

The ‘obesity crisis’ and school physical education

David Kirk*

Leeds Metropolitan University, UK

The article builds on a number of recent critical reviews to argue that claims that we are experiencing an obesity crisis are almost entirely without foundation. The possibility is explored that this crisis is manufactured through a complex process of the social production of knowledge. The article marshals evidence to challenge the basis upon which crisis claims are made. In the context of this challenge, the relationship of this alleged crisis to school physical education is explored. Despite ambivalence from physical educators over the place of health-related exercise in their programmes, I propose that they may find it increasingly difficult to resist calls for physical education to be held accountable for children’s health. This is because the notion of the obese child generates a powerful and increasingly pervasive cultural symbolism of degeneration. I conclude that there is a need for a critical pedagogy in physical education to provide a morally and educationally defensible form of engagement with obesity discourse.

Keywords: *Childhood obesity; School physical education; Health-related exercise; Obesity discourse*

Introduction

In 1990, the Australian sports journalist Jeff Wells wrote a series of articles for *The Australian* newspaper advocating more curricular time for physical education in schools. At that time, there was disquiet among the physical education community over rumours that curriculum time might be reduced to create more time for science and technology subjects. For a sociologist of school physical education, the basis of his plea was interesting. Wells argued that the Australian economy was in crisis and the country’s standing in the international community was in decline. He saw any threat to school physical education as symbolic of the decline of Australia writ large. Wells summed up his argument in the following terms:

We present a pathetic picture of a nation unable to keep up with the speed of world political and economic trends. Our children are obese and clumsy. Our sports men [sic] are second rate. Our ethnic groups don’t get on, and preserve old hatreds. We have an aversion to work. We can’t manufacture anything. But we make heroes of

*Carnegie Faculty of Sport and Education, Leeds Metropolitan University, Churchwood, Headingley Campus, Leeds LS6 3QS, UK. Email: D.Kirk@leedsmet.ac.uk

paper-shufflers and hustlers. Our politics are cheap and childish. Our chief fiscal guru has declared us a banana republic. (Wells, 1990, p. 32)

That Wells should choose to make this argument in the context of a threat to school physical education is, from a sociological perspective, highly significant. In so doing, he was tapping an emotive stream of consciousness running through many parts of the Australian population with his reference to obese and clumsy children and second-rate sportsmen, since the 'Bronzed Aussie' athlete is a cherished cultural icon. The degeneration of Australian society was there for all to see, claimed Wells, in the neglect of our children's bodies. Any threat to school physical education, the subject area entrusted with the care of children's bodies, was for Wells clear evidence of how far the degeneration had gone.

The claim that children in Australia were fatter and less fit than previous generations was echoed time and time again throughout the decade that followed. In 1997, the National Health and Medical Research Council publication *Acting on Australia's weight* signalled the seriousness with which the Australian government was taking the obesity crisis, as it was becoming known. This crisis was not, of course, only to be found in Australia. In the USA, arguably the home of the obesity crisis, publications such as *Healthy People 2000* ranked obesity as America's major health concern. And of course, the United Kingdom (UK) is also currently experiencing its version of the obesity crisis (British Heart Foundation, 2000).

While the concern for obesity among the adult populations of these countries has generated considerable commentary in both the popular and academic press, it is the apparent increasing prevalence of obesity among children that has raised this commentary almost to a fever pitch.¹ And when children are mentioned in the obesity crisis discourse, school physical education is implicated immediately, both as a source of and as a possible solution to the problem (Johns, 2005). How are we to understand these complex connections that are being made and re-made between cultural and economic decline, allegedly increasing levels of obesity, and school physical education?

As Thorpe (2003) has argued, crisis discourse provides a means for 'experts' to intervene in particular fields at a level that defines the central aims and purposes of the field. I want to suggest here that such has been the volume of crisis discourse surrounding obesity and children that the field of physical education is in the process of being redefined in terms of what can and cannot be said, the 'truth' and the central tasks of the field. In this context, I agree with Thorpe that

An important critical-academic task is not merely to refuse the ontological status of crisis, but to practically engage in the colonisation of crisis discourses in order to deflect them and redirect them. (Thorpe, 2003, p. 147)

In this context, I want to build on a number of recent critical reviews to argue that the claims, made particularly by scientists and other experts, that we are experiencing an obesity crisis are mostly without foundation.² I will then argue that this crisis is manufactured, not through a conspiracy of scientists and politicians, but instead

through a complex process of the social production of knowledge. In this context, I will examine the relationship of this alleged crisis to school physical education. Echoing Wells, but with quite a different purpose, I will suggest that the notion of the obese child generates a powerful cultural symbolism. I will argue for a critical pedagogy in physical education that might provide a morally and educationally defensible form of engagement with obesity discourse.

Recent critiques of the obesity crisis

Winsley and Armstrong (2005, p. 66) claim that the 'prevalence of juvenile obesity is increasing in many western countries'. Before we can begin to question the accuracy of this claim, which is commonplace in the academic literature (Marshall *et al.*, 2004), we must ask a number of questions to determine what it is, precisely, we are talking about when we use terms such as obesity. For one thing, Evans (2003) has noted continual slippage between the terms 'overweight' and 'obesity' and their regular conflation in the scientific literature. As he points out, each term refers to a different phenomenon. Obesity refers to an excess of fat, while overweight refers to body weight in excess of a fixed standard. The difficulty, according to Evans, is that the meaning of these terms in relation to health is notoriously imprecise and contested, and yet they are regularly used unproblematically within the health and scientific communities. Body Mass Index (BMI), which is weight in kilograms divided by height in metres squared, is widely used as a means of determining obesity. As Marshall *et al.* (2004) note (see also, for example, Harris *et al.*, 2004; Trost, in press), there are serious methodological limitations to measuring children's body fat. Marshall *et al.* (2004, p. 1244) show that when BMI is used as a measure of body fatness, a high proportion of variance between subjects (80%) remains unaccounted for, suggesting either a heterogeneous population or, more likely, a combination of other lifestyle factors intervening to affect the results of measurements.

Clearly, given the different meanings of the terms overweight and obesity, BMI can be nothing more than a highly crude proxy indicator of obesity and can only be even more problematic when applied to children, particularly when we consider matters of maturational versus chronological age (Marshall *et al.*, 2004). So even if we cautiously accept the ubiquitous claim that children appear to be getting fatter, the precise meaning of this claim in terms of its implications for children's health, now and in the future, is far from clear.

As I noted in my introduction, it has been widely reported in the media in several countries that levels of fitness and physical activity among children are low and declining. The imagery of the 'couch potato kid', which has appeared in official health publications in the UK (e.g. British Heart Foundation, 2000), presents a potent symbolic representation of the associations that are made between increasing prevalence of fatness, declining fitness and activity, and increasing sedentary behaviour. In a comprehensive review of literature, Harris *et al.* (2004) concluded that fitness test data provides no evidence that children's aerobic fitness is low or that

fitness has declined. Moreover, as a corollary to the issue of measuring body fat, they note the methodological difficulties of measuring children's fitness and suggest that the data that do exist should be approached with caution.

In a study of participation data from research on children's sport and leisure activities that complements Harris *et al.*'s (2004) review of the fitness and health literature, Green (2004) argued that there is evidence, contrary to popular opinion, to suggest that children have since the 1980s had increasing opportunities for participation in physical activities. Moreover, this body of research suggests a high proportion of children willingly take up these opportunities when the activities are offered in an appropriate form.

In another wide-ranging review, this time of the epidemiological literature, Trost (in press) confirms the findings of both Harris *et al.* (2004) and Green (2004). Contrary to widely held views that children's activity levels are low, he states that:

Evidence from large population-based surveys using self-report methods and smaller group studies using objective measures of physical activity suggests that a large percentage of children and adolescents meet accepted guidelines for daily participation in moderate intensity physical activity. (Trost, in press)

Marshall *et al.*'s (2004) exhaustive meta-analysis of literature reporting on the relationships between media use, body fatness and physical activity in children and youth concludes there is little evidence to support the frequent and commonplace claim that there is a strong and conclusive relationship between inactivity, sedentary behaviours such as watching television and increasing levels of body fatness. Although they find evidence of a small statistical relationship between watching television and body fatness, they argue that the relationship lacks clinical relevance. They also show that sedentary behaviours such as television use and physical activity are uncorrelated, and that television use does not displace physical activity. Indeed, drawing on their own empirical studies, they argue both active and sedentary behaviour would seem to be possible and commonplace for the same individual (Biddle *et al.*, 2003). They explain that the factors affecting body fatness are complex and conclude that increases in body fat cannot be accounted for by single markers of inactivity such as watching television or computer use.

Marshall *et al.*'s (2002) study of young people's sedentary behaviour brings a more discriminating analysis to the question of who, precisely, is likely to be overweight or obese. This issue is reflected also in the reviews of Harris *et al.* (2004), Green (2004) and Trost (in press) reviews. Trost notes that, while many children appear to meet participation guidelines:

the sizeable standard deviations reported for daily physical activity suggests that substantial numbers of children and adolescents are low active. There is also consistent evidence that boys are more active than girls and that participation in physical activity declines with age, more so in girls than boys.

This is an important qualification. Levels of activity (and, we might add, prevalence of body fatness) are differentially distributed through the population. In other words,

not 'everyone everywhere' (Gard, 2004a) is unfit, inactive and overweight; these characteristics of health are distributed among populations by social class, race and gender. Moreover, levels of obesity and activity are not uniform between countries (Gard, 2004b).

The manufacture of a crisis

Michael Gard (2004a) states that levels of variability in the distribution of activity and fatness are often noted in passing within the health literature but rarely discussed. In a recent series of papers, Gard has sought to initiate a discussion of why it might be that scientists in the field of health, physical activity and body fatness appear regularly and consistently to draw conclusions that are not warranted by their evidence. In particular, he has examined in detail the ways in which information is manipulated within the scientific literature in order to create a level of certainty about proposed relationships between health, inactivity and obesity. What Gard's (also see Evans, 2003) work suggests is that the obesity crisis is being manufactured, not through conspiracy, though vested interests are at work as they are in all human affairs, but through a social process of the production of knowledge.

For example, Gard and Wright (2001) conducted a detailed analysis of publications on the relationships between obesity, exercise and health. What they found was that some experts concede that there is limited evidence of a causal relationship between health, physical activity and obesity; an article by Bouchard and Blair is cited as an example of such concessions, but its authors go on in the same article to claim that

The reduction in energy expenditure associated with physical activity brought about by automation and changing job and professional environmental circumstances has been nothing short of dramatic in the second half of this [the 20th] century. (Bouchard & Blair, 1999, quoted in Gard and Wright, 2001, p. 541)

Gard and Wright (2001) propose that this shift from uncertainty in terms of acknowledging limited evidence to bold statements of certainty as to the existence and the sources of the obesity crisis is characteristic of this whole body of scientific literature, with few exceptions (e.g. Flegal, 1999). When this expert commentary shifts from the field of primary knowledge production to be recontextualised in the professional literature of physical educators, it is the certainty that is heard and noted above the uncertainty. Important qualifications about methodological problems and lack of evidence disappear as uncertainty is transformed into fact. The net result of this process, argue Gard and Wright, is that knowledge that is understood by scientists to be contestable becomes uncontested within professional and public discourse, and thus a hegemonic discourse is created and sustained.

Gard (2004a) goes further with his analysis, however, to suggest that the slippage between uncertainty and certainty may not always be innocent or unintended.³ Again, in order to make his case he is required to carry out a close investigation of the texts produced by obesity and exercise researchers. Gard takes as an example

a national survey of physical activity patterns in Australia, reported by Armstrong and colleagues in 2000. He notes, first of all, that the authors echo the beliefs expressed in many other similar documents that ‘western populations are becoming more overweight and less physically active’ (Gard, 2004a, p. 173). He then focuses on data that show men are more likely to participate in high-intensity vigorous physical activity than women. Behind this finding, Gard discovers that the authors’ definition of physical activity only includes activity carried out during discretionary leisure time and excludes other potential categories of activity such as work, including housework. Gard asks whether these omissions may discriminate against women, who in Australia and the UK continue to do the majority of domestic chores such as housework, have less discretionary time than men to exercise, and live in patriarchal relationships that discourage the use of the time they have for exercising (e.g. see Deem & Gilroy, 1998). He suggests that what we may be witnessing here is not so much a comment on women’s relative inactivity compared with men, but instead a particularly narrow definition of physical activity equated with sport and vigorous exercise that excludes the sorts of activity in which women do engage.

This criticism is significant in itself, but Gard adds one further twist to his tale that prompts us to consider whether the authors of this report are merely naïve or whether they are instead so wedded to their assumption—that women are less active than men—that they miss an obvious contradiction in their own data. Gard examines another table from the same data set that reports 51% of Australian men are overweight or obese compared with 37% of women. Even taking into account the crudity of the measures used to arrive at these figures (BMI), and the possibility that men and women over- or underestimate matters such as weight, Gard argues that this apparent *prima facie* contradiction should at least cause us to stop and think. He asks, ‘why is it that women as a group seem to be doing less physical “exercise” than men while remaining considerably less prone to overweight and obesity?’ (Gard, 2004a, p. 177). Do we—and the authors of the report—need to re-examine our assumptions about the relationship between ‘physical activity’ (as it is defined in the report) and weight? Do we need to consider whether women and men eat and drink differently? Are there social pressures on women to be thin that men do not experience?

By asking these sorts of questions about such apparently contradictory data, Gard (2004b, p. 73) comments that we are forced to think beyond the biomedical mantra of ‘energy in/energy out’ as the primary explanation for overweight and as the underpinning rationale for a causal relationship between overweight and inactivity. When we *are* forced to think beyond this biomedical explanation, Gard suggests the notion that ‘everyone everywhere’ is a victim or potential victim of the obesity crisis is, to say the very least, a gross exaggeration. Indeed, he claims the dominance of this biomedical explanation actively masks the socio-cultural, economic, race and gender dimensions of the distribution of obesity (see also Johns, 2005). As Thorpe (2003) argues, it also actively contributes to the manufacture of a crisis and to the social production of practices such as research, interventions, and policy-making, as well as media commentary that continually reproduces and reasserts the dominance of obesity crisis discourse. Gard suggests that:

While there are doubts about the degree to which the so-called 'obesity epidemic' really is the 'global' phenomenon it is claimed to be, it has clearly become an important discursive resource in the legitimisation of a number of academic disciplines, industries and public health policy agendas. Indeed, a complex feedback loop in which academics, entrepreneurs, funding bodies and governments are simultaneously constructing and responding to this alleged crisis is now in full swing. Almost inevitably, it seems, schools have been drawn into the obesity vortex. (Gard, 2004b, p. 76)

School physical education and the obesity crisis

A key insight in the above statement by Gard is that the obesity crisis is a social construct, and a highly complex phenomenon. The careers of some researchers are being built on the belief that there exists an obesity crisis affecting young people. Political agendas have been produced and large sums of money are being spent on interventions and initiatives.⁴ In this context, there are growing numbers of institutions and individuals who have a strong vested interest in maintaining the appearance of an obesity crisis.

Schools have been forced to respond to these pressures in a number of ways, and school physical education has been positioned, as Gard (2004b) notes, as both a source of the problem and a possible solution. Until recently, however, physical educators have held a somewhat ambivalent attitude towards implementing forms of physical education that might address directly the alleged decline of children's fitness and their increasing fatness. Health-based physical activity initiatives have remained marginal to school physical education in Australia (Tinning & Kirk, 1991), the UK (Harris & Cale, 1997) and the USA (Corbin, 2002). In part, this ambivalence is borne out of teachers' appraisals of the realities of school life. For example, physical educators have highlighted the difficulties of improving children's fitness, given class sizes of 30 or more, the need to apply the principle of progressive overload within individualised exercise programmes (Kirk *et al.*, 1989), and the efficacy of fitness testing for monitoring and motivational purposes (Harris *et al.*, 2004). They have begun to acknowledge arguments about the confounding influence of maturational age on any measurement of children's fitness and have begun instead to talk in terms of health-related physical activity (Armstrong & Welsman, 1997). Despite these in-house debates, health has continued to be viewed as a by-product of participation in games-dominated programmes (Green, 1998).

As the obesity crisis discourse gains momentum, I question the extent to which physical educators will be able to maintain this ambivalence. On the one hand, as Trost (in press) among others has shown, physical education has been largely ineffective in improving children's fitness and providing the appropriate frequency, duration and intensity of activity required to have a health effect, which is not surprising given the history of viewing health as a by-product rather than as a central goal. On the other hand, government and other agencies are increasingly targeting schools as sites in which they can gain access to all young people (Harris *et al.*, 2004).

As the stakes are raised for the health, activity and obesity agenda, Gard (2004b) questions whether physical educators ought to willingly accept others' insistence that they can provide solutions to the obesity problem.

There are a number of reasons, historical and ideological, why physical educators will find it hard to resist such pressure. A number of writers have pointed out that lifelong participation in physical activity for the purposes of health and well-being has been a ubiquitous and long-term aspiration of physical education programmes in many countries (Fairclough *et al.*, 2002; Green, 2004; Kirk, 2004). Whether this has ever been an achievable or a realistic goal is debatable. But it does show that physical educators have contributed to the belief that there is a positive relationship between some forms of physical activity and some notion of health. Of course, physical educators' understanding of the nature of this relationship has shifted over the past 150 years, from a notion that exercise, fresh air, good nutrition and sanitation could help overcome aspects of physical degeneration brought about by slum-living, to a notion that exercise can be a means of reducing the risk of diseases associated with sedentariness (Kirk, 1992). However, even during the period from the 1890s to the 1940s, when Dano–Swedish gymnastics formed the main part of physical training in schools in Australia and the UK, its health-related therapeutic rationale was often of secondary importance to its use as a means of social control and discipline. As team games and sports came to dominate school physical education in Australia and the UK from the 1950s to the 1980s, the health benefits of physical education were viewed as a desirable by-product rather than as a central goal. It was only in the late 1970s that physical educators in Australia and the UK began to take seriously the idea that a primary purpose of school physical education might be the realisation of health outcomes.

From the first appearance of health-based physical education programmes in the UK in the form of Health-Related Fitness (Kirk, 1986) and in Australia in the form of Daily Physical Education (DPE) (Kirk *et al.*, 1989), the articulation of exercise, slenderness and health formed the underpinning (though often unstated) rationale. In a study of the DPE programme in Australia, Kirk and Colquhoun (1989) showed that this articulation did ideological work when the contingent relationship between each of these elements was presented instead as a necessary relationship. In other words, the notion that exercise produces a slender, mesomorphic body is believed to be inevitable. The possession of a slender, toned body is viewed as proof of health: the exercised, slender body is health incarnate. Kirk and Colquhoun (1989) provided evidence that the teachers and children participating in the DPE programme believed that these relationships were indeed necessary rather than contingent.

They also argued that schools were not the originators of this discursive configuration. Kirk (1994) proposed that scientific knowledge, reproduced and mediated by televisual images of exercising bodies and other popular physical cultural referents, were of key importance in communicating this configuration of 'exercise = slenderness = health'. The emergence of 'healthism', a notion adapted from the work of the sociologist of health Robert Crawford, portrayed health-related work on the body as an individual responsibility and, indeed, as a duty that had a

moral basis. For many of the children in the study of DPE, to be slender was, like cleanliness, next to godliness (Kirk & Colquhoun, 1989). As part of a broader project on schooling bodies, Kirk (1994) also argued that the rise to prominence of healthism and the 'exercise = slenderness = health' triplex could be viewed as a central element in the playing out of a process of corporeal regulation that Foucault (1977) had described as the diffusion, individualisation and internalisation of corporeal power, a process that he suggested had a clear potential to be both empowering and oppressive.

The key point is that, both historically and ideologically, physical education has contributed to the hegemonic health, activity and obesity discourse. It is physical education's complicity in reproducing healthism that I suggest underpins Harris's (2005) criticism of the narrowly biological and functional approach that currently mars contemporary health-related activity teaching in schools. Rather than seeking to merely 'make children fitter', Harris argues that schools have a more important educational role to play in relation to health and activity, a role that must acknowledge and build on the social, economic and cultural dimensions of young people's lives (see also Evans, 2003; Gard, 2004a; Green, 2004).

A critical pedagogy to challenge the obesity discourse

Gorely *et al.* (2003) argue that it is physical education's educational mission that provides a morally defensible rationale for engagement with health discourses. Moreover, the practice of a critical pedagogy is required in the face of the enormous symbolic power of the obese child and the apparent moral authority of those researchers, policy-makers, politicians and journalists who are determined to argue, contrary to the available evidence, that there is indeed an obesity crisis.

An essential feature of a critical pedagogy is that it is centrally concerned with *education* for social change. The Australian sociologist Bob Connell and his colleagues have argued that:

The process of education and the process of liberation are the same. They are aspects of the painful growth of the human species' collective wisdom. (Connell *et al.*, 1982, p. 208)

I suggest pedagogy should be regarded as a multi-dimensional concept concerned with the interaction of learning, teaching and curriculum and their situatedness in social and physical environments. Even though a critical pedagogy begins from the assumption that all human activity is value-laden, it does not seek to indoctrinate. On the contrary, with its central concern to bring about social change through education, a critical pedagogy aims to open up possibilities and alternatives, to reveal the complexity of social life and to resist the imposition of simplistic explanations and quick-fix solutions.

Harris (2005) has outlined in some detail the kinds of health-related teaching that might go on in physical education within the 'Active School' concept described by Fox and Harris (2003), which would be consistent with a critical pedagogy, including

the personalisation of the issues surrounding activity and health and their location within appropriate socio-cultural contexts. Gard (2004a) has shown how teachers can prompt young people to think critically and divergently by interrogating the arguments and evidence that contribute to the hegemonic discourse. Oliver (2001) has developed a series of pedagogical tasks that take the body as a curriculum and allow teachers to assist young people to deconstruct oppressive discursive configurations such as the 'exercise = slenderness = health' triplex. Each of these examples is consistent with the tenets of critical pedagogy, insofar as they seek to assist young people to see beyond the obvious or surface level of social and cultural phenomena.

The image of the obese child is a currently dominant representation of moral and social decay. In previous decades the body of the child was portrayed in different ways but for similar purposes. For instance, in the closing decades of the 19th and the early decades of the 20th century, the embodied symbol of degeneration was the narrow-chested, emaciated, dirty child (Kirk, 1998). In place of epidemiology, anthropometry was the leading science of the day, and it sought to monitor the shapes and sizes of children's bodies as a means of measuring their economic and moral worth. In both cases, then and now, it is the child's body represented as an 'unnatural' form that symbolises all that is wrong with society.

Given this powerful, visceral and emotive symbolism, a critical pedagogy in physical education needs to work on and critique the embedding of social values on and in the body. The target for such a pedagogy must be, in Bourdieu's terms, the habitus (see Shilling, 1993). The habitus for Bourdieu is the embodiment of an individual's experiences over time, an accumulation of ways of being that have been learned to fit the range of social situations in which a person acts and is acted upon. In short, the habitus is the material embodiment of social values, dispositions and tastes. To practice a critical pedagogy through physical education is to attempt to interrupt the habitus of students and their years of socialisation into particular ways of being embodied (Gorely *et al.*, 2003). For some, conventional forms of physical education closely match the values, dispositions and tastes they have already encountered and accommodated in their lives. These young people are the 'sporty', active and enthusiastic students. For others, school physical education is foreign and alienating. So to interrupt the habitus of all students, to cause them to pause and rethink fundamental ways of being in the world, will not be an easy task. Indeed, as Tinning (2004) cautions, a rational deconstructive critique of forms of culture that are for many young people sources of pleasure is unlikely to have an emancipatory effect, and on the contrary, may provoke cynicism and dislike. Tinning argues for a form of pedagogy that is not merely or solely in the head, nor delivered by adults to young people from the moral high ground, but one that is embodied and biographical, involving the changing self, and including both pleasure and profanity. In the face of the moral authority claimed by proponents of the obesity crisis discourse, it seems to me that nothing short of engaging young people at this level, in terms of their own embodied experience, can produce a form of education that can emancipate and empower them to be free from the tyranny of the 'cult of slenderness' (Tinning, 1985) and its oppressive consequences.

Conclusion

In this article, with the aspiration of engaging in the critical–academic work on crisis discourses proposed by Thorpe (2003), I have sought to demonstrate through an overview of recent critiques of scientific literature that there is no foundation in evidence to justify the confident and loud assertions of some scientists, politicians and journalists that we are in the midst of an obesity crisis, and that childhood obesity in particular is a growing problem. Furthermore, I have summarised literature reviews that suggest there is little evidence, either, to show deterioration in children's fitness and activity levels. Indeed, there appears to be evidence to the contrary to suggest that some children have more opportunity than ever before to be physically active on a regular basis, but that opportunities for activity may be differentially distributed along the lines of social class, disability, race and gender.

My purpose has not been to suggest through this critique that I believe physical activity to be unimportant for young people, nor to imply we should not be alert to issues that affect young people's health. I believe physical education, properly conducted, can make an essential contribution to educating young people in, about and through the medium of active engagement with organised physical activities, and in so doing can enrich their lives and empower them as members of their communities. My purpose instead has been to contribute to a growing disquiet from social scientists over the ways in which future forms of physical education may be shaped through erroneous assumptions and unsubstantiated assertions. Complete faith in the existence of a strong and conclusive relationship between inactivity and obesity could cause untold damage to many young people if this belief were to shape public and educational policy (Evans, 2003). In my view we must take every opportunity to interrogate this belief whenever it appears in the public domain and to offer alternative arguments and possibilities for the future of school physical education.

Notes

1. An almost endless list of examples could be provided. Articles on the 'obesity crisis' and 'couch potato kids' appear weekly in newspapers in the UK. For an international academic example, an issue of the *Journal of Teaching in Physical Education* (2004)—a prominent international educational research journal—arrived in my mailbox days after I finished writing this article. It was a special issue on 'Physical education, physical activity and public health'.
2. This is not to suggest that obesity in children and adults, where it does occur, is not a problem that must be treated with the utmost seriousness.
3. In a close analysis of a report on obesity similar to Gard's studies, Evans (2003, p. 92) notes the intentional but unheralded conflation of figures for overweight and obesity under the single heading of obesity to 'add weight' to the authors' claims that there is indeed an obesity crisis.
4. A case in point is the £1 billion of public money that has been pledged during the second term of office of the Blair government in the UK to fund a cluster of initiatives and interventions in physical education and school sport, each of which is framed, rhetorically at least, by a health rationale (DfES, 2002).

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