

This article was downloaded by: [24.135.49.189]

On: 13 May 2014, At: 08:27

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Sport, Education and Society

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/cses20>

The global physical inactivity pandemic: an analysis of knowledge production

Joe Piggin^a & Alan Bairner^a

^a School of Sport, Exercise and Health Sciences, Loughborough University, UK

Published online: 10 Feb 2014.

To cite this article: Joe Piggin & Alan Bairner (2014): The global physical inactivity pandemic: an analysis of knowledge production, Sport, Education and Society, DOI: [10.1080/13573322.2014.882301](https://doi.org/10.1080/13573322.2014.882301)

To link to this article: <http://dx.doi.org/10.1080/13573322.2014.882301>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

The global physical inactivity pandemic: an analysis of knowledge production

Joe Piggin^{*} and Alan Bairner

School of Sport, Exercise and Health Sciences, Loughborough University, UK

In July 2012, *The Lancet* announced a pandemic of physical inactivity and a global call to action to effect change. The worldwide pandemic is said to be claiming millions of lives every year. Asserting that physical inactivity is pandemic is an important moment. Given the purported scale and significance of physical inactivity around the world, this research examines how the pandemic is rhetorically constructed and how various solutions are proposed. We apply a governmentality perspective to examine the continuity, coherence and appropriateness of ideas about physical activity. The analysis demonstrates that within *The Lancet*, there is disunity about what is known about physical activity, problematic claims of 'abnormality' and contradictions in the proposed deployment of a systems approach to solve the problem. The article concludes by suggesting that as knowledge produced about physical activity grows, scholars need to beware of nostalgic conceptions of physical activity, account for the immense diversity of lived experiences which do not abide by idealistic recommendations and consider more rigorously contentious claims about physical activity programme effects.

Keywords: *Physical activity; Policy; Discourse; Health; Pandemic*

Introduction

The promotion of health is inherently political, and it is well established that the causes of and solutions to all social problems are contested through rhetoric, discourse and narrative (Petersen & Lupton, 1996; Stone, 2002). Roe (1994) describes the importance of 'metanarratives' in constructing a hegemonic approach to a specific policy issue. A metanarrative is a dominant story that is developed over time by one or more parties involved in the social problem. These stories are used to establish and stabilise the assumptions for policymaking in response to the issue's uncertainty, complexity or polarisation (Roe, 1994).

One recent metanarrative is the *global physical inactivity pandemic*, an important contribution to which is *The Lancet Physical Activity Series* (Lancet, 2012). This both defines and actively constructs how 'we' (the scientific and academic communities at least and the human population at most) should think about physical activity. Understanding more about the production dynamics of physical activity knowledge is important for various reasons. How any pandemic is framed will have important

^{*}Corresponding author. School of Sport, Exercise and Health Sciences, Loughborough University, Leicestershire, Loughborough LE113TU, UK. Email: j.j.piggin@lboro.ac.uk

consequences for proposed health outcomes and the distribution of various resources. Any such problem requires that action is taken, whether this is in the form of government funding to address the problem, new laws to decrease the prevalence of the problem or the modification of a population's behaviour to minimise the problem (Parsons, 1995). As a lobbying tool, the pandemic is potentially very powerful since a significant amount of resources might be directed towards measuring, scrutinising and encouraging people to behave in particular ways and for particular reasons. The ideas espoused might also govern how a range of organisations use physical activity, and influence how agents and causes are (re) framed. Further, ideas about physical activity can impact on how individuals think about the activities in which they partake and also about their own and others' bodies.

This research builds on the growing attention given to the various narratives and discourses through which physical activity policies and programmes are used to nudge (Vallgård, 2012), police (Piggin, Jackson, & Lewis, 2007), empower (Bercovitz, 1998), inspire (Evans, 2013), exhort (Garvin & Eyles, 1997), intervene (Mansfield & Rich, 2013) and educate (Gard & Wright, 2001). It is also situated at a specific moment with regard to the obesity epidemic. Gard (2011) contends that the obesity epidemic is essentially over: 'by 2010 a new phase in the obesity epidemic had been reached, marking the end of a period of consciousness raising or hyperbole ... and a transitioning to something else' (p. 4). That 'something else', we argue, is the physical inactivity pandemic. This new problem shifts the focus from what we are, to how we act.

Some focus has also been directed towards the ways in which ideas about public health pandemics are produced and framed (Abeysinghe & White, 2010, 2011). In research on a recent flu pandemic policy, Holmes (2010) concluded that 'despite a history of critical research on constructions of disease, social sciences literature on pandemics is primarily practical' (p. iii). Holmes' research concluded that a variety of discursive elements, including active language and statistics, recalling the past as key to the future, reference to expert knowledge and conferring moral responsibility on the public to feel at risk, constructed a pandemic flu as inevitable, significant and manageable. Regarding the framing of health debates, recent research has focused on contests between public health organisations and corporations, for example, in relation to obesity (Jenkin, Signal, & Thomson, 2011; Kim & Willis, 2007; Kwan, 2009). Some research exists regarding the messages of physical activity policies. In the Australian policy context, Fullagar (2002) examined health promotion campaigns with regard to the rationalities and ethics through which individuals are encouraged to govern their own healthy lifestyle practices in the name of freedom. In particular, she examined the ways in which individuals may come to govern their own subjectivity through 'healthy' lifestyles and leisure practices. This current research builds on Fullagar's work in two ways. First, we extend the analysis to investigate ideas which inform physical activity promotion at a global level. Second, we incorporate the increasingly diverse interest groups beyond state governments which

seek to change the behaviour of populations. The lobbying potential of physical activity scholars is considered explicitly.

In order to understand more about the physical activity narratives involved and the rhetoric that sustains them, this research focuses its attention on a specific case study which has produced a declaration of a global physical inactivity pandemic. We explore how knowledge is created about physical activity in the prestigious and influential medical journal, *The Lancet*. We examine the knowledge produced about physical activity with the following questions in mind. What ideas about physical activity are foregrounded? Are these ideas coherent? Are these ideas always appropriate? The way in which facts are disseminated is also important to consider. Petersen and Lupton (1996) note that 'like other scientific facts, epidemiological facts gain their credence from being published in scholarly journals, in which process the historical and sociocultural dimensions of their construction ... are effectively hidden' (p. 33). In the case of *The Lancet* series on physical activity, the journal's reputation as a renowned health publication bestows a sense of legitimacy upon the claims made. It is these hidden and possibly unaccounted for dynamics of construction that we attempt to illuminate here. It is not our goal to construct a perfect, coherent story about the history and meaning of physical activity. Rather, by exposing misrepresentations and contradictions by world leading experts involved in *The Lancet*, we might first encourage scepticism about grand proclamations, and second, open space to develop a critical and ethical approach to physical activity promotion.

Research approach

Given the purported multidimensional nature of the physical inactivity pandemic, the current study merges a variety of methodological perspectives. Our theoretical framework is broadly informed by writings on governmentality (Foucault, 1994; Markula & Pringle, 2006; Rose, 1990; Rose & Miller, 1992). Foucault (1994) uses governmentality to describe the regulation of individuals' lives, which involves procedures, analyses, calculations and tactics that allow for the exercise of power through the governing of others. Rose (1990) goes on to note that it is through these interlocking apparatuses for the programming of various dimensions of life that we are 'urged, incited, encouraged, exhorted and motivated to act' (p. xxii). Rose and Miller (1992) assert that these various forms of power are used by governments to ensure citizens believe in 'a kind of regulated freedom' (p. 174). By understanding more about these dynamics (with particular regard to physical activity), one can begin to either support or question the impact of such espoused meanings and interventions in the lives of citizens. Propositions such as those put forward in *The Lancet* about physical activity provide a significant moment to examine 'a whole complex of knowledges' (Foucault, 1994, p. 220). In examining the text of various Lancet articles, we are also guided by critical health psychology (Hepworth, 2006) and an adapted policy-as-discourse perspective (Bacchi, 2000), both of which interrogate the construction processes and outcomes in the realm of public policy.

While *The Lancet* is not official public policy, we consider its global reputation sufficient to warrant its 'official' pronouncements of pandemics as authoritative.

A specific set of documents is analysed and is limited to *The Lancet* Physical Activity Series published in July 2012. The Series consists of five 'comments', one 'article' and five further articles under the heading 'Series'. The selection of these articles for analysis is considered and deliberate since it captures the moment of the announcement of the physical activity pandemic, the description of the 'landscape' in which to address the pandemic, the proposed actions that are needed and the important actors and institutions.

The data analysis involved a number of stages. An initial, cursory reading of the Physical Activity Series revealed numerous tensions and inconsistencies. This was the catalyst for a formal study whereby the researchers systematically and critically read *The Lancet* articles. The 'critical' lens came from the researchers comparing and contrasting claims made in *The Lancet* against one another. As well as this, the researchers juxtaposed various claims with other ways of thinking about population health, which might disrupt the ostensibly unproblematic, positive claims about physical activity and health. That is, the researchers examined the continuity, coherence and appropriateness of ideas that emanate from *The Lancet* about physical activity. Following this, in line with the governmentality theme, the issues were then shortlisted and examined in detail with regard to how they might impact on health promoters' and citizens' understandings of physical activity.

Ultimately, the aim of undertaking this analysis is to disrupt the taken-for-granted assumptions and 'facts' which 'govern' the ideas presented in *The Lancet* before any major policy initiatives are rolled out in order to combat physical inactivity. Not only may these result in the inefficient distribution of scarce resources but potentially harm citizens' understandings about physical activity. To paraphrase Pringle and Pringle (2012), in this study, we critique the validity of the truth claims surrounding physical activity while also drawing on the notion of 'health' as justification for rejecting some of the ideas proposed.

Context—*The Lancet* and the global physical inactivity pandemic

According to its own website, *The Lancet* journal is an authoritative voice in global medicine. With an 'impact factor' of 38.28 at the time of writing, which is amongst the highest of all academic journals, it is clearly influential in the medical community. In July 2012, *The Lancet* published a Series of physical activity commentaries and articles about the physical inactivity pandemic and called for a 'social revolution ... towards an active physical and mental life' (Das & Horton, 2012, pp. 189–190).¹ The global significance of physical inactivity was highlighted on numerous occasions. The pandemic is said to be affecting all nations in the world (Das & Horton, 2012). According to the Series, 'physical inactivity is the fourth leading cause of death worldwide' (Kohl et al., 2012, p. 294) and is said to be responsible for '6–10% of all deaths from the major NCDs [and] more than 5.3% of the 57 million deaths that occurred worldwide in 2008' (Lee et al., 2012, p. 219).

While *The Lancet Series* contains much large-scale quantitative data about the benefits of physical activity, it also includes a significant amount of rhetoric and argumentation to shape the physical inactivity pandemic. Claiming that physical inactivity is ‘pandemic’ is an important moment in health promotion discourse. It suggests a rhetorical and policy shift in attention away from physical inactivity being a component of the ‘obesity epidemic’ thereby requiring alterations in how population health is perceived and addressed by a range of stakeholders.

The call to action that culminates in *The Lancet* requires a wide array of organisations in every nation to change their practices, including transnational organisations such as the UN and WHO, national governments, companies, voluntary organisations and academics and individuals. By considering the growing field of physical activity scholarship as a potent policy domain, this current research examines how the problem of the pandemic is rhetorically constructed and how solutions are proposed.

Analysis

The disunity of what is known about physical activity

First we examine what is claimed to be known about physical activity by the various authors of the Series and by so doing, we uncover what is contested. In the first commentary, Das and Horton state that the goal of the Series (and the ‘first step’ in this social revolution towards active physical lives) had been ‘to assemble the best experts in the field and the *best evidence* to understand what we know about the relationship between human health and physical activity’ (p. 189, italics added). However, with regard to establishing what we know about human health and physical activity, it is demonstrably apparent in the Series that, in fact, there is much confusion about what ‘we’ (the scientific community) know.

On the first page of the Series, Das and Horton claim that ‘unlike other NCD risk factors ... *the importance of physical activity has been slow to be recognised*’ (p. 189, italics added). However, this is difficult to reconcile with a statement on the second page, where Hallal et al. (2012) claim that ‘*For millennia, exercise has been recommended by physicians and scholars*’ (p. 190, italics added). Other disparate claims are made. Wen and Wu assert that ‘*[exercise] receives little respect from doctors or society*’ (2012, p. 192, italics added), whereas Heath et al. (2012) state that ‘*Interventions to increase physical activity in whole populations are now prominent* with community-based informational, behavioural, social, policy, and environmental approaches’ (p. 272, italics added). For this range of oscillating statements regarding societal knowledge and action about physical activity and exercise to be made within the first few pages of one of the world’s leading medical journals is particularly problematic. Specifically, this poses a problem for establishing a starting point for addressing the pandemic. If much is known about physical activity and many interventions are in place, then any policy action would surely differ vastly from a situation where physical activity has little respect and where interventions are lacking.

To be clear, we do not believe that these statements are intended to be contrary. At no point do the authors argue against one another over these claims. The remarks appear independently throughout the Series as common-sense claims which then lead to suggestions for policy and practice changes. However, when compared, rather than articulating *what is known* about physical activity, these equivocal statements would leave readers wondering about the importance of physical activity, the extent to which exercise is respected by society/ies and about the prominence of interventions.

The multifarious claims, while usually presented as common sense and even banal, set the tone for the ambition to rid the world of the pandemic. If we are to regard *The Lancet's* reputation sufficient to proclaim the emergence of a physical inactivity pandemic, it appears problematic that such contrary statements would be published. To be clear, both authors of this article suggest that physically active lifestyles are worthy of promotion to populations around the world and appreciate that disagreement is often the way that scientific understanding moves forward. However, the contradictory claims inherent within *The Lancet* should be attended to with rigour consistent with that of the accompanying statistical analyses which are intended to provide evidence to justify the pandemic. If a history of physical activity and exercise is to be offered in *The Lancet*, more rigorous research about the claims that are made should be undertaken.

Perhaps even more problematic than the aforementioned ambiguity, is the claim by Kohl et al. (2012) that a '*complete understanding* of all stakeholders, their interactions, and how their interactions make up the whole is crucial to understanding of the systems that impede progress on physical activity' (p. 302, italics added). While we believe the goal of attaining 'complete understanding' is ultimately futile, it is disturbing that this would be a goal at all. We ask, what does 'complete' mean in the physical activity domain? What knowledge about individuals is 'fair game' for physical activity researchers pursuing this goal? What surveillance techniques might be utilised to attain this 'complete understanding'? Where do individual rights fit in with such a plan? We argue these questions must be given attention by physical activity scholars, particularly since ideas about surveillance also feature prominently in the Series.

The attempted rewriting of the history of physical activity

Numerous statements in the Series use both recent and 'ancient' history as important reference points to justify focusing on physical activity. However, many of these claims fail to contain sufficient rigour in their production. In an article that provides much statistical evidence for a physical activity revolution, Lee et al. (2012) write:

Ancient physicians—including those from China in 2600 BC and Hippocrates around 400 BC—believed in the value of physical activity for health. By the 20th century, however, a diametrically opposite view—that exercise was dangerous—*prevailed instead*. (p. 219, italics added)

This claim uses various rhetorical devices to create a powerful narrative about physical activity. It invokes the wisdom of the ‘Ancients’ from Greece and China and suggests that their espousal of health practices had somehow been usurped and subjugated by forces not identified in the text. This is a powerful story of decline whereby ‘in the beginning, things were pretty good. But they got worse. In fact, they are nearly intolerable. Something must be done’ (Stone, 2002, p. 138). However, we argue this narrative is both inaccurate and is itself also used by other authors in the Series to propagate further misrepresentations.

First, it is unreasonable to use the twentieth century as the time during which scepticism about exercise prevailed. Further it is inaccurate to claim that an opposing view ‘prevailed *instead*’. Tracing the literature that Lee et al. (2012) use to support their own claim illuminates this. The evidence offered for the ‘prevailing’ view that ‘exercise was dangerous’ originated from a *British Medical Journal* article by Rook (1954) which reported on an investigation into ‘the longevity of Cambridge sportsmen’. The article by Rook claimed that ‘*Many observers, both in ancient and in more modern times, have pointed out the alleged dangers of such activities*’ (p. 774, italics added). In turn, Rook cites Hartley and Llewellyn (1939) who wrote that concerns have existed about strenuous exercise since ‘the earliest times’ (p. 657). These historical debates, both ancient and recent, about the concerns about exercise are omitted by Lee et al. (2012) in favour of a more dramatic, though inaccurate, narrative.

The transformation of the narrative continues, when Wen and Wu use the claims by Lee et al. (2012) as a reference in the assertion that ‘Socially, being inactive is perceived as normal, and in fact doctors order patients to remain on bed rest far more often than they encourage exercise’ (p. 192). This is inaccurate in two respects. First, Lee et al. (2012) do not claim that ‘being inactive is perceived as normal’. Second, Lee et al. (2012) *actually* write that ‘During the early 20th century, complete bed rest was prescribed for patients with acute myocardial infarction’ (p. 219) which is totally incongruent with Wen and Wu’s assertion. We argue that it is important that the narrative regarding physical activity promotion does not include dramatic statements such as ‘in fact doctors order patients to remain on bed rest far more often than they encourage exercise’ without supporting evidence. The problematic climax to this series of inaccuracies is the claim by Wen and Wu (2012) that:

This passive attitude towards inactivity, where exercise is viewed as a personal choice, is anachronistic, and is reminiscent of the battles still being fought over smoking. (p. 192)

This view is derived from a series of misrepresentations by various authors within *The Lancet*, and therefore should be treated with scepticism. These narratives are powerful to the extent that they attempt to justify the research that follows. The simplifications and misrepresentations suggest a need for a more critical approach by physical activity scholars to understanding what societies *do* think about physical activity. We argue that these grand proclamations require more rigorous

consideration by the various researchers in the first instance and more scrutiny by editors and reviewers of *The Lancet* in the second.

The rhetorical technique of nostalgically referencing a bygone age is also apparent in another aspect of *The Lancet*. The cover page of *The Lancet* Series is adorned with an image (which is repeated on the first page) of a painting of what appears to be children playing. Indeed the painting is called ‘Children’s Games (Kinderspiele)’ from 1560, by Pieter Bruegel. The image portrays a town square full of young people playing both outside and in the surrounding buildings. We suggest the intention of including the image (twice) is to imply that populations have indeed neglected or forgotten the goodness of games.

A cursory analysis of ‘Children’s Games’ however, reveals various activities which would surely be deemed detrimental to physical or mental health today. They include a child poking and stirring what appears to be excrement with a stick, someone urinating only a few metres from where others are playing, a group of children kicking the legs of others, another group seemingly manhandling an uncooperative person and a child being bullied by having their hair pulled by a group of others.² We suggest it is unlikely this image would have been purposefully selected had this range of health diminishing activities been recognised. Regarding the interpretation of these images, we are not arguing against the wide variety of benefits that come from different types of physical activity. We are drawing attention to the various, often contradictory ideas about what ‘physical activity’ involves. That is, it is clear that both hundreds of years ago, and currently, the realm of physical activity involves more than ‘brisk walking’.

Also on the first page is a quote from the ‘Ancient’ Plato which reads ‘Lack of activity destroys the good condition of every human being while movement and methodical physical exercise save it and preserve it’. Both the quote and a general view of the painting promote a naïvely nostalgic view of what life used to be like and advocate a return to particular traditional ideas and practices of yesteryear. It is interesting to note that the origins of nostalgia are to be found in medicine itself. As Boym points out, ‘It would not occur to us to demand a prescription for nostalgia. Yet in the seventeenth century nostalgia was considered to be a curable disease, akin to a severe common cold. Swiss doctors believed that opium, leeches, and a journey to the Swiss Alps would take care of nostalgic symptoms’ (2007, p. 7). Whilst we would not promote such remedies, we do agree with Boym’s (2007, pp. 9–10) claim that ‘The danger of nostalgia is that it tends to confuse the actual home with the imaginary one’, in this case the past, in which premature death was a fact of life, and the imagined past in which children were physically active and, as a result, healthy.

In many cases, generalisations about yesteryear and ‘the Ancients’ are relied upon to contextualise the issue under discussion. However, we argue that such grand summations simplify the debated and contested history of thought about physical activity. Of course, these arguments are not the main focus of *The Lancet* articles. Historical anecdotes are mostly offered as introductions to the research and policy suggestions that follow. However, this ‘scene setting’ is important when considering the range of claims that are made about what is, or is not appropriate physical

activity. Despite these contrary statements mentioned above, as rhetorical devices, all of the claims contribute to a narrative that something must be done. In the course of doing so, the claims rule in and rule out certain types of action and certain types of knowledges which can be used to regulate the behaviour of a population. This is explored in the next section.

Abnormal, design and failure: the politics of regulating populations

In both subtle and explicit ways, particular types of physical activity are promoted and marginalised in *The Lancet*. Foucault (1979) referred to these as dividing practices; ‘the judges of normality are present everywhere. We’re in the society of the teacher-judge, the doctor-judge ... It is on them that the universal reign of the normative is based ...’ (p. 304). Here we consider which ideas are promoted as acceptable (or ‘normal’) in the Series.

In the final call to action, Kohl et al. (2012) claim that ‘The freedom and opportunity for individuals to participate in physical activity should be viewed as a basic human right’ (p. 300). ‘Freedom’ is a wholly worthwhile principle, and in one significant way, it is addressed in a Series article by Rimmer and Marques (2012) entitled ‘Physical activity for people with disabilities’ (p. 193). Rimmer and Marques propose that more is done to promote physical activity for the more than one billion people worldwide who have disabilities.

However, while ideas about ‘freedom’ and ‘rights’ do feature, there are also other ideas which work against these ideas. For example, there are instances where ‘normality’ is referred to in a way which deviates from other, more inclusive discourse. We focus our attention in particular on Wen and Wu’s suggestion that:

In addition to doctors’ traditional advocacy of the health benefits of exercise, stressing that the harms of inactivity could strengthen our battle against inactivity. *We need to view the inactive population as abnormal* and consider them at high risk of disease. (2012, p. 193, italics added)³

We argue that describing people as ‘abnormal’ when considering physical activity promotion is wholly inappropriate. This idea is particularly worrying. The plethora of literature which exists around problematic aspects of the obesity epidemic alone should alert us to the possibility of stigma associated with being labelled as inactive (see Gard & Wright, 2005; Puhl, 2011; Puhl & King, 2013). In their *Lancet* text, Wen and Wu (2012) also state:

To individuals, *the failure* to spend 15–30 min a day in brisk walking increases the risk of cancer, heart disease, stroke, and diabetes by 20–30%, and shortens lifespan by 3–5 years. (p. 192, italics added)

In a similarly normative manner, Das and Horton state that the Series is concerned with:

using the body that we have in the way it was designed, which is to walk often, run sometimes, and move in ways where we physically exert ourselves regularly whether that is at work, at home, in transport to and from places, or during leisure time in our daily lives. (p. 189)

These quotes are concerning for two reasons. First, using ‘15–30 min a day in brisk walking’ is overly normative, and does not reflect the range of disabilities which people around the world face. Any promotion of physical activity should extend to people who for a wide variety of reasons, can neither walk nor run. Second, the idea that individuals ‘fail’ at this task is in total opposition to a systems approach advocated by many of the authors in the Series who focus more on structural factors.⁴ In light of the significant attention given to promoting surveillance within the Series, we urge reflection with regard to people who, no matter how they were ‘designed’, do not obey these normative descriptions and prescriptions. There is surely space for physical activity scholars to produce more inclusive definitions of what physical activity can be. These definitions should take into account ideas about diversity of movement as well as the diverse meanings attached to physical activity. Scholars in physical education and pedagogy have demonstrated time and again that they are willing to be self-critical and to examine new ways in which physical activity amongst young people can be increased and improved (see Quennerstedt, 2008). As Stidder (2013) notes, ‘critical self-reflection and pedagogy through the use of reflexivity in physical education can contextualise and illustrate various topics of educational debate as well as inform research and provide the impetus for innovation and change’ (p. 19). There is little evidence to date of such self-analysis amongst the overwhelming majority of physical activity scholars whom might consider the evidence base for some of their espoused truths.

Foucault writes that there are powerful effects of claims about normality: ‘each individual, wherever he (*sic*) may find himself, subjects to [normative ideas] his body, his gestures, his behavior, his aptitudes, his achievements’ (Foucault, 1979, p. 304). While regular physical activity might indeed contribute to healthy, able bodies, physical activity scholars would benefit from integrating the diversity of human life more fully into their proclamations. There is space in the domain of physical activity policy ‘for further consideration with respect to how to talk about the fit body’ (Neville, 2013, p. 490).

Olympic Legacy claims—denial, lamentation or praiseworthy?

While many organisations are integrated into *The Lancet*’s call to action, there is a significant amount of attention given to the International Olympic Committee (IOC) and the Olympics Games. Throughout the Series however, it is clear that there is much contention about the value of the Olympic Games in promoting physical activity. This case study of rhetoric about the Olympic Games demonstrates that even though various Lancet authors promote a systems approach, the complexity of any issue can become so great as to stifle any positive action. Hallal et al. unequivocally claim that:

The popularity of the Olympic Games and elite sports such as professional soccer *has not been, and will not be, translated into mass participation in exercise and physical activity* that will improve the health of the world's population. (2012, p. 190, italics added)

Refuting the claim that worldwide physical activity from the Olympic Games will occur is a powerful rhetorical device. It adds to the problem, since it alerts the reader to the possibility that some aims are not being achieved (despite the fact that no person or organisation is cited as having made the claim in the first place). This denial differs from *The Lancet* editorial for the Series, which suggests that the Olympic Games are actually *detrimental* to health. The editorial criticises the involvement of sponsors such as Coca Cola, Cadbury's and McDonald's and laments 'the long-term effect of Games-associated junk food advertising on people's hearts and waistlines—definitely one Olympic legacy the world can do without' (p. 188). This binary 'villain' narrative is certainly popular, although a critical ecological approach might consider two problematic aspects of this view. First, the tone of these claims about the 'Olympic effect' differs significantly from that of another commentary in the Series in which Malta and Silva (2012) write about efforts in Brazil to promote physical activity using the Olympic Games. They write that 'the Brazilian government launched a strategic plan to tackle NCDs in 2011' (p. 196). Part of this strategic plan is to use the 2016 Olympic Games to promote physical activity:

Furthermore, educational measures that foster healthy habits and the practice of daily physical activity are underway as part of the legacy of two major sporting events that will be held in Brazil: the 2014 World Cup and the Olympic Games in 2016. (p. 196)

Adding to the contention about the value of the Olympic Games, in the final call to action this Brazilian strategic plan is *praised*:

Ideally, national policies and action plans are designed not for implementation solely by governments, but rather for mobilisation of both governmental and non-governmental collaboration towards advancement of physical activity and reduction of physical inactivity. The recent Brazilian experience is one from which many such lessons can be learned. Similar action is needed worldwide. (Kohl et al., 2012, p. 296)

What all of this highlights, amongst other things, is a failure to engage with research conducted by social scientists into legacy issues associated with the Olympic Games and other mega events. Long before the London Olympics of 2012 took place, it was being pointed out that, if large-scale changes in sports participation were to occur, these would be the consequence of interaction between numerous factors, including improved infrastructure for grass-roots activities (Coalter, 2004). Any suggestion that simply by hosting a mega event, such interaction will inevitably follow is idealistic in the extreme. Post-2012, there is little evidence that youth sport participation has increased since the Games. As Judy Murray, mother of British tennis gold-medal

winner Andy, has pointed out, there is a dearth of new talent in her sport not least because several schemes to improve free-to-use public courts in deprived urban areas have failed to materialise (Parkhouse, 2013). Inspiring a generation, which was the aim of London 2012, is one thing but if there are insufficient facilities and coaches to meet demand, the inspired generation will become quickly disillusioned. In addition, figures show that ‘there are now fewer adults playing sport regularly than before the London 2012 Olympics’ (Gibson, 2013). Indeed, as Bell (2013, p. 175) concludes, ‘despite the excitement and interest London 2012 generated, delivering an inspirational and successful Olympics/Paralympics was not sufficient on its own to get more people taking part in sport – as many had already predicted’. None of this is to suggest that participation levels will never increase after the staging of a mega event, such as the Olympic Games. The point is, however, that apparently unbeknown to some Lancet authors, there has long been a significant and well-informed debate on such matters which they ignore to their detriment.⁵

The Lancet statements illuminate not only the stark contradictions that characterise the debate about the ‘Olympic effect’ but also reveal that some of these contradictions come from authors in the same Lancet Physical Activity Series Working Group. To extrapolate this point, the sentiments of denial and lamentation above cannot be reconciled with the advice in the climatic ‘call to action’ article which encourages the private sector to:

Orient marketing, advertising, and promotional messages to encourage physical activity and discourage physical inactivity and sedentary behaviours [and] Collaborate with government and non-governmental organisations in the creation and promotion of opportunities to promote and engage in physical activity. (Kohl et al., 2012, p. 302)

That is, the call to action specifically *encourages* private companies to promote physical activity. This case demonstrates the non-linear and multifaceted nature of appeals to ‘health’. It also illustrates the governmental forces at work whereby there are interlocking (but not necessarily synergistic) apparatuses which contribute to lived environments. These apparatuses ‘form a force field through which we are urged, incited, encouraged, exhorted and motivated to act’ (Rose, 1990, p. xxii). One might argue that *The Lancet* Series does promote acknowledging these multifaceted understandings through a systems approach. In their call to action, Kohl et al. (2012) argue that a variety of ‘different areas are needed to tackle the global pandemic of physical inactivity because multidisciplinary work is essential’ (p. 294). However, a more concerted systems approach would acknowledge this paradox of the Olympics as at once hindering and assisting health in order to establish a more nuanced appreciation of the complexities associated with corporate sponsorship of sport events. Certainly, these paradoxes demonstrate the need for urgent review focused on existing policies and practices. We suggest that by acknowledging the multiplicity of these corporate and non-governmental arrangements, a more ‘ecological’ context can be presented.

Conclusion

While the Physical Activity Series is well intended, there remain concerns regarding the continuity, coherence and appropriateness of various ideas that emanate from it. We applaud the idea of encouraging people to partake in more physical activity. However, the complexities inherent within the global pandemic metanarrative disrupt the possibility of rigorous argument. The concerns expressed here are not intended to derail momentum being generated in relation to physically active lifestyles. Instead, by giving more rigorous attention to defining and discussing the context and meanings of physical activity, fairer, more respectful and more effective promotion can result. The institutionalised, population-wide study of physical activity is relatively new, and, as Bull and Bauman (2011) note, physical inactivity might be described as the ‘Cinderella’ of NCD risk factors, with a ‘poverty of policy attention and resourcing proportionate to its importance’ (p. 13). There is clearly space then, for physical activity scholars to reflect on what stories are being (and should be) told about physical activity, in order to develop a more nuanced approach to engaging with it.

The Lancet Series frames the physical inactivity pandemic as complex. Claiming a social problem is complex allows for it to be conceived, explained and measured in particular ways, in this case requiring a ‘systems approach’ (Kohl et al., 2012, p. 294) or an ‘ecological’ model’ (Bauman et al., 2012, p. 258). According to Kohl et al. (2012):

‘a systems approach acknowledges the complex non-linearity of health behaviours, including the many interactions, delays in adoption, adaptations, competing actions, and unintended consequences that can occur within a system. A systems approach acknowledges such complexities and allows for planning to counteract the unintended consequences.’ (p. 300)

We argue that a systems approach would also need to account for and attempt to mitigate the complexities, competing ideas and unintended consequences inherent within its own propositions. It is apparent that various authors in *The Lancet* make bold, definitive and binary claims about physical activity and sport. These claims are of significant import given their possible influence in public health policy formulation and subsequent resource allocation. However, not only are these claims at times contradictory but they are difficult to reconcile with a proposed systems approach which purportedly aims to consider unintended effects. Various claims acknowledge the complexity of social life (such as Kohl et al., 2012, suggesting even a well-designed intervention might result in a ‘net zero gain’ due to unintended consequences). At other times however, complexity is dismissed in favour of grand generalisations and definitions.

The ways in which the Physical Activity Series is transformed into policy and practice are yet to be seen. Given that physical activity is indeed a complex arena, we caution physical activity researchers to avoid elevating any physical health justifications for engaging in physical activity above other meanings that motivate people to be active. Using walking as one example, Bairner (2012) argued the physical health benefits accrued from walking ‘may well be of secondary importance to the lessons

that can be learned from the pedagogies of the street' (p. 373). Therefore, at the very least, we encourage physical activity promoters not to lose sight of the benefits and meanings of certain activities simply because they lack physical exertion. To reiterate Fullagar's (2002) remarks: 'What is at stake here is the way that health policy discourses do or do not engage with other logics and modes of embodiment when promoting active leisure as something more than a risk-reducing physical activity' (p. 73). We suggest here that more consideration of the implications of adopting a systems approach is needed before advancing the call to action further. We endorse Mansfield and Rich's (2013) suggestion of institutional 'border crossings' by physical activity scholars so that 'counter perspectives and critical voices offering alternative health paradigms' (p. 356) will not be systematically marginalised or silenced.

This analysis provides an opportunity to acknowledge the dangers of what is at times a totalising response, particularly regarding surveillance. What is required is a weighing up of competing values (such as 'complete understanding' vs. privacy) and competing stories (such as the various histories of health). Although *The Lancet* is undoubtedly a world leading medical journal, it is not the only, or even the dominant, producer of truth about physical activity. Academic journals are situated within a wider milieu of diverse truth claims, institutions, cultures and histories. There is a vast array of issues, a myriad of organisations and a complex nexus of research, policies, treatments and behaviours involved in managing population health around the world. The Series' ideas will only be influential to the extent populations can be mobilised by a willing 'activity-force'. We do not reject the Series' call to action. Rather, we encourage that it is reformed.

Notes

1. Eight years earlier, Manson, Skerrett, Greenland, and VanItallie (2004) also announced escalating global pandemics of sedentary lifestyles and inactivity and also wrote a 'call to action' for clinicians (Manson et al., 2004).
2. Lupton (1995) notes that 'from medieval times well into the closing years of the Victorian era, European towns and cities were characterised by filthy streets littered with human and animal excrement and rotting garbage' (p. 26).
3. The term 'normal' also appears in other places as common sense. Wen and Wu (2012) claim that 'being inactive is perceived as *normal*' (p. 192, italics added). Lee et al. (2012) also imagine 'if all obese people in the USA were to attain *normal* weight' (p. 228, italics added).
4. The idea of 'failure' features in a profile interview in another Series in *The Lancet*, where one author makes a specific claim about physical education; 'The truth is that physical educators have failed ... Physical education itself hasn't delivered physical activity benefits to children in schools' (Khan, in Holmes, 2012, p. 20). This type of accusation in a world leading medical journal that physical educators have failed has been responded to by physical education scholars as being the pursuit of not only illusory but also dangerous ideals (see Evans, Rich, & Davies, 2004).
5. Also, a systems approach would cast a critical eye over the alleged altruism of the IOC, an organisation which has been subject to a range of critiques focused on corruption which would surely undermine its capacity to promote physical activity around the world (Jennings, 2011; Lenskyj, 2008).

References

- Abeysinghe, S., & White, K. (2010). Framing disease: The avian influenza pandemic in Australia. *Health Sociology Review*, 19, 369–381. doi:[10.5172/hesr.2010.19.3.369](https://doi.org/10.5172/hesr.2010.19.3.369)
- Abeysinghe, S., & White, K. (2011). The avian influenza pandemic: Discourses of risk, contagion and preparation in Australia. *Health, Risk and Society*, 13, 311–326. doi:[10.1080/13698575.2011.575457](https://doi.org/10.1080/13698575.2011.575457)
- Bacchi, C. (2000). Policy as discourse: What does it mean? Where does it get us? *Discourse: Studies in the Cultural Politics of Education*, 21, 45–57. doi:[10.1080/01596300050005493](https://doi.org/10.1080/01596300050005493)
- Bairner, A. (2012). Urban walking and the pedagogies of the street. *Sport, Education and Society*, 16, 371–384. doi:[10.1080/13573322.2011.565968](https://doi.org/10.1080/13573322.2011.565968)
- Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos, R. J. F., Martin, B. W., for the Lancet Physical Activity Series Working Group. (2012). Correlates of physical activity: Why are some people physically active and others not? *The Lancet*, 380, 258–271. doi:[10.1016/S0140-6736\(12\)60735-1](https://doi.org/10.1016/S0140-6736(12)60735-1)
- Bell, B. (2013). From Podium to Park. In M. Perryman (ed.), *London 2012. How was it for us?* (pp. 164–176). London: Lawrence and Wishart.
- Bercovitz, K. L. (1998). Canada's active living policy: A critical analysis. *Health Promotion International*, 13, 319–328. doi:[10.1093/heapro/13.4.319](https://doi.org/10.1093/heapro/13.4.319)
- Boym, S. (2007). Nostalgia and its discontents. *The Hedgehog Review*, 9(2), 7–18.
- Bruegel, P. (1560). *Kinderspiele (children's games) (oil on panel)*. Vienna: Kunsthistorisches Museum/The Bridgeman Art Library.
- Bull, F. C., & Bauman, A. E. (2011). Physical inactivity: The “Cinderella” risk factor for noncommunicable disease prevention. *Journal of Health Communication*, 16(suppl 2), 13–26. doi:[10.1080/10810730.2011.601226](https://doi.org/10.1080/10810730.2011.601226)
- Coalter, F. (2004). Stuck in the blocks? A sustainable sporting legacy. In A. Vigor, M. Mean, & C. Tims (Eds.), *After the goldrush: A sustainable Olympics for London* (pp. 93–108). London: ippr and Demos.
- Das, P., & Horton, R. (2012). Rethinking our approach to physical activity. *The Lancet*, 380, 189–190.
- Evans, J. (2013). Physical education as porn! *Physical Education and Sport Pedagogy*, 18(1), 75–89. doi:[10.1080/17408989.2011.631002](https://doi.org/10.1080/17408989.2011.631002)
- Evans, J., Rich, E., & Davies, B. (2004). The emperor's new clothes: Fat, thin, and overweight. The social fabrication of risk and ill health. *Journal of Teaching in Physical Education*, 23, 372–391.
- Foucault, M. (1979). *Discipline and punish: The birth of the prison*. Harmondsworth: Penguin Books.
- Foucault, M. (1994). Governmentality. In J. Faubion (Ed.), *Michel Foucault: Power, Essential works of Foucault 1954–1984*, Vol. 3 (pp. 201–222). London: Penguin.
- Fullagar, S. (2002). Governing the healthy body: Discourses of leisure and lifestyle within Australian health policy. *Health*, 6(1), 69–84.
- Gard, M. (2011). *The end of the obesity epidemic*. London: Routledge.
- Gard, M., & Wright, J. (2001). Managing uncertainty: Obesity discourses and physical education in a risk society. *Studies in Philosophy and Education*, 20, 535–549. doi:[10.1023/A:1012238617836](https://doi.org/10.1023/A:1012238617836)
- Gard, M., & Wright, J. (Eds.). (2005). *The obesity epidemic: Science and ideology*. London: Routledge.
- Garvin, T., & Eyles, J. (1997). The sun safety metanarrative: Translating science into public health discourse. *Policy Sciences*, 30(2), 47–70. doi:[10.1023/A:1004256124700](https://doi.org/10.1023/A:1004256124700)
- Gibson, O. (2013, June 14). Fewer adults playing sport since London Olympics. *Guardian*. Retrieved from <http://aggregga.com/kennethp80/post/632080/fewer-adults-playing-sport-since-london-olympics>

- Hallal, P. C., Bauman, A. E., Heath, G. W., Kohl, H. W., Lee, I.-M., & Pratt, M. (2012). Physical activity: More of the same is not enough. *Lancet*, 380, 190–191. doi:10.1016/S0140-6736(12)61027-7
- Hartley, P. H.-S., & Llewellyn, G. F. (1939). An investigation into the longevity of Cambridge sportsmen. *British Medical Journal*, 1, 657–662. doi:10.1136/bmj.1.4082.657
- Heath, G. W., Parra, D. C., Sarmiento, O. L., Andersen, L. B., Owen, N., Goenka, S., ... for the Lancet Physical Activity Series Working Group. (2012). Evidence-based intervention in physical activity: Lessons from around the world. *Lancet*, 380, 272–281. doi:10.1016/S0140-6736(12)60816-2
- Hepworth, J. (2006). The emergence of critical health psychology: Can it contribute to promoting public health? *Journal of Health Psychology*, 11, 331–341. doi:10.1177/1359105306063298
- Holmes, B. (2010). *Constructing the coming plague: A discourse analysis of the British Columbia Pandemic influenza preparedness plan* (doctoral thesis). Simon Fraser University. Retrieved from <http://summit.sfu.ca/item/11398>
- Holmes, D. (2012). Profile: Karim Khan: Good sport. *Lancet*, 380, 20. doi:10.1016/S0140-6736(12)61113-1
- Jenkin, G. L., Signal, L., & Thomson, G. (2011). Framing obesity: The framing contest between industry and public health at the New Zealand inquiry into obesity. *Obesity Reviews*, 12, 1022–1030. doi:10.1111/j.1467-789X.2011.00918.x
- Jennings, A. (2011). Investigating corruption in corporate sport: The IOC and FIFA. *International Review for the Sociology of Sport*, 46, 387–398. doi:10.1177/1012690211408845
- Kim, S.-H., & Willis, L. (2007). Talking about obesity: News framing of who is responsible for causing and fixing the problem. *Journal of Health Communication*, 12, 359–376. doi:10.1080/10810730701326051
- Kohl, H. W., Craig, C. L., Lambert, E. V., Inoue, S., Alkandari, J. R., Leetongin, G., ... for the Lancet Physical Activity Series Working Group. (2012). The pandemic of physical inactivity: Global action for public health. *The Lancet*, 380, 294–305. doi:10.1016/S0140-6736(12)60898-8
- Kwan, S. (2009). Framing the fat body: Contested meanings between government, activists, and industry. *Sociological Inquiry*, 79(1), 25–50. doi:10.1111/j.1475-682X.2008.00271.x
- Lancet. (2012). Chariots of fries. *The Lancet*, 380, 188.
- Lee, I.-M., Shiroma, E. J., Lobelo, F., Puska, P., Blair, S. N., Katzmarzyk, P. T., for the Lancet Physical Activity Series Working Group. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. *The Lancet*, 380, 219–229. doi:10.1016/S0140-6736(12)61031-9
- Lenskyj, H. J. (2008). *Olympic industry resistance: Challenging Olympic power and propaganda*, U.S.A. Albany: State University of New York Press.
- Lupton, D. (1995). *The imperative of health public health and the regulated body*. Australia: Sage.
- Malta, D. C., & Silva, J. B. (2012). Policies to promote physical activity in Brazil. *The Lancet*, 380, 195–196. doi:10.1016/S0140-6736(12)61041-1
- Mansfield, L., & Rich, E. (2013). Public health pedagogy, border crossings and physical activity at every size. *Critical Public Health*, 23, 356–370. doi:10.1080/09581596.2013.783685
- Manson, J. E., Skerrett, P. J., Greenland, P., & VanItallie, T. B. (2004). The escalating pandemics of obesity and sedentary lifestyle: A call to action for clinicians. *Archives of Internal Medicine*, 164, 249–258. doi:10.1001/archinte.164.3.249
- Markula, P., & Pringle, R. (2006). *Foucault, sport and exercise: Power, knowledge and transforming the self*. Abingdon, Oxon: Routledge.
- Neville, R. D. (2013). Considering a complemental model of health and fitness. *Sociology of Health and Illness*, 35, 479–492. doi:10.1111/j.1467-9566.2012.01494.x

- Parkhouse, S. (2013, June 23). Judy Murray: Lack of free courts is keeping tennis elitist. *Observer*. Retrieved from <http://www.guardian.co.uk/sport/2013/jun/23/judy-murray-elitist-tennis>
- Parsons, W. (1995). *Public policy*. Aldershot: Edward Elgar.
- Petersen, A. R., & Lupton, D. (1996). *The new public health: Discourses, knowledges, strategies*. Australia: Allen and Unwin.
- Piggin, J., Jackson, S., & Lewis, M. (2007). Classify, divide and conquer: Shaping physical activity discourse through National Public Policy. *New Zealand Sociology*, 22, 274–293.
- Pringle, R., & Pringle, D. (2012). Competing obesity discourses and critical challenges for health and physical educator. *Sport, Education and Society*, 17, 143–161. doi:[10.1080/13573322.2011.607947](https://doi.org/10.1080/13573322.2011.607947)
- Puhl, R. M. (2011). Weight stigmatization toward youth: A significant problem in need of societal solutions. *Childhood Obesity*, 7, 359–363.
- Puhl, R. M., & King, K. M. (2013). Weight discrimination and bullying. *Best Practice and Research Clinical Endocrinology and Metabolism*. Retrieved from <http://dx.doi.org/10.1016/j.beem.2012.12.002>
- Quennerstedt, M. (2008). Exploring the relation between physical activity and health—A salutogenic approach to physical education. *Sport, Education and Society*, 13, 267–283. doi:[10.1080/13573320802200594](https://doi.org/10.1080/13573320802200594)
- Rimmer, J. H., & Marques, A. C. (2012). Physical activity for people with disabilities. *Lancet*, 380, 193–195. doi:[10.1016/S0140-6736\(12\)61028-9](https://doi.org/10.1016/S0140-6736(12)61028-9)
- Roe, E. (1994). *Narrative policy analysis: Theory and practice*. Durham: Duke University Press. doi:[10.1215/9780822381891](https://doi.org/10.1215/9780822381891)
- Rook, A. (1954). An investigation into the longevity of Cambridge sportsmen. *British Medical Journal*, 1, 773–777. doi:[10.1136/bmj.1.4865.773](https://doi.org/10.1136/bmj.1.4865.773)
- Rose, N. (1990). *Governing the soul: The shaping of the private self*. London: Routledge.
- Rose, N., & Miller, P. (1992). Political power beyond the state: Problematics of government. *The British Journal of Sociology*, 43, 173–205. doi:[10.2307/591464](https://doi.org/10.2307/591464)
- Stidder, G. (2013). The value of reflexivity for inclusive practice in physical education. In G. Stidder & S. Hayes (Eds.), *Equity and inclusion in physical education and sport* (2nd ed., pp. 17–33). London: Routledge.
- Stone, D. (2002). *Policy paradox: The art of political decision making*. New York, NY: W.W. Norton.
- Vallgård, S. (2012). Nudge—A new and better way to improve health? *Health Policy*, 104, 200–203. doi:[10.1016/j.healthpol.2011.10.013](https://doi.org/10.1016/j.healthpol.2011.10.013)
- Wen, C. P., & Wu, X. (2012). Stressing harms of physical inactivity to promote exercise. *The Lancet*, 380, 192–193. doi:[10.1016/S0140-6736\(12\)60954-4](https://doi.org/10.1016/S0140-6736(12)60954-4)