
The social benefits of sport

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Putting sport first

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the national agency for sport

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Sport and its potential contributions

Introduction

These papers are designed to encourage an informed debate about the potential of sport to contribute to a range of policy areas. Although there are many potential benefits associated with sport, such benefits are only a possibility. Without systematic thought, informed planning and proactive management many such benefits may not be obtained.

In recent years research on sport for social change has increased our understanding that the diverse nature of sport, the contexts in which it is delivered and the experiences it provides all have significant implications for our ability to achieve desired outcomes.

What is sport?

This may seem an odd question. However, if the contexts and experiences of sport are the key to achieving the outcomes then it is a significant question. This is illustrated by a quote from the President's Council on Physical Fitness and Sports (2006: 4), which reviewed research on the contribution that sport can make to character building:

“For several reasons, broad generalisations about “sports” are unlikely to be helpful. For one, the rule structures of the various sports promote different types of social interaction. The developmental stimuli provided by a boxing match are likely to differ from those of a golf tournament. In addition, each sport tends to have its own subculture and implicit moral norms. The culture of rugby is quite different from that of competitive swimming. Even within a single sport area and developmental level, individual sport teams are different because each team develops its own unique moral microculture through the influence of particular coaches, athletes, fans, parents, and programs. Moreover, even within a single team, participants’ own appraisals of the experience may vary substantially.”

Related to this diversity is evidence that males and females are attracted to different aspects of sport. Although it is necessary to avoid stereotypes, evidence suggests that many females are more likely than males to adopt a cooperative rather than competitive approach to sport and are attracted by sports’ sociability (Biddle et al 2005). Because of this variety it is essential to distinguish between:

- Simple participation in a sport which is necessary to obtain the supposed benefits; and
- The processes, relationships and experiences needed to maximise the potential to achieve desired outcomes – what might be termed *sufficient conditions*.

The key is not simply what you do, but how you do it.

Managing for success

The above reference to *sufficient conditions* – ie the nature of the processes and experiences needed to maximise the positive outcomes of sports participation - is reflected in research evidence which indicates that, to achieve the full potential of sport, it is necessary to be aware of a number of factors:

- **Managing for outcomes.** It is essential to be clear about the assumptions underpinning provision and the nature of expected outcomes – certain sports and physical activities may be better than others at achieving particular outcomes for different individuals and groups. An understanding of such assumptions is necessary in order to manage the programme to maximise the potential to achieve desired outcomes (Coalter, 2007).
- **Supervision and leadership.** The nature of the social climate and social relationships will greatly influence the nature and extent of the impact of the programme on participants. Evidence points to the importance of sports coaches and leaders, especially in obtaining positive outcomes among young people at risk (Nichols and Taylor, 1996; Witt and Crompton, 1997; Crabbe, 2008; Coalter, 2011).
- **Frequency, intensity and adherence.** Any impact on sports participants will be determined by the frequency of participation, emotional intensity of participation (i.e. the extent to which it is viewed important) and the degree of adherence over time. Although these factors are especially important in order to obtain fitness and health benefits, they also have implications for the development of sporting and social skills and changed values, attitudes and behaviour.

What do we know?

Despite popular beliefs about the positive outcomes associated with sports participation, conclusive evidence is often difficult to find. There are a number of reasons for this:

- The difficulties in measuring many of the claimed impacts and outcomes of sports participation and separating them from other influences. For example, reduction in crime may not simply reflect the provision of sports programmes, but a range of other policies or wider environmental improvements.
- Many of sport's effects are indirect; we hope that the changes in values and attitudes resulting from sports participation lead to changed behaviour in other areas of life. For example, the belief that participation in sport reduces the propensity to commit crime assumes that this will result from such individual impacts as increased self-efficacy, self-esteem and self-discipline (Taylor, 1999). However, the measurement of cause and effect presents difficulties (Nichols and Crowe, 2004; Coalter, 2007).
- Increasingly, programmes are adopting a *sport-plus* approach in which sport's popularity and contribution are complemented by a range of other inputs (eg workshops, discussions, vocational education) to address the developmental needs of young people.

- Our ability to generalise about 'sport' is limited because there is a wide diversity of programmes, participants and experiences. Rarely if ever is the 'same' programme equally effective in all circumstances because of the influence of contextual factors and the diversity of participants (Pawson, 2006).

Of course such issues are not confined to sport and are associated with most areas of social policy. However, if we are to develop an informed debate and contribute to the more effective use of sport, we must take such considerations into account and they must be borne in mind when assessing the evidence in this document.

Sport, fitness and health

Introduction

This is the most developed area of relevant research for three reasons:

- As it deals with issues of health there is a much larger volume of robust scientific research.
- There is a consensus about the positive relationships between physical activity and various aspects of health.
- There are several wide-ranging systematic reviews of research and we will mostly draw on these, rather than individual pieces of research.

Most of the evidence relates to regular, often moderately intensive *physical activity* over a sustained time period and not simply to sport (although much depends on definitions). This must be borne in mind when considering sports' potential contributions.

Physical fitness and health

How much physical activity?

There is widespread agreement about the general links between physical activity and health (US Department of Health and Human Services, 1996; European Heart Network, 1999; Warburton et al, 2006; O'Donovan et al, 2010; Mountjoy et al, 2011). However, before outlining the potential benefits, it is worth noting that there are recommended minimum levels of activity required to achieve most of these. The current recommended levels are as follows (Department of Health, 2011):

Age 5-18: Moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day.

Age 19-64: Active daily. Over a week, activity should add up to at least 150 minutes of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.

Age 65+: Active daily. Over a week, activity should add up to at least 150 minutes of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least 5 days a week.

Moderate intensity will cause participants to get warmer and breathe harder and their hearts to beat faster, but they should still be able to carry on a conversation

Vigorous intensity will cause participants to get warmer and breathe much harder and their hearts to beat rapidly, making it more difficult to carry on a conversation.

The evidence

Warburton et al (2006) outline the processes involved in translating physical activity and fitness into improved health outcomes. These include:

- improved body composition
- enhanced lipid lipoprotein profiles
- improved glucose homeostasis and insulin sensitivity
- reduced blood pressure
- decreased blood coagulation
- improved coronary blood flow
- enhanced endothelial function
- improved psychological well-being

Such processes contribute to a reduction in the incidence of the following:

Cardiovascular disease. It is well established that regular physical activity and increased cardio-respiratory fitness reduce the risk of cardiovascular disease mortality in general and of coronary heart disease mortality in particular (U.S. Department of Health and Human Services, 1996; European Heart Network, 1999).

A recent expert review panel rated this evidence as ‘very strong’ and referred to a study of more than 250,000 middle-aged men and women which found that cardiovascular disease risk and all-cause mortality risk were reduced by around 40% in those who met the ‘conventional’ recommendations of at least 30 minutes of moderate-intensity activity on most days of the week (O’Donovan et al, 2010).

Non-insulin dependent diabetes. O’Donovan et al (2010) rank as ‘very strong’ the evidence of a link between sedentary lifestyles, being overweight and type 2 diabetes. Those at risk of type 2 diabetes would benefit from meeting the recommendations for ‘conditioned individuals’ of 300 minutes or more of moderate-intensity aerobic activity per week, or 150 minutes or more of vigorous-intensity aerobic activity per week.

Welk and Blair’s (2000) review of research found that physical activity reduces and/or reverses the development of insulin-resistance, even among overweight or obese individuals.

Colon cancer. O’Donovan et al (2010) rank the evidence for a positive relationship between regular physical activity and reduced risks of colon cancer as ‘moderate’, but ‘convincing’. The evidence for reduced risk of breast and prostate cancer is ranked as ‘probable’ by Marrett et al (2000) and ‘moderate’ by O’Donovan et al (2010). There is insufficient evidence for dose recommendations, although higher levels of activity may be necessary to reduce the risks (O’Donovan et al, 2010).

Post-menopausal breast cancer. A longitudinal study of 100,000 females concluded that long-term strenuous exercise provides a protective role against invasive and in situ breast cancer (Dallal et al, 2007). O’Donovan et al (2010) rank as ‘strong’ the evidence linking physical activity and post-menopausal breast cancer, quoting prospective cohort studies which indicate that recommended doses of activity are associated with 20–30 per cent reductions in incidence of the disease.

Osteoporosis. There is evidence that regular load-bearing/resistance-based/muscle stressing physical activity in childhood and early adolescence contributes to a reduction in the later incidence of osteoporosis (Shaw and Snow, 1995; Puntilla et al, 1997; Kemper et al, 2000; Iwanoto et al, 2009). Egan et al (2006) found that all sports participation has a positive effect on bone mineral density, but the effects are site-specific and depend on the loading characteristics of each sport.

Iwanoto et al (2009) suggest that for postmenopausal women, weight bearing and resistance exercises need to be combined with adequate calcium intakes. The optimal programme for older women will include activities that improve strength, flexibility and coordination that may lessen the likelihood of falling. There should be a combination of muscle strengthening exercises of the back and lower extremities, balance exercise and walking.

Haemorrhagic strokes. Although many factors contribute to the incidence of strokes, evidence suggests that increased left ventricular mass without physical activity results in a high risk of stroke. Rodriguez et al (2002) found that the reduction of risk was apparent for light intensity activities, such as walking, and a modest incremental benefit may be gained from increasing the duration of activity.

Obesity. Obesity is recognised as a medical condition and as a major contributor to a number of chronic illnesses – heart disease, diabetes, high blood pressure, stroke and cancer. O'Donovan et al (2010) rate the strength of evidence for an association between sedentary behaviour and obesity as 'very strong'. They state that evidence suggests that adults who find it difficult to maintain a normal weight need to reduce energy intake, minimize sedentary time and may need to go beyond the levels of activity recommended for 'all healthy adults' and gradually progress towards meeting the recommendations for 'conditioned individuals' i.e. 300 minutes of moderate-intensity aerobic activity per week, or 150 minutes of vigorous-intensity aerobic activity per week.

Not just sport

Sport specifically, and physical activity more generally, are not the sole answers to such widespread health issues – issues of diet, lifestyle, culture and poverty are central to many health issues (Roberts and Brodie, 1992; Burke, 2009; Wilkinson and Pickett, 2009). Nevertheless, there are clear health gains to be obtained by a general increase in regular physical activity, especially among the least active (Blair and Connelly, 1996) and even starting to exercise in middle age will have protective effects (Morris, 1994).

Mental health

Introduction

Research evidence illustrates that physical activity and associated psychological and social processes can contribute positively to mental health, with the exceptions of over-training and training addiction. Evidence suggests a positive effect on anxiety, depression, mood and emotion, self-esteem and psychological dysfunction.

However, there are variations in how researchers define and measure such complex conditions. Partly because of this there is a weak understanding of the mechanisms that

underlie the relationship between physical activity and psychological well-being. Further, with little agreement about the intensity and frequency required to obtain a variety of benefits, these are likely to relate to individual circumstances (Scully et al, 1998; Fox, 1999).

In this regard researchers suggest that measured improvements in psychological well-being might be due as much to psychosocial factors as to the actual physical activity (Scully et al, 1998; Fox, 2000; Coalter et al, 2000; Taylor, 2000; Rendi et al, 2008; Eime et al, 2010). Social aspects can attract, provide motivation, ensure retention and make an important contribution to personal development. This was noted in the Acheson Report on inequalities and health (quoted in Health Education Authority, 1999: 1,3) which emphasised the importance of these social aspects:

'...opportunities afforded by exercise might also lead to wider social networks and social cohesion.It has been suggested that people with good social networks live longer, are at reduced risk of coronary heart disease, are less likely to report being depressed or to suffer a recurrence of cancer, and are less susceptible to infectious illness than those with poor networks.'

The evidence

Within this context, research evidence illustrates the following:

- Participation in a one-off session of physical activity can result in a reduction in anxiety levels and self-reported feelings of increased well-being. Such improvements have been reported to last for up to three hours after the activity session. (Raglin, 1990; Steptoe, 1992; Di Lorenzo et al, 1999; Lawlor and Hopker, 2001; Taylor, 2000; Rendi et al, 2008).
- Improved self-esteem, self-efficacy and perceived competence can result from long-term participation in an exercise programme (King et al, 1989 Fox, 2000).
- Several studies of older women found that physical activity was associated variously with overall quality of life, more positive mood states, reduced anxiety, improved social functioning and life satisfaction (Lee and Russell, 2003; Kotlyn, 2001; Chodzko-Zajko, 1998; Eime et al, 2010)
- Among adolescent females psychological and emotional benefits can be maximised via the provision of a variety of activities, the avoidance of emphasis on body physique and moderate and regular physical activity (Bunker, 1998). Others suggest a form of sport plus in which structured educational programmes promote self-esteem and positive attitudes to physical activity (Schenider et al, 2008; DeBate et al, 2009)
- Different psychological conditions respond differently to differing exercise regimes; for example, non-aerobic, aerobic, anaerobic, and short, medium or long-term duration, can have differing impacts (Scully et al, 1998; Fox, 1999).
- Fox's (2000) research review concludes that general improvements in self-perception/self-esteem are most likely to occur in those with low self-esteem, physical

self-worth and body image.

- Although much of the research about disability is small scale and qualitative, sport has a clear potential for the social integration, improved self-confidence and self-perception of young people with physical disabilities (Taub and Greer, 2000; Kristen et al, 2003; Groff and Kleiber, 2001). In a systematic review Bragaru et al (2011), while criticising the quality of available research, concluded that the psychosocial benefits of sports participation were at least equal to those experienced by able-bodied people.

Encouraging participation

If such health benefits are to be realised then the encouragement of participation becomes a key issue. Although increased participation is also necessary to achieve the other potential benefits of sport, these benefits tend to require more specialised forms of provision than required to achieve health benefits. This raises three broad themes.

Current participants

We have already noted the official minimum recommendations. However, the only large-scale longitudinal UK study of the health impacts of sport on adults (Roberts and Brodie, 1992) concluded that:

- Among current sports participants, the frequency of activity is often less than that required to achieve and sustain health benefits. Of course, if sport is part of a more generally active lifestyle, it can make an important contribution.
- There is a need to reduce the cyclical nature of participation – e.g. many sports are seasonal and it is difficult to sustain regular participation in the context of other commitments.
- There is a need to improve the levels of regular, long-term participation.

Also it is important to note that studies of school sport practice sessions and physical education lessons indicate that such sessions often do not provide activities of sufficient duration and intensity to achieve cardiovascular fitness (Beets et al, 2005; Leek et al, 2011).

Developing 'life-long participation'

The general evidence is that regular participation in childhood and late adolescence makes adult participation *much more likely* (Malina, 1996; Hirvensalo et al, 2000). However, because of a wide range of intervening variables it cannot guarantee it. Such variables include post-school education/employment; peer group influences; gender; life-course changes; competing uses of time; changing interests.

Nevertheless, there is agreement that the potential for adult participation can be increased by:

- Enabling a choice of sports;
- providing inclusive opportunities which develop self-efficacy, competence and control;

- adopting a skill-based task-orientation rather than competition (especially for girls and young women)
- selecting activities for their potential for post-school participation, which will rarely be achieved via team sports (Biddle et al, 2005; Macphail et al, 2003).

Understanding constraints and facilitators

Many of those most in need of physical activity are usually the least likely to participate. However, our knowledge of both constraints on, and facilitators of, participation and how to influence them is surprisingly limited. A systematic review of research on understanding participation in sport indicated the need for more fundamental thinking by stating that:

“Many government policies are setting out to ‘change attitudes’ or change cultures’ with only the most cursory analysis of any attitudinal factors. Many bold statements are made about attitudes and culture with little justification and few references. (Foster et al, 2005: 41)”

Possible solutions

Foster et al (2005) and others propose that interventions need to be based on theories of individual behaviour change such as **social cognitive theory** (with its emphasis on supportive environments, observational learning, the development of self-efficacy and positive outcome expectancies), or the **transtheoretical/stages of change model** (with its distinctions between pre-contemplation of participation, contemplation, preparation to participate, action (participation) and maintenance of activity) (Biddle et al, 2005; Allison et al, 1999; Dodge and Lambert, 2009; Kahn et al, 2002)

Policy

There is no single solution to such complex issues and solutions will always reflect local circumstances and contexts. However, on the basis of existing UK research it is possible to suggest a variety of approaches which need to be considered.

- Local, accessible and varied facilities, including environmental improvements such as cycle lanes and well-lit pavements (Loughlan and Mutrie, 1997; Health Development Agency, 2003; Foster, 2005; Hart et al, 2011; Taylor et al, 2011).
- More precise targeting of subsidies, activity programming and promotion, as well as more outreach provision. Research indicates that price is rarely the major obstacle, therefore promotion and price discounts cannot be depended upon. (Coalter, 1993; Taylor, 2011).
- Management practices which take account of financial, social, cultural and motivational constraints on under-participating groups (Roberts and Brodie, 1993; Cabinet Office, 2003; Tayler et al, 2011).
- Build on existing activity, organisations and infrastructure (Hart et al, 2011).

Individuals

In terms of more individual approaches Thorogood et al (2004) suggest that counselling by experts can lead to at least short to medium-term increases in physical activity. The Health

Development Agency (2003) suggests that such an approach should have a number of elements:

- recognise the importance of participants' friendship groups in getting involved and staying involved;
 - provide reassurance that 'people just like us' are able to participate;
 - acknowledge, particularly to older people, that some physical activity will be better than none; and
 - recognise that if the activity has some intrinsic value (fun, enjoyment, a change of environment, sociability), it may be more appealing and ensure adherence.
- Emphasising the social nature of most sporting activities may provide encouragement and support to ensure the level of frequency and adherence required to obtain sport-related health benefits.

Loughlan and Mutrie (1997) suggest that to sustain commitment to activity there is also a need for supportive infrastructure such as crèches and continuing social support and affirmation.

Conclusions

Much of the research evidence relates to the health benefits of physical activity, rather than 'sport'. Further, among the least active and least healthy groups, the promotion of an 'active lifestyle' may be a more useful strategy than the promotion of sport and fitness.

For example, research on physical activity promotion schemes indicates that sports/leisure centres may not be the most suitable venues, at least in the early stages of such programmes (Health Development Agency, 2003; Riddoch et al, 1998).

However, depending on how it is presented and provided, 'sport' can offer a variety of physical activity opportunities, including such potentially lifelong activities as recreational cycling, swimming, aerobics, walking, tennis and badminton- all of which can be adapted to take account of a variety of confidence and skill levels.

While sport and physical activity have a clear potential to provide physical and emotional health benefits, there is a growing consensus that participation is only a necessary condition and that we need much more systematic consideration of *sufficient conditions*. In addition to the required minimum level and frequency of participation, there is a need to consider the *participant experience* as this is central to retention and the achievement of a number of benefits (especially those related to mental health).

Sport, young people and education

Introduction

There is a widespread assumption that taking part in sport has a positive impact on academic achievement. The presumed (although largely unproven) mechanisms underpinning this relationship can be divided into two broad categories – physiological/cognitive and socio-psychological

Physiological/cognitive factors

Research in this area relates to the nature of physiological impacts of sport participation and how these might improve aspects of cognition - mental processes such as attention, memory, problem solving and decision-making. These improved aspects of cognition might contribute to improved educational performance. For example, Etnier et al (1997) and Lindner (1999) list the following possible impacts:

- increased energy derived from fitness
- improved cognitive functioning as a result of increased cerebral blood flow or improvement of brain neurotransmitters
- a relationship between motor and mental skills and increased self-esteem
- productive diversion resulting from time away from classroom
- reduced disruptive classroom behaviour

Within this context, there are some suggestive findings:

- Both short-term and sustained exercise programmes can result in small positive gains in cognitive functioning, such as such as reaction time, perception, information-selection, decision-making, memory and reasoning (Thomas et al, 1994; Etnier et al, 1997; Tomporowski, 2008). However, such effects are not obtained by all. Sibley and Etnier's (2003) review of 44 studies found that the type of activity was not significant, indicating that psychological mechanisms may be the key to explaining the gains.
- In a randomised control experiment Winter et al (2007) compared the cognitive effects of 15 minutes being sedentary, 40 minutes low-impact running and intense three minute sprints. Those who took part in the intense activity performed better in reading and vocabulary tests, both immediately after the activity and eight months later. However, the effects were small.
- Lakes and Hoyt (2004) report that children participating in martial arts training made greater gains in cognitive and emotional self-regulation and pro-social behaviour than participants in a traditional PE class. The authors suggest that the differences are explained by the strong mastery orientation of martial arts and the emphasis on self-regulation and self-analysis.
- In a major review of research the U.S. Department of Health and Human Services (2010) found that, in 50.5 per cent of cases, physical activity was positively related to wide definitions of academic outcomes (cognitive skills and attitudes; academic

behaviours; academic achievement), with 48 per cent recording no relationship. This broad pattern was repeated for school-based physical education (49.5% positive); recess activity (59% positive for attention and concentration); class-based physical activity breaks (40% positive).

- Hansen et al (2003) found that compared to non-sporting organised youth activities, the learning experiences associated with sport are related mostly to personal development such as self-knowledge, emotional regulation/control and physical skills.

It does no harm

The variety of research designs, measurements and study populations means that it is not possible to provide summary statements about the magnitude and consistency of associations between physical activity and cognitive skills, attitudes and academic behaviours. However, this does not constitute an argument *against* school sport and PE.

Although only approximately half of the studies illustrate a positive association, the rest illustrate no impact, with very few measuring a negative outcome. Therefore, contrary to the fears of some parents, physical education and sport are *not* in competition with academic outcomes.

Devoting substantially increased school time to physical education/activity does not have a detrimental effect on pupils' academic performance and may have a positive impact, while conferring physical, mental and social health benefits (Sallis et al, 1999; Shephard, 1997; Lindner, 1999; U.S. Department of Health and Human Services, 2010).

Socio-psychological

Synder and Spreitzer (1990) outline six, inter-related, hypotheses as to why school sports participation might lead to improved educational performance.

- **Participation-identification.** Participation may lead to increased interest in the school and its core academic values and pursuits (Marsh, 1993; Marsh and Kleitman, 2003; Pfeifer and Cornelisen, 2009). This is most likely to occur via participation in extra-mural, representative, sports.
- **Eligibility.** Eligibility to take part in representative teams may depend on and encourage, educational performance (Eitle and Eitle, 2002).
- **Increased acceptance and self-concept.** Spady (1970) suggests that participation in sport could lead to an increase in perceived social status and this is most likely in small schools. As peer acceptance is central to development, such acceptance is most likely if a child is good at something valued by peers. Also Taub and Greer (2000) found that physical activity was a normalising experience for children with physical disabilities, providing a legitimacy to their social identity as children and enhancing social skills and social networks with their peers.
- **Increased attention.** Athletes obtain more attention from coaches, teachers and parents and this encourages academic achievement. Videon (2002) also suggests

that greater attention, encouragement and advice lead to an increased attachment to school among athletes (a form of the participation/identification hypothesis).

- **Cultural capital.** Sport leads to membership of elite groups with an orientation to academic success. For example, Fox et al (2010) illustrate that the association between physical activity and academic performance may be related to the academic culture of students in team sports.

This is partly confirmed by Lipscomb (2007), who found a positive relationship between involvement in *extracurricular* sports and levels of achievement and self-reported academic expectations. Participating in clubs with higher achieving members was associated with increased expectations of degree attainment and these benefited women more than men.

However, clubs with lower scoring members did not help student learning and Eitle and Eitle (2002) suggest that if certain sports or clubs differentially attract participants from disadvantaged backgrounds, the possibility of developing such educationally-relevant social capital will be more limited.

Not what you do, but how you do it

Research indicates that we need to understand much more about the processes and experiences which might produce positive outcomes, which then might lead to improved educational performance. For example:

- Holt et al (2008) conclude that adolescent experience and life-skill learning depend on how sports programmes are structured and delivered.
- Bailey's (2006) research overview concludes that the potential of PE and sport to contribute to the development of social skills, self-esteem, pro-school attitudes and academic and cognitive development depends on the nature of interactions and social processes. It is essential to understand such issues in the design and delivery of programmes.
- Sandford et al (2006, 2008) argue that to achieve the potential of sport and physical activity to re-engage those disaffected from education, attention needs to be given to context and process, with a more explicit emphasis on desired social skills and personalised programmes and learning.
- Danish and Nellen (1997) argue that if sport is to promote some of the desired life-skills, a more focussed and analytical approach is required, with specially designed sports-based programmes to develop a range of transferable skills. Such programmes need to concentrate on process and task, rather than the more traditional approach of performance and outcome behaviours.

Increasingly researchers argue that we need to stop assuming that participation in *any* sport in *any* context inevitably produces positive education-related outcomes for *all* participants. This literature emphasises the difference between *necessary* and *sufficient* conditions and

the need for more systematic consideration of the design and delivery of effective programmes, especially for those who are deemed to be under-performing. For example:

- Papacharisis et al (2005) illustrate that experimental competitive sports groups (10 year olds in volleyball and football) who took part in a sports-related educational programme (sessions addressing goal setting, problem solving and positive thinking) had greater knowledge of life-skills and higher self-belief about their abilities to goal-set, problem solve and think positively than a control group. The authors argue for the need for life skills to be more systematically embedded in sports practice

Sport plus

Experience and research have led to what are referred to as 'sport plus' programmes. These use sport's popularity to attract young people to programmes in which a range of non-sport activities are also provided (e.g. workshops, discussion groups, additional tuition).

- **Playing for Success.** This ten-week programme for under-achieving pupils is based in study support centres in professional football clubs and other sports venues. The connection with the clubs is important in attracting pupils as they feel privileged to be chosen to participate, rather than stigmatised as being in need of extra help.

Small groups work on a range of activities with an integrated learning system testing maths, spelling and reading. Sharp et al's (2003) four-year evaluation found significant improvement in pupils' literacy, numeracy and use of information and communications technology (ICT).

Although initially below national averages of literacy and numeracy, pupils' scores rose closer to national norms by the end of the course. For numeracy, pupils were achieving just below the expected level for their age. Comparisons with the control group showed that gains were greatest for ICT and numeracy, with pupils outperforming a control group to a statistically significant extent. The educational gains are explained by access to computers, high ratio of staff to pupils and an informal, supportive atmosphere.

- **Play it Smart.** This USA broad-based community programme was provided for American football players in disadvantaged communities with the close involvement of parents. It was a needs-based approach which used *pecially trained academic-coaches* to establish academic, counselling and coaching relationships. The evaluation of the pilot indicated a degree of academic improvement and better average results than the school population (Petitpas et al, 2004).

Conclusions

As indicated by the above, the factors involved are complex and raise significant issues of measurement (e.g. few studies are comparable, few use standardised comparable tests and some use self-report measures for academic success). Consequently, there is no *definitive* evidence of a positive, causal relationship between physical activity/sport and improved academic achievement. Where such correlations have been found, the explanation for the

nature and direction of cause remains speculative (Etnier et al, 1997; Shephard, 1997; Lindner, 1999; Sallis et al, 1999). Here it is worth considering Grissom's (2005:13) warning about understanding the potential contribution of sport to educational achievement. The failure of experimental designs to find statistically significant differences between experimental and control subjects:

“ is due in part to the difficulty in raising academic achievement. It is very difficult to raise student achievement, beyond what might be expected, even when that is the specific focus. A study intended to affect achievement indirectly [i.e. via participation in PE and sport] would encounter even more difficulty”.

However, there are clear indications that sport and physical education does not have a negative effect, it might have a positive effect (given certain conditions) and it has the potential to confer independent physical and emotional health benefits. The importance of sport in many young people's lives can be used to attract educationally under-achieving young people to educational programmes (although outcomes will depend on the nature and quality of the learning environment).

Sport, anti-social behaviour and crime

Introduction

The use of sport to address issues of anti-social behaviour and crime is perhaps the oldest rationale for public investment in sport, based on the assumption that sport can either divert young people from crime and/or rehabilitate offenders. This is based on a notion of sport's 'therapeutic' qualities. For example, some time ago Schafer (1969) outlined five possible mechanisms:

- Via 'differential association', young people at risk are removed from the criminal culture and mix with more positive role models.
- Sport provides an alternative to educational underachievement, blocked aspirations and low self-esteem.
- Sport encourages the development of self-discipline and deferred gratification.
- Sport provides an antidote to boredom and a positive use of leisure time.
- Sport addresses certain adolescent development needs for adventure, excitement and autonomy, which might be expressed via anti-social behaviour.

However, these and other impacts on participants are only a possibility and even if achieved will not necessarily lead to reduced anti-social or criminal behaviour. There is the possibility of both positive and negative outcomes, with research indicating that:

- different sports can produce different moral values (Camire and Trudel, 2010)
- there is no necessarily positive relationship between sports participation or sports club membership and different levels of self-reported violence (Moesch et al, 2010; Begg et al, 1996)
- participants in certain sports may consume more alcohol than non-participants (Davies and Foxall, 2011).

Although research findings are not uniformly positive, most researchers conclude that the potential of sport can be increased if:

- we recognise the complex causes of anti-social behaviour and crime
- have a better understanding of the combination of factors which might constitute a relevant programme
- acknowledge that sport participation is only one of many influences on young people's behaviour (Mutz and Bauer, 2009)

The causes of crime

In addition to considering more systematically the nature of sport and sporting experiences, we need to recognise that the causes of crime are complex. For example, Asquith et al (1998) list a range of socio-psychological 'high-risk factors' including:

- hyperactivity
- high impulsivity
- low intelligence
- poor parental management
- parental neglect

- offending parents and siblings
- early child bearing
- deprived background
- absent father
- maternal substance abuse in pregnancy.

The Youth Justice Board (2001) lists 20 often connected risk factors under four broad domains of family, school, community and individual, personal and peer groups. Reflecting this complexity, Sport England (1999: 7,8) 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”.

Diversionsary programmes

The most common approach is various forms of ‘diversionary’ sports programmes which seek to keep young people (mostly young men) off the streets at times when they are most likely to be involved in anti-social behaviour – summer holidays and evenings at weekends. However, many of these schemes tend to have a number of common weaknesses (Coalter et al, 2000; Robins, 1990; Utting, 1996; Nicholls, 2007; Coalter 2011; West and Crompton, 2001).

- The nature of the targeted ‘anti-social behaviours’ is often vague – implicitly including everything from petty vandalism, systematic theft and drug abuse to violent crime.
- Theories of the causes of delinquency are usually based on rather simple assumptions about boredom, opportunity-led crime or low self-esteem.
- Few programmes are based on a coherent programme theory which outlines the components and series of cause and effect which are presumed to lead to changed values, attitudes and behaviour.
- Many are simple open-access schemes which deal with self-selecting participants. Consequently, it is possible that the key target groups of such programmes will not be attracted. Providers often work with an environmental fallacy – that all young people from areas designated as high crime will themselves be ‘at-risk’ (Coalter, 2011).

Evaluations of such programmes frequently claim that the schemes are associated with aggregate reductions in youth crime, but admit that there are substantial difficulties in attributing such changes directly to the initiatives (Loxley et al, 2001; Cap Gemini Ernst and Young, 2003; Nicholls, 2007; Laureus, 2010).

Many programmes are either fixed term, or are provided for only one or two evenings per week and do not deal systematically with the complexities and developmental issues indicated by the Youth Justice Board. However, there has been a growing realisation that crime reduction requires more permanence and community embeddedness.

One example of such a programme is KICKZ, funded by the English Premier League and the Metropolitan Police. This uses football to work in deprived areas with 12-18 year olds

deemed to be at-risk of offending. In a project supported by Arsenal FC, we can identify certain important structural aspects (Laureus, 2011):

- **Environmental improvement and public safety.** A poorly lit park used by gangs was transformed by the building of a new football pitch and facilities.
- **Regular and predictable use.** Football training is held five nights per week and together with other events this has become a community hub.
- **Youth workers.** Although nominally coaches, those who run the programme are youth workers who understand the issues faced by young people.
- **Positive relationships.** Because the programme runs at least five nights per week, staff and participants are able to establish positive relationships.
- **Engagement beyond participation.** Older participants are provided with the opportunity to obtain coaching qualifications and volunteer as coaches. Other researchers have identified this type of engagement as making a significant contribution to personal development (Nichols and Taylor, 1996; Coalter, 2011).
- **Information and advice.** Staff provide information about changes in drug laws, as well as educational and employment advice and support.

As with most such initiatives, it is difficult to attribute any changes in recorded crime statistics to specific projects as other anti-crime initiatives are happening at the same time. However, it is claimed that over a three year period the project prevented 579 crimes at a cost saving of approximately £2 million (Laureus, 2011).

Sport plus

Such programmes use the popularity of sport to attract young people to programmes in which a range of non-sport activities are also provided (eg workshops, discussion groups). Although sport is viewed as an important *context* for changing values, attitudes and behaviour, this is not left to chance.

For example, some use a 'red flag' approach in which on-field unacceptable behaviour is addressed immediately and its potential consequences discussed. However, many also use workshops or discussion groups to address directly a range of issues such as anger management, drug use, violence, gangs, racism and sectarianism.

In addition, some provide free or subsidised access to coaching qualifications, vocational education and volunteering opportunities. This reflects Utting's (1996) argument that the effectiveness of sports programmes in preventing crime depends on achieving the following:

- Improvements in cognitive and social skills. This is supported by Asquith et al's (1998) research on young offenders in Scotland, which concludes that approaches that seek to develop cognitive skills and change behaviour appear to be the most effective in strategies of prevention and rehabilitation.
- Reductions in impulsiveness and risk-taking behaviour.
- Raised self-esteem and self-confidence.
- Improvements in education and employment prospects.

Many of the new programmes are based loosely on the USA 'midnight basketball' leagues because of their claimed success in reducing crime (Wilkins, 1997; Farrell et al, 1996).

However, these programmes are much more than time-specific diversionary programmes, with 'the most urgent objective' being education and life skills (Wilkins, 1997:60). The highly structured programmes include non-traditional education components which seek to develop employment skills, personal development, self-esteem, conflict resolution, health awareness and substance abuse prevention. This approach is reflected in the Cabinet Office's (2002: 60) report on sport which concluded that:

“playing sport will not lead to a permanent reduction in crime by itself. Successful programmes require a variety of other support mechanisms to be in place.”

For example, as the sport-based Positive Futures programme developed, its objectives broadened to 'widen horizons providing access to lifestyle, educational and employment opportunities within a supportive and culturally familiar environment' (Home Office, 2005: 4).

The programme became concerned with building relationships and development pathways to provide protection against a variety of risk factors (Crabbe, 2007). Further, such programmes combine open access with specific targeting, or concentrate almost wholly on targeting the most at-risk young people, often via street work.

Social climate and protective factors

In addition to the integrated and developmental approaches of 'sport plus' provision, recent research suggests that the *social climate* of programmes has a major influence on young people's values and attitudes (Biddle, 2006). For example, in a study of soccer (team sport) and competitive swimming (individual sport) Rutten et al (2011) concluded that those who experienced a positive relationship with their coach reported less anti-social behaviour.

A review of 175 programmes (and 22 case studies) for at-risk youth, concluded that the type of activity was relatively unimportant (Morris et al, 2003). A longitudinal evaluation of disaffected young school pupils in two physical activity/sport programmes identified a number of critical success factors: positive relationships between project leaders and pupils (the suitability of the adults was a key factor), sustained project involvement and a sense of belonging (Sandford et al. 2008).

Several researchers have outlined a number of 'protective factors' which constitute a positive social climate (Witt and Crompton, 1997; Gambone and Arbretton, 1997; Pawson, 2007; Coalter, 2011). These are derived from an examination of the factors in the lives of 'resilient' youth which enable them to avoid the negative consequences of multiple risk environments – i.e. those facets that moderate the impact of risk on behaviour and development. From this perspective 'developing protective factors is central to promoting positive youth development in risk environments' (Witt and Crompton, 1997: 3). The factors are as follows:

- **Interested and caring adults** who can construct positive social relationships with young people and develop bonds of trust.
- **Sense of acceptance and belonging** which will attract and sustain and provide a supportive and safe environment for changing values and attitudes
- **Models for conventional behaviour.** Many researchers have identified leadership,

supervision and relationships between participants and leaders as shaping the participant's experience and strongly influencing the impact of the programme (Svoboda, 1994; Witt and Crompton, 1996; Sandford et al, 2008; Coalter 2011) Coaches/leaders/youth workers can act with varying degrees of emotional intimacy and effectiveness. Recent research has indicated that positive change is linked to the development of respect for and then trust in the programme leaders. This leads to a sense of reciprocity as participants change their behaviour because they do not want to 'let the leader down' (Coalter, 2011).

- **Perceived competence** at a particular activity (sport). Researchers have found that some at-risk young people reject organised, competitive mainstream sport because it contains elements similar to those which they have already failed to resolve – adherence to formal rules and regulations, achievement of externally-defined goals and competitive and testing situations. There is some evidence of the need for small-group or individual activities, which are non-competitive, emphasise personally-constructed goals and have a minimum of formal rules and regulations. Not all sports/social climates are relevant for many vulnerable and at-risk young people, and there is a clear need to adopt a needs-based rather than product-led approach (Serok, 1975; Sugden and Yiannakis, 1982; Robins, 1990; Coalter et al, 2000; Coalter, 2011)
- **Value placed on achievement.** This is usually achieved via encouragement and opportunities to acquire skills, qualifications and/or remain in education (Pawson, 2006).
- **Positive attitudes to the future.**
- **High controls against deviant behaviour.** This can range from 'a word', via formal discussions to sanctions. This also relates to direction-setting, which involves self-reflection and the reconsideration of values, loyalties and ambitions (Pawson, 2006).
- **Ability to work out conflicts.**
- **Ability to work with others.** This also relates to opportunities to develop leadership skills and to undertake volunteer and community service activities (Gambone and Arbreton, 1997). The opportunity to undertake volunteer coaching in their organisations is often seen as the most significant aspect of personal development (Coalter, 2011).
- **Empowerment.** There is a consensus that the potential for success is increased if young people are involved both in influencing the nature of the provision and in its management (Witt and Crompton, 1996; Gambone and Arbreton, 1997; Morgan, 1998; Fitzpatrick et al, 1998; West and Crompton, 2001; Sandford et al 2008).

Conclusions

It is clear that sport on its own will rarely be sufficient to address issues relating to the values and attitudes underpinning anti-social behaviour and crime. However, sport has the ability to attract many at-risk and vulnerable young people to programmes which can address such issues. Within this context there is a clear need for more systematic consideration of the *causes* of crime and the nature of the programmes required to address them. Coakley (2004) contends that sports are *sites* for socialisation experiences, not *causes* of socialisation outcomes. Such a perspective shifts analysis from families of programmes (e.g. sport) to *families of mechanisms* - the processes, relationships and experiences which might achieve the desired outcomes.

Available evidence suggests that outreach approaches, credible leadership, 'bottom-up' approaches and non-traditional, local provision appear to have the best chance of success with the most marginal at-risk groups. A needs-based, youth work approach in which trust, respect and reciprocity are developed may be more appropriate than a simple product-led programming. While 'sport' plays a central role in such programmes, sport must be complemented by *development*. Most evidence suggests that sport's potential is maximised by working in partnership with other agencies, understanding the complex causes of crime and recognising that the process of delivery and the social relationships within this are vitally important.

Community cohesion and development

Robust research evidence in this area is limited because of the difficulties in agreeing precise definitions, the many components involved and the difficulties in measuring outcomes.

Social capital

Government is concerned to address issues of community cohesion, social inclusion and 'active citizenship' and much thinking about this has been influenced by the concept of social capital (Cabinet Office, 2002). This is most closely associated with the work of Putnam (2000), who defines communities that are high in social capital as being those in which there are:

- strong community networks/civic infrastructure, with widespread involvement in the organisational life of the community;
- a sense of local identity/solidarity/equality; and
- high levels of interpersonal trust and reciprocal support.

The appeal of the concept lies in evidence suggesting that communities high in social capital tend to have lower crime rates, better health and more proactive community organisation (Putnam, 2000).

The presumed ability of sport to bring people together and the high level of volunteering associated with sports clubs have led to claims about sport's ability to contribute to community cohesion and development. For example, the Scottish Office (1999: 22) contends that, 'people who participate in sports and arts activities are more likely to play an active role in the community in other ways'. Such a perspective suggests that developing sport *in* the community may also contribute to the development *of* communities.

Sport and social participation

The potential of sport to facilitate social participation is illustrated by the Home Office's citizenship survey (Prime et al, 2002). This found that, in the last 12 months, 33 per cent of the adult population was involved in groups, clubs or organisations for taking part in sport and exercise or going to watch sport. This was the largest single category of 'social participation', with hobbies/recreation/arts/social clubs second at 24 per cent. In the 2009-10 survey respondents were asked 'What would encourage more mixing between people from different backgrounds?'. At 29 per cent *Hobbies/sports clubs* was the second most frequent response (*work/education* was first at 40%). Further, 20 per cent also selected *Leisure centres/sports facilities*.

Delaney and Keaney (2005) used several data sources to illustrate substantial *correlations* between national levels of sports membership and levels of social trust and well-being. In the UK, individuals involved in sports organisations are slightly more likely to vote, contact a politician and sign a petition than non-members and the average citizen. Membership of, and participation in, sports groups also display strong correlations with higher levels of social trust, trust in institutions and with life satisfaction.

However, there is no relationship between participation in sport and *trust in other people* once other factors are controlled (this was also found in Norway (Seippel, 2006)). This

suggests that the correlations between participation in sport and social trust may reflect the type of people who take part, rather than being generated by participation.

In this regard Delaney and Keaney (2005) point to the fact that the educated and higher income groups are more likely than the poor to participate in sport and other forms of community organisations (Warde and Tampubolon, 2001; Skidmore et al, 2006). This differential attraction is illustrated by the fact that in the Citizenship Survey, while 32 per cent of males choose *Hobbies/sports clubs* as a method of encouraging social mixing, only 25 per cent of women did so and white respondents were more likely than ethnic minorities to select this option. In this regard Reid Howie Associates (2006) found that many Scottish sports clubs had difficulties in recruiting women and young people, as well as, in some cases, people from minority ethnic communities.

Consequently care needs to be taken about over-generalised claims regarding sport's contribution to community cohesion. If sport is to make a contribution to this policy agenda more systematic consideration of how to achieve its integrative potential is required.

Sport clubs

The potential of sport clubs is illustrated by their significant and long-standing role in civil society. For example, Nichols (2003) estimated that there are about 150,000 voluntary sport clubs in the UK, with one third having been in existence for 50 years or more. Further, he estimated that between 12 and 14 per cent of the population were members of such clubs. He argues that, in addition to being central to the provision of sporting opportunities, such clubs provide a structure and opportunity for social interaction and active citizenship.

Although there is little systematic research on the social role of sports clubs in the UK, research in Australia illustrates their potential, at least in rural communities. Driscoll and Wood (1999) and Tonts (2005) concluded that such clubs have the potential to perform wide-ranging socio-cultural functions, including leadership, participation, skill development, providing a community hub, health promotion, social networks and community identity.

However, although for those involved sport provided a significant forum for social networks, in small communities those not involved (e.g. Aborigines) experienced a sense of social exclusion. In Scotland Reid Howie Associates (2006: iv) report that,

“many clubs appear to have strong links with the community, and believe that they provide an essential opportunity to community members for both recreational and social activities. Some (particularly those with social facilities) may provide the only “social club” in some areas.”

Seippel (2006), makes a useful distinction between ‘connected’ sports organisations (i.e. members have ties to members of other associations) and ‘isolated’ organisations focussed solely on their sport – perhaps a distinction between clubs and teams. This parallels Putnam’s (2000) distinction between two types of social capital.

- **Bonding social capital** refers to networks based on strong social ties between similar people. Relations, reciprocity and trust are based on ties of familiarity and closeness, maintaining a strong in-group loyalty, reinforcing specific identities and exclusivity.

For example, a study of sports clubs in Denmark concluded that clubs' activities were, 'not aimed at solving current problems in the community ... members' attachment to the association is little connected with the area where they are recruited' (Ibsen, 1999:A256).

- **Bridging social capital** refers to weaker social ties between different types of people. It facilitates 'getting ahead' via, for example, access to information and employment opportunities not available in the immediate community. Clearly the extent to which clubs provide access to such bridging capital is related to their ability to contribute to development.

Okayasu et al (2010) in a study in Japan, illustrate that 'comprehensive community sports clubs', which include non-sporting activities and a broad age range, have a higher potential for the development of bonding and bridging social capital than traditional community sport clubs, which are single-sport focussed, have a narrower social base and are less inclusive.

Clubs will have differing relationships with local communities, with geographical and social mobility frequently loosening previously strong social and cultural links. There are opportunities for the development of forms of social capital via leagues, competitions, governing bodies, ground sharing and so on. The nature of the club and its ethos has substantial implications for its contribution to inclusiveness, community coherence and the development of social capital. In this regard the Cabinet Office (2002) suggest that,

"...organisations that involve more diverse memberships, including contact with people of different nationalities or ethnicities [are more likely to] stimulate significantly higher levels of generalised trust."

However, the encouragement of such inclusivity needs to be undertaken with sensitivity. Attempts to use sports clubs to achieve wider policy goals contain the risk of undermining their essential, mostly non-altruistic, purposes, qualities and stability. Sport England (2004: 14) argues that *"any external assistance offered needs to emphasise that it is designed to help them achieve their aims"*. Research in Germany warned of the danger of burdening clubs with general socio-political responsibilities and standards that have nothing to do with the original interests of the members (Horch, 1998).

Evidence suggests that 'non-traditional' approaches will be required if such potential is to be realised – many 'target' communities often lack sports clubs.

Developing communities through sport

Residents of deprived areas are subject to a variety of 'development' initiatives and are often naturally sceptical about new ones. For example, Deane (1998) found a high level of scepticism about Action Sport programmes as they were viewed as short-term initiatives. He argued that many of the schemes:

"suffered... credibility problems [as] local community representatives perceived the schemes as being a short-term attempt by central government to show that they were

doing something for the young unemployed... [and] saw the Action Sport schemes as a complete waste of resources."

Summarising the Action Sport experience, McDonald and Tungatt (1992: 33) stated that,

"...the widely used term 'sports development' still has connotations of coaching and competition for some community development agencies. This must be avoided.

Objectives ... must be set and judged by people who understand the nature of the work."

The solution is a 'bottom-up' approach, which seeks to address wider inclusion issues through sporting organisations (Deane, 1998; Hart et al, 2011). This is achieved by supporting existing projects, by training the unemployed and employing leaders from the local community. Research indicates that emphasising the productive contribution that sports projects can make to the local community can assist in the development of a sense of ownership and commitment, and is more likely to encourage voluntary contributions (Witt and Crompton, 1996; Utting, 1996; Crabbe, 2008; Laureus, 2010). In this regard, some time ago the Leisure and Environmental Protection Department of Newport County Borough Council (1999:4, 5) suggested that:

"Developing sports activities in deprived communities will necessarily take a different form to developments in more affluent areas... While sport can have a positive role to play in addressing social cohesion, this is unlikely to happen if it is organised or promoted along conventional lines. Engaging the most disaffected... can best be achieved through the deployment of a combination of community development and sports development resources."

This more all-encompassing role for community/sports development workers is reinforced by recent work by Hart et al (2011). This relates to research in British coalfield communities with high unemployment and is similar to the perspectives outlined in the *Sport, anti-social behaviour and crime section*. The job of such workers would be to:

- establish or generate local interest in sports, and engage the community in both planning and playing;
- develop within community groups and organisations the capacity to fundraise for local sports activities and to prepare bids for appropriate resources;
- act as a catalyst and liaise with key agencies to ensure they can intervene, when opportunities arise, to support individuals or groups in meeting other personal or community objectives (such as employment advice or lobbying on non-sport issues);
- support groups and communities in their efforts to establish real ownership of local resources, such as sports facilities and thus increase participation; and
- identify and train local sports leaders, team managers, coaches and helpers to provide an infrastructure for sustained activity.

The need to train sports leaders and managers relates to a central feature of sport, and one which has the potential to contribute significantly to the development of active citizenship – sport's dependence on volunteers.

Volunteering in sport

Volunteering is at the heart of notions of social capital and sporting opportunities depend heavily on volunteer input. It is estimated that there are 150,000 volunteers in Scottish sport (although this contains a wide variety of levels of commitment and engagement).

Surveys in England indicate similar proportions and sport accounts for over a quarter of all volunteering (Sport England, 2003). English estimates are that the hours worked by such volunteers amount to about 1.2 billion per year (80% of this in formal organisations), equivalent to 720,000 full-time equivalent jobs and worth £14 billion. Consequently, sports volunteers reduce the real costs of sports provision and participation and their work has a high social and economic value.

A second key policy message is that the potentially positive social benefits of sport are not only to be obtained via direct participation in sport. Sport England (2003) found that, despite increasing pressures on volunteers, the 'social benefits' derived from volunteering are dominant, with the related concepts of 'enjoyment' and 'giving something back' also frequently cited as benefits.

A nine-month study of young people (16-19) in the Millennium Volunteers programme (Eley and Kirk, 2002) found increases in measures of altruistic attitudes, community-orientation and leadership skills. The authors conclude that, where positive conditions that permit fun, learning, qualifications, empowerment and flexibility are present, volunteering in sport is:

“of benefit to the young person who realises that he or she will never be good enough to reach the elite performance level... but wants to maintain involvement... Sport provides an avenue to learn social responsibility, leadership skills and confidence for life.”

There are some problems with this area, including the relationship between volunteers and paid employees, increased credentialism, insurance and liability and child protection issues. Those notwithstanding, it has significant potential for the involvement of those who may wish to contribute to, but not necessarily participate in, sport.

However a Canadian study of sports volunteers (Harvey et al, 2007) warns against expecting too much of short term volunteering. It found that social capital (social networks and resources) was related mostly to *long term* volunteer involvement - social capital is a resource that is mostly developed and accumulated through investments and exchanges and develops and accumulates over time (this was also found by Seippel, 2008). This brings us to the issue of training, supporting and sustaining volunteers

Supporting and encouraging volunteers

In a review of Scottish sports clubs Reid Howie Associates (2006) concluded that most clubs have a relatively unsophisticated understanding of the value of volunteers and few take a structured approach to their recruitment and management. If local authorities and governing bodies are to encourage and support volunteers for the benefit of both sport and the community, they will need to address a number of key issues:

- There is a need for a more systematic approach to the recruitment and training of all types of volunteers in sport.
- Because many potential volunteers lack confidence, substantial encouragement, support and development is required to enable them to undertake such roles (McDonald and Tungatt, 1992; Sports Council, 1996; Coalter et al, 2000; Hart et al, 2011). This also relates to an increasing variety of technical and legal demands (Taylor, 2003).
- To encourage volunteer coaches, it is important that the initial stages in coaching awards are easy to attain and that appropriate subsidies are provided for the costs of coach training courses and associated travel (this also relates to facilitating volunteering in anti-crime programmes) (Sports Council, 1996). The potentially vocational aspects of volunteering should be emphasised and supported because Sport England (2003) research found:
“young people are much more likely to acknowledge the functional benefit of volunteering for their CVs and qualifications. Volunteering can help young people gain a degree of empowerment and recognition.”
- A bottom-up approach and a sense of ‘ownership’ are important aspects of successful initiatives (Hart et al, 2011). The best way to build the confidence and social skills is for sports leaders *“to work closely alongside existing and embryonic, community groups... acting as a catalyst”* (McDonald and Tungatt, 1992; see also Forest and Kearns, 1999).

McDonald and Tungatt (1992) refer to a project that worked with existing community groups and enabled women to run their own sessions, with the assistance of a part-time community activity organiser. This contributed to a longer-term commitment and participation: *“...the sense of ownership has enabled many to adapt to the inevitable short-term lifestyle changes which... often... result in a return to non-participation”*.

Conclusions

Because of its high social and economic value, volunteering in sport offers possibilities for the development of valuable social and organisational skills, self-efficacy and self-esteem and a sense of social purpose. However it is worth making a distinction between existing sports clubs and community development through sport initiatives.

Currently many sports clubs are not as inclusive or as directly involved in local communities as would be required to contribute to policies of community integration and development.

Further, care needs to be taken because requiring such clubs to address wider policy goals risks undermining their essential purposes, qualities and stability. Many clubs are often struggling simply to survive and recruit and retain members and volunteers (Reid Howie Associates, 2006)

The focussed use of sport and clubs to contribute to community development requires a bottom-up approach. Volunteers need to be recruited from the immediate community and a more systematic approach to training and support, based on an appreciation of the personal and professional development needs of potential recruits, is required.

If sport is to address such issues then there is a clear need for a more non-traditional 'sport-plus' approach. There is also a potential conflict between developing sport *in* communities and developing communities *through* sport (McDonald and Tungatt, 1992; Blackshaw and Long, 2005; Delaney and Keaney, 2005). For example, where sports projects provide a contribution to addressing wider community issues (e.g., unemployment, anti-social behaviour, obtaining grants), they are more likely to be acceptable and sustainable.

However, evidence suggests that there will be a need for ongoing support from skilled professional workers and this should be acknowledged by strategic and mainstreamed funding. Further, Delaney and Keaney (2005) conclude that sports programmes need to be complemented by other measures and connected to relevant agencies in order to stimulate social regeneration.

The economic impact of sport

Economic benefits of an active population

We have already discussed the contribution which sport and physical activity can make to individuals' improved fitness and health. However, these impacts also have an economic dimension. For example, a report by the Scottish Government (2010) estimated the following:

- The total cost of obesity to society in 2007/08 could be between £0.6 billion and £1.4 billion.
- Lost earnings due to obesity and obesity-related illness were estimated to be £195 million.
- Lost earnings due to premature mortality were estimated to be £87 million.
- The NHS cost of dealing with the overweight and obese could be in the region of £312 million.
- More than £175 million of the cost of obesity was direct NHS costs (equivalent to 2% of the budget allocated to Health Boards) of which £4.5 million were drug costs. Nearly half the cost was attributable to obesity-related type 2 diabetes (£48 million) and hypertension (£38 million).
- Earlier estimates stated that if the level of inactive Scots was reduced by one percentage point per year for five years, it could produce total savings to the NHS of £3.5m, resulting from reduced admissions for coronary heart disease, stroke and colon cancer (Scottish Executive Health Dept, 2002).

A large scale survey of those aged 15 and over in the USA identified real and substantial medical cost differences between the physically active and inactive (fewer physician visits, fewer hospital stays, less medication) The largest difference in direct medical costs was among women 55 and older, indicating that the health gain associated with physical activity is especially high for older women. Even among participants reporting limitations in carrying out moderate physical activities, medical costs were lower among the regularly active (Martin et al, 2000).

It is clear that sport and physical activity – as part of a wider health promotion agenda – can make a valuable contribution to the reduction of such expenditures.

Sport-related consumer expenditure

Sport-related consumer expenditure, and a wide range of associated products and services, contribute over £1bn to the Scottish economy (Table 1). In Scotland in 2008 such expenditure totalled an estimated £1,340m (excluding £490m of sport-related gambling), representing 2.5 per cent of total consumer expenditure. (Sports Industry Research Centre, 2011).

Table 1: Consumer expenditure on sport-related goods and services, 2008

Sport-related expenditure	£m
Clothing and footwear sales	356
Participant sports: subscriptions and fees	236
Sports-related gambling	490
Sports goods	51
Admission to events	48
TV rental, cable and satellite subscriptions	264
Other consumer expenditure on sport*	385
Total	1,830
Total, excluding gambling	1,340

**Including sport-related travel, sport-related publications and expenditure on boats.*

Sport-related employment – national

In 2008, approximately 51,500 people in Scotland were employed in sport-related jobs – nearly three-quarters in the commercial sports and commercial sports-related sectors – representing 2.0 per cent of total employment.

Table 2: Sport-related employment in Scotland, 2008

Sector	Sport-related Jobs
Commercial non-sport *	24,000
Commercial sport	13,400
Voluntary sport	6,000
Public sector	<u>10,500</u>
Total	51,500

** This includes companies that do not provide a sport product, but assist through supply of inputs or revenue in its production. An example is a bank sponsoring a football club. The advertising revenue received by the club, represents a flow from the commercial non-sport to the commercial sport sector.*

As a percentage of total employment, the contribution of sport in Scotland increased from 1.8 per cent in 2004 to 2.0 per cent in 2008. This is a higher figure than that for England where, in 2008, sport employment was 1.8 percent of total employment.

Sports tourism

In addition to contributing to domestic expenditure and employment, sport also attracts tourists to Scotland, or enables them to contribute to local economies. In 2009 about a quarter (28%) of visitors to Scotland participated in some form of sports activities (Visitscotland, 2010). Although precise estimates are difficult to obtain, a few indicative examples serve to illustrate the potential.

- Scottish Natural Heritage estimate the 2008 annual value of field sports tourism (shooting, hunting and fishing) at £136 million.
- Visitscotland research estimates that mountain biking brings £39 million to Scotland annually, with more than 100,000 visitors each year taking part.
- A report to Scottish Enterprise (SQWconsulting, 2009) estimated that in 2008 golf tourism was worth approximately £223 million, with visiting golfers spending £191 million and spectators spending £36 million (there was a £4 million overlap).
- Allan et al (2007), taking into account indirect and induced effects, income and employment, estimate that, during the 2003-04 season, Rangers and Celtic accounted for a gross domestic product of £45.68 million and 2,423 full-time equivalent jobs in Glasgow. This represents a direct expenditure impact on the Glasgow economy similar to hosting the Olympic Games every 12 years.

Economic impact of sporting events

Sporting events can provide substantial short-term economic impacts. However, there is no agreement on the optimal way to measure an event's economic impacts and benefits (New Zealand Tourism Research Institute, 2007). This is a highly technical area in which claims need to be treated with some caution (Crompton, 1995; Gibson et al, 2005):

- economic impact should only be assessed via expenditure of visitors from outside the area;
- turnover should not be confused with money retained and circulated in the local economy
- economic costs as well as benefits need to be taken into account.

Sporting events have substantial economic potential as well as other benefits (e.g., goodwill, raising the profile of an area), although this potential varies and care needs to be taken in assessing the feasibility of such events (Crompton, 1995; Késenne, 1999).

Also as the scale and nature of sports events vary, it is essential to recognise the varying potential for positive economic returns, and the crucial balance between spectator and participant-dominated events. These differences are illustrated by the work of the Leisure Industries Research Centre (1999b; see also 1999a). This work discusses the following types of sports events and their associated economic potential:

- Irregular, one-off international **spectator** events with significant media interests (e.g., World Cup, Olympics, Commonwealth Games). *Significant economic activity.*
- Major **spectator** events, media interests and part of annual cycle (e.g., Six Nations, Open Golf, Scottish Cup Final). *Significant economic activity, low risk, but usually fixed venue.*
- Irregular, one-off, major international **spectator/competitor** events (e.g., European Junior Swimming Championships, World Badminton Championships). *Limited economic activity. The more senior the event and the longer the event the larger the economic impact. Spectator numbers difficult to forecast.*
- Major **competitor** events that are part of an annual cycle (e.g., national championships). *Limited economic activity, do not cover costs, other rationales required.*

However, recent research suggests a fifth category (Wilson, 2006)

- **Minor competitor/spectator events**, generating limited economic activity, no media interest and part of an annual domestic cycle of sport events (local and regional events in most sports).

The importance of this is that these are the types of events which many local authorities can organise successfully with appropriate planning. A few examples illustrate their potential:

- A study of four local swimming events illustrates the potential of such events to generate economic benefit, providing that secondary spending opportunities and appropriate infrastructure are in place (e.g. vending machines, cafes, special catering facilities, swim shops) (Wilson, 2006).
- A review of evidence indicates the positive economic impacts of non-elite *mass participation* sporting events (mostly marathons), which require little infrastructural investment but can raise place recognition and generate tourist income. Such events can be self-financing as they can attract sponsorship, participants are prepared to pay and they can attract large numbers of (free) volunteers (Coleman and Ramchandani, 2010).
- A study in the USA found that small scale amateur sporting events can have a positive economic impact, although this depends on a number of factors: the number and origin of non-local teams, the proximity of the teams involved; length of visitor stay; operational and organisational expenditures by non-local organisations (Mondello and Rishe, 2004).
- An economic impact survey of the 2009 81 mile cycle challenge, Etape Caledonia, estimated that it generated more than £900,000 for the Pitlochry area and attracted 7,553 visitors, with 92 per cent being from outside Perth and Kinross.(EKOS, 2010).

Finally, Jones (2008) illustrates an increasingly important policy area - the potential environmental costs of large scale sports events and the need for full cost benefit analyses of

such events. Using a case study of the 2004 World Rally Championship in Wales he estimates carbon emissions and waste associated with the event. He concludes that the 'enviro-economic efficiency' of events can be estimated using data on spectator and organiser activity together with established environmental accounts. Such a method also provides organisers with information as to how to reduce the environmental impacts – an increasingly important policy imperative.

Conclusions

There are clear economic benefits to be obtained from a more active and healthier population.

Sports-related expenditure accounts for 2 per cent of total consumer expenditure in Scotland and provides over 51,000 jobs.

Particular types of sporting events can provide substantial short-term benefits for local and regional economies with appropriate planning and infrastructure.