

# 'A little bit offended and slightly patronised': parents' experiences of National Child Measurement Programme feedback

Alexa Gainsbury<sup>1,\*</sup> and Sally Dowling<sup>2</sup>

<sup>1</sup>Severn Postgraduate Medical Education School of Public Health, Deanery House, Vantage Point, Old Gloucester Road, Bristol BS16 1GW, UK; <sup>2</sup>Department of Nursing and Midwifery, Faculty of Health & Applied Sciences, University of the West of England, Bristol, UK

Submitted 12 December 2017: Final revision received 27 March 2018: Accepted 10 May 2018: First published online 19 June 2018

## Abstract

**Objective:** To develop a descriptive account of parents' experiences of written feedback from the National Child Measurement Programme (NCMP), based on primary data collected from semi-structured focus groups.

**Design:** Four focus groups were held with a purposive sample of parents who had recently received written weight feedback from the NCMP in one local authority in England. Thematic data analysis was undertaken to develop a narrative of emergent themes regarding parents' experiences and the social influences shaping this.

**Setting/Subjects:** The population of interest was parents of 4- and 5-year-olds who had recently received written feedback from the NCMP. Eighteen parents participated and represented the full spectrum of categories provided in NCMP feedback (under-, healthy, over- and very overweight).

**Results:** Participants often rejected overweight feedback as lacking in credibility and considered NCMP communication to be targeting parents other than themselves. Family and peers collaborated in the dismissal of overweight feedback, further legitimising participants' decision to disregard their child's overweight categorisation.

**Conclusions:** Our study provides an insight into parents' experiences of NCMP feedback, including how they relate to and understand that experience within a social context. By doing so, it makes a unique contribution to the existing body of evidence. Recommendations for practice based on the findings include further efforts to raise parents' and communities' awareness of childhood obesity, risks associated with childhood excess weight and obesity prevalence as a mainstream issue.

**Keywords**  
National Child Measurement  
Programme  
Childhood obesity  
Weight feedback  
Parents  
BMI  
Screening

The UK National Child Measurement Programme (NCMP) was originally established in 2006 as a surveillance tool with no individual feedback function. However, following parliamentary pressure<sup>(1)</sup>, it has evolved to include routine feedback to parents regarding their child's weight status. Parental engagement alongside accurate weight perception is necessary for behaviour change<sup>(2,3)</sup>. Routine weight feedback is considered an opportunity to improve parental accuracy, which usually underestimates reality across the weight spectrum<sup>(4–8)</sup>, by improving awareness and health literacy. It is also seen as an opportunity for 'direct engagement with families' to 'support and encourage behaviour change where it will help a child achieve a healthy weight'<sup>(9)</sup> (p. 5). Public health teams, who implement the NCMP in England and now sit within Local Authorities, have first been mandated (2010–2013) and

subsequently encouraged (2013–present) to provide parents with routine feedback regarding their child's measurements and corresponding weight status. There is significant variation in local interpretation of this guidance, with some Local Authorities providing routine feedback to all parents as standard and others providing it to specific weight categories, or on a request-only basis.

There is, however, little evidence regarding the impact of NCMP feedback and its effectiveness in engaging parents in behaviour change. One large, mixed-methods, multicentre prospective cohort study<sup>(10)</sup> was carried out prior to the 2012 health reforms in England and Wales<sup>(11)</sup>, when responsibility for implementation sat within the National Health Service. They found that while NCMP feedback led to a modest increase in both parental recognition and knowledge regarding overweight and

\*Corresponding author: Email a.gainsbury@nhs.net

associated health risks, this did not necessarily lead parents to acknowledge the health risk posed to their own child<sup>(12,13)</sup>. Identified behaviour change was limited to a modest increase in the number of obese children meeting physical activity guidelines. Qualitative analysis by the same research team found parents disregarded overweight feedback as they deemed the process to lack credibility and considered 'health and happiness' more important than weight<sup>(13)</sup> (p. 50), while an earlier study found parents' fear that identification of excess weight could harm their child's self-esteem, or even trigger disordered eating, surpassed concerns regarding excess weight<sup>(14)</sup>. Exploration of parents' emotional response to NCMP feedback has generally focused on the recipients of overweight feedback, finding the experience to be associated with a range of negative emotions including upset, anger, worry and guilt<sup>(12–18)</sup>. Conversely, a more recent study explored the experience of recipients of both healthy and overweight feedback and identified two separate pathways of response dependent on the feedback received<sup>(19)</sup>. Recipients of healthy weight feedback journeyed from pleasure and happiness through affirmation and on to 'othering', a process that identifies those who are thought to be different from oneself or the mainstream<sup>(20)</sup>, identifying the need for behaviour change among recipients of overweight feedback. Meanwhile, recipients of overweight feedback journeyed from shock or disgust with the programme, through denial and self-blame to acceptance, worry and intention to seek help<sup>(19)</sup>.

While feedback is provided to parents confidentially, letters are received in the same time frame by parents who are linked by their children's shared school experience. Anecdotally, there is evidence of parents discussing childhood weight, the NCMP and, in some cases, received feedback within this time frame with fellow parents and peers and via social and mainstream media<sup>(21–23)</sup>. Thus far, parents' evidence regarding the experience and impact of the NCMP has been based on data gathered from individuals, using interviews and survey data. To our knowledge, no previous study has explored parents' experiences of the NCMP within a group context; investigating parents' experience within focus group settings gave us an opportunity to explore and observe how social contexts help shape parents' experiences as well as develop a shared social discourse regarding NCMP written feedback and childhood weight. Our work addressed the question: 'How do parents collectively report their experience of receiving written feedback from the National Child Measurement Programme?'

## Methods

### Participants

The study was conducted in a single Local Authority area in the South West of England where written weight

feedback is provided to the parents of all NCMP participants. The NCMP measures all children at mainstream state-maintained schools in their entry (aged 4–5) and exit (aged 10–11) years. Parents or schools can opt out of the programme, but typically about 95% of the eligible population participates<sup>(9)</sup>. The present study focused on parents of children from the entry stage of the programme in 2014/15 and 2015/16 in order to explore the point at which children are most dependent on parental choices for activity and nutrition<sup>(24)</sup>.

Participants were recruited directly through advertisement and then via snowballing once volunteers had made contact. Via this approach two focus groups were formed out of existing peer groups, representing what Khan and Manderson term 'natural clusterings'<sup>(25)</sup> (p. 60) (referred to throughout as the 'natural groups'). A further two focus groups (referred to as the 'study-established' groups) comprised of direct recruits with no social connection. All focus groups were audio-recorded and followed a semi-structured schedule (Box 1). This was developed by both authors based on study objectives with further input provided by the local NCMP manager, who wished to use study findings to inform future communications with parents. The schedule included open questions and prompts to stimulate conversation while also enabling discussion to grow organically. Groups were facilitated by the first author who made explicit her working interest in the topic. The facilitator was not known to the participants, except for one work acquaintance (healthy weight male, focus group 1) and one social acquaintance (healthy weight male, focus group 2). While it would have been preferable to exclude those known to the author, the hard-to-reach nature of the population of interest, coupled with close community being a feature of the area in which the study was undertaken, made this unfeasible. Discussions lasted between 55 and 77 min and group size ranged from three to six participants. We decided to hold mixed outcome groups and not stratify participants according to their child's weight status. This approach enabled the study to observe how healthy and overweight feedback is assimilated and discussed within the same social contexts.

Eighteen parents participated in the study, including seventeen birth parents and one adoptive parent. We were interested in the views and experiences of all individuals undertaking a parent or guardian role; however, for ease, the term 'parent' has been used throughout the present paper to refer to this potentially diverse group because it reflects those who actually participated.

### Analysis

Recordings of focus group discussions were transcribed verbatim, reviewed for accuracy by A.G. and imported into the qualitative data analysis software NVivo version 10. Analysis identified themes and patterns relating to parents' experience of NCMP feedback. This was

**Box 1** Focus group topic guide

- Can you remember receiving your child's NCMP [National Child Measurement Programme] letter and how it made you feel?  
*Prompts:* how would you describe your feelings towards the information, agree/disagree, helpful/unhelpful?
- Can you remember how you reacted to the feedback?  
*Prompts:* what did you do after reading the letter?
- If you shared the letter or results with anybody did this change the way you felt?  
*Prompts:* how did you share, who with, what did they say, did this change your feelings or views?
- Can you remember the wording and presentation of the letter? How did this make you feel?  
*Prompts:* words used to describe child's weight, descriptions of why weight has an impact on health, format of letter, length, descriptions of BMI.
- If you had written the letter, what alternative words or phrases would you have used?
- Did the letter change the way you feel or view your child's weight and health?  
*Prompts:* perception of healthy weight, diet, amount of exercise, what other considerations do you use to judge healthy weight?
- Did the letter change the way you feel about your own or family's weight and health?  
*Prompts:* perception of healthy weight, diet, amount of exercise, what other considerations do you use to judge healthy weight?
- After the letter have you made any changes?  
*Prompts:* in what areas, in relation to who, why these changes, how do you feel about them?
- What, if anything would have been helpful to you or parents?  
*Prompts:* what information or support is helpful to you? What information or support do you think other families and parents would find helpful?

undertaken from a critical realist perspective, a 'contextualist' method which 'acknowledges the way individuals make meaning of their experience, and in turn, the ways the broader social context impinges on those meanings' (26) (p. 86). As such, thematic analysis enables critical realist researchers to both reflect and explore communicated realities (26); in this case, reflecting parents' experiences of written NCMP feedback alongside considering some of the social influences that may shape that experience.

Analysis followed the framework set out by Braun and Clarke (26): data familiarisation, initial code generation,

searching for themes, review of themes, defining and naming themes and finally producing a report. Analysis was undertaken by A.G. with S.D. contributing to the latter three stages.

Extracts are coded according to the category of feedback participants reported to have received regarding their index child (underweight (UW), healthy weight (HW), overweight (OW) or very over-weight (VOW)), their child's gender (male (M) or female (F)) and the number of the focus group that the parent attended (FG1–4). Weight classifications are universally applied across the NCMP based on the child's BMI Z-score in relation to the British 1990 child growth reference (UK90). Further details are available within the operational guidance (9). Echoing previous studies, analysis identified a number of themes regarding participants' scepticism of an assessment method based on BMI (13,14,18,27) and rejection of feedback that conflicted with existing perceptions (13,18). However, the current paper focuses on two themes: (i) peer collaboration in the rejection of overweight feedback; and (ii) the shared process of 'othering' by participants based on characteristics other than weight feedback in their understanding of childhood obesity and the NCMP's perceived target audience. These themes were highlighted because focus groups enabled us to observe how NCMP feedback was discussed and assimilated within social contexts and are discussed below, following some information about the composition of the groups.

## Results

The current study was undertaken in a Local Authority with comparatively high prevalence of excess weight among reception-age children (28). Each weight feedback category was represented among the focus groups and, in comparison to the Local Authority's NCMP profile, recipients of overweight feedback represented a larger proportion of the sample than of the population (28). Focus group composition is provided in Table 1. While feedback category of the index child is coded, many of the parents had also had other children go through the programme and spoke about these experiences interchangeably.

The majority of parents who participated in the groups were female ( $n = 15$ ) and both natural groups were comprised only of women. There was no difference in views noted between men and women, and there was good participant interaction across all focus groups and weight categories. However, the two natural groups generated more discussion and provided a better opportunity to observe the role peer relationships played in participants' perceptions and feelings towards the NCMP and their child's weight status. The natural groups also required less facilitation as familiarity between participants enabled discussion to flow organically, enabling the facilitator to observe from a 'fly on the wall perspective' (29) (p. 130).

**Table 1** Composition of the focus groups: purposive sample of parents who had recently received written feedback about their 4- or 5-year-old child's weight from the National Child Measurement Programme in one local authority in South West England, 2014/15 and 2015/16 school years

Data reference	Composition	Feedback received and gender of index child	Group type
FG1	2 fathers 3 mothers	Healthy weight male Healthy weight male Healthy weight male Overweight male Overweight male Overweight male	Study-established
FG2	4 mothers	Healthy weight male Healthy weight female Healthy weight female Overweight female	Natural
FG3	6 mothers	Underweight male Healthy weight male Healthy weight female Overweight male Very overweight male	Natural
FG4	1 father 2 mothers	Very overweight female Healthy weight male Healthy weight female Very overweight male	Study-established

Furthermore, the natural groups appeared to have more candid discussions than the study-established groups; as one group put it:

'We are all out on a Saturday night you know, we are all socially friends so are all happy to talk amongst each other ...' (UWM, FG3)

'... and happy to disagree ...' (HWF, FG3)

'... yeah, happy to disagree.' (VOWF, FG3)

***Collaborative rejection of overweight feedback***

Recipients of healthy weight feedback generally reported a positive experience, regarding feedback as a reassuring, if sometimes extraneous, 'stop check in time' (HWM, FG1). Healthy weight recipients in the natural groups were more likely to trivialise the impact of receiving healthy feedback:

'I just thought such irrelevance, this is irrelevant.' (HWF, FG2)

'I probably felt, indifferent?' (HWF, FG2)

'Didn't really think anything of it.' (HWF, FG3)

Conversely, while there were some exceptions, receipt of overweight feedback was generally reported in overwhelmingly negative terms. As one parent summarised:

'The word "overweight" has a negative connotation no matter if that's the intention ... if you are being told your child is overweight you are going to find that a negative experience.' (OWF, FG2)

Words such as 'cross', 'angry', 'annoyed', 'worried', 'upset', 'insulted' and 'perturbed' were associated with participants' experience of receiving overweight feedback.

There was a sense among some that the programme had overstepped its role:

'How dare somebody tell me that my child is overweight ... to be sent home with healthy eating leaflets, blah blah, you just think "actually?" I just felt it was a little bit too much.' (OWF, FG2)

With some parents reporting a sense of being judged:

'It made me feel a little bit like I just feed my kids chips all the time, not a healthy balanced diet and I did feel a bit like I had had my fingers slapped.' (OWM, FG3)

In the natural groups, where participants' families were known to each other, participants commented on each other's children and, based on their own visual assessments of the child, consistently dismissed any feedback indicating she/he was overweight. The consistency with which these comments were given in the two natural groups was striking, and they were repeatedly offered up both spontaneously and in response to statements indirectly seeking such reassurance ('I'm fairly sure people would agree [my child] is not overweight' (OWM, FG3)). Affirmations provided by peers included:

'She is not overweight, she is perfectly proportioned.' (HWF, FG2)

'I would agree with that, looking at [your child], I wouldn't think she's overweight.' (HWF, FG2)

'If I was you I would have been fuming because none of your children are obese, so I would have been furious.' (UWM, FG3)

'I don't even think [your child] is stocky.' (OWM, FG3)

One participant commented that it was the experience of her friend that had motivated her participation in the study:

'Because I know what her letter said, I was like "yeah, I do have an opinion about it," not because of the letter I received, because [my child] was fine, but I also know [my friend's child] isn't overweight.' (HWF, FG2)

While the two study-established groups were unable to comment on fellow participants' children, they did comment on their wider peers' children:

'I think [my friend's child] has just got a pot belly but she's lost that now within a couple of months.' (HWM, FG1)

'[My friend's child] might be 4-years-old but actually he's wearing 5–6 clothes and his weight, if you were measuring him as a 6-year-old, would be in the perfect range but you're saying that he's overweight.' (OWM, FG1)

And both natural and study-established groups spoke about a strong condemnation of overweight feedback from wider family members:

'[My mother-in-law said], "I can't think why they would even say that he's overweight or obese and needs to go on a healthy eating class, that's disgusting".' (VOWM, FG4)

'My sister was really cross about it.' (OWM, FG3)

'I chatted about it with my sister-in-law and we both had a grumble about it.' (OWF, FG2)

Recipients of overweight feedback reported that discussion with peers and family had helped them make the decision to disregard overweight feedback:

'I was kind of egged on a little bit by her and by the fact her reaction was such and thinking "oh goodness, I've got the same as well, right," and just binned it.' (OWF, FG2)

'I thought "oh well I'm not the only one," [my friend received an overweight letter] and he's not overweight either, so I kind of thought "oh well and forget about it".' (VOWF, FG3)

'I was probably a bit upset about it to start with but then after talking to other parents whose children were also obese or whatever, you sort of realise that it wasn't something that we could take seriously ... I didn't follow it up in any way I just sort of let it go.' (VOWM, FG3)

The language used to describe weight within the groups also varied depending on the feedback received, effectively creating distance from the overweight and very

overweight categorisations. A strong common theme was that healthy feedback equated to your child being 'normal' while overweight feedback was often heard as 'obese'. Conversely, when parents discussed peers' children, they consistently used alternative descriptors such as 'chunky monkey' (OWM, FG1), 'squarish' (OWF, FG2) and 'strapping' (VOWM, FG4).

### ***Otherring of parents***

In the present study, parents participated in 'othering' discussion in their description of NCMF's perceived target audience. While the finding that parents 'other' is not novel in itself, previous observations of othering have been limited to the practice of parents who receive healthy weight feedback othering those who receive overweight feedback<sup>(19)</sup>. Because of the group setting we observed a more nuanced phenomenon: participants of healthy weight AND non-healthy feedback engaged in othering of parents based on criteria wider than feedback received. The process of doing so contributed to the dismissal of overweight feedback received by themselves or their non-othered peers. Each group in our study used language to define their demographic and establish separation from a group of 'other' parents, whom they perceived needed to be the target of obesity prevention interventions. Participants described themselves as 'educated' (HWM, FG1), 'responsible' (OWF, FG2), 'middle class' (HWF, FG3) and 'interested' (VOWM, FG4). Conversely, 'other' parents were described as 'irresponsible' (HWF, FG2), that they 'ignore[d]' healthy living advice (HWM, FG1) and fed their children 'chicken nuggets from [discount supermarkets]' (OWM, FG3).

Participating parents perceived this group to be more responsible for their child's excess weight and identified the need for behaviour change:

'The [children] are obese and parents are still feeding them, it's heart breaking, you know what, it's down to parents, don't buy [your children] the [unhealthy] food, give them something else.' (UWM, FG3)

Conversely, overweight feedback given to their children, as well as those of their peers, was considered to lack credibility because the children did not match their perception of overweight and assessment methods were considered substandard. This was considered due to over-reliance on BMI and an insufficiently holistic approach:

'It's being targeted at parents who isn't giving them fruit and veg and just doing the cheap rubbishy food just to make them think, just to make them sit down and think actually maybe I ought to do something. For the ones of us who are doing it then you just ignore it and think whatever, I know I'm doing right.' (UWM, FG3)

Participants therefore considered that the letters were really trying to communicate with these 'others' who needed prompting into action. They wondered whether the negative feedback they or their peers had received was effectively acceptable collateral damage:

'I don't know, maybe it's worth it, maybe we should take a hit for all those who need the shock?' (HWF, FG2)

'We all have to take this ... we regard ourselves as responsible parents, we don't like the words, we are a little bit offended and slightly patronised by it but actually we appreciate that for the general good for society, that actually maybe those horrible words like "overweight", we just need to get a grip and accept that ... we need to hear [them] in our society to deal with the problem underlying.' (HWF, FG2)

'I think you do need to [send the letters], there are lots of parents out there doing right and doing good by their children but there are lots of parents out there who are not doing right and doing good by their children and they do need to be targeted, if you guys are not doing it, who's going to do it and what is society going to be?' (UWM, FG3)

However, there was also a view that the 'others', who did need to make behaviour change, were not listening:

'To be honest the people who care are going to read quite a lot of it and the people who need that information are probably not going to read any of it.' (OWM, FG3)

'It makes you wonder if it would affect the people who need to be picked up on in the same way.' (VOWM, FG3)

'The letter could just go on deaf ears.' (VOWF, FG3)

'Sometimes I think even the shock factor won't work.' (HWM, FG1)

Consequently, participants questioned if feedback was having any helpful impact at all:

'What we're saying is it's impacting the wrong people because the responsible ones are having sleepless nights about it and the irresponsible ones are ignoring it.' (HWF, FG2)

The natural groups both noted that they represented a narrow demographic and that a study seeking volunteer input such as this was unlikely to capture the views of the 'others':

'It's always hard to get their view on it because they are closed to it ...' (VOWF, FG3)

'... hard to reach groups.' (HWF, FG3).

One group surmised that had these 'other' parents attended the focus group discussions, they would have been 'more aggressive' (UWM, FG3) towards the NCMP and its provision of feedback.

## Discussion

Understanding how social contexts shape parents' experience and response to NCMP feedback could help Local Authority public health teams develop more effective individual and community-level interventions to tackle childhood excess weight. It could also contribute to our wider understanding of childhood weight and excess weight as social concepts.

Consistent with previous studies, participants generally understood childhood excess weight to be a health risk but were unlikely to recognise that risk in relation to their own or their peers' children<sup>(5,12,13)</sup>. Overweight feedback tended to be dismissed by parents, their families and their peer group as lacking in credibility. While the finding that parents often disagreed with feedback is consistent with other studies<sup>(13,14,18)</sup>, the observation that parents' social connections collaborated to reject overweight feedback is unique and speaks to the importance of understanding the social context within which NCMP feedback is received and assimilated.

Peer rejection of overweight labels has also been observed in other peer groups<sup>(30)</sup>. In UK society, obesity is often stigmatised<sup>(14,31)</sup> and weight management can embody the pursuit of thinness<sup>(32)</sup>. There is also a link between body image, psychological well-being and disordered eating<sup>(33)</sup>, which has been acknowledged as a concern by parents in previous studies<sup>(14)</sup>. And so, within these contexts, it is both rational and honourable that loved ones look to protect their peers from the negative consequences of perceiving oneself, or one's child, as being overweight. However, in our efforts to protect against the stigma and adverse psychological consequences of an overweight label and negative body image, there is the potential to overlook the legitimate health risks posed by excess weight. Future research may wish to consider the social implications of childhood excess weight within this context and consider whether current social discourse, often focused on promoting positive body image in reaction to the media representations of bodies that are unhealthily thin, can accommodate concerns about excess weight alongside promoting psychological well-being and preventing the pursuit of unhealthy ideals. This may be achieved by refocusing the narrative from 'fat' and 'thin' towards 'healthy' and 'strong'. Content analyses of the online and social media 'fitspiration' movement, 'Strong is the New Skinny', has found the trend overemphasises appearance, contains images of objectification and disproportionately represents one body type: thin and

toned<sup>(34,35)</sup>. Consequently, authors conclude that while it is potentially inspirational, in its current format, the trend is not a force for good. Further research may wish to consider whether an effectively curated and balanced campaign, containing a wider and more proportionate spectrum of healthy, has the potential to provide the social consciousness with new representations of healthy that can inspire and motivate while also promoting inclusivity and range.

The present study also found that groups participated in a nuanced form of 'othering': transferring responsibility for childhood excess weight to an alternative 'other' group of parents while legitimising rejection of feedback among their own peers. Regardless of feedback received, participants did not consider themselves, their peers or their demographic to be the target audience for NCMP feedback or obesity prevention interventions but did perceive a need for behaviour change among 'other' parents whose otherness they defined using different terms. Again, perception of obesity as belonging to the 'other' transcends childhood weight discourse. Mintel's recent survey of 2000 adults' attitude towards healthy lifestyles found just 16% consider themselves unhealthy, despite data showing that the majority of adults in the UK are overweight or obese<sup>(36,37)</sup>. As excess weight prevalence increases, it is plausible that carrying excess weight is normalised and thus reduces our ability to identify it. The media consistently uses extreme images to depict excess weight<sup>(38–40)</sup>; in this context parents may be able to disassociate their lived experience from the 'obesity epidemic'<sup>(41)</sup>, not relating the portrayal of obesity to their own child. Furthermore, the social gradient of obesity<sup>(36,42)</sup> could lead to those who self-identify as 'middle-class' further disassociating from an issue often described in terms of its association with poverty. Given this, it may be beneficial to explore ways of reframing overweight as an issue relevant to everyone in society and raise awareness that it is not only those who suffer from extreme obesity who are likely to experience health consequences.

Greater knowledge regarding the impacts of excess weight specifically in childhood, alongside more moderate images of excess weight, could also help parents to understand the prevalence of the issue and its relevance to their own children. While outcomes are yet to be published, early indications from the 'Map Me' intervention, a tool which provides parents with visuals of age- and gender-specific body image scales of known BMI alongside supporting information about the health risks of childhood overweight, suggests it may help improve parental recognition of excess weight and consequently increase likelihood of behaviour change<sup>(43)</sup>.

### **Limitations**

The current study has a number of limitations that are important to note. While unique in its approach, the study was small in scale with data collection limited by available

participants rather than saturation being reached. We aimed for small group sizes based on the perceived wisdom<sup>(44,45)</sup> that larger groups are 'too large' for sociological study; a smaller number can facilitate more in-depth exploration while practically enabling data to be transcribed verbatim and 'subjected to detailed and systemic analysis'. Our smaller groups did facilitate rich debate, but again there was limited data from which to draw our conclusions.

The self-selecting nature of volunteer participants raises the risk of sampling bias. We cannot assume that the findings are transferrable to other areas because those volunteering may have had a particular interest in the subject, felt strongly about feedback or may simply have been more confident to participate in a group setting. The recruitment strategy aimed to mitigate this risk by using snowballing to encourage participants who may not naturally volunteer to participate directly. Nevertheless, participants themselves highlighted that we were unlikely to access the views of 'harder to reach' parents, which remains a constant challenge to research in this area.

There was also limited male input into the study with just three fathers out of eighteen participants. Male underrepresentation has been a feature of similar studies<sup>(10,46)</sup> and may be both a reflection of women as primary caregivers in society<sup>(46)</sup> as well as, in the case of the natural groups, friendship groups being defined by gender. We did attempt to recruit a group of fathers via snowballing but, unfortunately, we did not succeed within the available time scale. Due to the small numbers of males, analysis did not seek to compare views between genders which would have strengthened the findings of the study.

The decision to hold mixed focus groups and not stratify parents according to feedback received was both a strength and limitation of the study. Mixed feedback groups may have led to censored views for fear of offending others or experiencing stigmatisation. However, they also best reflected real-life experiences and interactions regarding childhood weight, the NCMP and NCMP feedback, and enabled the study to observe how healthy and overweight feedback is digested and discussed within the same social context.

Finally, as previously described, there is wide variation in local implementation of the NCMP and thus findings from the current, or any location-specific, study are not readily transferable to wider populations. These limitations mean that the study findings provide potential avenues for further exploration rather than any conclusive indication of parents' collective view and experience. Further research is required to explore if themes are recurrent or are specific to this particular research context.

### **Conclusion**

The present study was the first to use focus groups to explore parents' experience of NCMP feedback. By doing

so it provides some insight into how parents relate and respond to NCMP feedback within social contexts, and exposed the role friends, family and peers may play in shaping parents' views and subsequent response to feedback. In particular, the study observed how participants, who had received a range of feedback, colluded with one another to dismiss overweight feedback received by their peers. This position was further justified by the creation of an 'other' group of parents, dissimilar to themselves based on criteria wider than just feedback received, at whom the NCMP is targeted. While it is beyond the scope of the current small study to reach any firm conclusions, these findings are important for both NCMP policy and implementation and warrant further investigation. Our findings suggest that parents do not assimilate information about their child's weight in a vacuum but are influenced by those around them as well as existing social perceptions regarding who childhood obesity affects.

Further research would be beneficial to explore if the findings of our study are replicated in other contexts and to consider further the social implications of childhood excess weight, including how we may be able to shape the narrative around healthy childhood bodies.

## Acknowledgements

*Acknowledgements:* The authors thank the participants and the Local Authority public health team for supporting this research. *Financial support:* This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. However, the project was carried out while A.G. was a student on the MSc Public Health programme at the University of the West of England, Bristol, for which she was funded by Health Education England SW. *Conflict of interest:* None. *Authorship:* A.G. designed the study, undertook recruitment, facilitated focus groups, transcribed and analysed the data, and led on writing this article. S.D. contributed to the design aspects of the study, analysis of data and to all drafts of the article. *Ethics of human subject participation:* This study was conducted according to the guidelines laid down in the Declaration of Helsinki and all procedures involving human subjects were approved by processes of the University of the West of England Research Ethics Committee. Written informed consent was obtained from all subjects.

## References

- House of Commons Health Committee (2008) *Health Inequalities*. vol. II: *Written Evidence*. London: The Stationery Office.
- Lundahl A, Kidwell K & Nelson T (2014) Parental underestimates of child weight: a meta-analysis. *Paediatrics* **133**, e689–e703.
- Dalton W & Kitzmann K (2008) Broadening parental involvement in family-based interventions for paediatric overweight. *Fam Community Health* **31**, 259–268.
- Black J, Park M, Gregson J *et al.* (2015) Child obesity cut-offs as derived from parental perceptions: cross-sectional questionnaire. *Br J Gen Pract* **65**, 234–239.
- Tompkins C, Seablom M & Brock D (2014) Parental perception of child's body weight: a systematic review. *J Child Fam Stud* **24**, 1384–1391.
- Regber S, Novak M, Eiben G *et al.* (2013) Parental perceptions of and concerns about child's body weight in eight European countries – the IDEFICS study. *Pediatr Obes* **8**, 118–129.
- Rietmeijer-Mentink M, Paulis W, van Middelkoop M. *et al.* (2013) Difference between parental perception and actual weight status of children: a systematic review. *Matern Child Nutr* **9**, 3–22.
- Parry L, Netuveli G, Parry J *et al.* (2008) A systematic review of parental perception of overweight status in children. *J Ambul Care Manage* **31**, 253–268.
- Public Health England (2017) *National Child Measurement Programme Operational Guidance 2017*. London: PHE Publications; available at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/643226/PHE\\_national\\_child\\_measurement\\_programme\\_operational\\_guidance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/643226/PHE_national_child_measurement_programme_operational_guidance.pdf)
- Falconer C, Park M, Skow A *et al.* (2012) Scoping the impact of the national child measurement programme feedback on the child obesity pathway: study protocol. *BMC Public Health* **12**, 783.
- UK Government (2012) *Health and Social Care Act 2012*, Chapter 7, Section 73B. Norwich: TSO; available at [http://www.legislation.gov.uk/ukpga/2012/7/pdfs/ukpga\\_20120007\\_en.pdf](http://www.legislation.gov.uk/ukpga/2012/7/pdfs/ukpga_20120007_en.pdf)
- Falconer C, Park M, Crocker H *et al.* (2014) The benefits and harms of providing parents with weight feedback as part of the national child measurement programme: a prospective cohort study. *BMC Public Health* **14**, 549.
- Syrad H, Falconer C, Cooke L *et al.* (2015) 'Health and happiness is more important than weight': a qualitative investigation of the views of parents receiving written feedback on their child's weight as part of the national child measurement programme. *J Hum Nutr Diet* **28**, 47–55.
- Gillison F, Beck F & Lewitt J (2014) Exploring the basis for parents' negative reactions to being informed that their child is overweight. *Public Health Nutr* **17**, 987–997.
- Hughes L & Timpson H (2014) *An Evaluation of the Wirral National Child Measurement Programme Telephone Pilot*. Liverpool: Liverpool John Moores University Centre for Public Health.
- Lewitt J & Gillison F (2011) *National Child Measurement Programme Communications*. Bath: University of Bath.
- Statham J, Mooney A, Boddy J *et al.* (2011) *Taking Stock: A Rapid Review of the National Child Measurement Programme*. London: Thomas Coram Research Unit.
- Mooney A, Statham J, Boddy J *et al.* (2010) *The National Child Measurement Programme: Early Experiences of Routine Feedback to Parents of Children's Height and Weight*. London: Thomas Coram Research Unit.
- Nyanzi LA, Summerbell CD, Ells L *et al.* (2016) Parental response to a letter reporting child overweight measured as part of a routine national programme in England: results from interviews with parents. *BMC Public Health* **16**, 846.
- Johnson JL, Grewal S, Hilton BA *et al.* (2004) Othering and being othered in the context of healthcare services. *Health Commun* **16**, 253–271.
- Fletcher B (2016) Young girl, 11, stops eating after health professionals 'brand her overweight'. *Express*, 11 January 2016. <http://www.express.co.uk/life-style/health/633593/young-girl-stops-eating-after-school-health-professionals-brand-her-overweight> (accessed March 2018).



22. Glanfield R (2016) Mother's fury after council 'fat shames' her daughter Chloe by ruling she is overweight at the age of four. *Mail Online*, 4 February 2016. <http://www.dailymail.co.uk/news/article-3432122/Mother-s-fury-council-fat-shames-daughter-Chloe-ruling-overweight-age-FOUR.html> (accessed February 2018).
23. Stroud C (2016) Does she look fat to you? Mum's anger after health officials labelled her five-year-old daughter overweight. *The Sun*, 1 July 2016. <https://www.thesun.co.uk/news/1373047/mums-anger-after-health-officials-labelled-her-five-year-old-daughter-overweight/> (accessed March 2018).
24. Rudolf M (2010) Tackling obesity through the Healthy Child Programme: a framework for action. [http://webarchive.nationalarchives.gov.uk/20170110171440/https://www.noo.org.uk/Mary\\_Rudolf](http://webarchive.nationalarchives.gov.uk/20170110171440/https://www.noo.org.uk/Mary_Rudolf) (accessed October 2017).
25. Khan M & Manderson L (1992) Focus groups in tropical disease research. *Health Policy Plan* **7**, 56–66.
26. Braun V & Clarke V (2006) Using thematic analysis in psychology. *Qual Res Psychol* **3**, 77–101.
27. Jones A, Hyland R, Parkinson K *et al.* (2011) Parental perceptions of weight status in children: the Gateshead Millennium Study. *Int J Obes (Lond)* **35**, 953–962.
28. Public Health England (2016) Public Health Outcomes Framework. <http://www.phoutcomes.info/public-health-outcomes-framework> (accessed September 2016).
29. Holloway I & Wheeler S (2010) *Qualitative Research in Nursing and Healthcare*. Chichester: Wiley-Blackwell.
30. Salk R & Engeln-Maddox R (2011) 'If you're fat, then I'm humungous!': frequency, content and impact of fat talk among college women. *Psychol Women Q* **35**, 18–28.
31. Jebb S (2016) Addressing the challenge of obesity in children. Keynote address to *Public Health England Annual Conference*, University of Warwick, Warwick, UK, 14 September 2016.
32. Crossley N (2004) Fat is a sociological issue: obesity rates in late modern 'body-conscious' societies. *Soc Theory Health* **2**, 222–253.
33. Halliwell E (2015) Future directions for positive body image research. *Body Image* **14**, 177–189.
34. Boepple L, Ata R, Rum R *et al.* (2016) Strong is the new skinny: content analysis of fitspiration websites. *Body Image* **17**, 132–135.
35. Tiggemann M & Zaccardo M (2016) 'Strong is the new skinny': a content analysis of #fitspiration images on Instagram. *J Health Psychol*. Published online: 31 March 2016. doi: 10.1177/1359105316639436.
36. Public Health England (2017) Patterns and trends in adult obesity. <https://www.slideshare.net/PublicHealthEngland/patterns-and-trends-in-adult-obesity> (accessed November 2017).
37. Mintel (2015) Healthy Lifestyles – UK – November 2015. <http://academic.mintel.com/display/716238/> (accessed September 2016).
38. Spencer B (2016) The big fat cancer curse: scientists link obesity to thirteen types of disease including ovaries, stomach and liver. *Mail Online*, 24 August 2016. <http://www.dailymail.co.uk/health/article-3756698/The-big-fat-cancer-curse-Scientists-link-obesity-THIRTEEN-types-disease-including-ovaries-stomach-liver.html> (accessed October 2017).
39. Aspinall A (2013) Generation XXXL: child obesity 'time-bomb' warning with one girl aged 10 weighing 22 stone. *Mirror*, 30 December 2013. <http://www.mirror.co.uk/news/uk-news/child-obesity-timebomb-warning-parents-2971931> (accessed October 2017).
40. Holehouse M (2015) Cost of obesity, drug abuse and alcoholism to be revealed. *The Telegraph*, 28 July 2015. <http://www.telegraph.co.uk/news/health/news/11769531/Cost-of-obesity-drug-abuse-and-alcoholism-to-be-revealed.html> (accessed October 2017).
41. Royal Society of Public Health (2015) Tackling the UK's childhood obesity epidemic. <https://www.rsph.org.uk/our-work/policy/supporting-health-across-all-ages/childhood-obesity.html> (accessed November 2017).
42. Public Health England (2017) Patterns and trends in childhood obesity. <https://www.slideshare.net/PublicHealthEngland/patterns-and-trends-in-child-obesity-june-2017> (accessed November 2017).
43. Sallis A, Tan K, Vlaev I *et al.* (2016) The impact of an enhanced NCMP feedback letter on uptake of weight management services for overweight children: a cluster RCT. Presented at *Public Health England Annual Conference*, University of Warwick, Warwick, UK, 13–14 September 2016.
44. Barbour R & Kitzinger J (1998) *Developing Focus Group Research*. London: SAGE Publications Ltd.
45. Barbour R (2007) *Doing Focus Groups*. London: SAGE Publications Ltd.
46. Clarke J, Griffen T, Lancashire E *et al.* (2015) Parent and child perceptions of school-based obesity prevention in England: a qualitative study. *BMC Public Health* **15**, 1224.