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Evaluating the relationship between physical education, sport and social inclusion

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Focusing upon the recent policy context within the UK, this paper offers a review of the evidence related to the outcomes of the participation of children and young people in curricular physical education and sport. Particular attention is paid to potential contributions that such activities can make towards social inclusion and the development of social capital. The review suggests that there are some areas for which there is a considerable amount of evidence in favour of a positive relationship with participation in these activities (such as physical and mental health), and others for which further research remains necessary (such as cognitive and academic development, crime reduction, truancy and disaffection). In general, however, it is evident that much more empirical research is necessary if the benefits of sporting participation for young people and society are to become much more than a theoretical aspiration.

Introduction

Questions about the outcomes, place and justification of physical education and sport in schools continue to generate considerable debate among teachers, theorists and policy-makers alike (Kirk, 1992; Armour & Jones, 1998; Parry, 1998; Green, 2000; Department for Culture, Media and Sport [DCMS]/Strategy Unit, 2002). The tone of much of this debate might lead one to assume that the different advocates are drawing upon a substantial body of empirical data.

Focusing upon the policy context within the UK, this paper examines the evidence regarding the outcomes of the participation of children and young people in curricular physical education and sport. Particular attention is paid to potential contributions that such activities can make towards the social inclusion agenda, which has been a feature of much educational debate among policy-makers. Whilst many claims are made on behalf of physical education and sport (e.g. Vuori *et al.*, 1995; Doll-Tepper & Scoretz, 2001), there remains a need for an objective consideration of the empirical basis of such claims. This paper attempts to go a little way towards that goal.

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Clarifying terms

As its title suggests, this article is concerned with ‘physical education’ and ‘sport’. Clearly, these concepts have a great deal in common, but it is often suggested that there remain essential differences. Since the distinction between physical education and sport continues to be a cause of debate (Murdoch, 1990; Whitson & Macintosh, 1990; Department of Education and Science/Welsh Office [DES/WO], 1991; Penney, 2000), it is worthwhile clarifying the present use of the terms.

‘Physical education’ is a statutory area of the school curriculum, concerned with developing pupils’ physical competence and confidence, and their ability to use these to perform in a range of activities (Department for Education and Employment [DfEE], 2000, p. 129). Whilst the performance of physical skills forms a central and characteristic feature of the subject, like all other areas of the curriculum, it is fundamentally concerned with knowledge, skills and understanding. In the words of a position paper for the World Summit on Physical Education, the subject ‘involves both “learning to move” and “moving to learn”’ (Talbot, 2001, p. 39). In other words, physical education is concerned with learning the skills and understanding required for participation in physical activities, knowledge of one’s own body and its range of and capacity for movement; and it is also a context for and means of learning a wide range of outcomes which are not inherent to physical activity, but which are valuable extrinsic educational lessons, such as social skills, aesthetic judgement, literacy and numeracy.

‘Sport’ is a collective noun and usually refers to a range of activities, processes, social relationships and presumed physical, psychological and sociological outcomes. These activities include individual, partner and team sports; contact and non-contact sports; motor-driven or perceptually dominated sports; different emphases on strategy, chance and physical skills; and competitive, self-development and purely recreational activities (Coalter, 2001). Reflecting this diversity of processes and possible outcomes, it is helpful to follow the accepted practice of many central governments and sports groups in adopting the definition in the Council of Europe’s European Sports Charter (2001):

Sport means all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels. (Article 2)

A virtue of a broad definition of this kind is that it is inclusive of a whole range of physical activities, not just competitive games, such as dance, outdoor activities and martial arts.

Clearly, there is a close relationship between physical education and sport, but they are not synonymous. At the most superficial level, the distinction between the terms is simply that ‘sport’ refers to a range of activities and ‘physical education’ refers to an area of the school curriculum concerned with physical activities and the development of physical competence. For a more precise articulation of the respective foci and nature of physical education and sport, however, it is worthwhile to

recall a statement of the Working Party for the National Curriculum for Physical Education in 1991:

Sport covers a range of physical activities in which adults and young people may participate. Physical education on the other hand is a process of learning, the context being mainly physical. The purpose of this process is to develop specific knowledge, skills and understanding, and to promote physical competence. Different sporting activities can and do contribute to this learning process, and the learning process enables participation in sport. The focus however is on the child and his or her development of physical competence, rather than the activity. (DES/WO, 1991)

In this document, therefore, 'sport' will be used as a generic term for the wide range of activities outlined above, and 'physical education' will be used to refer specifically to the curriculum areas and associated educational outcomes.

The recent policy agenda

Physical education has been a statutory element of the National Curriculum from its start, and the UK Government has recently announced a joint Public Service Agreement target to increase the percentage of schoolchildren in England who spend a minimum of two hours each week on high-quality physical education and school sport (Department for Education and Skills [DfES]/DCMS, 2003). It has also introduced a host of initiatives aimed at improving the quality of physical education in schools, and widening opportunities for participation, including specialist sports colleges, school sport coordinators and sports assistants.

In April 2000, the UK Government published its strategy for the development of sport over the coming decade, 'A Sporting Future for All', with the goal to: 'ensure that every member of our society is offered opportunities and encouragement to play, lead and manage sport' (DCMS, 2000, p. 7). This paper reflects an acknowledgement within UK and regional governments of the importance of sporting participation and achievement, both as valued ends in themselves, and as means to other ends.

Alongside a recognition of the importance of these activities in terms of personal enjoyment and fulfilment, there has been an increasing emphasis upon sport's potential contribution to a host of wider benefits. In the language of the philosophy of education, intrinsic justifications for the subject have been supplemented by extrinsic justifications (Arnold, 1992; Parry, 1998). In fact, measured in column inches, in both official documentation and academic journals, it is apparent that by far the greatest attention has been paid in recent years to extrinsic, generally instrumental values assumed to result from participation.

The most common extrinsic justification for increasing levels of participation in physical education and sport, especially for children and young people, is the association with improved health (Hendry *et al.*, 1994, Vuori *et al.*, 1995). 'Knowledge and understanding of fitness and health' remains a central strand of the National Curriculum for Physical Education, and the perceived health-related outcomes of participation in physical activities (and health risks associated with low levels of participation) have been frequently stressed, both nationally (Health Edu-

cation Authority, 1998; Department of Health, 1999) and internationally (World Health Organization [WHO], 1990; US Department of Health and Human Services [US DHHS], 1996).

The urgency with which policy-makers have embraced the physical activity/health connection has only increased with a growing anxiety that some children and young people are not sufficiently active to accrue health benefits (British Heart Foundation, 2000), and that there is an increased risk of 'hypokinetic diseases' (diseases linked to sedentary lifestyles), such as coronary heart disease, obesity, hypertension, osteoporosis and diabetes, which can have their origin in childhood (Bailey, 1999).

More recently, policy-makers have begun to stress the social dimensions of sports participation, although claims of pro-social outcomes form an established tradition within both curricular physical education (Kirk, 1992; Bailey, 2000b) and recreational sport (Coakley, 1990; Donnelly & Coakley, 2002). The report to the Social Exclusion Unit from the Policy Action Team 10 suggests that sport (and the arts) can contribute to 'neighbourhood renewal by improving communities' "performance" on four key indicators—health, crime, employment and education' (DCMS, 1999, p. 22). Similar statements have followed from politicians (such as the All-Party Select Committee on Culture, Media and Sport, May 1999), government departments (Cabinet Office, 2000; Social Exclusion Unit, 2000b), the sports councils (SportScotland, 1999; Sport England, 2000; Sports Council for Northern Ireland, 2001; Sports Council for Wales, 2001) and other agencies (for example, Health Education Authority, 1999; Local Government Association, 2001).

Summarising such claims, Sport England (1999) suggested that sport can make a contribution to this 'new policy agenda' by contributing to a wide range of positive social outcomes, including reduced youth crime, improved fitness and health, reduced truancy, improved attitudes to learning among young people and the provision of opportunities for 'active citizenship'. Perspectives of this sort reflect a broad shift from viewing social inclusion via urban regeneration largely in economic terms (capital investment, incentives and environmental improvements to attract new industries and create jobs), to one which places more emphasis on people and the development of 'social capital'. Arguably, the UK's recent portfolio of projects to address social disadvantage amongst children and young people are essentially concerned with increasing social capital. These projects include: Sure Start, an early intervention programme; Children's Fund, designed to support vulnerable and at-risk children; Connexions, a programme for school leavers; the implementation of Education Action Zones; and the development of the Social Exclusion Unit within the Government, which focuses upon youth problems (Social Exclusion Unit, 2000a).

The notion of social capital has become increasingly established within both academic and government circles, despite a lack of consensus regarding its precise definition and measurement (Baron *et al.*, 2001; Office for National Statistics, 2001). Its emergence within theoretical debate can be traced to the writings of three seminal authors: Pierre Bourdieu, James Coleman and Robert Putnam (see Baron *et al.*, 2001), and whilst it would be misleading to ascribe any strong sense of unity to these writers' perspectives, there are some central themes. Generally speaking, the

notion of social capital that emerges is concerned with the role of social networks and civic norms, and is closely linked with concepts of trust, community and civic engagement. In this approach, emphasis is placed on social processes and on ways to enhance the organisational capacities of communities.

Bourdieu's use of the language of social capital can be traced to his studies of culture as a dynamic and creative phenomenon. For example, in his influential *Reproduction* (Bourdieu & Passerson, 1977), Bourdieu discussed the relationships between cultural and social reproduction by drawing upon ill-defined conceptions of capital—cultural, linguistic, scholastic and social. Over time, he became more explicit in his evocation of the social capital concept, and its connection with the interrelated economic and cultural forms of capital (1984, 1997), defining social capital as:

the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition...which provides each of its members with the backing of collectively-owned capital. (Bourdieu, 1997, p. 51)

Coleman's work in this area originated with his interest in the relationship between educational attainment and social inequality (Schuller *et al.*, 2000). In an influential paper, he described social capital as 'a particular kind of resource available to an actor', made up of a 'variety of entities', which contain two elements: 'they all consist of some aspect of social structures, and they facilitate certain actions of actors—whether persons or corporate actors—within the structure' (Coleman, 1988, p. 98). Later, discussing the concept within an more explicitly educational context, Coleman offered a definition of social capital that makes clear its relevance to our present discussion; he defined it as 'the set of resources that inhere in family relations and in community social organisation and that are useful for the cognitive or social development of a child or young person' (Coleman, 1994, p. 300).

Coleman's conception of social capital can be distinguished from that of Bourdieu, in part, by Coleman's view that it is created as a largely unintentional process. In other words, he saw social capital arising mainly from activities intended for other purposes. As such, 'there is often little or no direct investment in social capital' (Coleman, 1994, p. 312).

Robert Putnam, the final theorist under consideration, was heavily influenced by the empirical work of Coleman (Putnam, 1993). It is largely to Putnam's influence, especially to his sporty-titled book *Bowling Alone* (2000), that contemporary popular discussion of social capital can be attributed. For Putnam, social capital is essentially about social networks, and these are most effectively developed through participation in shared activities. He uses bowling as a metaphor for America's changing patterns of social networking: it was once the stereotypical associational activity, offering not just recreation but also regular sustained social interactions, but it has increasingly become a rather solitary affair. Likewise, Putnam traces, in great detail, the decline of social capital in the USA over recent decades.

Putnam's empirical work is concerned with state-level analysis of social capital, and he identifies impressive correlations between high levels of social capital and a

host of desirable outcomes, such as lower crime rates, higher levels of economic prosperity, improved health and improved educational attainment. His analysis centres on a set of indicators of social networks, which he implicitly equates to social capital (Putnam, 2000).

A uniting theme for these social capital theorists is that of 'social cohesion', which is addressed through creating or strengthening the physical, social and cultural infrastructures of communities. Investment, when it occurs, is made in programmes and processes which develop skills, confidence, self-organisational capacity and strengthen social networks (Putnam, 2000). Since sports participation provides a focus for social activity, an opportunity to make friends, develop networks and reduce social isolation, it seems well placed to support the development of social capital. That is the theory, at least. Empirical work, perhaps of the sort carried out by Coleman or Putnam in the USA, is needed to test the theory.

Sport and social exclusion

Social exclusion is defined by the Social Exclusion Unit (2001) as 'a shorthand label for what can happen when individuals or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown'. Exclusion, according to this conception, can take different forms, such as lack of access to power, knowledge, services, facilities, choice and opportunity.

Some have argued (Long *et al.*, 2002) that there may be conceptual difficulties with the Social Exclusion Unit's interpretation of exclusion, since it confuses symptoms with causes. Alternative definitions, such as that offered by the Commission of the European Communities, draw greater attention to the processes of exclusion, rather than simply the product of exclusion: 'Social exclusion refers to the multiple and changing factors resulting in people being excluded from the normal exchanges, practices and rights of modern society' (Commission of the European Communities, 1993, p. 1). According to this logic, measures taken to reduce indicators of exclusion—health, education, employment, and so on—will not necessarily succeed in promoting inclusion if they fail to address the processes of exclusion.

The literature (for example, Donnelly, 1996; Freiler, 2001) highlights a series of connected dimensions of social inclusion/exclusion, namely:

- *spatial*: social inclusion relates to proximity and the closing of social and economic distances;
- *relational*: social inclusion is defined in terms of a sense of belonging and acceptance;
- *functional*: social inclusion relates to the enhancement of knowledge, skills and understanding; and
- *power*: social inclusion assumes a change in the locus of control.

Claims made on behalf of participation in sporting activities suggest that it has the potential to, at least, contribute to the process of inclusion by: bringing individuals from a variety of social and economic backgrounds together in a shared interest in

activities that are inherently valuable (spatial); offering a sense of belonging, to a team, a club, a programme (relational); providing opportunities for the development of valued capabilities and competencies (functional); and increasing 'community capital', by extending social networks, increased community cohesion and civic pride (power).

Claims of this sort, hypothetical or not, are mediated by children and young people's access and opportunity to participate in sporting activities.

Participation in physical education and sport

Sport has the potential to reach a large proportion of children and young people. All school-aged pupils have a statutory right to a broad and balanced physical education curriculum, made up of a range of activity areas, based on games, gymnastics, dance, swimming, athletics and outdoor and adventurous activities (DfEE, 2000). A survey of young people's participation in sport found that almost all children (98%) aged 6–16 had taken part in some sporting activity out of school lessons in the previous year, with 96% indicating that they enjoyed sport in at least one context whether this was in or out of school (Mason, 1995). Moreover, a follow-on study found that, with few exceptions, all young people questioned had participated in some form of sport or exercise at least once in the last year—99% in lessons, 98% out of lessons. In the week prior to the survey, 85% of the young people had taken part in sport or exercise (Sport England, 2001). And a large-scale study based in Northern Ireland found that the majority of those questioned experienced more than one sport, especially after primary school age, but that most appeared to be attracted to a small number of activities, headed by swimming and football (Kremer *et al.*, 1997).

A cautionary note needs to be sounded, however, as evidence suggests that there is a small but significant proportion of young people whose participation is very limited, and a much larger group whose frequency, intensity and duration of participation are such that they fail to reap the health-related benefits of physical activity (Health Education Authority, 1998; Department of Health, 1999). An increasing number of studies have suggested that young people are less active than popularly thought (Pate *et al.*, 1994; Armstrong, 1995; Riddoch, 1995; Armstrong & van Mechelen, 1998), and there is further evidence that activity levels are mediated via a range of variables, including age (Rowland, 1991; van Mechelen & Kemper, 1995), gender (Janz & Mahoney, 1995; McManus & Armstrong, 1995) and geography (US DHHS, 1996; Telama *et al.*, 2002).

Being the primary societal institution with responsibility for promoting physical activity in young people (Sallis & Owen, 1999), school physical education might seem to be an ideal remedy to such sedentary lifestyles. However, some have raised concerns that curriculum physical education is at risk of increased marginalisation within the school day. For example, studies have shown that children and young people in the UK are entitled to fewer hours of physical education than their European peers (Hardman & Marshall, 2001). The UK Government's 'aspiration' of two hours of physical education and sport (DfEE/Qualifications and Curriculum

Authority, 1999) has been replaced with a 'commitment' to increasing 'the percentage of children who spend at least 2 hours a week on high quality physical education—in and beyond school—to 75%' (DCMS/DfES, 2002; cf. DfES/DCMS, 2003), although this is made without reference to any baseline figures. However, a number of recent reports have suggested that many schools are struggling to provide even pupils' basic entitlement. The National Association of Head Teachers identifies increasing 'government initiative overload and National Curriculum pressures' as direct causes of reduced time and status for physical education and sport (National Association of Head Teachers, 1999), and this seems to be a problem especially severe in primary schools (Speednet, 1999). An additional problem is lack of suitably competent and confident teaching staff, associated with inadequate training time (especially for primary teachers) and reduced advisory and in-service support (National Association of Head Teachers, 1999).

Recent government policies to increase funding and support for school sport and capital investment, such as specialist sports colleges, school sport coordinators, sports assistants and the New Opportunities for Physical Education and Sport (New Opportunities Fund), may help raise the profile of physical education and sport, but since they fail to come to terms with fundamental concerns like insufficient teacher training, marginalised curriculum position and reducing time during the school day, their ultimate success seems destined to be limited. Indeed, the opportunity for schools to provide sporting opportunities 'in and beyond school' can be—and has been—taken by some schools as a justification for further reducing curriculum time, in favour of extended out-of-hours activities. Making participation voluntary and removing it from mainstream curriculum time presents a danger that the situation for children for whom opportunities for participation are already limited will worsen.

In this regard, it is worth noting that some children and young people within society seem to be relatively disadvantaged in terms of levels of sporting participation, and are also more generally at risk of exclusion (DCMS, 1999). For example, an influential Sports Council survey (Sports Council, 1995) of over 4400 young people between 6 and 16 years found that, in each age group, boys spent more time doing sport, took part in a greater number of activities and competed at a higher level than girls. The same survey revealed that almost all girls said they enjoyed sport, both in physical education lessons and in other settings, and yet they demonstrated relatively low participation rates. Whilst more optimistic, a Northern Ireland study (Kremer *et al.*, 1997) of 8 to 16 year-olds revealed that whilst girls had lower participation rates than boys in each age group, they devoted more time to participation per week and performed at a higher level than had been previously reported. The same study reinforced earlier findings that boys are more likely to be attracted to competitive team games, whilst many girls prefer individual sports, like swimming, athletics and riding; a fact which is all the more noteworthy in light of the heavy emphasis placed on competitive team games in many schools' curricular physical education and after-school clubs (Bailey *et al.*, 2002).

The only large-scale study in the UK of sporting participation rates by members of minority ethnic groups was undertaken in England (Rowe & Chapman, 2000), and found that overall participation rates for adults in minority ethnic communities

was 40%, compared to 46% for the adult population as a whole. Certain populations had especially low rates of participation (Black Caribbean, Indian, Pakistani and Bangladeshi). Qualitative research carried out for SportScotland (SportScotland, 2001) identified a range of barriers to participation by minority ethnic communities, including lack of acceptance of the value of sport, fear of discrimination, absence of role models and inappropriate facilities and services. Different experiences by males and females of minority ethnic origin are also beginning to be documented, with particular attention being paid to Muslim girls (Rai & Finch, 1997; Rowe & Chapman, 2000). Research suggests that girls and women are less likely to take part in sport than their male counterparts, which led one commentator to conclude that 'the combination of gender and ethnicity have a much greater effect on general participation in some groups than others...To be female and Bangladeshi, Pakistani, African and Indian accentuates the difference in participation' (Carroll, 1993, p. 59).

Similar patterns of restricted access and opportunity are evident among disabled young people. A recent survey for Sport England (Finch *et al.*, 2001), for example, found that young people with a disability were far less likely to take part in extra-curricular or out-of-school sporting activities. For example, 16% of the sample of young people with a disability had taken part in extra-curricular sport compared with 45% of a general sample of young people, and 47% of young people with a disability had taken part in sport at the weekend compared with 74% of the overall sample. Summarising evidence in this area, the English Federation of Disability Sport (EFDS, 2000) identified a range of barriers to participation, including self-consciousness, low levels of confidence and, significantly for our interests, negative school experiences.

Evidence, to date, is limited with regard to the processes by which children and young people might become 'socially included' through sport, but there are some clues (see, for example, Donnelly & Coakley, 2002). First, access is a necessary condition of inclusion: if sport is to be involved in the process of social inclusion, it is essential that children and young people have opportunities to participate; without access, any discussion of social inclusion is moot. Second is the issue of agency: arguably, inclusion is not possible unless institutions allow it to be so, hence the importance of projects that involve excluded young people in decision-making (Long *et al.*, 2002). Third, a substantial body of evidence suggests that the development of basic physical competence, such as is developed through a quality physical education programme, has a powerful effect upon self-esteem, confidence and peer acceptance (Bailey, 2000a), which may be necessary conditions for social inclusion. Finally, sports programmes seem to be most successful when they have effective, preferably local, leadership (Coalter *et al.*, 2000).

The issue is not simply whether increased sports participation can be viewed as contributing to young people's personal and community development and the reduction of social exclusion. Rather, the key questions relate to the nature of the contribution such participation can make.

The benefits of physical education and sport

Numerous publications and policy documents provide lists of positive aspects of physical education and sports participation processes. For example, Talbot (2001) claims that physical education: helps children to develop respect for the body—their own and others; contributes towards the integrated development of mind and body; develops an understanding of the role of aerobic and anaerobic physical activity in health; positively enhances self-confidence and self-esteem; and enhances social and cognitive development and academic achievement. Likewise, a Council of Europe report (Svoboda, 1994) suggests that sport provides opportunities to meet and communicate with other people; to take different social roles; to learn particular social skills (such as tolerance and respect for others); to adjust to team/collective objectives (such as cooperation and cohesion); and that it provides experience of emotions that are not available in the rest of life. This report goes on to stress the important contribution of sport to processes of personality development and psychological well-being, stating that there is, ‘strong evidence...on the positive effects of physical activities on self-concept, self-esteem, anxiety, depression, tension and stress, self-confidence, energy, mood, efficiency and well-being’ (Svoboda, 1994, p. 15).

Similar claims are made throughout the academic and policy literature (see Coalter, 2001; Long & Sanderson, 2001). For the purposes of the present discussion, the following areas of supposed benefit from participation in physical and sporting activity constitute one framework. There are, of course, numerous other ways of approaching and organising the diverse literature in the field. However, the approach being followed here has the virtue of reflecting both the language employed by advocates for sport and the usage in some of the recent policy documentation from the UK Government in relation to its explicit goal of reducing social exclusion (e.g. DCMS, 1999, 2000; Sport England, 1999, 2000; Central Council of Physical Recreation, 2001; New Opportunities Fund, 2002).

The areas are:

- physical health;
- cognitive and academic development;
- mental health;
- crime reduction; and
- reduction of truancy and disaffection.

Physical health

The physical health benefits of regular physical activity are well established (WHO/Fédération Internationale de Médecine du Sport Committee on Physical Activity for Health, 1995; Health Education Board for Scotland, 1997). Regular participation in such activities is associated with a longer and better quality of life, reduced risks of a variety of diseases and many psychological and emotional benefits (Sallis & Owen, 1999). There is also a large body of literature showing that inactivity is one of the

most significant causes of death, disability and reduced quality of life in the Western world (US DHHS, 1996).

Physical activity may influence the physical health of children in two ways. First, it could affect the causes of disease during childhood. Second, it could reduce the risk of chronic diseases in later life (Sallis & Owen, 1999). Evidence is starting to appear suggesting a favourable relationship between physical activity and a host of factors affecting children's physical health, including diabetes, blood pressure, the ability to use fat for energy and bone health (Bailey, 1999). Interestingly, it also seems to be the case that a number of 'adult' conditions, such as osteoporosis (brittle bones) and coronary heart disease, have their origins in childhood, and can be aided, in part, by regular physical activity in the early years (Malina & Bouchard, 1991; Freedman *et al.*, 2001).

There seems to be a general trend towards increased obesity, or over-fatness, across the population, and it has been predicted that by 2005, 18% of men and 24% of women in the United Kingdom will be obese (Department of Health, 1995). This growing problem is reflected in an increased number of overweight and obese children: by the time they leave primary school, as many as 21% of boys and 14% of girls are approaching 'a concerning level of fatness'. Evidence suggests that the infant years represent a 'critical period' for the development of lifelong obesity. Obesity that begins during this period appears to increase the risk of persistent obesity and the associated risks like coronary heart disease and diabetes (Freedman *et al.*, 2001).

Cognitive and academic development

There is little research which explores the precise relationship between sporting activity and educational performance, and the evidence about the relationship between physical activity, cognitive benefits and academic performance is somewhat inconclusive. It has been hypothesised, for example, that physical activity at school could enhance academic performance by increasing the flow of blood to the brain, enhancing arousal levels, changing hormonal secretion, mental alertness and improving self-esteem, but the empirical basis of such claims is varied and more systematic research is still required to adequately assess the validity of the assertions (Shephard, 1997; Hills, 1998). Indeed, Geron's (1996) descriptions of publications to date as predominantly 'theoretical speculations, hypotheses and general ideas' is accurate.

There have been some reports suggesting a small positive relationship between cognitive performance and regular activity (Etnier *et al.*, 1997), although work in this area has been predominantly focused upon adults. Studies of educational performance are more plentiful, and have found either no or limited improvement in academic performance resulting from increased physical activity. However, a report of three longitudinal studies emphasises that 'academic performance is maintained or even enhanced by an increase in a student's level of habitual physical activity, despite a reduction in curriculum or free time for the study of academic material' (Shephard, 1997, p. 113).

Also, recent inspections of specialist sports colleges in England have shown early signs that examination results in physical education and other subjects have improved since physical education and sport have become central elements of the colleges (Office for Standards in Education/Youth Sport Trust, 2000). However, at this stage it is difficult to distinguish between causation and correlation.

Mental health

In recent years, there has been evidence of disturbingly high rates of mental ill-health among adolescents and even younger children, ranging from low-self-esteem, anxiety and depression to eating disorders, substance abuse and suicide (Sallis & Owen, 1999). There is now fairly consistent evidence that regular activity can have a positive effect upon the psychological well-being of children and young people. Reviewing the literature in the area, Mutrie and Parfitt (1998) conclude that physical activity is positively associated with good mental health. The case is particularly strong with regards to children's self-esteem, especially so in disadvantaged groups, such as those with learning difficulties or initially low self-esteem. Other associations with regular activity that have been reported include reduced stress, anxiety and depression, all of which lend support to Sallis and Owen's (1999) claim that 'physical activity improves psychological health in young people' (p. 51).

Crime reduction

Three recent UK policy-related reviews of the potential social value of sport (Collins *et al.*, 1999; DCMS, 1999; Sport England, 1999) all list the prevention of youth crime as an issue to which sports can make a contribution, reflecting a widespread belief in the 'therapeutic' potential of sport. Sport England admits that

it would be naïve to think, and unrealistic to claim, that sport alone can reduce the levels of youth crime in society...[however] strong experiential evidence exists to show that sport has a part to play in preventing crime. (Sport England, 1999, pp. 7–8)

The debate about the relationship between sports participation and crime divides broadly into theories about the rehabilitation of offenders and theories of prevention (or diversion).

The rehabilitation approach tends to be smaller scale, concentrating on offenders, and often involves intensive counselling to identify the needs of offenders in order to provide relevant programmes. This is usually via outdoor adventure activities, or 'demanding physical activity programmes', aimed at developing personal and social skills and improving self-confidence, self-efficacy and locus of control, which it is hoped will transfer to the wider social context and reduce offending behaviour (Taylor *et al.*, 1999).

A Home Office review of such programmes (Utting, 1996) concluded that 'there is a shortage of reliable information regarding which aspects of sport, adventure and leisure pursuit programmes are most effective and for how long. It is not clear which interventions are most appropriate for different groups of young people' (p. 56). Also, there is the addition of the conceptual difficulty that crime reduction is

indirect, working through a number of intermediate outcomes or processes, such as improved fitness, self-esteem, self-efficiency and locus of control and the development of social and personal skills. So, it is not sufficient simply to measure outcomes and assume that these are 'sports-effects' (Coalter, 2001). Despite such difficulties, however, some commentators believe that, when compared to the costs of prosecution and detention, such programmes, even with a low success rate, are 'good value for money' (Coopers & Lybrand, 1994).

The 'diversionary' rationale increasingly underpins relatively large-scale sports programmes targeted at specific areas, or during specific time periods (such as summer sports programmes). The acknowledged salience of sports for many young people (especially males) has meant that provision of sporting opportunities has become an important element in many urban regeneration projects, largely aimed at reducing youth crime, by encouraging the positive use of leisure time and capitalising upon the supposed socio-psychological outcomes of participating in sport.

A review of 11 schemes designed to use sport to divert young people from criminal behaviour (Robins, 1990, p. 2) concluded that 'information about outcomes was hard to come by', and this seems to be partly due to difficulties inherent within the original rationales for many schemes, such as over-ambitious objectives, vague classifications of 'anti-social behaviours' (implicitly including everything from petty, opportunity-led vandalism, via systematic theft and drug abuse to crimes of violence) and simplistic theorising about the causes of delinquency (Coalter, 2001). The Home Office review (Utting, 1996, p. 84) mentioned above concluded that 'it is difficult to argue that such activities have in themselves a generalisable influence on criminality. The lack of empirical research means important practice issues remain unresolved'.

Nevertheless, there has been a small number of detailed studies. One study in the USA reported parents' perceptions that their children's behaviour and attitudes had improved after participating in a community-based intervention programme (they mentioned improved interest in and achievement at school, willingness to help at home, communication ability and interaction with parents) (Roundtree *et al.*, 1993). Likewise, a Canadian report found an increase in skill-competency, and a reduction in anti-social behaviour was reported following participation in a recreation programme in two housing projects (Jones & Offord, 1989). Finally, Sport England (Sport England, 1999) quotes a multi-agency scheme in a Bristol youth centre which addressed problems of drug-taking and associated levels of criminal activity, which reported a 15% reduction in crime in the local beat area and a 43% reduction in juvenile crime.

Reduction of truancy and disaffection

Numerous policy documents and advocacy statements make strong claims on behalf of sport's potential contribution to the reduction of pupil disaffection (for example, DCMS, 1999; Sport England, 2002), and the popularity of sporting activities for many young people has led others to argue for its consideration by schools seeking to address the problem of truancy (Reid, 2002). The evidence supporting such

claims is, however, limited, and whilst there have been a number of smaller-scale studies and a great deal of anecdotal evidence, there has yet to be a systematic evaluation of programmes designed to address anti-school attitudes.

Some studies report generally positive outcomes in terms of pupil attendance following the introduction of sports-based schemes (Long *et al.*, 2002), and there is evidence from studies of those attending pupil referral units that an increase in the availability of sporting activities would make the school experience a more attractive option (Kinder *et al.*, 1999). Some positive findings have started to be reported, too, by the Qualifications and Curriculum Authority as part of a project prioritising physical education and sport (Qualifications and Curriculum Authority, 2001). However, these studies involve small sample sizes and often rely upon the testimonies of those introducing the intervention.

On the theme of the relationship between school sport and attitudes to school, it ought to be acknowledged that not all pupils enjoy such activities, at least when presented in certain ways. For example, research shows that many girls acquire a progressive disillusionment with curricular physical education and totally disengage from after-school clubs as they move through secondary school, and this may be influenced by such factors as by boys' dominance of teacher attention and the physical education space, a perception that the National Curriculum is biased towards traditionally 'male' activities, and an incompatibility between the activities experienced at school and those voluntarily engaged in after leaving school (Kay, 1995). Thus, it would be misleading to suggest that physical education and sport will necessarily contribute towards positive attitudes to school in all pupils, as inappropriate provision might actually increase disaffection and truancy.

The difficulty with any discussion of the relationship between sporting activities and disaffection is that there is insufficient evidence to draw general conclusions. Whilst there are some positive indicators from the earlier studies, more systematic, longitudinal research, balancing quantitative information of attendance rates with qualitative data on the causes of attendance and engagement in schooling, is required.

Towards socially inclusive physical education and sport

A paper for the Council of Europe argued that:

The point is that sport has the potential both to improve and inhibit an individual's personal growth. The futility of arguing whether sport is good or bad has been observed by several authors. Sport, like most activities, is not a priori good or bad, but has the potential of producing both positive and negative outcomes. Questions like 'what conditions are necessary for sport to have beneficial outcomes?' must be asked more often. (Patriksson, 1995, p. 128)

The formal listing of the inherent properties of sports and the supposed associated benefits overlooks the vitally important distinction between necessary conditions (i.e. participation in sport) and sufficient conditions (the conditions under which the potential outcomes are achieved) (Coalter, 2001). It cannot be assumed that any or

all of the benefits outlined above will automatically be obtained in all circumstances by all participants.

It is important to acknowledge that sporting activities are not a homogenous, standardised product or experience. Different individuals' experiences of the same activity will be subject to wide variations, as will the effects. This certainly seems to be the case within the context of curricular physical education (Laws & Fisher, 1999), and the effect is, presumably, even greater once young people step outside the school gates, and the effects of such influences as gender, class and ethnicity are more apparent.

Variables in terms of young people's sporting experiences include the nature of the teaching, coaching and supervision they receive. These will impact on the nature and extent of any effects that are evident. The personal qualities and teaching styles of physical education teachers can be significant factors in the development of pupils' perceptions of the subject (Laws & Fisher, 1999), and these perceptions can, in turn, exert an influence over the development of sporting values (Bailey, 2000b) and the commitment to lifelong physical activity (Macfadyen, 1999). For example, some girls indict inappropriate teaching approaches in school physical education lessons as culpable in their rejection of regular physical activity (Talbot, 1996). Conversely, good-quality teaching has been frequently cited as a significant early influence on many elite representative sporting performers (Hemery, 1986; Thomson, 1992). There is also some evidence pointing to the importance of sports leaders, especially in obtaining positive outcomes among young people at risk (Nichols & Taylor, 1996).

Moreover, any effects will be determined by frequency and intensity of participation and the degree of adherence over time of the participants. These factors have been shown to be especially significant in the improvement of fitness and health (Corbin *et al.*, 1994), and it seems reasonable to presume that they also have implications for the development of technical and social skills and particular attitudes and values. Finally, the voluntary nature of most extra-curricular sport may mean that such activities primarily attract those who are most susceptible to sport's positive impacts, and those most in need of the experiences (either from a personal or community perspective) may be the less likely to participate (Keller *et al.*, 1998; Coalter, 2001).

Of course, the above analysis does not argue against the efficacy of sport, simply that its effects will have differential impacts, and these need to be recognised in any rigorous evaluation of the theoretical and empirical literature.

Coherence and lack of evaluation—a conclusion

In practice, such problems are often overlooked, with the emphasis being placed on the theoretical possibilities associated with sporting participation. However, with mounting evidence of the marginalisation of physical education as a curricular experience (Hardman & Marshall, 2001), and differentiated opportunities across populations of young people, there is an increasing, indeed urgent, need for rigorous evaluation of the outcomes of participation in physical education and sport. Sadly,

many practitioners seem to regard monitoring of performance as unnecessary, so there is a widespread failure to undertake systematic monitoring and evaluation of the outcomes of sport or physical activity-based projects (Coalter, 2001). For example, in an analysis of 180 items on sport and social exclusion, Collins and colleagues found only 11 studies had 'anything approaching rigorous evaluations and some of these did not give specific data for excluded groups or communities' (Collins *et al.*, 1999).

Consequently, the issue is not simply whether increased sports participation can be viewed as contributing to personal and community development and the reduction of social exclusion. Rather, the question relates to the nature of the contribution such participation can make to a range of issues. To date, evidence in this regard is limited.

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