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RESEARCH ARTICLE

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Children's perspectives and experiences of health, diet, physical activity and weight in an urban, multi-ethnic UK population: A qualitative study

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Abstract

Background: Children from Black and South Asian ethnic groups are at risk for childhood obesity in the United Kingdom. To inform local action for childhood obesity prevention, it is crucial to explore the basis of ethnic disparities and consider the perspectives of children. This study aimed to understand cultural and contextual factors influencing childhood obesity in an ethnically diverse population using child-centred methodology.

Methods: 'Draw, write and tell' interviews were held with children aged 9–10 years in Coventry, an urban, multi-ethnic city in the United Kingdom. Data were analysed thematically using framework analysis.

Results: Twenty-six children participated (85% from Black or minority ethnic groups). Children's perspectives revealed universal themes around health, diet, physical activity and weight and highlighted issues specific to ethnic groups and those living in deprived areas. An underlying feature was weight-based stigmatization and group stereotyping, and an emphasis on internal factors as the cause of obesity. Children described some experiences of social disadvantage but did not regard these as a barrier to being physically active. Children identified cultural or religious practices or experiences of migration that influenced diet and physical activity.

Conclusions: These findings allow a broad range of children's perspectives to inform future intervention design. In addition, the study was able to identify the many similarities and small amount of diversity in children's perspectives across ethnic groups.

KEYWORDS

eating, health beliefs, obesity, physical activity, qualitative, child public health

1 | INTRODUCTION

Observational studies have highlighted the presence of ethnic disparities in childhood obesity in the United Kingdom, with children from Black, Pakistani and Bangladeshi ethnic groups at

high risk, particularly in later childhood (Health and Social Care Information Centre, 2014; Murphy, 2018). An inverse relationship between socio-economic status (SES) and childhood obesity is also well documented (Barriuso et al., 2015). Potential mechanisms underpinning ethnic disparities in childhood obesity range from

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genetic and physiological mechanisms, to socio-economic and structural barriers and facilitators, and factors associated with migration such as stress and acculturation (Murphy et al., 2017). Few studies have explored the influence of parental migration status upon child adiposity in the United Kingdom, but there is some evidence that having a foreign-born mother explains some of the higher adiposity observed in children from Black ethnic groups (Martinson et al., 2015). In order to develop appropriate preventative services, local community-specific characteristics and contexts need to be understood. Qualitative approaches provide a means for exploring cultural and contextual influences upon food and physical activity behaviours, and beliefs related to body weight.

A recent systematic review of the qualitative literature found studies exploring the views of those from ethnic minority communities on childhood weight to be lacking the 'child's voice' (Chatham & Mixer, 2019). An earlier review on the perspectives of children towards body weight found methodological weaknesses in the included studies, for example, lacking features that privilege children's own framing of issues around obesity; giving little consideration to the role of ethnicity in sampling and analysis; and having a bias in sampling towards children from high socio-economic groups (Rees et al., 2009). To address ethnic and socio-economic inequalities in childhood obesity, it is imperative to understand the experiences of children from these high-risk groups.

Researchers have aimed to fill this gap in the evidence (Eyre et al., 2015; Rawlins et al., 2013). However, these studies were limited by use of focus groups and traditional interviews that do not fully account for the unique challenges of research with children (i.e., risk of group conformity, sensitive topics, wide-varying linguistic abilities and power imbalance). Child-centred approaches attempt to address these concerns.

The aim of the current study was to identify the cultural and contextual factors that influence childhood weight status in Coventry, England, through an exploration of child perspectives and experiences around health, diet, physical activity and weight.

2 | METHODS

2.1 | Study design

This study was undertaken within a multicomponent mixed methods study (Murphy, 2018). The first, quantitative phase sought to understand ethnic inequalities in obesity in primary school-aged children in Coventry, a large ethnically diverse city in the West Midlands of England, where deprivation is higher than the national average, and the proportion of school children from minority ethnic groups is 48% (Coventry City Council, 2018). The current qualitative study was conducted alongside another qualitative study to understand parents' perspectives and experiences of health, diet, physical activity and weight, with data analysed separately due to variation in study design (e.g., sampling approach and data collection methods).

Key messages

- Emphasizing the benefits of healthy behaviours for mental well-being is likely to be a motivating message for this age group, but messaging should be sensitive to avoiding the moralization of such behaviours.
- Incorporating peer-support components into 'healthy lifestyle' interventions may help to reduce the stigmatization of the overweight/obese body and provide moral support for children.
- Qualitative research with parents should be considered if seeking to culturally tailor healthy lifestyle interventions in ethnically diverse populations.

2.2 | Sampling, recruitment and consent

Children aged 9–10 years were recruited through primary schools in Coventry, aiming for a sample size of 20 children. The sampling frame was designed to achieve an ethnically diverse sample, with high proportions of the largest minority ethnic groups in Coventry. Schools with a high total proportion of children from Black and minority ethnic (BME) groups (>Coventry average) and/or a high proportion of children having free school meals (FSM) (>Coventry average), based on school census data from the Local Authority, were targeted for recruitment. Of the 85 state primary schools in the academic year 2015/2016, 16 schools were invited to take part. In participating schools, all children in Year 5 (aged 9–10 years) were provided with child-friendly participant information packs informing them that a researcher (M. M.) was interested in their views on health but that they did not have to take part if they did not wish to. In schools with a high response rate, additional sampling was applied at the child level by prioritizing children from BME groups. Once children from these groups had been interviewed, children were interviewed sequentially in order of response forms received.

The researcher (M. M.) visited the school classes involved prior to the distribution of packs to explain the research in child-friendly terms and build familiarity with the potential participants. Written parental consent and verbal child assent were required. Prior to commencing the interview, children were provided with some options and phrases for ceasing the interview if they chose, and the digital recorder was demonstrated to the child, with the participant being invited to start and stop the interview by pressing the appropriate buttons. The interviewer (M. M.) checked participant understanding using two questions, adapted from Hensel et al. (2002): 'What will I be talking to you about today?' and 'what should you do if you don't want to talk to me anymore?'. This provided the opportunity to assess the participant's comprehension, with clarifications being given where children were unclear.

Parental information packs and topic guides were reviewed by a Patient and Public Involvement representative for the National Institute for Health Research (NIHR), and the pupil information packs and

data collection methods were piloted with four children from a school in Birmingham. These were subsequently adapted according to feedback and the researcher's reflections.

2.3 | Data collection

Child postcode and ethnicity (based on census categories) were collected through parental questionnaire. Child age and migration background were collected through an interview-administered questionnaire with children, using the Ethnic Background Indicators tool from the Health Behaviours in Schools-aged Children study (HBSC-EBI), validated for use in 11-year-old children (Nordahl et al., 2011).

Child perspectives were gathered through a 'draw, write and tell' technique (Angell et al., 2014) within a semi-structured one-to-one interview. This was selected as an engaging, participatory, familiar and non-threatening method of data collection providing a structured way for children to gently recall experiences and construct cognitively complex ideas, enhancing communication between researcher and child and supporting meaning-making. Children were first asked to draw a picture of a healthy child and then an unhealthy child. These images were then used as a launch pad for discussing children's views on health through the opening question 'can you tell me about your picture?'. The topic guide prompted the researcher to ask additional questions on diet, physical activity and weight when they were not raised spontaneously in the discussion. Children were advised that they could write on the paper and that they did not have to draw a picture or write if they did not wish to.

Interviews were conducted in a quiet and relatively private space (e.g., meeting room or community room) within the school during the school day or during breakfast club (before school). All interviews were conducted in English, and one child with limited English was supported by a class friend who provided translation when needed (with the agreement of both children). Drawn images, written text and discourse were captured as data. Field notes were taken to note emerging themes and challenges arising. Interviews were recorded on an audio digital recorder and fully transcribed verbatim through an external transcription service and reviewed by the researcher for accuracy and to develop familiarity.

2.4 | Data analysis

Data were analysed in NVivo v11 using a framework approach, based on the process detailed by Gale et al. (2013). Exploratory free-coding of a sample of transcripts was undertaken by one researcher (M. M.). The authors met to review codes and agree a coding framework. Once the framework was agreed, transcripts were systematically coded using this *a priori* framework (M. M.). Drawn images and written text were coded concurrently with the transcripts. There remained scope to add new codes that arose

from the remaining transcripts. Next, data were abstracted into a case-code matrix to support the identification and development of emerging themes. These emerging themes were studied and refined into final 'interpretative themes' that went beyond descriptive analysis by seeking possible explanations for what was happening within the data. The existing literature has been critiqued for a lack of attention to the roles of ethnicity and SES in the analysis of qualitative data. As such, we specifically set out to explore these factors, initially through interrogating the data for emerging themes relating to these *a priori* concepts and then through further organizing the case-code matrix into aggregated ethnic groupings and parental migration status (parents born abroad vs. parents born in the United Kingdom) to explore any diversity in perspectives. ID numbers have been assigned to verbatim quotes in the text below, enabling cross-referencing with the sociodemographic characteristics of each participant detailed in Table 2. Quotes that exemplify each sub-theme are provided in tables, whereas further quotes that reflect nuances in children's views and language are provided in the body of the text. Children's drawn images are also provided to illustrate the content of themes.

2.5 | Ethics statement

Ethical approval for the study was granted by the University of Warwick Biomedical Sciences Research Ethics Committee in March 2016 (REGO-2016-1760). Written parental consent and verbal child assent were obtained for all participants in the study.

3 | RESULTS

3.1 | Sample description

Six schools out of 16 invited agreed to participate, with children successfully recruited from three of these schools. Demographic characteristics relating to the proportion of children from BME groups and taking FSM, and recruitment numbers for these schools are summarized in Table 1.

Participant characteristics are provided in Table 2. Ethnicity is provided based on census categories. Where the parents of participants selected 'other', they were asked to specify their child's ethnic group in a free text box, and this self-description is detailed where provided.

An ethnically diverse sample was achieved with 85% ($n = 22$) of children from non-White British backgrounds. All children interviewed lived in lower super output areas (LSOAs) of high deprivation, the majority of which (69%; $n = 18$) were in the top quintile for Index of Multiple Deprivation (IMD) in the United Kingdom. Most children interviewed were UK born (77%; $n = 20$), but the majority had at least one parent born outside of the United Kingdom (77%; $n = 20$). A higher proportion of girls were interviewed (58%; $n = 15$). The mean duration of interviews was 31 min (range: 14–59 min).

School ID	BME pupils (%)	FSM (%)	Packs distributed (n)	Interviews completed (n)
1	66	43	60	9
2	90	31	60	5
3	86	31	90	12
Total				26

TABLE 1 Characteristics of participating schools

Abbreviations: BME, Black and minority ethnicity; FSM, free school meals.

TABLE 2 Participant characteristics

ID	Ethnicity	Boy/girl	Age	Deprivation decile (10 = highest deprivation decile)	Child migration status	Parental migration status
ID1	Black African	Girl	10	10	UK born	Both UK born
ID2	White European	Girl	9	10	UK born	Both parents non-UK born
ID3	Black African	Girl	10	10	Non-UK born	Both parents non-UK born
ID4	White European	Boy	10	10	Non-UK born	Both parents non-UK born
ID5	White British	Boy	10	Not provided	UK born	Both UK born
ID6	Other: 'British Pakistani'	Girl	10	10	UK born	One parent UK born
ID7	Asian Indian	Boy	10	9	UK born	Both parents non-UK born
ID8	Arab	Boy	10	10	UK born	Both parents non-UK born
ID9	White British	Girl	10	10	UK born	Both UK born
ID10	Black African	Girl	10	10	UK born	Both parents non-UK born
ID11	White European	Boy	10	10	Non-UK born	One parent UK born
ID12	Other: 'Afghan'	Girl	10	8	Non-UK born	Not provided
ID13	Asian Indian	Girl	9	10	UK born	One parent UK born
ID14	Black African	Boy	10	8	UK born	Both parents non-UK born
ID15	Asian Bangladeshi	Girl	10	10	UK born	Both parents non-UK born
ID16	Other: 'Black African and Arab'	Boy	10	10	UK born	Both parents non-UK born
ID17	Arab	Boy	10	8	UK born	One parent UK born
ID18	White British	Girl	10	9	UK born	Both UK born
ID19	Other: 'Afghan'	Girl	10	9	Non-UK born	Both parents non-UK born
ID20	Asian Bangladeshi	Girl	10	10	UK born	Both parents non-UK born
ID21	Other: 'Kurdish'	Girl	10	10	UK born	Both parents non-UK born
ID22	White British	Girl	10	10	UK born	Both UK born
ID23	Asian Indian	Boy	10	8	UK born	One parent UK born
ID24	Other: 'White British and Asian Indian'	Girl	10	10	UK born	One parent UK born
ID25	Other: 'Iranian'	Boy	10	10	Non-UK born	Both parents non-UK born
ID26	Asian Bangladeshi	Boy	10	10	UK born	Both parents non-UK born

3.2 | Interpretative themes

Five sub-themes were identified and grouped into three broader 'universal themes': (1) conceptualizations of the 'healthy ideal'; (2) otherization of obesity; and (3) spheres of influence upon health behaviours. A summary of universal themes and sub-themes with example quotes is provided in Table 3.

3.2.1 | Universal Theme 1: Conceptualizations of the 'healthy ideal'

Sub-theme 1: Health and happiness are intrinsically linked

For children, health and happiness were viewed as intrinsically linked and operated bidirectionally; that is, being healthy makes you happy; and being happy makes you healthy. The converse was also that unhealthy or overweight children were viewed as unhappy; for example, 'they're really sad because they're fat' (ID3). Happiness was seen to drive health behaviours by providing a sense of positivity and enthusiasm, which made healthy behaviours easier.

Sub-theme 2: Conceptualizations of physical activity drive the barriers identified

Being outdoors was viewed as essential for achieving high levels of physical activity. Conversely, sedentary activities were linked to indoor time (especially the home) and use of technology, and there was a view that unhealthy children have a preference for being indoors. Children appeared personally restricted in physical activity by bad weather and experiences or concerns around safety in public spaces. These barriers appeared to relate to the idea that children viewed physical activity as an outdoor pursuit.

3.2.2 | Universal Theme 2: Otherization of obesity

Sub-theme 3: Extreme views of obesity allowed children to distance themselves from obesity

Children had extreme views of overweight, often viewing it as extreme fatness, bigness or morbid obesity. It was generally accepted that overweight children would be ridiculed by others, particularly at school, and this ridicule related to both physical appearance and personal attributes that people assigned to children who were

TABLE 3 Universal themes and example quotes

Themes	Example quotes
Universal Theme 1: Conceptualizations of the 'healthy ideal'	
Sub-theme 1: Health and happiness are intrinsically linked	'Vegetables and fruit have got loads of like good ingredients that when you eat it like, it makes you feel good about yourself.' (ID9) '... when you do not exercise the happy chemicals do not get released so you will not be a really happy person.' (ID6) 'If you are sad it's really hard to get fit Because you are not in the mood to do anything because you are so angry and frustrated at everyone else, you are like no I'm never going to do it.' (ID3)
Sub-theme 2: Conceptualizations of physical activity drive the barriers identified	'He [the unhealthy child] ... does not like going outside, he likes staying inside.' (ID15) 'When it's raining, I will just sit down and watch TV. When it's shiny [sunny] I will go outside, ride my bike, calling friends outside to play.' (ID4)
Universal Theme 2: Otherization of obesity	
Sub-theme 3: Extreme views of obesity allowed children to distance themselves from obesity	'He [the unhealthy child] do not like nothing because he's too big, he cannot sit nowhere, he has to sit on the floor. He's bored, coz got no friends ... he cannot get anywhere because he's too fat, so he has to go in his taxi car and things.' (ID1)
Sub-theme 5: Viewed health as a choice and attributed personal values on the basis of health	'He [the unhealthy child] wishes he was fit but obviously he cannot be bothered to. That's it.' (ID5) '... you have to sometimes think that you like something but you have got to make the right choice and pick something that's a bit healthier.' (ID11) '... when you are not very healthy you are like not very kind and when you are really healthy you are very kind.' (ID18)
Universal Theme 3: Spheres of influence upon health behaviours	
Sub-theme 5: Parents, friends and school as key influencers	'When my mum tells me what ... I ask her, what do we eat, and then she tells me She tells me what benefits it has inside, and how much calories, and how good it is.' (ID16) 'She [my friend] was the one who helped me because I told to her to like put a bit more weight on but she told me to lose a lot of weight and I've done it.' (ID9) 'Well, they [the school] do not just like say, "oh this person needs to this to be healthy," they give the same information to everybody, so not just them, because then that's just like a bit mean like you are like picking on somebody.' (ID24)

overweight (see Sub-theme 5). This is further demonstrated in one child's drawing of an 'unhealthy child' in Figure 1, describing his picture as follows:

He's a very fat person and he likes to eat pizza, burgers, chocolate, chips, coke, every day, he loves to have a packet of crisps every day, which does not ... which is not bad for him. He's getting ... he's oversize and he's really fat. And at school people make fun of him and he ... and he thinks his hero is Homer Simpson. (ID7)

Children's conceptions of obesity allowed children to distance obesity from their own experiences and interactions—as something that is uncommon or unfamiliar (despite four children describing concerns about being overweight).

Sub-theme 4: Viewed health as a choice and attributed personal values on the basis of health

Children felt in charge of their own health and apportioned blame to individuals for poor health 'choices', that is, that unhealthy choices are a result of a lack of will power or effort, stubbornness or disinterest. Healthy children were thought of as having positive, valued characteristics, for example, nice, likeable, kind, clever, determined, hardworking, positive and popular. Some children took this one step further, considering the healthy child as virtuous; for example, the healthy child was thought to be a 'better' person (ID16), doing 'the right thing' (ID9) and being 'an aspiration to other people' (ID9). On the other hand, unhealthy and overweight children were thought to have negative, less valued characteristics, for example, unkind, uncaring, bad, lazy, sad, angry, stubborn and unpopular (see Figure 2). It was generally accepted that the unhealthy and overweight child would be stigmatized by others. Few children

empathized with the unhealthy child, viewing children's unhealthy behaviours as akin to character flaws. However, one girl (ID3), who had previously described herself as 'a bit overweight', associated feelings of shame with the overweight body and empathized that these feelings would cause the overweight child to be too sad to be capable of losing weight. This child's beliefs suggest that children have the capacity to challenge stigma and that personal experience was key to this.

It's hard for a fat child to get healthy because they are scared that everyone will be like, ha, ha, ha, look he's so fat and your belly jiggles and your legs jiggle, and you might feel really ashamed of your body and then it's really hard. (ID3)

3.2.3 | Universal Theme 3: Spheres of influence upon health behaviours

Sub-theme 5: Parents, friends and school as key influencers

Parents appeared to have a key role in helping children stay healthy, for example, preparing healthy food (e.g., 'my mum gives me all the time some fruit, like apples, bananas' [ID2]) and role modelling (e.g., 'when I'm trying to be healthy I go with my mum ... to gym' [ID19]). Friendships made it easier to stay healthy, as friends encourage a healthy diet, act as role models and provide opportunities for play. Schools were largely viewed as positive, enabling, healthful environments, providing a means to accessing friends, opportunities for play and a network where children inspire one another. An additional benefit of the school approach described by children was that it was universal and did not target ('pick on') specific children, reducing opportunities for stigmatization.

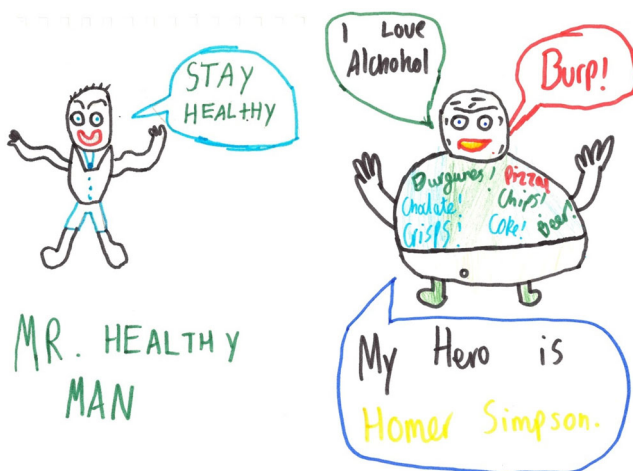


FIGURE 1 Drawing of a healthy child and unhealthy child by participant ID7. This boy drew a healthy child (left) as positive, with a medal around his neck and muscly arms, whereas the drawing of the unhealthy child (right) was very large and referenced the cartoon character Homer Simpson

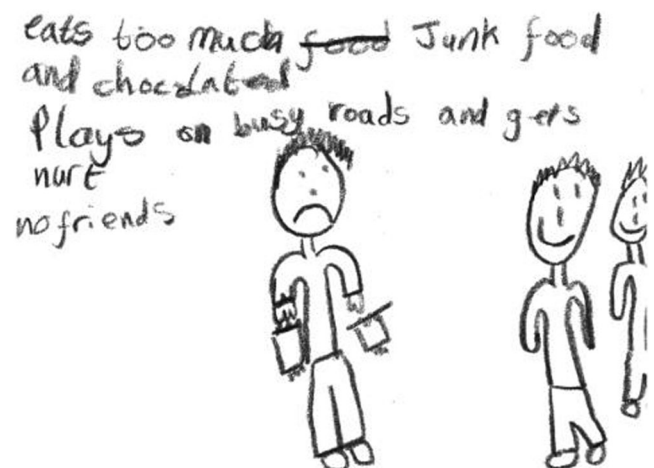


FIGURE 2 Drawing of an unhealthy child by participant ID26. This boy drew an unhealthy child as unpopular (having 'no friends'). The text reads 'eats too much junk food and chocolate Plays on busy roads and gets hurt No friends'

3.3 | Influence of ethnicity and SES upon beliefs

When exploring themes relating to the *a priori* concepts of SES and ethnicity, three additional sub-themes were identified. The sub-themes and example quotes are provided in Table 4, with counts provided to indicate the number of children referring to each concept.

3.3.1 | Sub-theme 6: Socio-economic circumstances and neighbourhood deprivation

References to the influence of socio-economic circumstances generally came from occasional mentions of the home environment (e.g., living in a block of flats) and material disadvantage (e.g., not owning a car), which were both seen as *enabling* physical activity. Some implicit references to neighbourhood deprivation were made

TABLE 4 Beliefs and influences relating to socio-economic status and ethnicity and example quotes

Sub-theme	Example quotes
Sub-theme 6: Influences of socio-economic circumstances and neighbourhood deprivation	<p>'Having a bike and living in a flat [helps me to be healthy], because it means you have a big area which means ... and it's always empty so you can always ride play.' (ID21)</p> <p>'There is not any leisure centres for him [the unhealthy child]. There is not any parks, nothing. He's all ... it's very messy as well and there's nothing there.' (ID7)</p>
Sub-theme 7: Traditional food practices and experiences of migration	<p>'I always eat my mum's food. And my country's food, I always eat—it has lots of carbohydrates and protein in it. We have rice, meat, that sort of thing.' (ID14)</p> <p>ID25: 'Every Irani is eating rice.'</p> <p>Interviewer: 'And is that good or bad?'</p> <p>ID25: 'Bad.'</p> <p>Interviewer: 'Why do you think it's bad?'</p> <p>ID25: 'Oil. That's Irani's habit.'</p>
Sub-theme 8: The influence of religious practices upon diet and physical activity behaviours	<p>'I'm waiting for Eid and mum's going to give me anything I want.' (ID3)</p> <p>'When I'm fasting at Ramadan, I really want to eat something bad.' (ID16)</p> <p>'... sometimes we go to the mosque and then when we come back we have three hours until it's bedtime. But I always spend this time drawing, enjoying TV ... playing games and stuff ... sitting down and having a rest.' (ID19)</p>

(e.g., descriptions of crime and safety concerns; quality of the local environment; and the number of takeaways on the high street), which were viewed as negatively influencing health behaviours. Overall, despite exploring SES as an *a priori* concept, it did not emerge as a substantial issue in the experiences described by children.

3.3.2 | Sub-theme 7: Traditional food practices and experiences of migration

A small number of children identified with cultural food practices from other countries, using phrases such as 'my country's food' (ID14: UK-born child with Black African ethnicity) and 'In my country ...' (ID25: child born abroad of Iranian ethnicity). Of the three children that discussed traditional or faith-based food practices, one child appeared to give higher status to traditional foods (ID14), whereas another child gave low status to his traditional cuisine (ID25). The third child referencing traditional foods mentioned his eating of Indian sweets as an unhealthy behaviour (ID7). A small number of children were first-generation migrants ($n = 6$); however, only one child discussed experiences in their native country, drawing contrasts between the United Kingdom and his country of origin. For this child, migration to the United Kingdom provided greater access to a healthy lifestyle, enabling a positive change in health behaviours.

3.3.3 | Sub-theme 8: The influence of religious practices upon diet and physical activity behaviours

Although three children described specific cultural or religious celebrations or commitments related to food and use of time, these children did not express that these factors influenced their health behaviours. Two children talked about specific foods eaten during Eid celebrations, and these foods were a combination of items typically viewed as healthy (e.g., fruit) and unhealthy (e.g., fizzy drinks). However, it was apparent from children's data that Eid was a period of relative permissiveness in relation to food (e.g., 'I'm waiting for Eid and mum's going to give me anything I want' [ID3]) and that hunger related to fasting resulted in increased desires for unhealthy food (e.g., 'When I'm fasting at Ramadan, I really want to eat something bad' [ID16]). Commitment to attending mosque in the evenings appeared to influence the choice of activities in the after-school period for one child (i.e., the time following return from mosque was spent in sedentary activities 'having a rest' [ID19]).

4 | DISCUSSION

Through the privileging of children's perspectives, this research has identified new insights regarding both universal and ethnic group-specific influences. The current study adds to an understanding of the role of happiness in children's conceptualizations of the 'healthy ideal', proposing that children understand the 'happiness' component

of their definitions of health to operate bidirectionally as both a motivation for driving healthy behaviours and a resource for enabling healthy behaviours.

The current study found weight-based stigmatization and group stereotyping, and an emphasis on internal factors as the fundamental cause of obesity (i.e., fundamental attribution error), to be common place in children, and this appeared to form the basis for how children framed health conceptually. Similar findings have been identified by other qualitative researchers (Rees et al., 2009; Trigwell, 2011); however, the current study suggests that these negative value judgements are a result of the ways in which children moralized health as 'right' or 'good' and poor health as 'wrong'.

Other researchers have found fundamental attribution error over the causes of obesity to be common in adults (Sikorski et al., 2011), and the current study goes further to show that these views also predominate in children's beliefs. This may be a result of children simply reflecting/reinforcing the beliefs of adults (and society) around them. On the other hand, it may be that well-intended messages promoting the benefits and attainability of healthy lifestyle behaviours for optimal health, weight and happiness may inadvertently reinforce a contrasting view that those who do not fit this ideal have in some way 'failed'. This failure is seen to justify stigma and ridicule relating to weight status.

The findings also suggest that the negative value judgements assigned to overweight status were permitted by a distancing of childhood obesity from children's own lives and the 'otherization' of obesity. This was driven by children's unrealistic perceptions of the 'obese body' and the deflection of the reality of how overweight and obesity appear in the general population (or even in the children themselves). This creates a difficult scenario for those working with children. The distancing of the 'obese' body is, in some ways, potentially protective against the development of pre-occupation with one's weight/body dissatisfaction and the negative effects this brings (Neumark-Sztainer et al., 2006). On the other hand, this distancing may enable greater stigmatization of others, the result of which is often social marginalization or diminished social capital (Strauss & Pollack, 2003), which may further restrict the child's ability to undertake healthy behaviours (e.g., playing with friends). The finding that stigma is both a product of and a driver of the issue has also been found in relation to depression (Boardman et al., 2011), in which the authors propose consideration of how stigma interacts with coping strategies and resilience during treatment.

A surprising finding was how children perceived aspects of their socio-economic circumstances typically viewed as barriers to physical activity (i.e., living in a flat and not having access to a motor vehicle) as enablers. This is a novel finding in children, with other research reporting only barriers related to children's socio-economic circumstances. The novelty of this finding may be because the current study sought the perspectives of children directly and recruited exclusively from deprived neighbourhoods, whereas other studies seeking to understand the role of SES upon weight-related behaviours have tended to come from researcher observations or comparative

approaches rather than verbalized by children themselves (Backett-Milburn et al., 2003; Eyre et al., 2015; Irwin et al., 2007; Lofink, 2012; Pearce et al., 2009). This surprising finding also contradicts research with parents, who view living in flats and not owning a motor vehicle as barriers to physical activity (Trigwell et al., 2015)—suggesting that children's lived experiences of these familial circumstances may be quite different to those of parents.

In the current study, children identified very few barriers or facilitators to achieving a healthy weight relating to their ethnicity, religion, country of origin/parental country of origin or experiences of migration. This is surprising because it contrasts with research with parents, who highlight many ethnicity-specific influences upon diet and physical activity behaviours and perspectives towards weight than children (Cross-Bardell et al., 2015; Eyre et al., 2015; Pallan et al., 2012; Rawlins et al., 2013; Syrad et al., 2014; Trigwell et al., 2014; Trigwell et al., 2015). It may be the case that in early childhood, culturally linked experiences related to ethnicity do not generally manifest—perhaps children do not recognize these as cultural behaviours or do not register them as important enough to mention in discussion.

4.1 | Strengths and limitations

The use of a draw, write and tell technique allowed the child participants greater freedom and control to highlight issues with salience for them, achieving a potentially more valid understanding of their meanings described in their own ways and words (Noonan et al., 2016). The study makes a significant contribution to the gap in the existing literature highlighted by Rees et al. (2009) by privileging children's views via child-led methods.

Studies of children's perspectives have been criticized in the past for their inattention to sampling and analysis, especially relating to ethnicity and SES (Rees et al., 2009; Thomas et al., 2003). This study aimed to focus on ethnicity and socio-economic circumstances *a priori*, thus incorporating these factors from the outset. However, although an ethnically diverse sample was achieved (85% from non-White British backgrounds), a number of key ethnic groups in the local population remained unrepresented in the sample, including those from Black Caribbean, Chinese, mixed and Pakistani backgrounds. Participation of children from these groups may have changed the nature of the findings.

No data on weight status were collected, so it was not possible to assess if the sample included both healthy weight and overweight or obese children. This also prohibited the ability to consider how a child's weight status may have influenced their perspectives. However, the decision not to measure weight status was deliberate, as it was felt that this would be an additional barrier to recruitment and in particular may have discouraged overweight or obese children from taking part.

Another limitation is the low response rates achieved from both schools and child participants. Reasons for non-participation from school leaders centred on a lack of time. There may also have been

a participation bias in the findings favouring schools (and children attending schools) that take an active interest in health and well-being.

As a qualitative study, it is important to consider the constructed nature of the findings within the context of the personal characteristics of the researchers. In this case, the first author (M. M.) conducted all interviews and coding. In particular, as M. M. is of White British ethnicity, children may have been less forthcoming about specific behaviours or traditions relating to their ethnicity if they were of a different ethnicity (Adamson & Donovan, 2002), and this could also have resulted in a failure of the researcher to pick up on some important elements related to ethnicity because of a position as an 'outsider' (Ochieng, 2010).

4.2 | Implications

This research provides an insight into the salient issues for achieving a healthy weight for primary school-aged children living in deprived areas in Coventry and so provides the basis for developing community-centred preventative services that take children's perspectives into account, for example, providing strategies for being more physically active *within* the home. Emphasizing the benefits of a healthy weight and healthy behaviours for mental well-being is likely to be a motivating message for this age group, and programmes that improve mental well-being may help children build the personal capacity for achieving behavioural changes. Messages that include a 'peer-support' component may help to counter the social marginalization of those with unhealthy behaviours. This should be supported by messages that discourage weight-based bullying and educational components that counter the prevailing idea of the overweight child as a morbidly obese, ridiculed figure. All such messages should sensitively consider the way in which a healthy weight is portrayed and personified to avoid the unintended consequence of reinforcing unhelpful weight-based stereotyping and stigmatization.

There appeared to be little diversity in children's perspectives and experiences across ethnic groups, so support for the cultural tailoring of intervention messages and components (Liu et al., 2012) is lacking in the current findings. However, the potential influence of culture upon children's obesity-related behaviours should not be dismissed on this basis, because parental perspectives are also important to consider. The literature suggests that ethnicity is an important factor in parental perceptions of a healthy weight and parental beliefs and experiences relating to a healthy diet and physical activity; hence, local intervention development should also be informed by qualitative research with parents.

Recommendations for future research include incorporating faith and weight status into qualitative sampling frames, in order to explore how these important factors interact with ethnicity to influence childhood adiposity. Additional public involvement, considering the ethnic diversity of public representatives and incorporating school leaders, may support recruitment and interpretation of data.

5 | CONCLUSIONS

This study has contributed to the evidence base by exploring children's perspectives on health, diet, physical activity and weight in an ethnically diverse, deprived population, using methods that privilege children's views. The findings are valuable in allowing children's views to inform the design of future childhood health promotion initiatives, suggesting that obesity prevention and weight management interventions would benefit from focusing on the existing assets that children describe, such as friendships, and emphasizing health benefits framed by child-based motivations, for example, happiness and mental well-being. In addition, the study was able to identify the many similarities and the small amount of diversity in children's perspectives and experiences across ethnic groups, filling a gap in the literature and contrasting with some of the existing literature.

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AUTHOR CONTRIBUTIONS

All authors contributed to the study design. M. M. undertook all data collection. All authors were involved in analysis and interpretation. All authors reviewed the manuscript.

CONFLICT OF INTERESTS

None declared.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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