The role of health communication in the experiences of families who are invited to attend a community-based childhood obesity programme: Why do some families attend whilst others do not?

Journal:	*European Health Psychology Society*
Manuscript ID:	Draft
Manuscript Type:	Psychology and Health
Keywords:	childhood, obesity, health communication, attendance, qualitative

Abstract

Objectives: Although numerous interventions are in place to attempt to reduce the high prevalence of childhood obesity, uptake and success of these interventions vary. Little previous research has investigated the reasons why families choose to attend (or not attend) recommended interventions; this study has therefore investigated the experiences which influence the decisions to attend or not to attend a childhood obesity programme.

Design: Eleven semi-structured interviews were employed to explore the experiences of families who had been invited onto a childhood obesity programme. Interviews were examined using interpretative phenomenological analysis.

Results: Data were grouped into four themes which highlighted the differences and similarities between attendees and non–attendees. Barriers to attendance included parents either not recognising the condition in their children or not acknowledging its impact on health or wellbeing; parents having anxieties about their own participation in the programme; parents' views on their children's identities and parents believing that they have little control over their environment.

Conclusions: It is suggested that obesity programmes must address preconceived negative perceptions regarding obesity, by carefully considering how the delivery of health information is presented, how it is understood, and how underlying identity may affect motivation to engage in new behaviours.

Key Words: childhood; obesity; health communication; attendance; qualitative

Introduction

Obesity is considered to be a 'lifestyle disease' with many contributing factors including genetic, economic, social, psychological, environmental and cultural elements (Butland et al., 2007). Childhood obesity poses many health risks; research has shown that 58% of children with a body mass index (BMI) above the 95th percentile have hypertension, hyperlipidaemia or insulin resistance and 25% have two or more of these (Allen et al., 2007; Roberts, 2007; Rudolf, 2004). It has also been found to affect psychological wellbeing, especially self-esteem (Dietz & Robinson, 2005). It is reported that most overweight or obese children become overweight or obese adults and it is projected that the current generation of children will have shorter life spans than their parents' generation (Ludwig, 2007; Butland et al., 2007).

Overweight and obesity are stated as 'probably the most widespread threat to health and wellbeing' in England (Department of Health [DoH], 2011a). The annual results of the 2010/11 National Child Measurement Programme found that by 10-11 years old, a third (33.4%) of children in England were classified as either overweight or obese (The National Health Service [NHS] Information Centre, 2011). The UK government recognise that obesity has negative consequences for individuals, local communities, and to the NHS (as direct costs which are estimated at £5bn each year) and has implications to wider society and economic development. The government's ambition is to ascertain 'a sustained downward trend in the level of excess weight in children by 2020' in England (DoH, 2011a).

Evidence suggests that obesity services should combine dietary, physical activity and behavioural elements (Luttikhuis et al., 2009) and interventions should be family based, with the participation of at least one parent (Dietz, & Robinson 2005; National Institute for Health and Clinical Excellence [NICE] 2006,). Thus, childhood obesity treatment can be classed as a 'complex intervention' (Campbell et al., 2007), built from numerous components,

implemented by a range of professionals, and requiring the family to make sustained lifestyle changes. However, one of the biggest hurdles to the success of implementing these programmes (complex interventions) is the role of client attendance and retention (Bower et al., 2009). Non-attendance at appointments costs the health service time and money. Moreover, non-attendance at programmes directly impacts upon those individuals who do not attend; either as their 'condition' is not investigated/supported (or may get worse); or that there are other unknown consequences of not attending.

Whilst some evidence shows that recruitment onto obesity programmes is very successful (Rudolph, 2004) other clinics experience difficulties in recruitment (Haisman, Matyka & Stanton, 2005) and retention (Cote et al., 2004; Luttikhuis et al., 2009; Zeller et al., 2004). Research suggests that to increase uptake and retention, services should consider improvements in access to care, improving quality of care, and reducing costs (NICE, 2007). However, there is limited research which highlights reasons for non-attendance at childhood obesity services; or more specifically which considers the experiences of families invited to attend a childhood obesity intervention and living in deprived areas of England (Luttikhuis et al. 2009). As recommended by Luttikhuis et al.'s (2009) systematic review, qualitative research is needed to ascertain the views of participants; specifically highlighting why childhood obesity interventions may be more or less successful and why families may choose to attend or not attend recommended treatment programmes. If obesity rates in the UK are to be reduced then there is a need to develop a greater understanding of reasons for non-attendance and to consider ways to improve engagement in lifestyle interventions, a step towards this development is to understand families' beliefs towards obesity and their experiences of interventions.

Objective

The aim of this research was to explore why families choose to attend or not attend a childhood obesity programme, and to examine the beliefs and experiences which influenced these decisions. The research objectives were to highlight possible improvements for the 'studied' service and to contribute to the local Public Health strategy suggesting how to tackle prevalence and the treatment of obesity in the future.

Methods

Design

This study utilized qualitative interview methodology as it explored families' perceptions of obesity and assessed the perceived appropriateness of the recommended intervention.

Participants

Ethical approval

Approval was received from a NHS research ethics committee; NHS clinical governance approval was granted and a full independent peer review and monitoring process was conducted by a UK university.

Participant criteria

Families eligible to participate in this research were identified directly from referrals made to the NHS service. Potential participants were required to meet the following inclusion criteria: child to have been referred to the service and identified as clinically obese (BMI percentile greater than 98th); child and family invited to attend (prescribed) a community obesity treatment programme (see Figure 1 for service details). Parent/Guardian(s) of the children were required to provide informed consent; children were required to provide informed assent.

Figure 1 about here.

Participant Recruitment

Families were provided with an initial information sheet explaining the purpose and requirements of the study. Consent to pass participants' contact details onto the research team were ascertained during the initial clinical assessment. The researcher contacted the families and provided further information about the study, explaining the process and agreeing the location and time of the interview. Interviews were conducted at the participants' homes, an NHS clinic, or a local children's centre, depending on their preference. Due to the nature of the study, it was important that the participants felt comfortable expressing their experiences honestly and openly, and that they were given the opportunity to provide feedback as they deemed necessary. The study therefore concentrated on the responses of parents (as parents were the main decision makers), however children were asked if they would like to participate and contribute to the research investigation.

Research location: The health of people in the area studied was generally worse than the England average (DoH, 2011b): deprivation was higher than average (with 62.2% of residents living in the 'most deprived' quintile, compared to England average of 19.9%). The level of children living in poverty was significantly greater than the England average (32.8% vs. 20.9% respectively). The population of the area was predominately white Caucasian, with only 2% of the population from a minority ethnic group (Langton, 2011). Rates of obesity in the studied area were one of the highest in England, with prevalence of obesity in 10-11 year olds recorded at 24.4%; compared to the England average of 19% (DoH, 2011b).

Research sample: Upon attendance at clinical assessment, all families who met the programme criteria were systematically invited into the research study. Twenty-one families were invited to participate, of which fourteen families agreed to take part, and eleven participated (reasons for non-participation were: 1 incorrect phone number; 1 onset of family illness so withdrew; 1 no suitable date). All participants were white Caucasian; and included

working full/part-time and unemployed parents or guardians. All families lived in an area of high deprivation. It was deemed that this cohort was a representative sample of the local population.

For three interviews the guardian(s) was/were the child's grandparent(s) (families 1, 8 & 11). The children's ages ranged from 5 to 15 years old, with a mean age of 10 years old. Four children participated in the research interviews (families 1, 2, 8 and 11). Of the seven other families, four parents requested that the children were not interviewed and in three cases the parents were happy for the child to participate; however, two children declined participation and one child was not able to participate due to parenting arrangements after school. Participants were categorised as either programme "attendees" (families 2, 3, 4, 5, and 11) or "non-attendees" (families 1, 6, 7, 8, 9 and 10). Attendees were the families who attended the programme for at least the first two sessions. Non-attendees were the families who did not attend any intervention sessions.

Materials

Smith and Osborn (2008) report that the best data collection method for an interpretative phenomenological analysis (IPA) study is via semi-structured interviewing; therefore a semi-structured interview schedule was devised utilising open ended questions. The interview was structured in two parts: firstly to introduce the families to the study and gain their demographic information; secondly to ask questions about their experiences and reasons for choosing to attend or not to attend. For example some of the questions included: "*Can you tell me when you were invited/referred to the childhood obesity service - How did you feel?" "Why did you decide to (not) attend the programme?" "What reasons do you think other families might give for (not) attending?"* The interview process allowed for flexibility in wording/ordering and expansion of questions depending on the interview flow. So to explore the psychological world of the participants, the questions for the interview were loosely based

upon the Theory of Planned Behaviour (Ajzen, 1991). Structuring the interview in this way aided the extraction of how participants' thoughts and beliefs regarding obesity and its treatment affected their decisions to attend the intervention, and with the flexibility of the semi-structured interview, this approach allowed the participants to tell their stories and for the interview to uncover potentially novel areas for interpretation.

Procedure

Digitally-recorded semi-structured interviews were conducted by the interviewer, who was previously unknown to the families and was not part of the clinical intervention team. The interviewer was therefore considered neutral and held an independent relationship with participants, which would not impact in any way on their current or future healthcare services. Participants were informed that the interviews aimed to seek their experiences of the services received so far and to collect their views about attending the programme. Interviews lasted an average of 57 minutes; the digital recordings were transcribed verbatim with all names replaced by pseudonyms. Participants were offered the opportunity to read the transcribed interviews to check for readability of data, and if required to clarify comments. No participants requested to amend or clarify their original interview transcripts.

Analysis

The data was examined using Interpretative Phenomenological Analysis (IPA) as described by Smith, Flower, and Larkin (2009). The process was conducted by two authors (*author* and *author*) who read the transcripts several times and initial comments and interpretations were noted. Subsequently coding for meaning, similarities, differences, and contradictions were highlighted in the left hand margin of each script. Once completed the scripts were re-read with emerging themes (based upon these initial codes) noted in the right hand column. The coding and themes were mapped, clustered and then discussed, reviewed and defined by researchers before creating full definitions and interpretations. The process of

interpretation aimed to explore the responses of the participants to specific questions and to look for emerging commonalities/differences. The construction and reliability of themes was carefully discussed between the authors, so that any interpretation was representative and not skewed by any underlying preconceived perceptions. Care was taken to ensure that emerging themes fitted the data rather than forcing the data to fit into the themes. As a consequence the descriptions were written based upon these analytical discussions. This process was idiographic, looking in detail at one interview, before examining subsequent interviews.

Results

There were many factors which impacted families' decisions to attend, these were categorised into four master themes: perceptions of childhood obesity; perceptions of the programme; practical barriers and overcoming hurdles to attending; and availability and suitability of local facilities. Within each theme the beliefs and experiences of 'attendees' were compared for similarities and differences with those who were 'non-attendees'. The following table summarises these themes highlighting the differences and similarities across the participants. Each of these themes is subsequently described within this section.

Table 1 about here.

Theme 1: Perceptions of childhood obesity

It was evident that the majority of parents, for both those who attended and those who were non-attendees, did not perceive their child to be visually obese. Many referred to their child as 'normal', and were shocked when, during their medical assessment, the clinician had explained their child's diagnosis. The following extract provides insight into the families' inabilities to recognise obesity based on appearance.

An extract of Family 1's (non-attendees) perception of obesity:

> Grandparent 1, Jeff: '…. We know he is defined as obese 'cause that's what they (health professionals) told us...(pause) but look at him…(points over, Peter smiles) he's normal, just like other children, we know we need to cut out the puds (puddings)'
>
> Child, Peter: 'Yeh I know [I] have a bit, like me dad, but it's just normal and I'm not bothered'
>
> Grandparent 1, Jeff: ' Yeh, that's right, just like his dad, who has always been big…(pause)'
>
> Child, Peter: 'Ha ha like not like him up the road!'
>
> *[laughs] (all of the family together expand their cheeks)*
>
> Grandparent 2, Gail : 'What we mean is and we don't know what his situation is, but up the road is a BIG boy the same age as Peter and you can see that fat all over him, he really needs to go to see someone…but it's not for us to comment on that is it, hey?'

Even though Family 1 (non-attendee) understood that their child was categorised as obese, they referred to him as 'just a tiny little bit over the line' *[reference to the BMI percentile charts]* and Peter (child), himself said 'I'm just a little bit over, but nothing to be worried about'. This family had identified another child as obese, by referring to his appearance and making reference to his behaviour. However, they did not make an association between the needs of their child (Peter) and this 'big boy'. The perceived vulnerability to health risks and the perceived severity of being defined as clinically obese was minimised by the review and comparison against another child.

There seemed to be a difference in the perception of obesity when related to health. Those parents or guardians who recognised that obesity was affecting the health of their child were more likely to attend the programme:

> 'I worry about Simon *(be)*cause of his health and (*paediatrician*) has said that *(be)*cause of his size over the 98th *(percentile)*, I was shocked when I found that out, that he needs to do lots more exercise' (Tara, mother, family 2, attendee)

However, those parents/guardians who did not perceive their child's health to be affected by obesity were often non-attendees:

> 'He doesn't need obesity treatment, it's normal and he will grow bigger…anyway there is nothing medically up with him is there?!' (Alan, father, family 7, non-attendee)

The above comment is particularly important as it illustrates two points: firstly, this parent's perception is that childhood obesity is 'normal', and whilst this comment was made by a non-attendee, this was a commonality across most of the families interviewed. Secondly, the reference to medical diagnosis highlights contradictions in the interpretations of health messages communicated by different professionals and this was a key concern for all parents (attendee or not). All of the children who participated in the programme had been clinically assessed for co-morbidities to identify potential medical causes of obesity. In all cases, no medical causes of obesity were highlighted and the results of the medical assessment were communicated as *'fit and healthy'* (father, family 7, non-attendee). This was perceived as contradictory to the explanation given by the childhood obesity delivery team, who had already explained that the child was clinically obese and required supportive intervention to prevent the onset of any future health issues.

> 'We did say we would go but, but hmm, you know... (*pause*) it's not like cancer, if it was that bad then he would have appointments anytime and have to come out of school, but they did it at night when we have so many other things to do…' (Eileen, grandparent, family 8, non-attendee)

and

> 'We went along *(to the medical assessment)* like we were told to, and they said 'nothing physically wrong with him', so he is normal and then they say 'come and do this'…why? They should be on the peeps (*people*) that really need to get better' (Jane, mother, family 10, non-attendee).

The process of communication seems to have created misunderstanding for some parents: when parents could make the distinction between the medical assessment and the consequences of obesity, they were more likely to attend. However, non-attendees tended to interpret this medical communication as an over-ride for any previous messages delivered by the obesity delivery team. Whilst most of the parents acknowledged that lifestyle changes

were required to reduce obesity, many of the parents (both attendees and non-attendees), expressed confusion over the cause of their child's obesity, by linking the obesity to family history; as a result of other illnesses; or as a result of taking medications (which may affect metabolism).

> 'I was surprised when the nurse said that her [my child's] weight wasn't related to her asthma, and taking medication, I mean like, I'm a nurse and we tell people on steroids that it can affect your metabolism and things...so it must affect hers, but I was really shocked at that, I still think that, I think I could have more information on that and it could be explained better, but we do need to take on board more healthy lifestyle messages so that's why I said "okay" ' (Jessica, mother, family 3, attendee)

Finally, it is important to note that perceptions of obesity expressed by other family members or friends may have also influenced people's decisions to attend.

> 'Well dad (the child's father) thinks it's a waste of time, and mum (the child's grandmother) knows, but they only see him once a week so they don't really have time to talk about it....they say he is healthy and that's all that matters' (Tara, mother, family 2, attendee)

Whilst all interviewees described experiences of negative comments about the programme from significant others (extended family/friends), attendance appeared to be linked to the participants' abilities to actively manage any negative perceptions expressed by significant others. Non-attendees appeared to conform with the views of significant others: when more negative comments were expressed by close friends and family, they were less likely to believe that the programme would have positive outcomes.

One of the parents summarises this theme well. As a health professional herself, she presents some insight as to why other families do not attend the programme. She links the negative perceptions of such a programme, the influence of significant others and the consequences of obesity together, suggesting how this could be improved:

> 'I think that some people don't see that their child has a problem, and also don't think that it's really based on the health, like her [her daughter Charlotte's] dad don't see it. I think that if there

> was a session for the kids only and they played, and the parents had a session but just about the health risks of obesity and what it is doin' to their bodies, with models and pictures and stuff, and then they realise about it, and THEN tell them about the programme that it might make more people go'. (Jessica, mother, family 3, attendee).

Theme 2: Perceptions of the programme

Expectations and prior perceptions of what the programme would involve and who else would be attending the programme, influenced the decision to attend. Those families who predicted that the programme would have positive effects on their lives were more likely to attend, and believed that the programme would: help parents seek support from other parents; help children to make friends, play together and improve their social skills and self-confidence; and facilitate both the parents and their children to gain new skills and knowledge:

> 'Going to the programme will give me information and education on what to do better and where to go locally afterwards' (Jessica, mother, family 3, attendee).

and

> 'It is good that we can go along and I can speak to other parents who are trying to change things, also James (*child*) can make friends with other kids the same who *[may]* not be fantastic at football and feel really bad, but they can play on the same level you know' (Ray, father, family 4, attendee).

Non-attendees on the other hand, were more likely to highlight negative consequences of attending the programme, such as viewing the opportunity for their child to mix with other obese children as destructive, by suggesting that their child would subsequently identify with other obese children and as a consequence, this belief acted as a barrier to attendance:

> 'The thing is, he doesn't look fat …hmm… obese, so if we go and he thinks, 'do I look like the others?' then that wouldn't be nice, don't you think?' (Eileen, grandparent, family 8, non-attendee).

Some parents expressed concerns that they would be expected to participate in the physical activities, and became concerned with how their own behaviour would be assessed. This seemed to create some anxiety:

> 'We haven't exercised properly for a long time; I have never been to a gym, so telling us that we have to do everything with the kids, it's embarrassing' (Hilary, mother, family 9, non-attendee)

Whereas the non-attendees who expressed that they were less able to participate in activities may, as a result, have used this as an explanation for not attending, the parents of attendees also expressed concerns, but recognised that they themselves may need support in changing their own lifestyle behaviours. Most parents reported having some knowledge about healthy eating and knew that physical activity was beneficial. Those who were non-attendees were most likely to state that they were already eating healthily and did not need further information, or that they knew who to ask for information if they needed it:

> 'Like we already know about healthy eating, and doing exercise, blah blah blah, the diet person is just gonna *(going to)* tell us stuff we already know anyway, we are well, we don't eat pizza and KFC *(Kentucky Fried Chicken)* all the time' (Liz, mother, family 6, non-attendee).

Theme 3: Practical barriers and overcoming hurdles to attending

All families raised similar practical barriers that would stop them from attending the programme. Time to attend the programme was problematic for all. However, although attendees highlighted that time was an obstacle, they described that they tried to 'make time' to go and if they had missed sessions due to work or family issues, that they felt 'guilty' (mother, family 2, attendee). Whilst interviewees understood that the programme was delivered so not to interrupt the school day and parents' working hours, some attendees reflected on others' decisions not to attend, suggesting that the time of the programme could change so that it would be convenient for more people:

> 'Maybe Saturday morning would be okay and maybe think about it, or could come out of school if it were that important' (Sandra, mother, family 5, attendee).

Furthermore, even though the obesity service was able to offer payment for transport, reference to transport and travel duration to and from the programme was deemed a consideration for all.

> 'If we had to go…we haven't got room, only got a little car… if it's far away then it takes too long, by the time he [child, Peter] got home from school and then we get back it's bed*(time)…*' (Jeff, grandparent, family 1, non-attendee).

and

> 'Well we have the car so that's okay and we can park. I probably wouldn't be able to do it on the buses and walking and things 'cause *(because)* by the time you add it up it takes hours.' (Tara, mother, family 2, attendee).

In addition to time and transport, the location and personal security for families was a key influencing factor towards decisions to attend. If the families thought that participating in the programme would negatively affect their safety then they would be less likely to attend:

> 'We can get there dead easy and it's always at the school, so that's okay and it's good *[that]* it's in a separate building, but if there were kids hangin' around outside or anythin' then it would put me off a bit, like if you were going the hospital they would have security and stuff *[but at the school they don't]'* (Tara, mother, family 2, attendee).

and

> 'Even if it was close, we wouldn't walk *(be)*cause it's not safe in the dark and in the summer it's not fair *(be)*cause there are gangs of kids and that worries us, doesn't it?' (Jeff, grandparent, family 1, non-attendee).

Theme 4: Availability and suitability of local facilities

All participants reported that within the local area there weren't enough activities for their children to do. Parents were concerned about the suitability of the local clubs/activities they found for their children. This was reflected in terms of their children's ability and skill level

to be able to participate in the activities, the acceptability of their children to the activity (social group), and in terms of their children's safety attending activities away from home.

> 'You know we have all the information and it's really frustrating *(be)*cause there is nothing for him to do, like the exercise. I was really cross *(be)*cause I was taking him to football club, but *(be)*cause of how he is they just left him twisting round in the pitch on his own and he needs extra support to encourage him'. (Tara, mother, family 2, attendee).

Attendees were more likely to seek out information on local clubs and activities, however it was acknowledged that local clubs were geared more towards 'sporty and talented children' rather than open to all (particularly those not already engaged in activity). Some attendees reported that this obesity programme 'filled the gap'. However, of concern to non-attendees was the short duration of phase 1 of the programme, highlighting that afterwards they would be in the same situation (lack of appropriate clubs).

> 'Things will be the same at the end *(of the programme)*. Where will he go? What will he do?' (Alan, father, family 7, non-attendee).

Parents explained that ensuring that children continued to exercise after the programme was very difficult, not just because of the lack of access to appropriate clubs and services, which the whole family could do together, but due to lack of safe places for the children to play:

> 'We try and do more activity, but they can't play outside, it's not safe, and there isn't enough room in here (*house*) to be jumping around' (Jeff, grandparent, family 1, non-attendee).

Non-attendees in particular viewed the programme as a quick fix to accessing activity services, which wouldn't remain upon completion of the programme.

Discussion

It was evident in this study that most parents (or guardians) did not recognise, by appearance, that their child was obese. This concurs with findings from previous research that has demonstrated that even when a child is obese, few parents recognise this in their own child (Jeffery, Voss, Metcalf, Alba & Wilkin, 2005; White, O'Brien, Houlihan, Darker &

O'Shea, 2012) and/or are able to recognise the health implications of their child's weight (Baur, 2005; Carnell, Edwards, Croker, Boniface & Wardle, 2005; Etelson, Brand, Patrick et al., 2003; Jain, Sherman, Chamberlin et al., 2001; Jeffery, Voss, Metcalf, et al., 2005). When given the 'diagnosis' of obesity, attendees were more likely to recognise the impact that obesity had on their child's overall health and wellbeing, whereas non-attendees were less likely to believe that obesity affected health, or at least believed that the diagnosis was not as serious as other illnesses such as cancer. This study adds to previous research, as not only did parents not recognise obesity in their children, but once given the 'diagnosis' of obesity the acceptance of the condition as a health problem was often rejected. Parents often appeared to be in denial, referring to their own interpretation of health professionals' explanations. For example the statement 'there is nothing medically wrong' provided by a nurse clinician to suggest that the obesity was not caused by a bio-medical issue, was interpreted by families as 'their child was healthy', and therefore even if their child 'was a little overweight' it wasn't a health concern. Some were also sensitive to the language and comments from the health providers, which they may have perceived as negative and blaming towards them. This suggests that the way that the 'diagnosis' of childhood obesity is initially communicated between the health professionals and families is key. Ultimately, the understanding resulting from this communication may not only influence a family's decision to attend a childhood obesity programme such as this, but is also likely to impact future lifestyle choices and behaviour.

Interestingly in this study, those who were attendees stated that they would like the children to improve their social skills and become more confident. In contrast, those parents who were non-attendees were likely to express negative psychological effects of attending the programme, such as experiencing concerns that their child would subsequently associate (identify) themselves with other obese children. One explanation of these findings could be

described in terms of Oyserman's (2007; 2009a; 2009b) Identity-Based Motivation (IBM) model which suggests that when behaviour is linked to identity (identity-infused), engaging in the behaviour should carry a positive tone of inclusion in the in-group. For those families in this study whose in-group (family and friends) associate negative attributes towards obese people, it may be more acceptable for them to deny the existence of childhood obesity. Should these families respond to the invitation to join an obesity intervention, this may create identity conflict (socially, culturally or individually, either consciously or not), because they have accepted the classification of obesity, and therefore have labelled themselves with the negative characteristics of being obese (Puhl & Heuer 2009). In essence for some families, attending an obesity intervention may challenge social, cultural and individual-cognitive identities (see Oyserman & Destin, 2010) and, moreover, attendance at the intervention itself may promote a shift in identity, which may or may not initially be perceived as a positive outcome.

Non-attendees were more likely to highlight feelings of anxiety associated with concerns that parents would also be expected to participate in physical activity. Whilst the obesity intervention aimed to create an environment to improve the self-efficacy of the child (see Trost, Kerr, Ward & Pat, 2001) by, for example, allowing the obese children to observe influential others (i.e. parents and peers perform physical activity), support should also be provided to increase the self-efficacy of parents performing this behaviour (Smith et al., 2010). In addition, this study found that the views and opinions of significant others (family, friends, social network) influenced the family's initial decision to attend the intervention. This reflects findings from previous research where it was found that grandmothers had a strong influence on parents' feeding decisions for children (Black, Siegel, Abel, & Bentley, 2001). However, this study highlights that whilst most families experienced some negative comments from others about the intervention and/or 'supposed diagnosis' of obesity,

attendees seemed more able to manage this conflict with their friends/family, whereas for non-attendees this communication had a greater impact on attendance. It is therefore important that views and beliefs of both direct and indirect family members are considered during the initial communication of the programme.

The main environmental restrictors which influenced families' decisions to attend were time and security. Lack of time emerged as a barrier for all parents, reflecting findings from previous research by Chatterjee, Blakely and Barton (2005). It is important that service providers address a barrier such as lack of time, because if clients cannot attend services, then the service itself risks failing. Concerns about the environment, safe places for children to play, clubs that were suitable for their child's ability (were not just for the 'elite'- those really good at sport), and easy access to services were all highlighted in this study as barriers to seeking treatment or changing lifestyle behaviour. Similar barriers have been reported in other studies (Ellaway, Kirk, Mcintyre, & Mutrie, 2007; Chatterjee et al, 2005). Lack of time and concerns about security may highlight the importance of modifying social, cultural and organisational environments to enable individuals to practice healthier behaviours (Bassett & Perl, 2004).

Limitations

The sample was self-selected in nature; participants responded initially to the referral to the childhood obesity programme and had attended their initial assessment. This self-selection resulted in a sample that was fairly open to expressing their views and concerns regarding their child's health and wellbeing. The study adopted interpretative qualitative methodology and as such the results are not definitive cause/effect explanations for attendance to obesity programmes. The results of this study were based upon IPA analysis on a specific cohort of families living in a very deprived area of England. The findings of this

study may therefore not generalise across groups, but may be useful to consider the reasons for non-attendance to similar groups and settings.

Conclusion

This study found that there are many reasons why individual families may or may not engage in a childhood obesity programme. Some of the common barriers identified in this investigation related to: parents either not recognising obesity in their children or not acknowledging its impact on health or wellbeing; parents having anxieties about their own participation in the programme; parents' concerns about their children's identities and parents believing that they have little control over their environment. Changing eating and activity behaviour is an active process in which people must exert considerable conscious effort to change established habits. In order to be effective, obesity services and the local environment must meet the needs of their clients and address any preconceived negative perceptions, by carefully considering how the delivery of health information is presented, how it is understood and how underlying identity may affect motivation to engage in new behaviours.

Acknowledgements

The authors would like to thank all the research participants, the service that assisted in the recruitment process and to both X and X for reviewing an initial draft of this paper.

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Figure 1: NHS childhood obesity service outline; and procedures

Procedures from clinical team: 1) Referral to service received, indicates child as obese. 2) Letter sent to families to attend a clinical assessment. 3) Families attend a clinical assessment to assess physical health, aetiology of obesity, lifestyle and suitability for the obesity intervention. If they met inclusion criteria families were provided with a brief overview of the programme and a start date was agreed.

Programme inclusion criteria: Clinically obese children, aged 5-15years (BMI >98th percentile), to attend with their family (specifically at least one parent/guardian). Assessed to rule out co-morbidities or medical reasons for the onset of obesity (if a medical reason identified, alternative treatment offered as appropriate). Able to participate in group environments.

Programme: The structure of treatment was designed from clinical guidelines (NICE, 2006) and previous pilot research (unpublished, NHS Knowsley, 2008) into programme development. The service was provided in a community venue after school hours, if required the service would make payment for taxis to and from the programme. The programme was delivered using diverse, interactive and "fun" methods and provided advice and resources in reading-age/literacy appropriate material (for both adults and children).

It was a 1 year programme, split into three stages:

Stage 1: Intense 12 x weekly, 2-hour community sessions. Promoted lifestyle change through physical fitness, psychological support and healthy eating principles. **Stage 2:** Bi-monthly individual follow-up sessions at community clinic locations. **Stage 3:** After 1 year, the service supported families by developing a long-term practical action plan and signposting to other 'universal' based programmes.

Table 1: Summary of Similarities and Differences across Attendees and Non-Attendees

	Attendees	Non-attendees
Theme 1: Perceptions of childhood obesity	Did not recognise obesity in their child.	
	Childhood obesity is considered a 'norm' within local society.	
	Believed that the cause of obesity was linked to medical issues (genetics/ medication/ illness)	
	Understood the link between obesity and preventable ill-health.	Used the medical assessment outcome as an indicator that obesity wasn't a serious medical condition.
	Did not experience negative influences from significant others or, had the ability to deal with/avoid negative influences from others.	Influenced by social network (extended family/friends) negative attitudes and comments about obesity
Theme 2: Perceptions of the programme	Anxieties of parents' own ability to engage in the programme/ make personal changes.	
	Parents recognising the need for self-support, new knowledge and to change own behaviour (diet and exercise).	Parents 'embarrassed' about perceived inability to participate, alongside their belief of already being knowledgeable.
	Perception that the programme has a positive effect on the child's self-esteem, psychological wellbeing and social relationships.	Perception that the programme has a negative effect on the child's self-esteem, psychological wellbeing and social relationships.
Theme 3: Practical barriers and	Personal safety travelling to and from the venues.	
	Making time (feeling guilty when missing appointments).	No time

overcoming hurdles to attending	Recognition that transport to the venue can act as a barrier, although typically managed to overcome this hurdle (car being usual transportation).	Transport cited as a barrier to attending. Particularly if requesting travel across the borough to attend.
Theme 4: Availability and suitability of local facilities	Referenced the lack of local, safe and appropriate (fitness/skill level) activities for their children to do. Families felt that the local area did not enable children to be active.	
	The obesity programme 'filled the gap' and supported the children to develop new skills. Subsequently they hoped to have confidence to try local activities (which are targeted towards sporty children).	Reported that once the programme ended, there would still remain to be no activities that the children could do/access locally (or in a safe environment).
	The programme offered an opportunity for safe places to play.	