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Citation for published version:

Horrell, A, Sproule, J & Gray, S 2012, 'Health and wellbeing: a policy context for physical education in Scotland', *Sport, Education and Society*, vol. 17, no. 2, pp. 163-180.
<https://doi.org/10.1080/13573322.2011.607948>

Digital Object Identifier (DOI):

[10.1080/13573322.2011.607948](https://doi.org/10.1080/13573322.2011.607948)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Sport, Education and Society

Publisher Rights Statement:

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Health and well-being: a policy context for physical education in Scotland

Andrew Horrell*, John Sproule and Shirley Gray
University of Edinburgh, UK

The 'Curriculum for Excellence' (CfE) guidelines and associated learning experiences and outcomes have been developed following a national debate on the purposes of education in Scotland. The recent development shifts physical education's (PE) role in Scottish education, changing from contributing to the 'Expressive Arts' area of the curriculum, to one central to the newly created curriculum area of 'Health and well-being' in the CfE. This paper provides an analysis of the broader policy context at national and global levels examining the policy developments for PE in Scotland situating them within a globalised discourse emphasising concerns about ill-health and obesity within society. Drawing on the work of Bowe et al., the paper examines the context of production and the context of influence that has contributed to the recent development of 'Health and well-being' within the CfE. It is argued that the role for PE and the focus on schools promoting daily physical activity within the CfE masks the complexity of addressing the issues of 'health and well-being'. In conclusion it is highlighted that in the interpretation and implementation of policy there will be further issues for PE and as yet unknown consequences for the context of practice and pupils experiences of PE in Scotland.

Keywords: Curriculum for excellence; Health and well-being; Physical education; Scotland; Policy-making

Introduction

It is argued in this paper that the existence and emergence of the 'Health and well-being' curriculum area in the 'Curriculum for Excellence' (CfE) is a response to a neo-liberal, globalised discourse of social and economic policy concerned with reducing the spending on health care and investing in human capital. A report by the Organisation for Economic Co-operation and Development (OECD) was commissioned to examine education in Scotland, serving to highlight that the Scottish Executive (now Government) considered the international context and implications in the framing of policy, addressing problems and offering solutions (SEED, 2007). There is, however, no formulaic response for the globalised discourse of economic policy imperatives, national policy-making is a process of decision making and as described by Ball (1998, p. 126) is:

*Corresponding author. Department of Physical Education, Sport and Leisure Studies, The University of Edinburgh, St. Leonard's Land, Holyrood Road, Edinburgh EH8 8AQ, UK. Email: andrew.horrell@ed.ac.uk

inevitably a process of bricolage: a matter of borrowing and copying bits and pieces of ideas from elsewhere, drawing upon and amending locally tried and tested approaches, cannibalising theories, research, trends and fashions and not infrequently flailing around for anything at all that looks as though it might work.

The current context for policy development in Scotland post-devolution is one where the possibilities for action and control in social policy are perhaps greater than they had been prior to 1999. Following devolution and a review of public services, the national debate on school education was launched in March 2002 (Munn et al., 2004). Paterson (2000) presents the view that Scottish education has been a central feature of Scottish identity, another readily recognisable feature associated with Scotland in the 'flows' (Appadurai, 1990) of information in the late twentieth century and present day is that of ill-health. Scotland has featured prominently in health surveys as having some of the worst indicators for coronary heart disease (CHD) and leads several European league tables for mortality (Scottish Executive, 2005). Therefore the perception is that Scotland is simultaneously heralded for having an education system that is 'world class' whilst attracting unwanted attention on account of its poor health record in comparison to other European countries (EOHCS, 1999; The Scottish Office, 1999; Scottish Executive, 2004a). The prevalence of obesity has increased in many countries, including Scotland, over the last few decades. Obesity increases the risk of premature mortality, type 2 diabetes, cardiovascular disease, some cancers and osteoarthritis (Hardman & Stensel, 2009). Evidence suggests that physical inactivity is associated with the development of obesity (Levine et al., 2005). It is well documented that non-communicable diseases are a major and increasing public health burden, in developing countries as well as those with established market economies (WHO, 2004a, 2004b; OECD, 2007a). Arguably, increased physical activity levels would have an important impact on the incidence of these diseases.

Given the attention and global focus on obesity and health promotion, there is a search for policy strategies and interventions that can be learned from, borrowed and recontextualised within the public and social policy of Scotland (Levin, 1998; The Scottish Office, 1999; Scottish Executive, 2004c; Payne, 2005). It is within this context that a review of education has taken place in Scotland, with the five 'National Priorities in Education' identified as achievement and attainment, framework for learning, inclusion and equality, values and citizenship and learning for life. Physical Education (PE) has been strongly associated with making a contribution to the 'learning for life' strand and a new area of the CfE,¹ a 3-18 curriculum with the stated purpose of improving education and skills in Scotland, has been created termed 'Health and well-being' (Scottish Executive, 2006; Scottish Government, 2009) which includes PE. This development requires careful analysis, for as recognised by O'Sullivan (2004) there are 'possibilities and pitfalls' for PE as a subject within a public health agenda.

Analysis of policy-making

Thorpe (2003, p. 133) focused his Foucauldian analysis on curriculum developments in Australia shaping policy for PE and would identify what has taken place in Scotland as a continuation of the 'crisis discourse' that results in power/knowledge being exercised in the development and production of policy. Gard & Wright (2001, p. 539) acknowledged that Bernstein's (1996) work on pedagogic discourse explores how discourses from 'outside the field of education become recontextualised to serve educational purposes'. Educational policies shape and form knowledge for the purpose of transmission and acquisition, creating 'a specific and complex discourse (as in physical education) which is concerned with the organisation and implementation of a particular curriculum area' (Gard & Wright, 2001, p. 539). The CfE appears to be setting out to weaken the classification of the boundaries between subjects as the curriculum moves to a more 'competency mode' as classified and framed (Bernstein, 1996).

In conducting this initial analysis and outline of the emergence of 'Health and well-being' within the CfE and PE's central position within this curriculum area, it is important to identify this as an exercise in sociological policy analysis. The issue of defining policy is contested and Ball (1994) provides a distinction between policy as text and policy as discourse. The analysis that follows draws on the work of Bowe et al. (1992) and the concept of a policy cycle. It is acknowledged that the policy-making process is a complex one, not confined to a single site or moment. At this point with the CfE yet to be fully implemented in schools the intention is not to engage in a deconstruction of the CfE as a policy text, but to focus this analysis on the 'context of production' and 'context of influence' examining the discourses that have influenced the production of the CfE policy text and the emergence of the curriculum area of 'Health and well-being'. A Foucauldian perspective of the policy cycle acknowledges that the power/knowledge relationship is recursive as discourses 'systemically form the objects about which they speak' (Foucault, 1972, p. 42) privileging particular interests and ideologies, rendering others silent or marginalised. In the 'context of production' and 'context of influence' who has their voice heard influences 'power', 'control' and 'agency'. In conducting their analysis of the impact of the National Curriculum on PE in England and Wales, Penney & Evans (1999) employed Bernstein's (1996) concept of 'framing' to explore who controls the policy and pedagogical discourse in policy-making. 'Framing' establishes the discourse which carries the legitimate message for policy production, 'framing' is how meanings are created and regulated. Scottish teachers although engaged in the consultation process would in Bernstein's (1996) terms be viewed as having a marginal role in the 'framing' of the CfE. Penney and Evans's (1999) analysis did not consider the effects of globalisation, which is increasingly been seen as 'framing' the policy-making process. The context of influence when taken to its widest parameters draws on the increasing body of literature that examines the effects of globalisation and globalised

discourses on the nation-state and the subsequent impact this has on the institutions of the state. The role of PE within the CfE in Scotland appears to have been strongly influenced by the neo-liberal discourses identified previously in other contexts by Gard (2004) related to the improvement of health and well-being circulating within the context of influence and context of production across the developed world.

The policy cycle

A policy is more than a text in the concept of a continuous policy cycle, there are complex processes at work in defining the scope, parameters, production and implementation of a policy. Bowe et al. (1992) consider the initiation of policy to be located within the context of influence, this is where discourses compete between and through interested stakeholders who seek to see a specific course of action taken. In the production of public policy there are many interested parties potentially exercising an influence on the nature and purpose of policy. The view that policy is a discourse, an (authoritative) allocation of values, recognises that there are competing visions of education that are politically mediated. The influence on policymakers goes beyond the boundaries of political parties, parents, subject associations and teaching unions, it comes from sources and agencies outside the nation. The production of education policy will be influenced by events in other policy areas and economic factors within the (state) bureaucracy. Bowe et al. (1992) indicate that there are private and public arenas where discourses are created and exercised. Policymakers commission research reports internally and externally, initiate debates, reviews, establish committees and use other forms of consultation where the discourses can circulate. The intention is to enable the informed, influential and interested an opportunity to influence the process of policy-making. At the same time, policymakers are able to disable and restrict competing discourses. Therefore the first context in the policy cycle as outlined above is the context of influence, the second the context of production, the relationship between these is described by Bowe et al. (1992) as 'symbiotic'. There is a further point to make, namely: there exists an inherent tension between the these first two contexts, the policy text that emerges represents the policy discourse in a manner that can be read so as to appeal to commonsense and political reason, it is couched in notions of the public good. The text(s) which are created as a result of the processes in the context of production enable the discourse to become visible. However, the discourse is generally masked, less overtly ideological, theoretical or radical than it was in the context of influence. Those tasked with the production of the text may or may not be apparent to the final readership or they may well be clearly authored into the final text. The person or persons engaged with the production of the text cannot, and do not act in isolation from the context of influence, they operate within and through the circulating discourse. The context of production mediates and represents the policy. There are several forms of policy text produced, the formal document itself and the formal and informal representations of the policy which make sense of the official text(s). A

range of media is increasingly used to communicate the messages on, through and across multiple formats and platforms, which is increasingly true with the advent of new media, however, as Bowe et al. (1992) and Scott (2000) identify; many teachers will rely on second hand accounts of policy texts.

The third context, of practice, is where policy effects can be observed, Bowe et al. (1992) talk of 'effects' as there is no one outcome. The policy becomes interpreted by practitioners and although the interpretations are not infinite they are equally not fixed. Ball (1994) in a later study adopting a post-structural approach argues for two further contexts to make the policy cycle model more comprehensive. The context of outcomes and the context of political strategy have a 'relationship between the first order (practice) effects and second order effects' (Ball, 1994, p. 26). In the context of outcomes policies are assessed and analysed considering their impact and interaction with existing social policy, focusing on issues of social justice, equality and autonomy. The context of political strategy refers to the mechanisms and technologies used to evaluate the goals of policy and the impact that practice has on what has been politically determined as being of strategic interest. Building on the critique of Lingard (2000) and Ball (1994, 1998) there are a number of observations to be made about the notion of a policy cycle. The looseness between contexts and the difficulty in identifying the flows of information through the cycle make any linear reading of policy inherently problematic. The context of practice is local in that it refers to in Lipsky's (1980), p. xii) terms 'the work of street level bureaucrats', the other contexts operate at a level removed from practice, but all as critiqued by Lingard (2000) are subject to a global context that is not overtly identified in the earlier work of Bowe et al. (1992) or Ball (1994). It would also appear that the policy cycle is not one moment or turn, it is more a case of cycles within and between contexts and any attempt to consider a policy trajectory in terms of originating solely from the context of influence moving into production and then into practice is a simplistic reading that Ball (1994) and Bowe et al. (1992) would contest. Given the complexity of policy-making, even if it were possible to identify a single source of a policy discourse, it is doubtful that this could be considered in isolation from the contexts identified above.

Globalisation and the context of influence and production

It is not the intention here to outline what could be considered as a strong theoretical perspective of globalisation, seeing globalisation as a 'dominance of the global economy over national and international politics' (Angus, 2004, p. 23). As discussed by Angus (2004, p. 24) there is a tendency to present 'globalisation as economic determinism, homogeneous in its effects' on all nations, 'a totalising structure imposing its will without the consideration of human agency, local politics or resistance'. Globalisation can be used to describe the emerging or established trends in economic, political, social, cultural and educational development. It is also equally true that these trends can be explained as a reaction to and as a result of globalisation. There is, perhaps, an increasing perception that rather than a loss of

control, in the sphere of education there has been a tightening of control and increasing prescription (Priestley, 2002; Lawrence, 2004; Power, 2007). It could conceivably be a reaction to globalisation, or could be as a result of the nation state being less able to exercise control and legislate in areas of decreasing sovereignty such as defence and foreign affairs, that accounts for the shift into aspects of social policy (Ball, 1998; Priestley, 2002). Education in Scotland has historically been viewed as one of the three pillars of the nation (Paterson, 2000), the purpose of the review of Scottish education was therefore not seeking to establish the central role of school education, rather the intention was to consult widely in order to determine how education can create and contribute to Scottish society in the twenty-first century (Munn et al., 2004; Scottish Executive, 2004a). Hassan & Warhurst (2002) advocated that Scotland post-devolution would require a highly educated, well informed citizenry willing to accept responsibility and take on difficult tasks. There appears to be a 'difficult task' to address if Scotland is to make an impact on aspects of 'Health and well-being' in the face of a globalised discourse of an obesity epidemic, with its roots in children's inactivity (IOTF, 2004; Hanlon et al., 2005; Hardman & Stensel, 2009).

Priestley (2002) suggests that globalisation generates fear and uncertainty within nation states about their competitiveness in the global market place and this accounts for the reasserting of authority in all areas that could have an impact on economic performance. It is evident prior to the 'A Curriculum for Excellence' (ACfE) review process that there are concerns about Scotland's visibility on the world stage:

Despite real improvements, Scotland's record of ill-health remains a matter for serious concern and cries out for concerted action. Our position at or near the top of international "league tables" of the major diseases of the developed world—coronary heart disease, cancer and stroke—is unacceptable and largely preventable. (The Scottish Office, 1999, p. 5)

The 'White paper on Health' (The Scottish Office, 1999) goes on to make it clear that education policy in Scotland needed to address issues of health promotion. The ideology is that appropriate policies will position the nation state more favourably to respond and take advantage of the possibilities presented in the global market place—education and health policy can provide the solution to internal and external threats to competitiveness. Human resources are the most valuable resources within a knowledge economy and nation states therefore are increasingly urged to take action to develop human capital (OECD, 2007a, 2007b). A nation that experiences problems of ill-health drains the state resources and limits the potential of human capital. This emerging new public health agenda is prevalent in many nations of the world, due to the fact that spending on healthcare is rising faster than the economy as a whole (OECD, 2007a). These economic concerns have a significant impact on the context of influence and context of production in the formation of policies aimed at preventative measures, which in turn has seen education policy focus on the role of PE within school curricula in other countries (Gard & Wright, 2001; Green & Thurston, 2002; Johns, 2005).

As educational access improves and a society becomes more educated, expectations rise (Paterson, 2000). It is therefore considered that it is possible to influence all aspects of the natural and social world. It becomes unacceptable to do nothing in the face of statistics and a discourse that speaks of an obesity epidemic developing within the nation (The Scottish Office, 1999; NCSRDEPH, 2000; Scottish Executive, 2005). The Scottish Government cannot be seen to be powerless when held to account, it has to formulate policy and be seen to address these issues. Supra national bodies such as the European Union, OECD and the World Health Organisation (WHO) have all highlighted the importance of addressing health issues that are associated with inactivity and lifestyle (EOHCS, 1999; WHO, 2002, 2004a, 2004b; OECD, 2007a). The discourse of these texts is that there are economic and social benefits for nations with the ability to address health promotion through a range of social policy strategies (WHO, 2004a; OECD, 2007a). Johns (2005) identifies that one implication of this discourse for PE is that nations are looking to reduce spending on health care and therefore focus on the curriculum as a site of health promotion. This powerful discourse within the context of influence manifests itself in the ACfE texts produced during the consultation (Scottish Executive, 2004a) and review period (Scottish Executive, 2006):

A Curriculum for Excellence is fully in harmony with the National Priorities, and will provide an important impetus to achieving our vision for children and young people, that all children and young people should be valued by being safe, nurtured, achieving, healthy, active, included, respected and responsible. (Scottish Executive, 2004a, p. 3)

...more space for sport, music, dance, drama, art, learning about health, sustainable development and enterprise, and other activities that broaden the life experiences*and life chances*of young people (Scottish Executive, 2004a, p. 4)

Like other countries, we face new influences which mean that we must look differently at the curriculum. These include global social, political and economic changes, and the particular challenges facing Scotland: the need to increase the economic performance of the nation; reflect its growing diversity; improve health; and reduce poverty. In addition, we can expect more changes in the patterns and demands of employment, and the likelihood of new and quite different jobs during an individual's working life. (Scottish Executive, 2004a, p. 10)

It is clear from the 'framing' of these policy texts that the global is influencing the local, and in a document setting out a vision for education, physical educationalists may well be encouraged that their contribution to developing health and physical activity appears to be so highly valued. The report of the Physical Education Review Group (PERG) (Scottish Executive, 2004c) published prior to the ACfE consultation documentation, advocated that PE's location within the 'Expressive Arts' curriculum area be reconsidered, given the imperative of improving lifelong physical activity in Scotland. The PERG's recommendations could be viewed within the PE profession as the significant text impacting simultaneously on the context of influence, context of production and context of practice in reality it was only one more 'framing'

influence that has shaped the future of curriculum policy for PE, and the emergence of 'Health and well-being' within the ACfE (Scottish Executive, 2006).

The policy trajectory of health and well-being within ACfE

Doherty and McMahon (2007, p. 256) report that within the 'The Standards in Scotland's Schools Act 2000' there is a declaration of the right of the child to a form of education that develops her or his 'personality, talents and mental and physical abilities ... to their fullest potential'. It is perhaps here in the first major education legislation of the new Scottish parliament that the first traces of the new curriculum area of 'Health and well-being' within ACfE are to be found. The concept of well-being is clearly derived from the WHO's Ottawa Charter (1986) which outlined a commitment to a holistic view of health. In these terms, 'well-being' is viewed as encompassing not just biological aspects of health, but more broadly the physical, social, mental, emotional and spiritual dimensions of a person. There is said to exist an interdependent relationship between each of these dimensions (WHO, 2002, 2004a). Therefore, ACfE (Scottish Executive, 2006) is presenting the 'Health and well-being' area as a site where PE as a subject can make a contribution to all of the aforementioned areas in a 'balanced' and integrated way. Prior to the publication in 2006 of 'A Curriculum for Excellence; progress and proposals', a very similar view of physical activity and sport was outlined in the strategy published by SportScotland (2003):

...health is a capacity for living, not just merely the absence of disease. The social environment and personal behaviour, including physical activity, contribute to a healthy life. The policy focus on health improvement reflects a broader desire, not just for long life with minimal disease, but also good physical, mental and social functioning allied to a sense of well-being. (SportScotland, 2003, p. 38)

In this analysis examining the 'framing' of policy the most interesting thread to follow is that, the Scottish Sports Council (now known as SportScotland) report 'Sport 21' suggested that a 'Physical Activity Task Force' (PATF) be established (Scottish Sports Council, 1998). This was part of their attempt to increase the number of participants and improve the likelihood of attaining the targets that they set. It also made reference to the Scottish Executive Health Department's 1998 health survey, indicating that there were relatively low levels of physical activity within the population.

The 'White paper on Health' published in 1999 took up the idea of a PATF as an action point. Funding was made available through the health department just as had happened with a previous initiative of Active schools (SportScotland is currently being funded £12 million per annum to deliver on these targets until 2011), so that the PATF could conduct the review. The task force established the PERG, and their final report drew on the targets identified by SportScotland, one of which was to recommend two hours per week of quality PE in the core curriculum. In Scotland the term 'core' refers to the non-certificated mandatory PE timetabled by schools.

Table 1. Time spent in core physical education lessons per week (SEED, 2006)

All Scotland	Percentage of pupils receiving core physical education across phases			
	45 mins	60 mins	90 mins	120 mins
Primary	93%	69%	30%	5%
Secondary	82%	70%	57%	6%
S1-S4	99%	87%	72%	7%
S5	30%	17%	12%	2%
S6	12%	8%	6%	1%

The evidence is that despite having the fourth largest allocation of school time in the lower secondary school in the OECD EU nations, Scottish schools are providing considerably less than two hours of PE (Littlefield et al., 2003; SEED, 2007), as shown in Table 1.

Johns (2005) does indicate that in the new public health agenda schools are being seen as important sites for the promotion of child health. There are also examples of other developed nations reframing PE as a site for addressing public health issues. Obesity rates as measured by Body Mass Index (BMI) have increased in nearly all OECD countries. The rate of increase in adult obesity in the UK is reported to have more than tripled in the past twenty years (OECD, 2007a). In the same period, Australia and New Zealand have also seen adult rates of obesity double. Burrows and Wright (2004) analysing the developments in New Zealand provide evidence that Scotland's focus on 'Health and well-being' within the school curriculum is not a new or novel policy initiative and again serves to identify that the issues of physical and mental health in their widest terms are considered to be central to social and educational policy in nations competing in the global economy:

Schools are among some of the most powerfully positioned institutions to engage in this 'processing' and 'surveillance' and within schools, physical education and health programmes are increasingly viewed as having a major role to play in 'risk prevention' and 'risk alleviation'. (Burrows and Wright, 2004, p. 194)

While up to this point in time, health education had been a separate subject, with its own syllabus (Department of Education, 1985), in the new curriculum framework, this curriculum area was combined with physical education and aspects of home economics under one umbrella²⁶ 'Health and Physical Well-being'. (Burrows & Wright, 2004, p. 195)

With the exception of the word 'physical' the developments in Scotland appear to mirror the policy developments that have taken place in New Zealand. This could be an example of 'policy borrowing' or 'learning' as Levin (1998) outlines. However, within the now globalised context of influence it is not always possible to explicitly uncover the evidence of the influence, only the manifestations of these influences in the policy texts produced. Indeed as Tinning et al. (1996) documented, in 1989 Australia developed a 'national curriculum' with eight Key Learning areas, one of which was 'Health and Physical Education'. It is therefore possible to see similarities

between the policies of these countries but at this time it is not possible to identify a direct link between their development other than they all are addressing the global concerns of obesity and associated non-communicable diseases within the school curriculum.

The Scottish context

As Ball (1994) noted, policies do not enter any area fully formed, they have a history and a context. 'Policy is both text and action, words and deeds, it is what is enacted as well as what is intended. Policies are always incomplete insofar as they relate to or map on to the wild profusion of local practices' (Ball, 1994, p. 10). They create the problem, frame the problem and or provide a solution. Policies encode and decode their meanings and existence, they embody and reject positions and possibilities. It would appear that whilst the CfE recognises there is a greater need for the personalisation of learning, the PERG and the PATF presented a target time for PE within the core curriculum, which potentially could constitute less than two hours of physical activity.² Indeed any guideline regarding the amount of physical activity in a health promotion strategy is almost by definition going to neglect individual children's physiological responses on the basis of hereditary and developmental factors (Johns, 2005). The guidelines of two hours per week for PE provide no indication of the nature, intensity and to a certain extent the frequency of activity.

There is strong evidence and guidance from exercise science that to have a significant impact on health, children have to be active for longer than two hours per week. Three behaviours—smoking, poor diet and physical inactivity—often underlie today's leading chronic diseases, such as CHD. It is likely that three modern trends will increase the prevalence of diseases in the twenty-first century: the epidemic of obesity, inactivity of children and the increasing age of the population (Hardman & Stensel, 2009). For example, the average decline in daily energy expenditure in the UK from the end of the second world war to 1995 has been estimated as 3360 kJ (800 kcal) (James, 1995), the equivalent of walking about 16 km (10 miles) less. In developed countries there has been a general decline in children's walking over the past 30+ years. For instance, the percentage of Australian children (aged 5–14) that walked to school halved between 1971 and 2003 (Van der Ploeg et al., 2008). Indeed, the WHO (2008, np) 'Global Strategy on Diet, Physical Activity and Health' summarises the available data on trends over time in physical activity levels as 'more than 60% of the world population is inactive or insufficiently active to gain health benefits'.

The Norwegian epidemiologist Gunnar Erikssen asserts that 'modern day humans are dying because of a lack of physical exercise' (Erikssen, 2001, p. 571). A common and consistent finding in longitudinal studies is that physical activity declines from childhood to the ages of 18 or 19 years (Kimm et al., 2002; Nader et al., 2008). However, a recent systematic review of controlled trials concluded that there is strong evidence that school-based interventions can increase physical activity in

adolescents (Van Sluijs et al., 2007). This is important because physical activity and physical fitness are inversely related to all-cause mortality risk, and evidence strongly suggests a dose-response relationship (Myers et al., 2004). In Scotland, the CfE recognises that good health and well-being is central to effective learning and preparation for successful independent living:

Physical education provides learners with a platform from which they can build physical competences, improve aspects of fitness, and develop personal and interpersonal skills and attributes. It enables learners to develop the concepts and skills necessary for participation in a wide range of physical activity, sport, dance and outdoor learning, and enhances their physical wellbeing in preparation for leading a fulfilling, active and healthy lifestyle. (Scottish Government, 2009, p. 5).

The current guidelines are for one hour of physical activity per day (WHO, 2002, 2004a, Miles, 2007). If PE is seen to be the route to promote the daily physical activity required for an active healthy lifestyle, to only indicate a guideline of two hours of PE per week within the CfE provides a limited intervention in the face of empirical evidence. PE teachers clearly need more time if they are to in political strategy terms ‘deliver on policy outcomes’, as Gard (2004) notes PE teachers are perhaps being presented with a task for which they did not sign up to nor can they hope to succeed in. Policy is presentation, practice is complex and problematic.

Rich et al. (2004) are critical of an approach that targets school PE with the intention of making pupils primarily responsible for their health. It is clear that pupils cannot easily act independently of their carers or in many cases the schools they attend. One aspect that is potentially very positive is that the ‘Health and well-being’ emphasis within the CfE is entering a ‘policyscape’ (Appadurai, 1990) where it will complement existing strategies. It would appear that the discourse of ‘healthism’ and the moral imperative to act to ensure that the nation state adopts appropriate social policies has taken hold in Scotland to the extent that there has been a proliferation of policy initiatives and associated texts namely; Active schools, School sport coordinator programme, a PATF, a review of PE, health promoting schools, integrated community schools, a national programme for improving mental health and well-being, hungry for success, let’s make Scotland more active and a healthy living strategy.

There will be many within the Scottish PE community that will welcome the opportunity to place PE at the centre of schooling within the new curriculum framework. This may well enhance the status of a subject that has been seen to be on the margins of traditional educational practice (McNamee, 2005). It can be argued that the current focus and shift towards the promotion of ‘Health and well-being’ will entail PE having to alter the aims and purposes of the subject. PE teachers are not health professionals, and their role in the prevention of ill-health and obesity cannot be, as indicated by O’Dea (2005), the diagnosis or treatment of child obesity. There is a significant difference between prevention and treatment. This is regularly confused in the creation, construction and interpretation of policy. McKenzie (2007) advocates that the greatest public health benefit would be attained by directing resources and PE at those who are physically inactive. This may appear to be well

intentioned but is clearly misguided. Health promotion is about providing educationally appropriate messages as well as opportunities for physical activity for all school age children.

The educational potential of the subject may of course be diverted from the broad range of objectives currently pursued within PE curricula as a result of the changes to the targets and the measurement of outcomes through school self-evaluation procedures, local authority and HMIE inspection. There is a confused message emerging from the CfE, falling somewhere between the recommendations of the PERG and the 'National Priority performance measure' (Scottish Executive, 2004c, p. 35). The lack of clarity within the one policy document supports the observations from Bowe et al. (1992) and Ball (1994) regarding the creation of policy. There is a recommendation that pupils should receive two hours of core PE per week within the school 3–18 curriculum, however no indication of duration accompany the statements about promoting daily physical activity (Scottish Executive, 2004c Executive, 2006; Scottish Government, 2009). The 'National Priority performance measure' asks schools to work towards an hour a day of physical activity to promote health through a range of activities. This has the potential to lead to confusion and schools may or may not choose to promote physical activity outside of the curriculum and continue to keep the allocation of time for core PE below the recommended guidelines.

PE is being seen as a vehicle for the transmission of a biomedical message, promoting physical activity as part of a lifelong commitment to health. It is a feature of steering at a distance that once the centre outlines what has to be achieved, local authorities, schools and teaching professionals are then allowed to discover, without central prescription, the solutions that will enable them to meet the outcome of two hours of PE per week. The focus could easily become how to provide the physical activity that will be recorded and reported on. This may perhaps mean that the most educationally beneficial and connective experiences for pupils to attain lifelong physical activity will be passed by (Penney & Chandler, 2000) in a drive to target the learning experiences and outcomes for 'Health and wellbeing' and address the 'National Priority performance measure for physical activity' advocating pupils be active for at least one hour a day (Scottish Executive, 2004c, p. 35).

An approach to teaching and learning in PE centred on health will necessarily change the relationship between the teacher and the pupils. McKenzie (2007) advocated that PE teachers in the USA should avoid interventions in lessons so as to maximise activity time. Therefore, in this view PE becomes managed recreation where the teacher pupil relationship is reduced to setting up and monitoring activity. This recreational model is discredited as it is only those pupils with developed motor skills that can engage in lessons (Penney & Chandler, 2000). There could also be, as observed in England and Wales, that despite several revisions of the 'National Curriculum for Physical Education' policy documents, 'the more things change, the more they stay the same' (Curtner-Smith, 1999, p. 75). This refers to the context of practice and teachers pedagogical approaches, there is currently a strong view within the PE profession that we already 'do' health and the whole purpose of PE is to

enable access to healthy lifelong physical activity (Green, 2000). The evidence appears to contradict these claims and this provides the impetus to organise the curriculum differently so as to ensure that there is a more specific focus on health related physical activity within PE lessons (NCSRDEPH, 2000; Scottish Executive, 2004b, 2004c). Gard (2004) issues a swinging attack on PE role in social policy focused on health, seeing it as misguided and doomed to failure as it conceals social divisions and over emphasises the role that PE can play in changing lifestyles.

If PE in Scotland is to meet and fully address the challenge of promoting 'Health and well-being' as it is required to do in many nations around the world (Tinning et al., 1996; Hardman & Marshall, 2000; Burrows & Wright, 2004; Johns, 2005) then this will require changes in practice and approach. It will of course need to consider *how*, given the evidence that physical activity of two hours per week provided within PE lessons alone will not have a significant impact on health (Miles, 2007). Although there is a substantial body of evidence in the literature which advocates the benefits of physical activity on health, this strives to establish a correlation between dose and response in order to bring about specified health benefits (Gard & Wright, 2001; Department of Health, 2004; Contaldo & Pasanisi, 2005; Johns, 2005). Biomedical research is seeking to establish concrete evidence that will enable recommendations to be made regarding the specific frequency, intensity, duration and type of activity that is necessary to yield an energy expenditure that can have beneficial effects for all individuals in the prevention and treatment of diseases. The focus at present of the various taskforces centred on addressing obesity are using the BMI measurements to determine if progress is being made (IOTF, 2003; WHO, 2004b). The issue of reducing or reversing an epidemic of childhood obesity (Gard & Wright, 2001; Johns, 2005) is far more complex than the discourse of healthism presents, with researchers identifying factors beyond physical activity as significant in understanding the cause, effects and treatment of energy imbalance (Gard, 2004). The gold standard of energy expenditure research which can investigate the relationship between physical activity and metabolic rate requires the use of doubly labelled³ water, research employing these techniques are expensive and as Miles (2007) observes:

A perfect instrument that can effectively quantify the level and patterns of physical activity does not yet exist. The resulting measurement error is likely to weaken the strength of observed relationships between physical activity and health, and weaken the effects of interventions. (Miles, 2007, p. 325)

Conclusion

There is a powerful discourse of healthism that charges individuals and the nation state with the moral imperative to act to address 'Health and well-being' through physical activity and PE. Scotland's strategy is more than PE and physical activity in schools. Indeed, when viewed as a whole, there is clearly recognition from within the policymakers in Scotland that a multi-layered and levelled approach is necessary (Scottish Executive, 2004b). It is perhaps then not particularly surprising that,

within the Scottish Government's drive to address aspects of 'Health and well-being' within society, that the CfE contains this as the title of a new curriculum area.

The biomedical research that exists coupled with a globalised discourse requiring nations to address the economic and social impact of obesity and ill-health have through the context of influence, led to policy texts being produced that will have a significant and as yet unknown consequences for the context of practice in Scottish schools. PE when viewed as a biomedical practice changes the relationship between the teachers and pupils. As is clear from the analyses of Bowe et al. (1992) and Ball (1994) the interpretation of the policy texts will result in intended as well as unintended outcomes and it will remain to be seen if schools implement the two hours per week of PE and seek to promote one hour per day of physical activity. In the context of practice there is the possibility of resistance or compliance, policy in never enacted it is reacted to, reinterpreted as teachers engaged in their pedagogical practice. It is, however, clear that the nature and form of the PE curriculum, pedagogy and assessment will be influenced not only by the text but also by the discourse of 'Health and well-being' which, will have an impact on pupils experiences in schools and PE teachers practice in Scotland. Future research needs to explore the learning experiences of pupils and the decision making of PE teachers as they design a PE curriculum to address the learning experiences and outcomes of 'Health and well-being'.

Acknowledgements

Sincere thanks to Bob Lingard and to the two anonymous reviewers for their valuable suggestions on an earlier draft of this paper.

Notes

1. Within this paper, the period of curriculum review refers to the development of ACfE which took place between 2002 and 2008. Following a change in administration in 2007, the Scottish Executive was renamed the Scottish Government. After the review and post consultation period on the learning experiences and outcomes for each of the eight curriculum areas, the CfE was published in 2009. The CfE provides curriculum guidance for the 3-18 age range and replaces the 5-14 curriculum guidelines, which saw PE placed within the 'Expressive Arts' area of the curriculum.
2. No other subject area has any guidance provided for the time that could be allocated for lessons each week within the CfE. The guidance provided within the CfE is that schools should provide two hours of PE per week and facilitate one hour of physical activity per day. Given that the two hours suggested for PE in curriculum time will include changing and where necessary travel time to facilities, research indicates that of the time available less than two hours will be spent engaged in physical activity.
3. Given the expense of using isotopes of H and O the doubly labelled is currently only applicable in small studies, as water with the stable isotopes of 2H and 18O (rather than 1H and 16O) are ingested; 2H is eliminated as water while 18O is eliminated as both water and carbon dioxide. Mass spectrometry is used to analyse the disappearance of the two isotopes from samples of body fluid. The difference between the two elimination rates is therefore a

measure of carbon dioxide production providing an accurate measure of total energy expenditure.

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