*Introduction*

The incidence of obesity is rapidly increasing in the United Kingdom (1) , leading to the UK Government implementing the National Child Measurement Programme (NCMP) in 2006. The NCMP measures the height and weight of all children in their first year of primary (elementary) school (Reception; age 4-5) and their final year (Year 6; age 10-11), providing a large bank of data regarding childhood obesity rates across England. Figures from the most recent report show that the percentage of children with obesity ~~being classified as obese~~ upon leaving primary school (20.1%) is over double those starting primary school (9.5%) (2).

In response to the results of the NCMP, a number of local and national childhood obesity programmes have been developed for those children with obesity. Although family-based interventions targeting childhood obesity have been found to be effective in reducing children’s body mass index (BMI) (3), the challenge is often how to recruit families to these programmes in the first place (4). Through gaining a better understanding of reasons why families decline invitations to attend childhood obesity management programmes, methods for improving levels of recruitment can be developed, leading to higher levels of attendance, and improving the programme’s reach.

This study takes a qualitative approach to examine the decision *not* to attend a family-based childhood obesity management programme implemented in a deprived area of North West England, where levels of childhood obesity are worse than the national average for England (1). Children are offered a place on the programme if their weight is identified as overweight/obese through the NCMP. The programme has a focus on weight management (rather than losing weight), and involves a range of activities including sports, cooking, and lifestyle advice. The study is novel in that two groups of non-attenders were compared: those who decided not to start the programme, and those who disengaged with the programme after one or two sessions.

**Methods**

Participants

All families (n=23) who were potential service users of a family-based childhood obesity programme, but had declined to engage with the service and therefore eligible for the purpose of this study, were approached to take part in an interview to investigate the underlying reasons regarding their lack of attendance.

Materials

A semi-structured interview schedule was used which contained 22 items and several potential prompts for the researcher to use. Fourteen of these were parent-specific items, the remaining eight items were child-specific. All interviews were audio-recorded.

Procedure

After ethical approval was received, twenty-three potential families were identified and approached by the NHS obesity programme team who passed on their contact details to the University researcher. Participants were then directly contacted and recruited to the study by the researcher via telephone to organize a suitable interview time. Ten families agreed to take part and were interviewed in their own homes. Once written consent was obtained, the recording device was turned on and the interview was started. Families were asked in detail about the program, including gaining their thoughts and feelings of the service, how they heard about it, the positive and negative outcomes of attendance and any barriers towards attending (mean time of interviews was 33.52 minutes). ~~all families who had declined the programme during the recruitment period were identified and sent information letters. Once written consent was obtained, interviews were arranged and conducted in families’ homes.~~ Post-interview, all families were debriefed and given a £10 voucher.

All participants were made aware that their interview responses were anonymous, and that pseudonyms would be used. Procedures were in accordance with the ethical standards of the British Psychological Society’s Code of Human Research Ethics.

**Analysis**

An inductive thematic analysis of the interviews was conducted independently by Authors One and Two. Following Braun and Clarke’s guidance(5), the data set was reviewed systematically by each researcher, and initial codes were generated, with notes written next to the text to highlight patterns. Once all data had been coded, the different codes were analysed and sorted into possible sub-themes and overall themes. The themes were then refined, ensuring that data within each theme were coherent and meaningful. A realist approach was taken. Independent findings were then corroborated through discussion by the researchers to finalize and confirm the themes.

**Results**

Ten families chose to take part in ~~took part~~ in the study. Upon analysis of the data, two distinct subgroups emerged: five families declined to have any involvement with the programme ('no interest' families) and five attended one or two sessions but then declined to continue ('initial interest' families). Themes from both groups of families and how they interlink are described in Figure I. All names reported below are pseudonyms, to maintain anonymity.

**Figure I about here**

‘No Interest’ Families

Six themes were produced from the analysis of the five families who declined to be involved with the programme.

***1.******Communication***

Four of the five parents who declined the programme perceived communication during recruitment to the programme to be poor, including being judgmental and pushy which appeared to negatively impact intentions to join the programme:

*“I felt people were telling me that I wasn’t bringing up Alana in the correct manner”*

[Sarah, Parent 1]

*“They were quite keen to push it onto her as I say, and I don’t really want that”.*

[Jennifer, Parent 2]

***2. Negative Emotional Reactions***

Initial reactions to receiving the NCMP letter communicating the child's weight classification instigated a strong, negative emotional reaction in all parents, with feelings of anger, disgust or shock felt towards the letter:

*“I was disgusted so I got in touch with the school nurse and expressed my anger”;*

[Sarah, Parent 1]

Feelings of anger extended to the child if this information was shared with them by their parents, as expressed by Alana:

*Interviewer: What did you think when you were told about this letter that mummy showed you? What did you think?*

*Child: Well I didn’t actually like it*

*Interviewer: Didn’t actually like it no? How did it make you feel?*

*Child: A bit angry*

[Sarah, Parent & Alana, Child, Family 1]

***3.******“I didn’t think my son was overweight”***

No parents perceived their children to be overweight or obese and justified their beliefs by making comparisons between their children's appearance, weight and activity levels, with those of other children of a similar age:

*“And I think ‘she’s not obese, she’s a normal five-year-old and she keeps up with the other kids’”.*

[Jennifer, Parent 2]

*“I didn’t go on [the programme] because I didn’t think my son was overweight”.*

[Andy, Parent 5]

***4. Programme Not Needed***

Four parents perceived the programme was not needed as it would not benefit them. They felt they had a good knowledge of healthy lifestyles, and some believed their children to already be eating healthily:

*"She eats a lot of fruit and a lot of veg, she’d rather eat that than sweets to be honest, so I didn’t see how that would help*”.

[Rebecca, Parent 4]

***5.******Approach too generic***

Four parents didn't believe the Body Mass Index (BMI) classification was correct for their child as they felt that no-one from the programme had seen their children face-to-face, and did not know their child well enough to make that judgement:

*“Have they met my child in person? Well no. Have you seen her run with the other kids? No. Have you seen her swing off trees and all that? If she was that obese she wouldn’t be able to that”.* [Jennifer, Parent 2]

***6.******“It’s a big worry to a four-year-old”***

All parents were worried about the negative psychological impact that attendance at the obesity programme would have on their child, particularly because they felt that their children were too young to be told they are overweight/obese:

*“The only way he would understand is you’d go “someone thinks you’re a fatty”, that’s the way he would understand it … I don’t think I should have to tell him why he is there because it’s a big worry to a four-year-old”.* [Andy, Parent 5]

*“There’s too many kids with problems and eating disorders and things like that and I don’t want that”.* [Jennifer, Parent 2]

‘Initial Interest’ Families

For the five families who were initially interested in the programme, but then stopped attending, four themes emerged from the thematic analysis.

***1.******Positive perception of programme***

Four of the families predominantly had positive views. Families felt attending was beneficial, and children were excited to attend:

*“She couldn’t wait to go, she was like “Let’s go Mum!” we were made up”.*

[Amy, Parent 7]

*"I thought this is great it will open Evie’s eyes up it will take a little bit of pressure off me from being the only one sort of telling her you know".*

[Louise, Parent 8]

***2. Already changing***

Three families explained their lack of continued attendance at the programme was because they had already made changes to their lifestyles:

*“We are on the right foot and it’s going to get better, she has lost you know, she has lost a bit of weight, she is happier and healthier so it’s all good”.*

[Megan, Parent 6]

***3. Growing into their size***

The notion of the child “growing into their size” emerged from the analysis as a theme, with three parents seeming unconcerned about their child as they will grow into their weight when they grow taller:

*“I know he is going to get taller, so things are going to spread out”.*

[Michelle, Parent 9]

***4***. ***Individual barriers***

In addition, all families mentioned individual barriers to ~~each family’s~~ their attendance at the programme. These included parental pressures, for example one parent felt that attending the program was too much with three children with different priorities and another parent felt that it was too much of a rush from school.

*“Considering it was four o’clock until six o’clock to rush home from school get changed and get over there and the kids are starving straight from school”*

[Louise, Parent 8]

One family felt that it didn’t meet their expectations and one child did not like the group aspect. ~~were described including competing priorities, not meeting expectations, and being in a group environment.~~ Some children didn’t like the programme’s format, for example, Olivia felt much older than the other children:

*“They told us about the activities, but it was little kids’ games that you wouldn’t want to play”.*

[Olivia, Child 7]

**Discussion**

This study aimed to examine the decision *not* to attend a family-based childhood obesity management programme implemented in a deprived area of North West England. The study contributes to the literature by providing a deeper understanding of reasons why groups of participants living in deprived areas disengage with childhood obesity programmes at different points. A key finding across both groups was that when the service was perceived as not needed, the families disengaged with it (see Figure 1). Reasons why the programme was perceived as not needed however, varied for the two groups, for example ~~The perception that the service was not needed was~~ for those families with no interest in the programme, it was related to the ~~perceived appearance of their children: either that~~ perception that their children ~~they~~ were not obese. ~~(“no interest” families)~~ ~~and~~ For those families who had shown initial interest, it was related to the perception that their children were already changing their behaviour or would ~~or that they would~~ “grow into their size~~” (“initial interest” families)~~.

Despite the similarities, there was a fundamental difference between families in the different groups, in that those with initial interest in the programme acknowledged there *was* an issue with their child’s weight, whereas those who had no interest did not. The finding that parents believed that their children were not obese, when objective measurements from the NCMP showed that they ~~clearly~~ were, is a complex issue to deal with. If families do not see their child as having a problem with their weight, they will consequently not see the point of attending such a programme6 . However, it does reflect findings from other studies (7, 8, 9) and could be due to a lack of knowledge or a state of denial – which has been termed by some as “oblivobesity” (10). Particularly interesting from these data, were the reasons parents provided to justify their beliefs. These included that the child was still able to “keep up” with other children [Jennifer, parent 2], and that their child did not “look big” [Andy, parent 5]. The use of downward comparisons for children not being obese reflects findings from other studies(6, 11) and again underlines the importance of communication and understanding of families with overweight children.

~~Themes arising from the “non-interest” families~~ Several of the themes arising from the families who did not engage with the programme at all were related to the impact of the letter that parents received from the NCMP detailing the result of their child being weighed and measured in terms of their BMI at school.~~’s BMI, measured at school.~~ It was apparent that receiving this letter, along with a classification that their child was either '*overweight*' or *'very overweight*', was detrimental to their impressions of the service and their intentions to engage with it, even though the NCMP and the weight management programme are not related. Parents were already upset, and sometimes angered by the letter, and therefore any recruitment efforts by the childhood obesity programme team must overcome this reaction shown by a proportion of families primarily before even starting to discuss recruitment to the service. These emotions reflected parents’ feelings that the letter was being judgmental, pushy and was unexpected. Similarly, previous research has found that such emotional responses may be due to parents feeling they were being judged about their parenting skills9. In summary, ~~it is clear that~~ communication is key; initially regarding the wording of the child’s measurement in the original letter, and later regarding communication about the programme. More successful communication may allow for a better reception to the BMI status of the child and also the acceptability of joining the programme.

Regarding the families who were initially interested in the programme, and then stopped attending, it was encouraging to see that once the family had experience of the programme, they viewed it positively. This finding reflects those from other studies, where children’s positive experiences from attending programmes often lead to continued attendance11. However, individual pragmatic barriers emerged within each of the transcripts which explained their decisions to leave the programme. While this is not ideal, these families did go on to provide details of the changes that they had already made to their lifestyles, suggesting that attending only one or two sessions of the programme had a positive impact. This indicates that the content and impact of the first few sessions is key to a successful programme, but more should be done to retain these families who have dropped out after seeing improvements.

**Conclusions**

The interviews conducted for this study and subsequent thematic analysis ~~have identified reasons behind why some families may declined to engage with a childhood obesity programme,~~ have enabled us to gain a better understanding of reasons why families decide not to attend childhood obesity management programmes. Key among these findings is the importance of initial communication regarding the child’s BMI, and the parents’ perceptions regarding their child’s weight and behaviour. Taking a more personal and tailored approach regarding the initial communication (e.g., if it was sent from a familiar person, or delivered through face-to-face communication rather than a letter) and shifting the focus of the programmes onto healthier lifestyle, rather than weight management, are two strategies which may be successful in improving recruitment in these useful, but often under-used programmes.

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**Declaration of Conflicting Interest**

The authors declare that there is no conflict of interest.

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