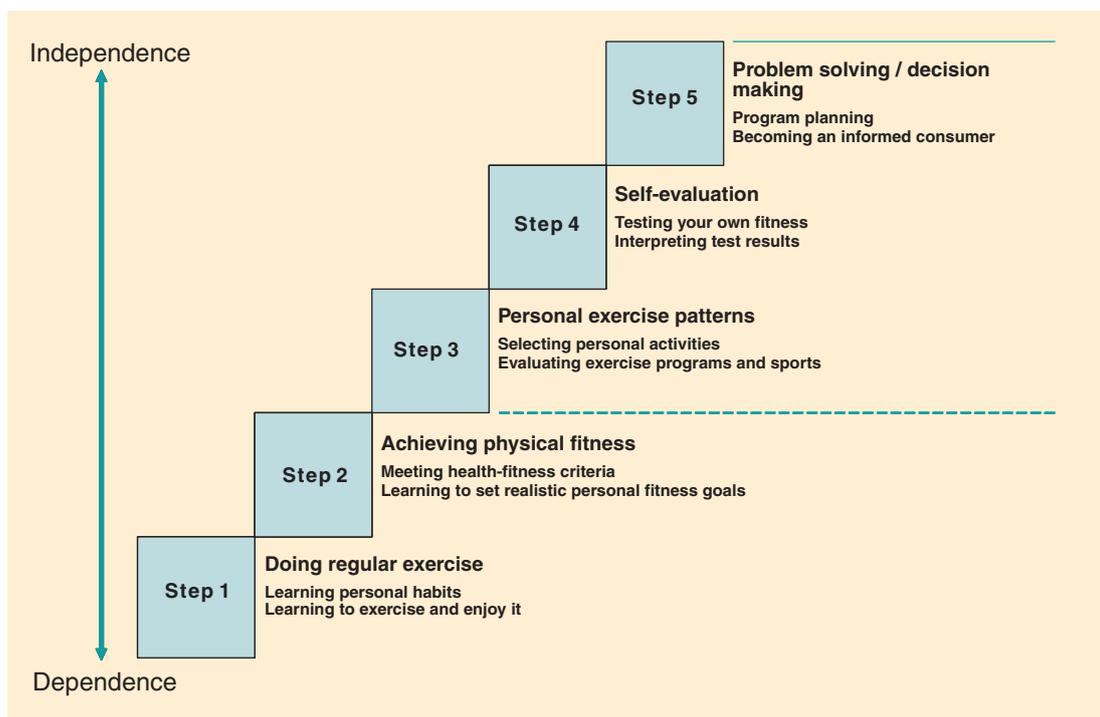


Figure 13. Stairway to fitness

5. Adult perceptions of physical education and physical activity

The irony of physical education in schools is that most adults (parents, teachers, etc.) would probably agree that physical activity, physical fitness and learning new motor skills are important for children. Yet many adults seem sceptical as to whether physical education in schools is contributing usefully to these goals [107].

This is probably in large part due to negative recollections by many of these adults towards their own experiences with physical education who unfortunately associate it with feelings such as embarrassment, pain, boredom, triviality and irrelevance. Adults' perceptions of physical education need to change if physical education is to survive within the school system and thus contribute meaningfully to the health of our children.

As discussed earlier, the attitudes of adults towards physical activity are an important influence on the levels of participation of children and adolescents. Those adults with a positive attitude towards physical activity or those that are active themselves will have a positive influence on the young people with which they associate. Therefore, improving the attitudes of adults towards exercise and physical activity and adult participation is an important component of the drive towards more physically active young people in society.

6. Other methods of promoting physical activity in schools and communities

So far two major techniques have been covered regarding promotion of physical activity: physical education and classroom based approaches in schools. Schools can also promote physical activity in other ways. One of the most important things schools must ensure is that young people have convenient access to safe play spaces and time to engage in unstructured, spontaneous play and activity outside of the classroom [93]. Recess breaks between classes and lunch breaks are logical times during the day when children should be allowed to play outside, and if facilities are readily available (such as playgrounds, basketball hoops, etc.) then the probability is greater that the children will be active.

In the case of older children and adolescents, schools should also make it possible for pupils to assume responsibility for organizing, motivating and being resource persons for other pupils in order to stimulate them to become more physically active. For example, students may form and run sports or physical activity clubs for their peers.

It is essential that communities are involved in the drive towards greater physical activity because most physical in young people occurs outside the school setting [123, 124]. Schools should therefore develop enhanced relationships with sports clubs, outdoor life organizations, summer camps and other groups or businesses within the community so that young people and their families are exposed to physical activity to a greater degree and are given easy and ready access to opportunities that will result in more physical activity. Those schools that possess excellent facilities and sports equipment could make these available to the community outside of normal school hours (*eg.* after school hours, on weekends and during vacations).

Given the importance of the home environment in the physical activity habits of young people, many schools should involve parents to a greater degree. Ensuring that

parents are kept abreast of physical activity promotion efforts in school and also informed of important issues regarding the health behaviours of their children (through a regular newsletter or meetings, for example) would promote a sense of “togetherness” and mutual involvement in improving their children’s health. Parents may even be motivated to become more physically active themselves which could only be beneficial to all parties.

Schools and other community programs may also provide health promotion programs for staff members. By enabling teachers to participate in physical activity and other healthy behaviours, this will help them serve as role models for students. School-based health promotion programs have been effective in improving teachers’ participation in vigorous exercise, which in turn has improved their physical fitness, body composition, blood pressure, general well-being, and ability to handle job stress [93]. In addition, participants in school-based health promotion programs may be less likely than non-participants to be absent from work [93].

Schools and other locations within the community can also launch drives to encourage more active staff and youngsters such as poster campaigns, physical activity challenges and environmental changes that promote stair use (instead of elevators, for example) or active transportation [82, 125].

Efforts to promote physical activity in schools should ideally be part of a comprehensive overall school health program. Such a program could include health education, physical education, health services, school counselling and social services, nutrition services, the psychosocial and physical environment and faculty and staff health promotion [103]. Also, increased physical activity in young people will be best achieved through programs that integrate the efforts of schools, families and communities. These programs have the potential to improve both the health and the educational prospects of young people and also to raise awareness of healthful lifestyle behaviours among the adult population.

7. Recommendations for promoting physical activity in young people in school, community and home settings

Communication among schools, community organizations and individuals is critical to the success of any effort to improve levels of physical activity in young people on a large scale. Below is a list of practical tips and suggestions that can be used within the school, community and home environments to increase physical activity of children and youth (adapted from [103]). For further detail, readers are encouraged to consult the *Guidelines for School and Community Programs to Promote Lifelong Physical Activity for Young People* [103] published by the Centers for Disease Control and Prevention in the USA.

A. School

- Advocate for high quality physical education in schools.
- Include a physical activity component in health education classes.
- Advocate for the incorporation of short physical activity breaks into the school day.
- Encourage children to walk or ride their bike to school.
- Establish a volunteer network of parents that take turns as chaperones for children walking or cycling to school.
- Advocate for increased access to school facilities on nights, weekends, and holidays.
- Advocate for sports and physical activity programs for all children - not just the most talented.
- Discourage the practice of withholding physical activity (recess, free play) as punishment or using physical activity (laps, push-ups) as a punishment.
- Develop children's motor skills related to lifelong physical activities.
- Develop children's use of behavioural skills that will help them maintain a physically active lifestyle (goal setting, self-monitoring, decision making).
- Increase children's knowledge about HOW to be physically active.
- Encourage positive beliefs and attitudes towards physical activity.
- Encourage school personnel to MAKE PHYSICAL ACTIVITY FUN AND INTERESTING.

B. Community

- Advocate for a bicycle friendly community.
- Advocate for a pedestrian friendly community.
- Promote provision and use of community physical activity facilities.
- Advocate for increased access to community physical activity facilities.
- Volunteer to coach or organize community sports programs.
- Organize activity events in the community (eg. car-free days).
- Focus on enjoyable participation in recreational sports, not winning.
- Make children aware of all programs available through community organizations.
- Encourage community providers to MAKE PHYSICAL ACTIVITY FUN AND INTERESTING.

C. Home

- Make physical activity equipment and clothing available to children.
- Limit children's amount of “screen time” (watching television or video tapes, video games, computer use).
- Encourage children to play outside whenever possible.
- Encourage children to be physically active or play sports.
- Be a positive role model by being physically active yourself.
- Plan physical activities that involve the entire family.
- Pay fees and purchase equipment needed for sport and activity programs.
- Provide transportation to practices, games, or activities.
- Encourage children to play sports or be physically active with friends and neighbours.
- Praise and tangibly reward children for being physically active.
- Focus on the positive accomplishments in sports and physical activities, NOT the setbacks or failures.
- MAKE PHYSICAL ACTIVITY FUN AND INTERESTING.

Key points:

- The increasing influence of the media, marketing, television and the internet on our children has resulted in a reduced influence of schools on the behaviour of young people. Health promotion strategies must adapt to these changes and not resist them.
- Physical activity is well placed to compete with corporate-media influences on children as it can provide what young people are looking for: pleasure.
- School-based approaches for the promotion of physical activity (such as increased physical education) can be very effective at increasing levels of physical activity in young people without negatively affecting, and possibly positively influencing, academic performance.
- Modern physical education must be different from the traditional sports- and performance-based style of which most adults have negative recollections.
- Improving the attitudes of adults towards exercise and physical activity and increasing their participation is an important aspect of the drive towards more physically active young people in society.
- There are numerous ways that physical activity can be promoted within homes, schools and communities. Greater communication and relationships between all three is a key factor.