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Apocalyptic Public Health: Exploring discourses of fatness in childhood 'obesity' policy

Abstract

Recent 'obesity' preventions focus heavily on children, widely regarded as the future of society. The National Child Measurement Programme (NCMP) is a flagship government programme in England that annually measures the Body Mass Index (BMI) of children in Reception (aged 4-5) and Year 6 (aged 10-11) in order to identify 'at risk' children and offer advice to parents. Using Foucauldian discourse analysis this study explores how discourses within the programme construct fatness. The NCMP materials contain three key interrelated themes (concerning the hidden threat of 'obesity', the burden of 'obesity', and bodies that pose a greater risk) that combine to construct a 'grotesque discourse' of apocalyptic public health. 'Obesity' is constructed as a social and economic catastrophe where certain bodies pose a greater threat than others. We argue that this discourse has the potential to change health service policy in markedly regressive ways that will disproportionately impact working-class, Black, Asian, and mixed race families.

Introduction: children, BMI, and biopower

Recent decades have seen globally increasing media and medical concern over a so-called 'obesity epidemic', particularly among children (Hilton et al., 2012; Ogden et al.,

2012; Magarey et al., 2001); in England, the National Child Measurement Programme (NCMP; Public Health England [PHE], 2016b) is a key part of the government's response. Introduced in 2006, NCMP aims to analyse trends at population level and to "provide a mechanism for direct engagement with families" (PHE, 2016b: 5) by mandating all state-maintained schools to measure the height and weight of all pupils in Reception (aged 4-5) and Year 6 (aged 10-11). This information is used to calculate a Body Mass Index (BMI) score for each individual child, and then a 'results letter' is sent home to each child's parents/guardians. Children are assigned to one of four categories: 'underweight', 'healthy weight', 'overweight' or 'very overweight'.

The BMI construct, therefore, is central to the NCMP. Much critical work has been written about BMI, fundamentally underpinned by a concern that, as a measure, it is both reductionist and lacking validity (Evans and Colls, 2009) despite its presentation as a reliable indicator of body fatness (Evans and Rich, 2011). Additionally, critical theorists have noted that, as with many methods that aim to quantify aspects of human functioning, BMI has a complex social history and is underpinned by potentially problematic socio-cultural assumptions and biases that are hidden by its presentation as an 'objective' medical-scientific measure. For instance, it has been argued that BMI is a white, male, middle-class construct (Seid, 1989), that fails to consider differences in sex and ethnicity. BMI scores developed from work in limited populations, therefore, may mean that particular groups are more likely to be deemed problematic and 'abnormal' from the start. While the white and middle-class standard of a 'healthy' BMI is presented as a scientifically authentic and homogenous measure (Seid, 1989), working-class, Black, Asian and other minoritised ethnic bodies may be more likely to deviate from this 'norm'; hence the persistent identification of working-class and people of colour as outside the boundaries of 'healthy' BMIs could be argued to be a form of scientific racism. While we treat these statistics as 'real' in the sense that, with reference to BMI, minoritised ethnic and working-class children do fall disproportionately into these categories, we are sceptical about how meaningful these categories are to begin with based on the flawed assumptions on which they rely.

The BMI and its deployment in relation to 'obesity' is part of a broader set of processes that medicalise weight, fatness and the human body (Saguy, 2013). The terms 'overweight' and 'obese' frame fatness as a specific medical problem, as a disease in and of itself, as well as a risk factor for other diseases (Saguy, 2013). Mainstream discourses of 'obesity' individualise blame (Saguy, 2013) and appear to form the basis of a shared understanding that facts about a person's lifestyle can be inferred from their bodies, and that those who are fat are lazy and unhealthy (amongst other assumed problematic characteristics). Once it is acknowledged that constructs such as the BMI and related categories are not simple 'objective' measures but may be reflective of broader social and cultural processes, space is opened to rethink issues such as 'obesity' and the institutional and social responses that follow. Accordingly, in response to arguably pathologising and often simplistic representations of fatness, critical understandings have emerged that begin to consider recent concerns about a so-called 'obesity epidemic' in terms of how the pathologisation of fat bodies may enable the control of particular

populations and serve to benefit others (Lyons, 2009; Lupton, 2018). In line with this, fat studies research has emerged, which seeks to identify complexities, uncertainties, and contradictions within mainstream 'obesity' research and challenge the use of alarmist rhetoric (Lupton, 2018) while "reframing ... the problem of obesity, where it is not the fat body that is at issue, but the cultural production of fatphobia" (Cooper, 2010: 1020). Critical researchers have sought to challenge understandings of fatness as inherently bad, and to consider social, cultural, political, and economic influences of, and relationships with, fatness outside of their traditional construction as barriers to a 'healthier' weight (e.g. Rothblum and Solovay, 2009). Within fat studies research, the word 'fat' is used to describe people in favour of medicalised and pathologising terms such as 'overweight' and 'obese' (Cooper, 2016) – we therefore make use of this language here.

Such issues become particularly acute when dealing with so-called 'childhood obesity'. Regulating children's weight is currently a substantial focus of UK government policy, even though as Evans (2010) points out there exists a discrepancy between the extent to which children are targeted through 'obesity' policy and the certainty about the implications of different childhood weights. However, there is a broader historical context to this kind of response. For the past two centuries, children (and their families) have been increasingly subject to what Hacking (1982) described as the avalanche of printed numbers: the systematic and institutionalised scrutiny of physical and psychological attributes via repeated measurement and statistical analysis, argued to be motivated by a contemporary concern to maintain future social order by targeting those widely regarded as the future of society (Holmer-Nadesan, 2005). The state's recording of populations has been described as "critical tools in the management of the new urban working-class" (Ball, 2015: 299). As Burman (2007a; 2007b) has argued, these processes reinforce and are reinforced by a prevailing view of children's 'development' as if linear and homogenous, where perceived deviation from this linearity is invariably taken as pathological. Burman argues that such a construction of children and their development bears moral weight on parents, and in particular mothers, who are held accountable for any perceived developmental 'issues' as identified through professionals' testing and measurement practices.

There are comparisons to be drawn between processes of measurement and objectification of children, the deployment of the discourse of an 'obesity epidemic', and Foucault's (1976) theory of biopower as a method of controlling and governing particular populations. Foucault (1976) stated that there are two forms or 'poles' of power; the first is disciplinary power, which focuses on individualisation and forces individuals to govern themselves, a form of surveillance that is internalised; the second pole is regularising power, which focuses on massifying and governing entire populations of people. By driving the narrative of fatness as a serious and widespread public health issue, childhood 'obesity' policy operates along each of these poles of power, functioning to regulate populations through public health campaigns (Harwood, 2009). Evans and Colls (2009) argue that the NCMP ensures that "children (and parents) remain in a state of

anxiety about the possibility of their (or their children's) bodies being revealed to be abnormal" (Evans and Colls, 2009: 1077). With parents encouraged by schools and governments alike to commit to role modelling healthy behaviour to their children (Vander Schee, 2009), this continued state of anxiety serves to keep families fearfully aware of their weight status and encourages self-regulation through a fear of abnormality. The NCMP, therefore, represents biopower acting along both poles of power, by both disciplining individuals and regularising and governing conduct. Statistical surveillance of a population's BMI acts as a modern-day panopticon – constant monitoring of an individual's weight increases pressure for individuals to maintain a 'healthy' BMI for themselves and their families (see also Rich and Evans, 2009).

Although medicalised and pathologising discourses of fatness are drawn upon globally (Duncan, 2008; Bell et al., 2011), the current study focussed in particular on what discourses of fatness are drawn upon and reproduced specifically in England through NCMP. Programmes such as NCMP are ostensibly 'universal'; they are intended to measure all children of the appropriate age and intervene where it is deemed necessary. It is significant, however, that year on year it is children in more economically deprived areas and Black, Asian, and other minority ethnic children who are more likely to be marked as 'overweight' or 'obese' through the NCMP's use of BMI (Health and Social Care Information Centre [HSCIC], 2013; 2014; 2015). The identification of such children as overrepresented among 'overweight' justifies further intervention, surveillance and regulation of those bodies. The NCMP is, therefore, a technology that sits at the intersection of prevailing discourses in relation to 'obesity', children's development, the culturally-ascribed role of families in successfully 'producing' healthy and (economically) functioning children, and the institutions that function to regulate and govern families' conduct.

Previous research in this area has sought to understand discourses of fatness within anti-'obesity' policy, such as the House of Commons' report on 'obesity' which drew upon a potentially dangerous medicalised discourse (Evans, 2006), and has analysed and challenged the power this particular programme has afforded BMI data (Evans and Colls, 2009). Evans (2010) has also questioned the disproportionate targeting of children in UK 'obesity' policy in relation to the lack of certainty over the implications of childhood weight, and highlights how programmes such as the NCMP have come about after persistent calls for practice-based evidence, rather than evidence-based practice,

born of fear and threat of a dystopian future. Weight and health monitoring programmes are often implemented within schools without consideration for the potential impact of such measures on individual children (Gard and Wright, 2001). The dangers of such programmes have been discussed by Lake (2009) in relation to the harm caused by a screening programme, similar to the NCMP, in Singapore, in which 11.1% of children receiving treatment for anorexia had previously been identified as 'overweight' by the programme, which was later abandoned.

As critical researchers, we are interested in understanding how the discourses (re)produced in this programme construct responsibility for the so-called 'obesity epidemic' and where this responsibility is placed, how the discourses drawn upon construct fatness, and how these contribute to the governing of conduct in relation to children's health and development.

Method

The current study analysed all publicly accessible, official NCMP documents. These primarily came from Public Health England (PHE) and the Department of Health (DoH), who were responsible for national oversight of the NCMP before PHE took over this responsibility in April 2013 (PHE, 2016b). Figure 1 outlines the process of the dissemination of information about the NCMP, with the clear majority of information coming from PHE and either going directly to local authorities, schools, and parents, or first being sent to local authorities who then act as a middle point to facilitate the sending of these communications to schools and parents. Although the process of releasing NCMP information to schools and parents varies among local authorities, figure 1 outlines the

general process of this as outlined by PHE (2016b). The documents are linked in that the operational guidance (PHE, 2016b) references all other documents and resources that can be used by stakeholders when preparing to implement the programme. Indeed, a number of paragraphs are copied word-for-word between documents, such as in the why your child's weight matters leaflet and the information for schools document.

The study received ethical approval from the researchers' university ethics committee. Foucauldian discourse analysis was used to analyse the discourses (re)produced in 24 pieces of data, including but not limited to the operational guidance (PHE, 2016b), specimen results letters, Information for Schools document (PHE, 2016a), briefing for elected members document (PHE, 2013b), webpages about NCMP, and the leaflets Why Your Child's Weight Matters and Top Tips For Top Kids (sent out with the premeasurement and results letters respectively). The data were found through the government's official NCMP page (PHE, 2013a), which links publicly to all official NCMP documents. We excluded from analysis those resources which had no impact on the implementation of the programme, such as information about regional events. Searches were also conducted via google search engine for "National Child Measurement Programme" and "NCMP", and all public-facing government-related webpages about the programme were included in analysis (Change4life, n.d.; The NCMP, n.d.).

Foucauldian discourse analysis involves a process of coding pieces of text within the 24 documents, then collating these into broader themes; some examples of themes generated from the data were 'overweight' and 'obesity', cost of 'obesity', measurements, and BMI. It was then considered how each of these themes are talked about in the data

in order to identify overarching discourses being drawn upon. According to Foucault (1963), discourses are 'regimes of truth' that construct and sustain specific relations of power. Discourses are ways in which things are talked about which position phenomena, people, and groups in certain ways; for example, fatness is medicalised and pathologised in 'obesity' discourse (Evans and Cooper, 2016).

An overarching discourse of Apocalyptic Public Health was identified, characterised by a construction of 'obesity' as a hidden but deadly social contagion that threatens the norms of society. This discourse, and its constituent elements, are discussed in detail below.

The Discourse of Apocalyptic Public Health

The following subsections explain the different aspects of the apocalyptic public health discourse, which fall into three categories; the hidden threat of 'obesity'; the burden of 'obesity'; and how certain bodies are constructed as posing a greater threat in terms of an 'obesity' apocalypse.

The hidden threat of 'obesity'
NCMP materials position child 'obesity' as a sometimes-hidden disease that can easily
go unnoticed; as something that could already be having a detrimental effect on each

child without the child or their parents knowing it. The construction of 'obesity' as an

invisible – and therefore more menacing - 'disease', serves to justify the need for testing, identification, and control of those who could be affected (Strebel, 1997). Children marked as 'overweight' are framed as covertly carrying a contagion, as demonstrated in extract 1, in which it is warned that 'overweight' children may not be visibly detectable: Extract 1 (from Why your child's weight matters leaflet)

"with so many children being overweight, an overweight child may not look different from their friends. Therefore, we tend not to notice when a child is overweight and are becoming accustomed to heavier children as the norm" (PHE, n.d.b: 1).

Extract 1 frames fat children as skewing our perception of normality and making the potential 'threat' more difficult to detect. This discourse of hidden 'obesity' serves several purposes; it positions BMI as superior to our own 'flawed' perception and, consequently, describes a situation where children and their parents are implicated in the spread of 'obesity', by making it more difficult to detect.

In stating that 'overweight' children "may not look different from their friends", it is implied that we cannot rely on our own perception. In extract 1, parents are warned that their perception of 'normal' may be incorrect and therefore their child may not be as 'healthy' as they believe. This discourse is reproduced in mainstream 'obesity' research that claims parents frequently "misperceive" their children's weight to be 'normal', notably in Katz's (2015: 225) work on "oblivobesity", the name given to "parental obliviousness to obesity in children". It is claimed that nearly one third of parents underestimate their children's weight status, and this "obliviousness bedevils our responses to

rampant childhood obesity" (Katz, 2015: 225). This discourse has opposing characteristics, in that it both individualizes blame, holding parents of fat children responsible for the invisible spread of 'obesity', while constructing an error in perception caused by widespread fatness as to blame. Keeping in mind the prominent moralising discourses that characterise many mainstream discussions about 'obesity', which construct fatness as an immoral choice (Mulder et al., 2014), collectively here it could be argued that fat children and their parents are positioned as threatening the health of society and pushing the norms to dangerous limits, impacting on the health diagnoses of those around them.

These discursive constructions of fatness as hidden, and causing perception errors, thereby justify the use of measurements, as a form of biopower, in order to help us see 'reality'. This fear of the invisible abnormal encourages parents to ensure their child's participation in the NCMP (by choosing not to opt out as they are entitled) and encourages governance and control of children's bodies and food consumption in order to ensure compliance with a 'healthy weight' and lifestyle. The construction of 'obesity' as a hidden, invisible disease serves to justify the state surveillance of all children, regardless of the visible size of their bodies; all children are rendered possible risks and are, therefore, subject to surveillance to identify and subsequently 'correct' the 'disease'.

This is representative of the 'disciplinary power' that is crucial to biopower, and helps the formation of a carceral society, in which the principles of Bentham's Panopticon are institutionalised through everyday routines and normalised in everyday life (Turner,

1997). A panopticon society is one in which individuals feel as though they are constantly under surveillance, therefore adjusting their behaviour accordingly (Foucault, 1975). This fear of fat as a hidden, deadly disease encourages parents to monitor their own children, while being fearful of other children and people who may cause harm to the health of their own family; in the case of the NCMP, this means that participation in the measurements is justified and strongly encouraged, while those parents who opt their children out of measurements are discursively condemned as a threat to their own and other children.

As well as consistent reiterations of fatness as detrimental to physical health, the NCMP materials also position child 'obesity' as detrimental to a child's general psychological wellbeing and psycho-social relations, impacting on educational attainment. Interestingly, most of the content relevant to this finding does not appear in materials that are sent directly to parents; instead, this attainment theme appears in NCMP materials directed at elected members of local government and to schools. In this way, different NCMP materials seem intended to appeal to different stakeholder interests. In the briefing for elected members document, for example, a discussion of the claimed effects of 'obesity' on aspects of physical health is followed by:

Extract 2 (from Briefing for elected members document)

"other risks include early puberty, developing eating disorders, asthma, teasing and discrimination by peers, low self-esteem, anxiety and depression" (PHE, 2013b: 4).

Extract 3 (from Information for schools document)

"Overweight children can also be affected by: teasing or bullying; behavioural problems stemming from anxiety or depression; avoidance of active play or learning opportunities" (PHE, 2016a: 4)

In the above extracts, a whole host of 'risks' purportedly associated with fatness are listed, ranging from the corporeal (e.g. "early puberty", extract 2) and medical (e.g. "asthma", extract 2) to psychiatric (e.g. "eating disorders", extract 2; "anxiety or depression", extract 3) and psychosocial (e.g. "bullying", extracts 2, 3) — the risks are framed as wide-ranging and of grave societal concern, thus contributing to the apocalyptic discourse of fatness. These 'risks' are all constructed as results of fatness, including teasing and bullying — something which is done to an individual by others, not something which is done to oneself. This demonstrates how this apocalyptic discourse individualises blame whilst also medicalising fatness. By individualising blame, this discourse screens out more social and political explanations for the relationship between fatness and the associated 'risks' listed.

A counter-reading of the above extracts could be that the 'risks' being discussed here are related to fatphobic bullying experienced by children from their peers that can cause issues with eating behaviours, self-esteem, and general mental health (e.g. Salwen et al., 2015; Ashmore et al., 2008). The degree of weight-related teasing that fat children experience has been significantly negatively associated with enjoyment of active/social activities (Weinstock and Krehbiel, 2009), which may contribute to ill health. We do not doubt the importance of these experiences but, rather, challenge how the

NCMP frames the problems. This discourse frames fatness as the cause of a vast array of other issues outside of physical health, drawing upon a common construction of fat people as bringing not only ill-health on themselves, but also a victim-blaming discourse (Naidoo, 1986). Hence fat children are seen as being responsible for the bullying and teasing they face and responsible for any issues surrounding general wellbeing that arise from their fatness. It could be argued that it is the reproduction of these anti-fat and victim-blaming discourses that serves to justify discrimination, low self-esteem, and so forth.

The burden of 'obesity'

The apocalyptic discourse surrounding 'obesity' is underpinned by the deployment of a narrative which focuses on 'overweight' children as a burden on others. Generally, fat people are commonly framed as a burden on the taxpayer – a theme found both within this present analysis and within wider public discourse (Pike and Colquhoun, 2010). Within our analysis, we found that the NCMP refers to the cost of 'overweight' and 'obesity' on the National Health Service (NHS) and, by extension, the taxpayer:

Extract 4 (from Operational guidance document)

"in England, the health problems associated with being overweight or obese cost the NHS more than £5billion every year" (PHE, 2016b: 4)

This constructs fat people as a burden to every person in the country; this individualised approach to blame reinforces fatphobic discourses (Saguy, 2013), such as that of fat people as a drain on the NHS that is paid for by the taxpayer. This, paired with the discussion of 'obesity' and its related health risks as easily preventable (e.g. "you and your

child can make simple changes to be more active and eat more healthily", PHE, 2016a: 14), serves to reinforce a belief that fat people are lazy, selfish, and irresponsible; their illnesses 'self-inflicted'; and therefore undeserving of healthcare paid for by the tax-payer; a category they are discursively excluded from.

An additional element in the burden of 'obesity' theme relates to how a child's fatness can impact on staff at their school and, by extension, on other children. These constructions are particularly prevalent in documents that are intended for use by school staff, perhaps by way of encouraging schools to participate in the NCMP:

Extract 5 (from Information for schools document)

"[child overweight] can have an impact on ... staff training and expertise, as staff will need to provide extra support to children with health problems arising from overweight and obesity" (PHE, 2016a: 4-5)

Extract 6 (from Information for schools document)

"[an overweight child] may also call for extra staff training to ensure that children with health conditions can be appropriately supported during the school day" (PHE, 2016a: 3).

In extracts 5 and 6, fat children are framed as both financial and time-consuming burdens placing additional demands on perhaps already limited resources, and therefore, by extension, to other children. With fat children positioned as requiring extra support from staff throughout the school day, this infers that the extra time staff spend with these children will be taken away from other children at the school. This lends to the apocalyptic discourse, framing 'obesity' as something which stretches to negatively impact a grave number of institutions and areas of life, impacting not only those marked as 'overweight' and 'obese' but all those around them who share their spaces and the health service upon which they place such a costly burden: "more than £5billion every year" (PHE, 2016b: 4).

Bodies that pose a greater risk

The NCMP materials repeatedly position a 'healthy weight', defined by the NCMP as a BMI between the 2nd and 91st centile (Dinsdale et al., 2011: 4), as the ultimate goal for all children in England. The benefits of having a 'healthy weight' are repeated throughout materials to all stakeholders, including parents, for whom the importance of a 'healthy weight' to happiness and general wellbeing is emphasised:

Extract 7 (from Operational guidance document)

"Healthy weight [is] an integral aspect of valuing and promoting child health and wellbeing." (PHE, 2016b: 12)

Extract 8 (from Top tips for top kids leaflet)

"We all want our children to grow up to be happy, healthy adults." (PHE, n.d.a: 2)

'Healthy weight' is constructed as crucial to children's wellbeing (extract 7), while health, a 'healthy body weight', and happiness are conflated and constructed as a natural desire of all parents (extract 8). By conflating a 'healthy weight' with happiness and wellbeing, this discourse constructs 'healthy weight' as imperative to a fulfilling life. This

discourse therefore presents fatness as inherently unhealthy both physically and in terms of emotional wellbeing, and pressures parents to follow the programme's guidance in order to ensure their child's happiness. The two above extracts compel parents to take 'healthy weight' seriously. Extract 8 effectively renders opposition to NCMP unthinkable: no room is permitted for parents to disagree with the 'importance' of a 'healthy weight' – to do so would be constructed as meaning that they do not care about their child becoming a "happy, healthy adult" (PHE, n.d.a: 2) nor do they value 'healthy weight' as a key aspect of child health – something which is framed in the NCMP materials as a given. Moreover, the focus on children's future health and happiness (extract 8) relates to the positioning of children as the future of society; therefore, it is regarded as important to ensure they conform to mainstream notions of 'health' in order to protect future social order (Holmer-Nadesan, 2005).

In view of the NCMP's emphasis on 'healthy weight' it might be imagined that children marked as 'underweight' would also be of equal concern. However, in the entire data sample of 24 documents, issues relating to 'underweight' were mentioned only three times, including twice in the same briefing for elected members document, both along-side mentions of 'obesity', and one brief mention in the top tips for top kids post-measurement leaflet to parents:

Extract 9 (from Briefing for elected members document)

"Elected members can help by raising awareness of child obesity and childhood malnourishment." (PHE, 2013b: 4)

Extract 10 (from Briefing for elected members document)

"Is there a multi-agency partnership programme of work in place which addresses both child malnourishment and obesity?" (PHE, 2013b: 5)

Extract 11 (from Top tips for top kids leaflet)

"If they're underweight, it's just as important for them to eat healthy food and be active." (PHE, n.d.a: 2)

'Underweight' is briefly mentioned alongside 'obesity' in extracts 9 and 10, both high-lighting some importance of "awareness" and action around 'underweight', though nowhere else in the sample of NCMP data is any concern raised or suggestions given for 'tackling' 'underweight'. The only quote to focus exclusively on issues surrounding 'underweight' (extract 11) is not presented with nearly as much urgency as discussions around fatness. The suggestion that being 'underweight' is "just as important" is unconvincing given that it appears only three times in the entire dataset; the overwhelming majority of the data focuses explicitly on the 'overweight' and 'obese'.

Interestingly, the 'underweight' specimen results letter (PHE, 2016a: 11) is the only results letter out of the four ('underweight', 'healthy weight', 'overweight', and 'very overweight') to not give direction to further advice and guidance for parents, directly contradicting the operational guidance document which states that "proactive follow-up involves contacting the parents of those children [not identified as 'healthy'] to offer them personalised advice and services to support them to help their child achieve a healthier weight" (PHE, 2016b: 27). The 'underweight' results letter says:

Extract 12 (from specimen underweight results letter)

"Most underweight children are perfectly healthy, but some can develop health problems. ... If you would like to speak to one of us about your child's results, please call us on [phone number]." (PHE, 2016a: 11)

In contrast, the other three results letters, for 'healthy weight', 'overweight' and 'very overweight' children respectively say the following:

Extract 13 (from specimen healthy weight results letter)

"To help your child remain healthy, you can: take a look at the tips [on the next page / in the enclosed leaflet]; Go online for practical advice at:

www.nhs.uk/change4life and www.nhs.uk/ncmp2" (PHE, 2016a: 13)

Extract 14 (from specimen overweight and very overweight results letters)

"As a first step, please call us on [phone number] to find out how you can benefit from free local support. You can also: take a look at the tips [on the next page / in the enclosed leaflet]; Go online for practical advice at:

www.nhs.uk/change4life and [webpage for specific weight category]" (PHE, 2016a: 14, 16)

As shown in extracts 13 and 14, each results letter for 'healthy', 'overweight' and 'very overweight' children direct the parent receiving the letter to two webpages, one being the Change 4 Life webpage ("Change4Life", n.d.), and the other being a specialised webpage for each weight category, with advice about how to achieve or maintain a 'healthy weight'. The 'underweight' results letter (extract 12), however, does not direct parents to any webpage. 'Underweight' is the only weight category that is not subjected

to further surveillance and regulation by the NCMP; bodies marked as 'underweight' are constructed as posing a much lesser threat in terms of the 'obesity epidemic', while even children marked as being of a 'healthy weight' are positioned as potential threats. This is further evidenced by one of the justifications given for the implementation of the programme itself, which stated that "not only would this system identify children who are already overweight or obese, but it could target those at the top of the 'normal' range of BMI to prevent further weight gain" (House of Commons, 2004: 95). The overwhelming focus on 'overweight' and 'obesity' in the sampled data, alongside the mere three mentions of 'underweight', demonstrates that the NCMP panopticises all weight categories except 'underweight', ensuring conformity to the norm of a 'healthy' BMI, including those who are currently regarded as 'healthy' but perceived to be at risk of possibly gaining weight and moving into the 'overweight' category. This demonstrates the regularising power of the NCMP as a form of biopower; even those not currently considered to be 'at risk' of the health problems attributed to 'overweight' are identified as a possible future deviation to the constructed norm of a 'healthy' BMI, and are therefore subjected to similar strategies of surveillance and governance as those currently identified to be deviating from this norm. The lack of urgency in relation to malnutrition may reflect the inability for neoliberal governments to frame this as an issue of personal responsibility rather than state failings. Malnutrition is an issue related to government austerity (Purdam et al., 2016); with responsibility for child malnutrition difficult to individualise, any government level attention would require a critical focus on government led policy rather than utilising programs such as NCMP which aim to individualise responsibility for change.

While it has been said that discussions surrounding the 'obesity epidemic' may not always directly differentiate between social groups (Gard and Wright, 2005), the practices involved in the discourse of a 'normal' BMI do differentiate, and "deliberately and actively seek to do so by elevating BMI to a descriptor and definer of human difference across social, cultural, political, economic and geographic axes" (Halse, 2009: 54). The NCMP actively creates these differentiations by collecting data on each child's ethnicity, address, and post code in order to facilitate analysis of 'obesity' prevalence with regards to differences in ethnicity, deprivation, and geographical location, and in doing so positions all bodies that deviate from the constructed white and middle-class norm as unhealthy and in need of surveillance, governance, and regulation.

Despite PHE's aim to "reduce health inequalities" (PHE, 2016b: 2), year on year, it is Black and working-class children who have the highest prevalence of being marked as 'overweight' and 'obese' (in relation to PHE's white and middle-class norms), and according to HSCIC's own analysis of NCMP data, the gap in 'obesity' prevalence between the most- and least-deprived areas in England is widening (HSCIC, 2016). The NCMP is only mandated to state-maintained schools (PHE, 2016b), meaning that private school students - those who are likely to be from the least deprived families - are excluded from measurement and the programme's statistics altogether. This demonstrates that only certain children seem to be regarded as a concern.

Discussion

In this paper we have explored how the discourses present in the NCMP materials construct fatness. We found a series of themes running through the documents, most notably concerning the hidden threat of 'obesity', the burden of 'obesity', and the construction of bodies that pose a greater risk. These interrelated themes construct and reinforce an overarching discourse of fatness characterized by constructions of 'obesity' as apocalyptic.

The discourse of apocalyptic public health is characterised by constructions of 'obesity' as presenting a pervasive, sometimes invisible threat that affects every individual's health and touches every area of life, including general wellbeing, mental health, and education. 'Child obesity' is framed as a disease that infects the body, the mind, and 'future lives' (Evans and Colls, 2011), and emotive language is used toward parents in order to ensure their conformity to the programme's guidelines (Mulderrig, 2017). 'Obesity' preventions such as the NCMP focus heavily on children, though considering the significant uncertainty with regards to the implications of childhood weight for health (Evans and Colls, 2009), this disproportionate targeting of children hints at wider concerns and desired outcomes at play. Widely regarded as the future of society, children are subjected to increased surveillance to ensure future social order (Holmer-Nadesan, 2005; Evans and Colls, 2011).

Foucault (1976) referred to "campaign[s] for the health of the race" as addressing "an epidemic menace that risked compromising not only the future health of adults but the future of the entire society and species" (Foucault, 1976: 146). 'Obesity' is, through the discourses reproduced in the NCMP materials, very much constructed in this way. The

apocalyptic public health discourse constructs 'obesity' as representing potential social and economic catastrophe, putting strain on the NHS and depleting societal resources (Robertson, 1997; Mulderrig, 2017; Halse, 2009). The so-called 'obesity epidemic' is positioned as harming society; those marked as 'obese' are constructed as threatening the norms and values of society, pushing the boundaries and blurring the lines between what is 'normal' and what is not, rendering the 'disease' more difficult to identify and therefore to correct. Initiatives such as the NCMP, while maintaining fat oppression, are likely to do more harm than good (Cale and Harris, 2011), and are often implemented with little consideration for the potential impact such monitoring procedures have on individual children (Gard and Wright, 2001). Though the current study looked specifically at the discourses drawn upon in an English programme, policies and initiatives that are both built upon and reinforce these same flawed and harmful assumptions about fatness have been rolled out in schools elsewhere (e.g. Vander Schee and Boyle, 2010), and such pathologising discourses are drawn upon globally (e.g. Abou-Rizk and Rail, 2015). By positioning fatness as a result of individual fault, neoliberal governments avoid accountability for their actions which impact the health of society, such as through austerity and the privatisation of healthcare (Purdam et al., 2016). The state, by offering solutions that operate along the two poles of biopower (Foucault, 1976), is able to control and govern particular populations both through the identification of 'at risk' populations (namely those who are working-class and people of colour) and through individualising responsibility and encouraging fat children and their parents to govern and monitor themselves. This allows neoliberal governments to avoid accountability for the impact of austerity on healthcare systems, instead shifting responsibility for health to

individuals; in framing responsibility in this way, the blame for the mounting pressure on public services then falls to some of the most marginalised members of society, and any social or political influences are ignored.

Implications for theory, research, and practice
The discourse of apocalyptic public health (re)produced in the NCMP materials is not
dissimilar from other discourses drawn upon in the public domain. Newspapers and
online publications frequently run stories responsibilising fat people generally around
their fatness, their perceived burden on the healthcare system and on the taxpayer (Hilton et al., 2012). Research has found that discourses such as these, which commonly
appear in public health framings of 'obesity', increase belief in the purported health
risks of being fat, increase belief in anti-fat prejudice and discrimination, reinforce arguments that fat people should pay more for insurance, and lowers peoples' willingness to
celebrate body diversity (Frederick et al., 2016). Therefore, the apocalyptic public
health discourse of fatness present in the NCMP materials is likely to maintain societal
fatphobia and maintain the widespread belief in simplified understandings of 'obesity'
and its relationship to health.

The discourse reproduced in the NCMP, analysed in this present research, constructs fat children and their parents (specifically mothers, who are overwhelmingly responsibilised around children's weight and health; Maher et al., 2010) as responsible for their 'abnormal' body weight and consequently for any health problems they encounter, owing to beliefs that 'obesity' causes many illnesses with which it is correlated, and can be tackled with simple dietary and lifestyle changes (Rail, 2009). Further, fat children and

their 'oblivious' parents are positioned as to blame for the spread of 'obesity'. Fatness is explicitly constructed in the NCMP materials as an abnormality which must be corrected.

The contemporary deployment of this discourse has important implications for families of fat children and, of course, fat children themselves. The NCMP materials responsibilise parents in often patronising ways around their children's health, and present 'obesity' as able to be tackled with very simple changes to diet and lifestyle. We know from previous research that this is not the case; bodies come in all different shapes and sizes, and although fatness is deemed to be symbolic of personal failings (Gastaldo, 1997), it is a matter of fact that some bodies are simply fatter than others, and will remain so when living their healthiest lives, whatever that means for each individual (Burgard, 2009). However, with parents held responsible for their children's weight, and with patronising messages asserting the ease of achieving a 'healthy weight' whilst simultaneously constructing fat bodies as inherently bad and dangerous, it is likely that many families will feel at fault for their children's persisting fatness. This may dissuade parents from seeking help for a variety of illnesses their child may suffer from for fear of being seen by doctors as a failing parent; a significant number of fat people are reluctant to seek medical assistance for a whole range of illnesses due to widespread and institutionalised fatphobia among healthcare professionals (Drury and Louis, 2002).

The apocalyptic discourse of fatness reproduced in the analysed NCMP materials is representative of what Foucault (1963: 6) referred to as a "grotesque discourse". A gro-

tesque discourse has the power to determine decisions that ultimately concern a person's freedom or detention, life and death, and is a discourse of 'truth' in that it is considered scientific - as mainstream 'obesity' discourses are. Fatness is positioned through these discourses as undesirable and the fault of the individual, as something that can easily be rectified if only people would try, as well as being regarded as a massive burden on the NHS. Arguably because of how widespread and dominant these discourses are, debates are now common in public discourse as to whether people marked as 'overweight' and 'obese' should pay for ostensibly free-at-the-point-of-delivery healthcare in the UK, discussing the possibility of no longer allowing them to receive treatment for free or indeed at all (e.g. Rawlinson and Johnston, 2016). Fat people are often discussed in the same breath as smokers, drug addicts and alcoholics, with fatness referred to as a 'self-inflicted illness' of people who have 'brought it on themselves' and are undeserving of free healthcare due to their perceived inability to look after themselves. Some studies even argue to have shown that fat people are considered less deserving of healthcare than smokers (Lund et al., 2015). The apocalyptic public health discourse, therefore, is very much a grotesque discourse, and one that can potentially have power over life and death. We know that working-class, Black, Asian, and mixed race people are disproportionately marked as 'overweight' and 'obese', understood by some to be due to the white, middle-class construction of a normative 'healthy' BMI (Seid, 1989) and as an embodiment of structural racism (Sanders, 2017). If fat people, those marked as 'overweight' and 'obese' by arbitrary measurements, are refused or made to pay for medical treatment, this will disproportionately impact working-class, Black, Asian and mixed race people. This means that people from these groups are

more likely to die from any variety of illnesses not necessarily linked to their fatness, simply because they are deemed to be at fault for their fatness and by extension any illhealth that they experience. Fatphobia remains one of the most widely accepted and unchallenged forms of discrimination; the 'war on obesity' continues, with fat people positioned as a threat to our economic and social security; possibilities of being excluded from the national healthcare system are a real threat, and institutionalised workplace and pay discrimination exists against fat people, particularly fat women, who are on average paid less than non-fat women, while the same bias does not exist for men (DeBeaumont, 2009). Although fatphobia intersects with other forms of oppression, it often remains unchallenged in activist and feminist spaces (Fikkan and Rothblum, 2012), sometimes disguised as 'genuine concern' for people's health and co-opted to serve more neoliberal messages, such as the concept of 'self-care' (Rottenberg, 2014). This demonstrates the widespread acceptance and reproduction of anti-fat discourses even within spaces that purport to be progressive and critical of mainstream understandings and discourses.

In considering the implications of these findings in practice, the severe lack of urgency related to issues of malnutrition must be addressed by government and policy makers. Since the coalition government formed in the UK in 2010, the policy framework for understanding poverty has shifted to emphasise individual responsibility and turn attention away from structural causes of poverty (Lambie-Mumford and Green, 2017). This framework emerged in line with increased austerity and an emphasis on privatised provision of support, and such welfare reforms have hit families with children the hardest (Stewart, 2015, cited in Lambie-Mumford and Green, 2017). With malnutrition an issue

that is difficult to attribute to personal responsibility rather than state failings, neoliberal governments are unable to discuss this issue in detail without acknowledging the impact of their austerity measures on the health and wellbeing of children and their families (Purdam et al., 2016). While the government prioritises maintaining the neoliberal discourse of fatness as an illness resulting from personal failings (Rich and Evans, 2009), we emphasise the importance of the state acknowledging and taking responsibility for the very real issue of child malnutrition and doing more to prevent children from living in poverty.

Echoing the concerns others have raised before us (Rich and Evans, 2009; Evans et al., 2008), we are concerned about the potential for such pathologising discourses of fatness to have a detrimental impact on children's body image and mental wellbeing. The discourse drawn upon in the NCMP materials reproduces and maintains the binary separation of thinness as good and fatness as bad, and such discourses of healthism are normalised and institutionalised through everyday schooling practices (Halse et al., 2007). Such conflations have been influential in contributing to fat hatred and disordered eating, and these discourses are drawn upon by young people when making sense of health (Beausoleil, 2009). Previous research has shown that young girls in particular have begun to feel more negatively about their bodies, including to the extent of developing eating disorders, after having their weight highlighted in front of classmates (Halse et al., 2007) and after having been labelled as 'overweight' or 'obese' by weight monitoring programmes (Lake, 2009). While we do not believe that the NCMP will succeed in improving the health of children, we do believe that the potential for this programme to do harm is high. The discourse of fatness that the programme is built upon

is highly pathologising, positioning fat children as abnormal, as to blame for the pressure on already-struggling services, and framing fat children as having brought bullying upon themselves. We believe there to be a high risk that such a programme could negatively impact children's body image, and its destructive consequences could far outweigh any potential benefits.

Like all research, our study is not without limitations, particularly in relation to our chosen method of analysis. While Foucauldian discourse analysis is an appropriate form of analysis when seeking to understand the discourses reproduced by government and drawn upon in public understandings of fatness, it limits opportunities to centre the lived experiences of people who are impacted by such discourses. Feminist relational discourse analysis (Thompson et al., 2018) is an interesting and valuable method that both seeks to understand what discourses people draw upon in their sense-making and centres participants' voices and experiences in relation to discourses to better understand how people situate themselves within often conflicting available discourses. In future, it would be interesting to see this method utilised more in order to understand how these discourses are experienced by people and the impact they have on people's lives.

Concluding remarks

There is much work to be done in challenging the harmful apocalyptic discourse of fatness, which may do more harm than good when applied to 'childhood obesity', and makes little sense in relation to the purported aims of such programmes. Evidence suggests that people who diet below the age of 14, a likely result of the NCMP, are likely to have higher weights as adults (Lyons, 2009), as well as weight cycling, which has been linked to many of the illnesses that 'obesity' is claimed to cause (Bacon and Aphramor, 2011). It seems likely that the NCMP and programmes like it may actually cause an increase in later-life weight rather than the desired decrease; this makes the programme meaningless and pointless with regards to its stated objectives – a finding which brings the state's true intentions into question. Furthermore, the programme supports and institutionalises fatphobic beliefs that fat is inherently bad. We do not believe that programmes such as the NCMP are harmful simply because they fail to instigate weight loss - though this is surely an implication for the programme in that there is evidence from both previous research (Lyons, 2009) and the programme's own data (HSCIC, 2014, 2015, 2016) to show that the NCMP is not having the desired effect. Rather, we argue that the discourse of fatness that underpins the NCMP has been shown to increase harmful fatphobic beliefs that further discrimination against fat people socially and economically (Frederick et al., 2016). Indeed, it could be argued that a programme whose core focus is to tackle 'obesity' as a weight category, rather than to increase health in children regardless of weight, is not a programme about health but one built upon the fatphobic and ill-advised premise that fatness is inherently bad, and that thinness is inherently good. In order to liberate fat people from the widespread discrimination they face, and to eradicate harmful and detrimental fatphobia in both public health policy and wider society, it is important to not only challenge the inadequacies of programmes such as the NCMP in improving health outcomes, but to understand and challenge all

weight-based discrimination and to acknowledge fatness as a form of diversity (Frederick et al., 2016) and not as an indicator of health.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Figures

Figure 1

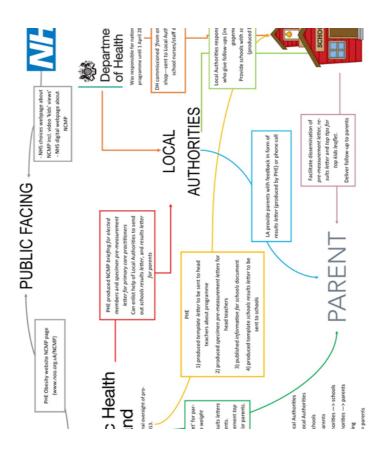


Figure 1 caption: The process of dissemination of NCMP materials as outlined by PHE (2016b).