Promoting physical activity among children and adolescents: the strengths and limitations of school-based approaches

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Introduction

When we seek to promote some aspect of the health of young people we, almost invariably, design interventions in which schools are the main, if not the only, health promotion setting. That schools are the setting of choice for child and adolescent health promotion appears to be accepted as a truism. Although schools may frequently be the most appropriate health promotion setting, that assumption should be regularly challenged and the 'truism' forced to defend itself.

Although calls to increase physical activity among young Australians have been made fairly regularly over the past 30 to 40 years, those calls have become far more strident and persistent with recognition of the rapid increase in the prevalence of paediatric overweight and obesity. How we should go about increasing habitual energy expenditure among Australians has become a topic of hot debate between and within the professional and lay communities, in the mass media and among politicians. The suggestions have varied somewhat, but most have had an exclusive focus on schools.

The purpose of this paper is to identify the potential strengths and limitations of schools as a setting for promoting physical This article is the first of three linked opinion pieces discussing schools and health promotion. The second (by Rowling) and third (by Mitchell, Price and Cass) articles were invited to pick up the themes raised in the first (by Booth and Okely). Readers are invited to submit Letters to the Editor in response.

activity among young Australians and to encourage more critical thinking about physical activity promotion among young people.

The functions of schools regarding physical activity

Schools are important settings for education about healthy lifestyles and provide unique opportunities for health education that can be sustained and reinforced over time with a large number of young people. Schools contextualise 'health', both as part of the formal curriculum and as part of a whole-school approach.

The formal curriculum

In New South Wales (NSW), the curriculum context for teaching

Abstract

Paediatric overweight and obesity is recognised as one of Australia's most significant health problems and effective approaches to increasing physical activity and reducing energy consumption are being sought urgently. Every potential approach and setting should be subjected to critical review in an attempt to maximise the impact of policy and program initiatives.

This paper identifies the strengths and limitations of schools as a setting for promoting physical activity. The strengths are: most children and adolescents attend school; 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; and schools are the workplace of skilled educators. Potential limitations are: 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 primary school teachers have low levels of perceived competence in teaching physical education and fundamental movement skills; and opportunities for being active at school may not be consistent with how and when students prefer to be active.

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about healthy lifestyles is Personal Development, Health and Physical Education (PDHPE), one of six key learning areas that are mandatory for all kindergarten to Year 10 students. Students have the opportunity to learn about healthy eating behaviours, body image, gender, and other social influences on eating behaviours, and the benefits of participating in regular physical activity. Students also have the opportunity to develop fundamental movement skills (greater emphasis in primary than in high schools) and to participate in a range of planned physical activities. The extent and manner of health education and skill development varies a great deal from school to school and country to country, but the opportunity for these activities certainly exists in all schools.

The informal curriculum

Schools work to provide physical and social environments that promote participation in physical activity by all students, regardless of their interests, physical characteristics, skills or competitiveness. That is, many schools offer a wide range of competitive and non-competitive activities and encourage participation for its own sake, not just to win at competitions.² School policies and environments are often modified to reduce barriers to physical activity^{2,3} and schools frequently develop partnerships with community organisations to supplement the work of teachers (including visits by health professionals and sport development officers) and make use of local community resources.

Advantages of schools as a setting for promoting physical activity

Reach. Most children and adolescents (at least up to the age of 15 years) attend school so most of the target group can be contacted through schools. The school education sector is well organised and has effective lines of communication so one can be confident that supported programs will reach almost all of the target population.

Communication. The majority of children and adolescents enjoy school (most of the time), find it a positive experience and can identify many teachers whom they like and respect. Teachers are seen as credible sources of information and many young people will accept and trust what they say.

Infrastructure. Schools provide access to the facilities (e.g. fields, courts, gyms) and equipment (e.g. balls, bats) for physical activity, organised activities, coaching, travel to games and competitions, teams and friends. All of this is done at relatively low cost, and may not otherwise be available to students, particularly those experiencing economic or social disadvantage.

Encouragement. School staff can provide support, encouragement, modelling, and a breadth of experience that may not necessarily be available from the student's family.

Skilled personnel. Schools are the workplace of skilled educators who understand children and adolescents and how to communicate with them. High schools, particularly, employ teachers with specialist skills, education and extensive personal experience with sports, games and an active lifestyle.

Disadvantages of schools as a setting for promoting physical activity

There are also significant disadvantages of schools as a setting for intervention, many of which are beyond the control of school staff.

Selective dis-engagement. Not all young people enjoy being at school or are engaged with the school community and are less likely to be influenced by school-based programs. Those 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.⁴

Discretionary time. In general, there may be between 3-8 hours per week during school hours for active play, physical education classes and sport and, in some cases, substantially less. In contrast, there are about 20-30 hours/week of discretionary time outside school hours (1/2 to one hour in the mornings before school, 2-3 hours during the afternoon on school days and 5-8 hours on each day of the weekend). We need to recognise that other activities compete for this time, but it is clear that there is far greater opportunity to be active outside school hours than during school hours.

Curriculum issues. Enormous demands are made on schools and the school curriculum, often known as the 'crowded curriculum'. Many outside groups jostle to have new issues covered at school and there is not enough time to cover everything we would wish at the depth we would prefer. If we place more demands on school time, we also need to identify what curriculum issues will be deleted, to make the time available. By not putting too much pressure on schools to address physical activity, we leave room to deal with some of the many other important health education issues.

Teacher competence. Although most secondary schools have specialist physical education teachers, it is often the case that primary schools rely on generalist classroom teachers to teach health and physical education. Classroom teachers are expected to be highly proficient in many different key learning areas – an impossible expectation. Many primary school teachers have low levels of perceived competence in teaching physical education and fundamental movement skills³ because they do not feel competent at performing these skills and activities themselves; struggle to find time to properly plan for them given their many other responsibilities; and/or have not had adequate teacher training in the areas.

Culture. Although there are a great many benefits associated

Booth and Okely Article

with participation in competitive sport and belonging to a team, competitive sport does not suit everyone, particularly the least active and most overweight students. Although there has been a move towards providing opportunities to participate in non-competitive activities, it is not uncommon for the primary emphasis to be on competitive sports. Additionally, physical education and sport are activities where students' skills are on public display, exposing those who are less competent to ridicule, teasing, and discrimination.

Organisation. In terms of organisation, schools are necessarily very structured environments that provide particular activities at a time and place beyond the students' control. This creates several disadvantages because:

- If all activities are focused on the school, students will have difficulty in participating in activities out of school hours (when they have most available time) or with friends who do not attend their school.
- Students may have to participate in activities they do not enjoy, developing a dislike for activity that may persist throughout life.
- All of the environmental cues, opportunities and personal connections associated with physical activity in the school are lost when students leave high school. If school students become involved in activities offered by commercial or community organisations, all of the connections and opportunities remain intact after they leave school, improving the likelihood of them remaining active as adults.

- Not all of the activities in which students might want to participate are available at their school, although schools provide access to many different activities.
- Students may want to participate at particular times of the day or week or as a way of relieving stress. If all of one's activities are based at school, there is little opportunity to do so.

Conclusion

We suggest that programs to promote physical activity among children and adolescents should not have a primary focus on schools, but consider including schools, where appropriate, in interventions focused on active transport, families, policy development and environmental change.

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