

Chapter 5

Physical education and health

Considerations and issues

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Introduction

The role of physical education in promoting health and producing a ‘healthy nation’ has been increasingly recognised in recent years (Shephard and Trudeau, 2000; Cale and Harris, 2005; Stratton *et al.*, 2008). Indeed, physical education has been viewed as the most suitable vehicle for the promotion of healthy, active lifestyles among young people (Shephard and Trudeau, 2000) and contributing to public health via promoting health-enhancing lifestyles. Increasing physical activity has been seen to be one of, if not the, most important objectives of the subject (e.g. Shephard and Trudeau, 2000; Cardon and de Bourdeaudhuij, 2002; Green, 2002; Fox *et al.*, 2004; Fairclough and Stratton, 2005). Furthermore, a number of government policies and initiatives in England over the past decade have identified physical education to be instrumental in providing opportunities for young people to improve their health. A few notable examples include *Game Plan* (Department for Culture, Media and Sport (DCMS), 2002), *Every Child Matters* (Department for Education and Skills (DfES), 2003a), *Healthy Weight, Healthy Lives* (Department of Health and Department for Children, Schools and Families (DoH/DCSF), 2008) and *Healthy Lives, Healthy People* (DoH, 2010).

This chapter focuses on physical education and health and highlights some of the key considerations and commonly debated issues associated with the area of health within the physical education curriculum. Firstly, physical education’s contribution to health and addressing obesity are considered and then issues including the place, expression, organisation, content and delivery of health within the curriculum are explored.

Physical education’s role and responsibility in health

According to Harris (2010), physical education’s role in public health is based on the premise that it provides opportunities to be active and educates about and through physical activity (via its dual focus on ‘learning to move’ and

‘moving to learn’). In this way it sets the foundation for lifelong participation in physical activity and sport (Association for Physical Education (afPE), 2008). Put simply, physical education provides opportunities for pupils to be, and to acquire and develop the knowledge, skills and understanding to be, physically active. This educational function is important given mounting evidence of the health benefits to be gained from engagement in physical activity and the knowledge that a sizeable proportion of young people are inactive and lead relatively sedentary lifestyles (Cale and Harris, 2005; McElroy, 2008). Recent comprehensive reviews of the health benefits of physical activity for children and young people have revealed that physical activity can lead to better cardiovascular and metabolic health, improved cardiorespiratory endurance and muscular fitness, improved skeletal health and more favourable body fat composition, as well as provide psychological benefits such as enhanced self-esteem and cognitive function and reduced symptoms of anxiety and depression (National Institute of Clinical Excellence (NICE), 2007a; Stensel *et al.*, 2008; United States Department of Health and Human Services (USDHHS), 2008). In addition, physical activity has been found to have a role in the prevention and management of overweight and obesity in young people (Stensel *et al.*, 2008).

Physical education (and schools generally) provide a very suitable setting in which to promote physical activity and health for a number of reasons. They have a captive audience and provide access to all young people, provide a context for learning at a time of high receptiveness, and have a workforce with the appropriate knowledge and expertise (Fox and Harris, 2003; Cale and Harris, 2005; 2009a). Furthermore, in England under the 2002 Education Act and the requirements of the National Curriculum, physical education (and schools) have a statutory responsibility to promote the ‘physical’ development of pupils and learning about health. Details of the place of health within the National Curriculum in England are outlined in the following section. There is also evidence to suggest that physical education can be successful in the promotion of healthy lifestyles. For example, reviews of school-based physical education and physical activity programmes have reported positive outcomes including improvements in activity during physical education classes, in fitness levels, and in knowledge, understanding and attitudes towards physical activity (e.g. Kahn *et al.*, 2002; Cale and Harris, 2006; Salmon *et al.*, 2007).

Despite the above, it is also important to be realistic about what physical education can achieve given that it has a range of objectives, only one of which is concerned with health, and that it accounts for only a small proportion of young people’s time. Physical education represents less than 2 per cent of a young person’s waking day (Fox and Harris, 2003), at least half of which can justifiably involve only light or physically passive activity (Stratton *et al.*, 2008). Furthermore, many countries around the world have witnessed a progressive decrease in physical education time (Hardman and Marshall,

2005). Exceptionally, physical education time in England has increased in recent years (Ofsted, 2005; Quick *et al.*, 2010), though of course more time does not necessarily equate to increased attention to and emphasis on health. Physical education clearly needs to do what it can in the time available to contribute to the promotion of healthy, active lifestyles. In this respect, its role and responsibility should be to stimulate interest, enjoyment, knowledge, competence and expertise in physical activity and sport for health and well-being (Fox *et al.*, 2004), by providing pupils with high-quality teaching, and positive, meaningful and relevant physical education and physical activity experiences.

In addition, it is important to be aware of the numerous factors within and beyond physical education (and schools) which influence young people's physical activity and health, and to appreciate the complexities involved in changing health behaviours (NICE, 2007b). It is known, for instance, that knowledge and understanding of the importance of an active lifestyle is not sufficient to inspire young people to be physically active (Smith and Biddle, 2008). Tinning (2010) notes that it is unrealistic to expect individuals to change their lifestyles and behaviours simply because they acquire some new knowledge, and that to expect that knowing will translate into doing is naïve. Thus, whilst it is generally accepted that physical education has a responsibility and important role to play in health, it clearly cannot meet all physical activity and health needs, nor be held responsible for improving the health status of all children and young people (Cale and Harris, 2011a) or of the nation as a whole. In short, improving health is a far more complex aspiration.

Physical education's role and responsibility in addressing obesity

Whilst physical education's role and responsibility in health has been and continues to be debated, an even hotter topic of debate at the moment is its role and responsibility in addressing obesity. We are bombarded on a daily basis with government, media and scientific reports and messages concerning the growing 'problem' of childhood obesity and the possible health consequences of this for young people's current and future health (Cale, 2011). The World Health Organization (WHO) (2011) claims that childhood obesity is one of the most serious public health challenges of the twenty-first century, reporting the problem to be global and increasing at an alarming rate. The most recent childhood obesity figures in the UK reveal a rise in obesity levels since 1995 in both boys and girls (from 11 per cent to 17 per cent for boys and from 12 per cent to 16 per cent for girls) (Craig and Shelton, 2008).

Perhaps not surprisingly therefore, the role of physical education in tackling obesity has also been increasingly recognised (Fox *et al.*, 2004; Kirk, 2006; Barlow and the Expert Committee, 2007; Davidson, 2007; Zieff and

Veri, 2009). In England this is evidenced by various policies, strategies and responses from government which have highlighted schools, including physical education, to be instrumental in addressing the issue. For example, a Public Service Agreement target was established in 2004 to halt the increase in obesity among children under 11 by 2010. In association with this, the National Child Measurement Programme was introduced which involves measuring children's weight in reception (ages 4–5 years) and year 6 (10–11 years). Following on, *Healthy Weight, Healthy Lives* (DoH/DCSF, 2008) set out the government's ambition for addressing obesity and overweight, the initial focus of which was on children and schools, including physical education, and more recently the current government's strategy for public health in England, *Healthy Lives, Healthy People* (DoH, 2010), continues to highlight the role of schools and physical education in the promotion of health, pledging continued commitment to the National Child Measurement Programme.

Clearly then, physical education teachers are under pressure to address the issue and consequently seem to be responding in varied and different ways (Cale and Harris, 2009a). There is concern however, that some of the reports, messages, measures and practices being advocated and implemented in response to government policy on this matter are exaggerated, misleading and misguided and could do more harm than good (Evans *et al.*, 2008; Cale and Harris, 2009a). Indeed, a number of researchers question whether there is an obesity 'problem' at all and express grave concerns over the discourse surrounding the condition and the impact of this on both practice and pupils in schools (e.g. Gard and Wright, 2001; Evans *et al.*, 2004; Gard, 2004a; 2004b; Evans *et al.*, 2008).

One practice which could do more harm than good, and yet which often features within health-related fitness or fitness testing programmes, is the routine measuring and weighing of pupils in physical education to calculate their body mass index. This would seem to be a pointless exercise in that it is not necessary to weigh or measure any child to tell them something that they already know, and no child needs to be measured to be helped to enjoy being physically active (Cale and Harris, 2009a). Examples of other questionable practices cited in the literature include inspecting pupils' lunch boxes, issuing health report cards, fitness testing regimes and fat laps and fat clubs for overweight or obese pupils (Wright and Dean, 2007; Evans *et al.*, 2008; Cale and Harris, 2009a; Rich, 2010). The worry with these is the potential damage they can do to a pupil's self-esteem, body image and potentially mental health. Research has highlighted, for example, girls and young women with anorexia and bulimia who have been deeply affected by the way such policy and practice transmit what are referred to as 'body perfection codes' (Evans *et al.*, 2004; Evans *et al.*, 2008). Such responses also represent an overly simplistic and narrow view of obesity and of the role and responsibility of physical education (and schools) in addressing the issue and have the potential to further stigmatise overweight and obese

children, which is a problem that is reportedly growing (Latner and Stunkard, 2003).

Taking the above into account, the question remains as to what role physical education can realistically, appropriately, sensibly and safely play in addressing obesity. Given the health benefits of physical activity highlighted earlier, some of which are particularly relevant to obese children (e.g. better metabolic health, more favourable body fat composition, enhanced psychological health), it is clearly important to try to effectively engage obese children in physical activity, including physical education. It is contended that every child can benefit from regular engagement in physical activity and physical education and therefore as a profession we have a responsibility to provide this and to ensure that the experiences we offer are just as positive, meaningful and relevant for obese pupils. Whilst there are some specific practical considerations and sensitivities to take into account which are likely to affect obese children's enjoyment, attitude towards and ability to perform physical activity, and thus the approach to promoting physical activity with these youngsters, the same general messages, advice and principles should equally apply (Cale and Harris, 2009a). Considerations and sensitivities which have implications for practice, for example, relate to the orthopaedic problems obese children may encounter, their generally lower tolerance to exercise, poorer movement efficiency and body management, lower self-esteem and self-confidence and feelings of self-consciousness, embarrassment and isolation (Cale and Harris, 2009a, 2011b). In light of the above, Cale and Harris (2009a) have identified a number of practical recommendations to support physical education teachers in effectively engaging all pupils, including those who are obese, in physical activity. The recommendations take into account the considerations and sensitivities outlined and also draw on formal guidance and recommendations from previous literature (e.g. Evans *et al.*, 2004; O'Dea, 2005; Evans, 2007; Evans *et al.*, 2008) as well as those emanating from a specialist seminar, 'Physical Education and Childhood Obesity', organised by afPE in 2007.

Finally, just as it is important to be aware of the numerous factors and complexities involved in influencing children's health generally, it is equally important to recognise the complexity of obesity and the many factors beyond the control of physical education (and schools) which contribute to this particular issue. The term 'obesogenic' has been used to describe the current 'obesity-promoting' environmental circumstances in which we find ourselves these days which promote high energy intake and low energy expenditure (Yeung and Hills, 2007). Indeed, it has been suggested it is hard to envision an environment more effective in producing obesity (Battle and Brownell, 1996). For example, the ready availability of fast food or high sugar foods, king-size portion sizes and the widespread sale of pre-packaged and ready-prepared snack foods all promote high energy intake, whilst the widespread popularity of computer and video games and social networking, the increased reliance on motorised transport, and the greater restrictions placed on children

and young people due to concerns over their safety all serve to promote low energy expenditure.

QI

The place and expression of health within the physical education curriculum

The association between physical education and health is not new. Concerns about children's health and physical condition were instrumental in the introduction of the subject into the education system in England, albeit in the form of prescribed exercises (Harris, 2010). However, by the end of the the Second World War, a range of additional objectives for physical education came to the fore. It was not until the 1980s that there was a return to health as a key objective of physical education, as 'a solution to the problem of improving the healthy lifestyles of children' (Tinning, 2010: 177). In the UK, this renewed interest was expressed as 'health-related fitness' or 'health-related exercise', although other terms such as 'health-related physical education' or 'health-based physical education' have also been adopted for this area. According to Harris (2000), the different terms that have been used to refer to the area of health within the physical education curriculum reflect the varying influences on health issues within the subject over time. Regardless of the term chosen though, the area can broadly be defined as 'the teaching of knowledge, understanding, physical competence and behavioural skills, and the creation of positive attitudes and confidence associated with current and lifelong participation in physical activity' (Harris, 2000: 2). Furthermore, Cale and Harris (2005) advocate that it is concerned with health enhancement and should involve learning through active participation in purposeful activity embracing a range of sport, dance and exercise experiences including individualised life-time activities. Thus, the emergence of the area attempted to broaden the traditional, competitive team-sport orientated physical education programmes in place at the time to include education about lifetime physical activity (i.e. activity that can readily be carried over into adulthood) and to introduce life-time physical activities including fitness-related activities such as aerobics and circuit-training (Harris, 2010). (Chapter 4 considers what pupils should learn in physical education.)

The emphasis and interest in health within physical education has continued to flourish. The first National Curriculum for Physical Education (NCPE) in England (1992) incorporated 'health' as a statutory component and as a theme to be embedded implicitly across a range of activity areas (e.g. athletics, games). Whilst its positioning within the NCPE was significant at this time, the themed approach was criticised as it was felt that it marginalised health. However, within subsequent revisions of the NCPE, the health-related focus of the subject has arguably been strengthened (Fox and Harris, 2003; Cale and Harris, 2005; Qualifications and Curriculum Authority (QCA), 2007c). In terms of the coverage

of health-related issues within the current (2007) secondary NCPE, for instance, 'healthy, active lifestyles' is a key concept and 'making informed choices about healthy, active lifestyles' and 'developing physical and mental capacity' are key processes. Furthermore, 'exercising safely and effectively to improve health and wellbeing, as in fitness and health activities' represents one of the six areas within the 'range and content' which teachers should draw from when teaching the key concepts and processes.

Whilst the above seems promising, there have and continue to be concerns over the time and status physical education teachers afford to health and their knowledge and understanding of it. For example, Ofsted (2004) has criticised the physical education profession for paying insufficient attention to health and fitness, suggesting that it still remains a marginal area within the curriculum. In addition, a number of researchers have found physical education teachers' knowledge and understanding of health and/or health promotion to be narrow, limited and even flawed and for health to be generally absent from their professional development profiles (Cale, 2000; Armour and Yelling, 2004a; Castelli and Williams, 2007; Armour and Harris, 2008; Kulinna *et al.*, 2008; Ward *et al.*, 2008; Ward, 2009; Harris, 2010; Alfrey *et al.* 2012). Arguably related to this is that many pupils have also been reported to lack knowledge and understanding in the area (Ofsted, 2005: 1) and to have misconceptions about health, activity and fitness (Harris, 1993; 1994; Kulinna and Zhu, 2001; Placek *et al.*, 2001; Stewart and Mitchell, 2003).

Q2

A further concern is that, despite the intention being for the area to broaden the physical education curriculum, its development has been and still appears to be overshadowed by the powerful influence of competitive sport within the subject (Green, 2000a; Kirk, 2010). As a profession we are noted for being resistant to change (Kirk, 2010) and competitive sport, sport techniques and particularly team games which focus on performance and fitness continue to dominate our subject and physical education teachers' philosophies and practices (Green, 2000a; Kirk, 2010). The area of health is no exception in this respect and a number of researchers have highlighted how many teachers adopt a 'sport', 'performance' and 'fitness' focus to the delivery of health within physical education (Green and Thurston, 2002; Leggett, 2008; Ward *et al.*, 2008; Ward, 2009; Harris, 2010; Alfrey *et al.* 2012). For example, a study of health-related policy and practice in secondary schools in England and Wales by Leggett (2008) found minimal change in the expression of health in physical education over an eight-year period and revealed that, whilst many physical education teachers articulated a 'fitness for life' philosophy, their delivery was usually expressed in terms of a 'fitness for performance' discourse, dominated by testing and training. Similarly, Ward (2009) and Ward, Alfrey and colleagues (Ward *et al.* 2008; Alfrey *et al.* 2012) reported concerns about the expression of health within physical education given that most physical education teachers claimed to value health-related learning, yet some had no written scheme of work outlining the nature and progression

of this learning and most relied on sport- and fitness-related contexts to deliver it. Thus, it is argued that although physical education represents an ideal opportunity to educate young people about physical activity and health, contradictory philosophies concerning its role in this endeavour have hindered the development of effective health policy and practice (Cale, 2011). This notion and the implications of the focus on sport, performance and fitness are explored later.

Approaches to the organisation of health within the physical education curriculum

Given the concerns just highlighted, it is perhaps no surprise that the organisation of this area within the physical education curriculum has also been reported to be varied, inconsistent and limited (Harris, 2000; Fox and Harris, 2003). Various approaches can be taken to the organisation of health within the curriculum including, for example, permeation or integrated, focused, topic, or combined. A permeation or integrated approach is where health is taught through other practical areas of physical education (e.g. athletics, games, gymnastics); a focused approach involves teaching health through specific focused units of work; a topic approach involves a series of lessons following a specific topic or theme that is taught through physical education and classroom lessons; whilst a combined approach can involve any combination of permeation, focused and/or topic-based delivery. Each approach has specific strengths and limitations and professional judgement is clearly required to decide how best to deliver the content within the context of different schools. According to Cale and Harris (2005), curriculum leaders and heads of department who understand their own school and physical education curriculum and context are in the best position to make appropriate decisions over which approach or approaches to adopt, based on the strengths and limitations of each. Of course, the critical issue in this decision-making should be the effective delivery of the statutory requirements and the effectiveness of the learning, rather than the particular approach adopted (see also Chapter 8 in which teaching strategies are considered).

There has, however, been considerable debate over the years concerning the most appropriate approach to adopt (e.g. Fox, 1992; Harris and Elbourn, 1992; Almond and Harris, 1997; Stratton, 1998; Cale and Harris, 2005). Because, as noted earlier, the NCPE has traditionally included health not as a practical area in its own right, but as a theme to be embedded across a range of specified activities, this has been interpreted by some to indicate that the area should be delivered solely through permeation, rather than in discrete blocks or units of work (Oxley, 1994 cited in Cale and Harris, 2005; Harris, 1995; 1997). Cale and Harris (2005) note how the strengths of a permeation approach are that health knowledge, skills and understanding can be seen as integral to all physical education experiences and thus pupils learn that all physical activities can contribute towards health. However, they also warn that permeation can be rather 'ad hoc', 'piecemeal' and 'hit and miss' (pp. 168, 170) and identify a number of limitations with the

approach. For example, knowledge, skills and understanding may become lost or marginalised amongst other information, pupils may be overloaded with information, and much liaison activity is required to ensure consistent delivery and messages. Furthermore, it has been suggested that the approach may deny pupils the opportunity to engage in a variety of popular health-promoting lifetime exercise activities (Fox and Harris, 2003).

As a consequence, and in recognition that all approaches have strengths and weaknesses, Cale and Harris (2009a) advocate a combined approach as it is felt that this builds on the strengths of each and provides a realistic opportunity to more adequately address the associated knowledge base. A combined approach also suggests that value is being placed on the area and allows learning and messages to be reinforced and links to be made to all physical education experiences as well as to other health behaviours and subjects (Cale and Harris, 2005; 2009a). Equally though, the time involved in planning, structuring, implementing and co-ordinating a combined approach is acknowledged. Yet, on a positive note, earlier research by Harris (1995) and Cale (2000) revealed the most popular approach to be through a combination of approaches. If representative of practice today, this suggests that value is being placed on health in many schools and that teachers are taking the time to plan, structure, implement and co-ordinate the area.

Other approaches to the delivery of health in schools that have attracted growing support and interest in recent years are whole school approaches such as the 'Healthy School' and the 'Active School' (see, for example, Fox and Harris, 2003; Cale and Harris, 2005). Whole school approaches consider the role of the broader school environment in promoting and learning about health, thereby making it a collective responsibility for teachers, pupils, parents and others (Stratton *et al.*, 2008). These approaches acknowledge the need to move beyond the 'restrictive, one-dimensional focus on traditional curricular physical education to a model in which the culture and policy of the school is child-centred and health- and activity-driven' (Fox *et al.*, 2004: 344), to recognise the multiple influences within and beyond the school environment which impact on young people's physical activity, such as, the influence of peers, family and the 'hidden curriculum' in the form of policies and other practices (Cale and Harris, 2005). With regard to the latter, Cale and Harris (2005) note how many aspects of the school can either promote or inhibit the adoption of an active lifestyle and understanding gained through the 'formal' curriculum can either be reinforced and supported or completely undermined by other influences. For example, a school with poorly maintained playgrounds or playing fields and 'no ball game' policies at breaktimes and lunchtimes would suggest that it does not value physical activity for its pupils.

Despite the merits and growing support for whole school approaches, environmental and policy interventions are the least studied component of school health promotion (French *et al.*, 2001). It should also be recognised that adopting approaches such as the 'Active School' is challenging given the multiple

demands on teachers, competing educational objectives and the need for new skills among teachers (Fox *et al.*, 2004). It is furthermore suggested that these approaches are likely to be more effective if they are informed by improved understanding of the place and significance of physical activity in young people's lives (Wright *et al.*, 2009) and of the views of young people about the barriers to and facilitators of participation in physical activity (NICE, 2007b).

Lastly, and alongside the debate concerning approaches, is the question as to whether health should be delivered via classroom-based or practical sessions in physical education. On this issue, it has been argued that sedentary classroom-based delivery of health-related concepts is limited in that it tends to focus on information transmission rather than the essential combination of understanding, experiencing, decision-making and evaluating. On the other hand, a practical approach is consistent with the physical context of the subject and with messages relating health benefits to frequent physical activity (Harris, 1995). In addition, school-based physical activity intervention programmes which have centred on classroom delivery involving theoretical instruction and information provision have been found to be relatively ineffective (Cale and Harris, 2005; 2006). Consequently, practically-based delivery is recommended over classroom-based delivery. At the same time, though, it is important that physical education teachers avoid some of the poor or undesirable practices that have been associated with practically-based delivery in the past, such as failing to recognise the knowledge base associated with health and merely delivering activity-based units (e.g. blocks of aerobics, cross-country) without imparting learning (Cale and Harris, 2005).

Content and delivery of health within the physical education curriculum

Regardless of the approach adopted, both the content and the way in which health is delivered within the physical education curriculum are clearly critical. If the subject is to be effective in promoting healthy active lifestyles and positively influencing young people's participation, then the teaching needs to be high quality and to involve enjoyable, positive and meaningful physical activity experiences, a practical knowledge base and caring teaching strategies (Fox and Harris, 2003). However, research has also revealed weaknesses and variations in the planning and delivery of health within the physical education curriculum (Harris, 1995; 1997; 2000; Cale, 2000; Ward *et al.*, 2008; Ward, 2009) suggesting that many schools may be falling short of achieving this. In the study by Ward (2009) and Ward, Alfrey and colleagues (Ward *et al.*, 2008; Alfrey *et al.*, 2012), for example, physical education teachers in a number of schools reported that they did not have access to schemes of work, units of work or lesson plans or resources to support their practice which, it was proposed, suggested a generally ad hoc attitude and a possible lack of structure, progression and coherence within the area.

The dominance of physical education teachers' sporting philosophies and how these are applied to, influence, and may even hinder the delivery and practice of health within the physical education curriculum was highlighted earlier (see also Chapter 8 which considers teachers' philosophies). There are a number of reasons why this is a concern. First, it is argued that a focus on sport, performance and fitness in the delivery of health results in a rather narrow curriculum with limited provision of a range of more recreational and individual lifetime activities. In turn, this may limit learning in this context and/or have limited appeal for many young people (Green, 2002; Fox and Harris, 2003; Ward *et al.*, 2008; Alfrey *et al.*, 2012), thus potentially alienating them from the subject and from physical activity participation outside school and later in life (Stratton *et al.*, 2008). The relevance and appeal of competitive sports and team games to many young people have been questioned for some time (Green, 2002; Fox and Harris, 2003) in that continued emphasis on these fails to acknowledge participatory trends in young people towards lifestyle activities and non-competitive, more recreational sport, and away from competitive performance-oriented ones (Cale, 2011).

Secondly, it is suggested that the often narrow focus on sport, performance and fitness results in the delivery of some undesirable or questionable practices which may also be counter-productive to the promotion of healthy, active lifestyles in young people. For example, research has highlighted examples of the area being equated solely with vigorous activity, fitness testing or warming up and cooling down (Harris, 2000) and of physiological issues, such as the physical effects of exercise or fitness testing dominating the teaching of health (Harris, 1995; 2000; Ward *et al.*, 2008; Ward, 2009; Alfrey *et al.*, 2012). According to Harris (2000), such narrow interpretations have the potential to lead to practices such as forced fitness regimes, directed activity with minimal learning, or dull, uninspiring drills.

It cannot be denied that increasing physical activity levels during lessons is inherently a good thing and indeed, as noted previously, reviews have revealed school-based physical education programmes to be effective in increasing activity during lessons. Guidelines suggest that pupils should participate in moderate to vigorous physical activity for at least 50 per cent of physical education lesson time (afPE, 2008; USDHHS, 2010), yet evidence suggests that this target is often not met and concerns have been expressed over the low level of moderate to vigorous physical activity pupils experience during physical education (Fairclough and Stratton, 2005; Stratton *et al.*, 2008). However, Cale (2011) cautions that this target needs to be approached sensibly to avoid prompting some of the inappropriate responses mentioned above, as well as to avoid other teaching objectives being compromised (Fairclough, 2003). Suggestions for achieving this include careful attention to planning and organisation and modifying instructional and organisational strategies to maximise 'active' learning, embracing more inclusive, pupil-centred curricula that place greater emphasis on life-time physical activity, and the adoption of whole-school approaches (Stratton *et al.*, 2008; Cale, 2011). According to Fairclough and Stratton (2005), establishing a solid foundation for further and future engagement in physical activity

requires educational and psychological approaches which focus on young people acquiring the appropriate understanding and behavioural skills to ensure physical activity becomes a routine part of their daily life. Harris (2010) concurs and suggests that these approaches are more likely to have a greater long-term impact than those focusing solely on the volume of physical activity accumulated in physical education classes, or on specific fitness outcomes.

Related to this last point is the issue of fitness testing which is common practice within the physical education curricula within most schools (see American College of Sports Medicine, 2000; Cale and Harris, 2009b; Chen, 2010). Advocates of fitness testing in schools have traditionally claimed that it promotes healthy lifestyles and physical activity, motivates young people to maintain or enhance their physical fitness or physical activity levels, facilitates goal-setting, self-monitoring and self-testing skills, promotes positive attitudes and enhances cognitive and affective learning. Other purposes of testing have been reported to include programme evaluation, tracking of fitness over time, identification of children at risk, in need of improvement or with potential, and screening and diagnosis of fitness needs for individual exercise prescription and improvement (Whitehead *et al.*, 1990; Pate, 1994; Freedson *et al.*, 2000). Despite its popularity and proposed purposes though, controversy has surrounded the fitness testing of young people for a number of years and various issues have been debated and concerns expressed over the use of fitness tests with this group (see more recently, for example, Keating, 2003; Cale and Harris, 2005; 2009b; Cale *et al.*, 2007; Garrett and Wrench, 2008). According to Cale and Harris (2009b), issues debated most frequently relate to concerns with respect to the type, validity and reliability of fitness tests and to the ethics and value or purpose of testing. As a result, questions have been raised as to whether fitness tests do actually serve the purposes for which they are intended.

Q3

Keating (2003) claims that unless youth fitness testing actually improves fitness and increases involvement in physical activity, the need for it is questionable. He cites three facts that cast doubt on its role in this regard: (a) children have failed to show improvements in fitness and have become less physically active; (b) the percentage of overweight youth has increased substantially in recent years; and (c) the proportion of inactive adults has also increased dramatically. Similarly, based on a review of the literature and a study of the views, experiences and observations of stakeholders and experts in the field, Cale and Harris (2009b) considered whether fitness testing in physical education represents a worthwhile or a misdirected effort in the promotion of healthy lifestyles and physical activity. In response, they noted how there is little evidence to support the notion that fitness tests promote healthy lifestyles and physical activity, motivate young people, or develop the knowledge and skills that are important to sustained engagement in an active lifestyle. To the contrary, they highlighted how fitness testing can be counter-productive in that it can be unpleasant, uncomfortable, embarrassing and meaningless for many young people and scores can be inaccurate, misleading, unfair and demotivating (Cale

and Harris, 2005). On this basis, they concluded that fitness testing may well represent a misdirected effort and that physical education time could therefore be better spent. By the same token, though, they noted how, if appropriately employed, and provided all relevant factors and limitations are taken into account, there is no reason why fitness testing cannot play a role in supporting healthy lifestyles and physical activity and in educating young people about physical activity and fitness. However, testing should not be allowed to dominate physical activity promotion efforts (Cale *et al.*, 2007; Corbin, 2007). Furthermore, and to achieve this, it is suggested that clear guidance for teachers on the appropriate use of fitness testing in young people is needed (Cale and Harris, 2009b).

Q4

Summary

This chapter has highlighted some of the key considerations and commonly debated issues associated with physical education and health. First, it considered physical education's contribution to health and its role and responsibility in promoting the health of the nation. Physical education's association with health is based on the premise that it provides opportunities to be active, educates about and through physical activity, and sets the foundation for lifelong participation in physical activity and sport. Consequently, it is contended that its role and responsibility should be to stimulate interest, enjoyment, knowledge, competence and expertise in physical activity and sport for health and well-being, and that this be achieved by providing pupils with high quality teaching and positive, meaningful and relevant physical education and physical activity experiences.

Given the current concerns over and attention to childhood obesity, the chapter also explored what role and responsibility physical education can realistically, appropriately, sensibly and safely play in addressing obesity. The importance and benefits of engaging obese children in physical activity, including physical education, were highlighted and it was suggested that as a profession we have a responsibility to provide this and to ensure that the experiences offered are just as positive, meaningful and relevant for obese children as they are for all other children.

The chapter then went on to explore a number of the commonly debated issues associated with health within the physical education curriculum relating to, for example, its place, expression, organisation, content, delivery and effectiveness. This led to concerns being raised in particular with respect to the time and status afforded to health and physical education teachers' knowledge, understanding and traditional sporting philosophies and the influence of these on the content and delivery of the area. It concluded that if health within physical education is to be effective in promoting healthy, active lifestyles and the health of the nation, then these concerns need to be addressed to ensure that all young people experience high quality teaching and enjoyable, positive, meaningful and relevant physical activity experiences.

Q5

Questions for consideration

- Q1 In your view, in what way(s) and to what extent should and can physical education be held responsible for the health of the nation? Give reasons for your answer.
- Q2 What factors do you feel contribute to physical education teachers' lack of knowledge and understanding of health and what impact do you feel this may have on teaching and on pupil learning about health?
- Q3 In your view, what role does fitness testing have in the promotion of healthy lifestyles and physical activity?
- Q4 How might fitness testing be appropriately employed within physical education and what guidance would you consider to be useful for physical education teachers?
- Q5 From what you have just read, what do you feel are the main challenges with respect to health within the physical education curriculum and what actions are needed to address these?

Further reading

Cale, L. and Harris, J. (2009) *Getting the Buggers Fit: The Complete Guide to Physical Education*. London: Continuum.

This is a very practical text which is intended to be particularly relevant to physical education practice. The book aims to provide answers to a number of important questions concerning physical activity, fitness and health and the promotion of healthy, active lifestyles amongst young people and presents a range of practical ideas, strategies and tips as to how to motivate young people to be physically active.

Cale, L. and Harris, J. (2011a) Learning about health through physical education and youth sport, in K. Armour (ed.), *Sport Pedagogy: An Introduction for Teaching and Coaching*. Harlow: Prentice Hall, pp. 53–64.

This chapter provides a useful overview of learning about health within physical education and youth sport and of a number of the issues that are relevant to learning about health within both of these contexts. For example, issues such as time and status, focus and content, perspectives in learning about health and physical education teachers' health-related knowledge and professional development are highlighted.

Dinan Thompson, M. (ed.) (2009) *Physical Education and Health. Issues for Curriculum in Australia and New Zealand*. Melbourne, Australia: Oxford University Press.

This text draws on contemporary research and a socio-cultural approach to provide an overview of the concepts and issues central to the physical education and health curriculum in Australia and New Zealand. As such it provides a perspective and understanding of physical education and health beyond the UK. It also highlights important social issues including, for example, inclusion, social justice and equity to increase awareness of the relationship between physical education, health and society.

The following physical education journals should support further reading. These often include articles on health and will be useful to extend debate further.

- *European Physical Education Review*
- *Journal of Teaching in Physical Education*
- *Quest*
- *Physical Education Matters*
- *Physical Education and Sport Pedagogy*
- *Sport, Education and Society.*

