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**Lewis, Kiara ORCID logoORCID: <https://orcid.org/0000-0002-0142-7351>, Fraser, Claire and Manby, Martin (2014) 'Is it worth it?' a qualitative study of the beliefs of overweight and obese physically active children. Journal of Physical Activity and Health, 11 (6). pp. 1219-1224. doi:10.1123/jpah.2012-0295**

Official URL: <http://dx.doi.org/10.1123/jpah.2012-0295>  
DOI: <http://dx.doi.org/10.1123/jpah.2012-0295>  
EPrint URI: <https://eprints.glos.ac.uk/id/eprint/9741>

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# 'Is it Worth it?' A Qualitative Study of the Beliefs of Overweight and Obese Physically Active Children

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**Background:** The specific circumstances and contexts that may affect overweight and obese children's participation in physical activity have thus far been given little attention. The qualitative study discussed in this paper explores the experiences of overweight and obese children and young people who have successfully increased their activity levels.

**Methods:** The study sample was recruited from a community health and fitness scheme for children aged 5 to 16, with a Body Mass Index (BMI) at or above the 91st centile. Semistructured interviews were conducted with 58 children and young people. Data were analyzed using template analysis.

**Results:** The children increased their feelings of capability to undertake physical activity, both while on the scheme and in other physical activity settings. They valued the range of 'noncompetitive' activities available and the nonthreatening atmosphere created. The 'emotional' support offered by the instructors was perceived as being integral to their enjoyment and continued participation.

**Conclusions:** Physical activity providers need to be able to generate opportunities which allow children of any weight status to participate without fear of stigmatization or bullying. The findings of the current study suggest that to be effective what we should be focusing on is improving the physical activity experience from the child's perspective.

**Keywords:** intrinsic motivation, self-determination theory, sport, enjoyment

The recent results from the National Childhood Measurement Program (NCMP) for England show that childhood obesity continues to rise across the country and in particular in those with a low socioeconomic status (SES), mirroring the trends worldwide. The data from 2009/10 show a statistically significant increase in Body Mass Index (BMI) in both boys and girls from Reception Year (aged 4 to 5) and Year 6 (aged 10 to 11) and across the BMI distribution.<sup>1</sup> When physical activity levels of obese and nonobese children are compared, obese children are consistently less active and less fit than their nonobese counterparts.<sup>2,3</sup> Objectively measured physical activity has been found to be lower in both obese boys and girls, with obese girls overall having the lowest activity levels.<sup>3,4</sup> The low levels of physical activity of all children and young people are of concern; for overweight and obese children they are alarming.<sup>4</sup> Not only does physical activity confer many health benefits in childhood, such as healthier cardiovascular profiles and higher peak bone mass and contribute to the prevention and management of obesity,<sup>5</sup> but it is also linked to educational attainment, social connectedness and psychological well being of young people.<sup>6</sup> By not understanding the issues surrounding physical activity for obese children and not listening to their reasons for inactivity and by focusing blame on them and their parents, we are not only failing these children but potentially fueling their weight gain.<sup>7</sup>

Historically, research into physical activity determinants has been quantitative in nature, using cross sectional surveys to look for individual differences between those who are inactive and those who are active.<sup>8</sup> More recently, qualitative research has been recognized as important in providing a more in-depth insight into factors associated with participation in physical activity, in particular hard to reach groups, such as adolescent girls.<sup>8</sup> Although recognized as an 'at risk' group for inactivity, overweight and obese children have not been targeted in the same way, and the need for a better understanding of factors that influence overweight and obese children's participation in physical activity is needed.<sup>3</sup> Research on children in general has found that they are more likely to participate in and continue with physical activity that they enjoy<sup>9,10</sup> and that enjoyment depends in part on their perceptions of their abilities.<sup>3</sup> They prefer activities where they are not forced to compete<sup>9,11</sup> and where there is a choice of activities.<sup>3</sup> Social support has also been linked to physical activity participation with a recent review of the evidence suggesting that children with supportive parents are twice as likely to be active than those without supportive parents.<sup>12</sup> However, as children become older peers become more influential and the support of peers becomes more prominent.<sup>9</sup> The role of teachers and coaches may also have an influence, with males being perceived as receiving more positive feedback than girls.<sup>13</sup> Adolescents report barriers to activity as negative experiences during school 'physical education' (P.E.),

and for girls the school P.E. uniform<sup>9</sup> and a lack of support from teachers<sup>14</sup> are major barriers. Research on obesity bias in physical activity settings is still in its infancy<sup>15</sup> but cross sectional research suggests that negative treatment toward overweight children is associated with lower participation in physical activity.<sup>16</sup> Previous research on children and young people's physical activity participation does not, in the main, differentiate between overweight and normal weight children. There is a dearth of information, in particular qualitative research,<sup>17</sup> exploring overweight and obese children and young people's attitudes toward physical activity. The few studies available suggest that obese children and young people enjoy team activities (football, basketball and hockey) less than normal weight children.<sup>18</sup> They do not generally find physical activity enjoyable,<sup>15,19</sup> and do not perceive themselves as good at P.E.<sup>20</sup> There is emerging evidence that barriers for overweight and obese children may differ from their normal weight peers and it is unclear how barriers are experienced and how they may deter overweight and obese children from participating.<sup>21</sup> Other research suggests that the physical activity setting encourages stigmatization and bias which leads to negative assumptions about obese children which do not necessarily hold true.<sup>15</sup> Being stigmatized by their peers may leave an obese child with low self-esteem which can lead to emotional problems and exacerbate their eating and inactive behaviors.<sup>22</sup> Peers and friends have also been found to be important in increasing motivation to be physically active in overweight and obese children, while negative interactions with peers have been shown to reduce activity levels.<sup>23</sup> The physical activity setting may be where the child's weight is more obvious, where teasing and weight criticisms may come from both peers and from P.E. teachers or coaches.<sup>24</sup>

At a time when sport is gaining much media attention, in particular due to the Olympics 2012 in London, the United Kingdom (U.K.) Government, and those providing for sport, are looking at ways of increasing young people's participation in sport. The Department of Culture Media and Sport (DCMS) in its 'Beyond 2012' legacy document, outlines plans for a new School Games to encourage competitive sport between school children.<sup>25</sup> It claims that through competitive sport children will get 'a taste of excitement and pride that sport can bring to their lives'.<sup>25</sup> The document also claims that sport is about developing the whole person, that it helps young people deal with issues such as leadership, self esteem, health and well being and achievement in general. However, the Department of Culture, Arts and Leisure (DCAL) in Northern Ireland has released a school based survey of young people which suggests that a sizeable minority of pupils do not enjoy sport, do not like the activities available and are not good at sport.<sup>26</sup> Far from increasing their self esteem and sense of achievement, the school sport experience, and in particular its competitive elements, have demoralized and disengaged many of these young people. A survey on behalf of 'Chance to Shine'<sup>27</sup> found that what many children experience through sport is bullying with 51% stating they have been a victim of teasing, taunts and threats on the school playing fields. A third of the children witnessed this behavior from sports teachers/coaches, and 42% of parents surveyed stated that their children lost confidence as a result of bullying in sport.<sup>27</sup> School sport should be about increasing the health, well-being and confidence of children; this is not the reality for all.

The current study was informed by the motivational framework of the Self-Determination Theory (SDT) which suggests health behavior change is more likely to take place when participation is viewed as intrinsically rewarding.<sup>28</sup> According to Self Determination Theory all humans have basic psychological needs; these are a need to feel in control of your decisions (autonomy), a need to feel effective in what you do (competence) and a need to feel a connection with other humans (relatedness). These basic psychological needs have shown promise in explaining and changing children's physical activity behavior and in the success of adult weight management interventions.<sup>3</sup> This suggests the same principles may be important in explaining and changing overweight and obese children's physical activity behavior. The aim of this study was to investigate the experience of physical activity from a group of overweight and obese children, engaged with physical activity, to better understand their barriers and motivators and to determine how they influenced their participation.

## Methods

### Study Design

Previous survey research has provided an overview of children's experiences of physical activity and identified some of the barriers and motivators. This work needs to be complimented by qualitative research, presently lacking, which provides an opportunity for children to talk freely and openly about their experiences without fitting their response into predetermined categories. This is especially true for children who do not engage with and enjoy sport and those who have been reengaged. A qualitative approach was taken to gain a greater

understanding of what it is about physical activity that overweight and obese like and dislike in order to inform future developments.

## Study Participants

The sampling frame consisted of 290 children and young people enrolled on a community based program consisting of activities to help children and young people who were overweight and obese to encourage weight loss and improve morale. Sessions were run for children aged 6 to 11 and 11 to 16 at a variety of venues across the locality. All children enrolled on the 48-week scheme had a BMI that was at or above the 91st centile (overweight) and 60% were above the 98th centile (obese) for their age and gender (based on the 1990 UK reference charts).<sup>29</sup> The program was based in a Northern town which has higher than average levels of deprivation<sup>28</sup> and a 24% black and minority ethnic (BME) population for 5 to 11 year olds<sup>30</sup> (see Fraser et al<sup>31</sup> for details on the program). This suggests the results of the study are particularly relevant for other areas of high deprivation and where there are ethnically mixed populations.

Sampling for this study was purposive, to reflect the need to recruit children and young people who have a shared experience of being overweight and obese.<sup>32</sup> Researchers attended numerous physical activity sessions over a period of a year to speak to children and young people attending a variety of sessions. This approach ensured that data could be collected from both the younger and older age groups (6 to 11 and 11 to 16), from various BME populations and from areas with differing levels of deprivation. The diverse sample of children interviewed allowed a broad range of experiences to be explored. There was an open invitation to take part in the interviews on enrolment and in total 58 children and young people agreed to take part (aged 6 to 11, n = 39; 19 boys, 20 girls, aged 12 to 16, n = 19; 10 boys, 9 girls).

Information was given to children and parents about the evaluation when they enrolled on the scheme and informed consent was sought from them and their children to take part in the evaluation. Children were given the opportunity to opt out at any stage of the research. The aims of the research were explained both to participants and the program manager and staff leading the sessions so they were fully aware of why the researchers were present.

## Data Collection and Analysis

Semistructured interviews based on a topic guide were used to elicit the views of the children and young people on their physical activity experiences in general and specifically on the scheme. The questions and probes were modified to account for the age and aptitude of the children taking part. The interviews took part in quiet rooms adjacent to the physical activity settings, or in a quiet corner within the sports hall to allow children to rejoin the sessions after their interview. The length of the interviews varied from 5 minutes to 30 minutes, according to the willingness of the children to participate, with the older children in general offering more information.

The interviews were tape-recorded and data from the interviews were transcribed and checked for accuracy by the researchers as they read through the transcripts. The verbatim data were analyzed using template analysis—a qualitative approach to thematically analyzing data.<sup>33</sup> The process involved in the first instance engaging with previous literature to develop a priori codes that describe the themes expected to emerge from the data, including those from SDT. From this an outline template was drawn up and codes assigned to each theme. The researcher then read through the data, assigning codes that match those on the template. As new themes emerged the template was adapted to reflect the themes emerging from the data. Any a priori themes that did not fit well with the data were redefined or discarded. Once a subset of the interviews had been read a new template was developed that was then applied to the whole data set. The template was continually modified until a final template was reached. This then served as the bases for discussion of the key themes.<sup>33</sup>

## Ethical Considerations

Ethical approval was given by the local University Research and Ethics Panel. All participants have been anonymized and pseudonyms used in the presentation of the data.

## Results

The data generated a number of themes which are presented below. The themes emerging were common across gender and ethnicity; however, they were affected by the age of the child. Verbatim quotes from the study participants are labeled in terms of age. Previous research on the associations between motivational constructs within SDT and exercise has found similarities between males and females, suggesting the universality of the theory.<sup>34</sup>

### Autonomous Motivation

#### Choice of Activities.

The range and types of activities that were available were viewed positively, with just 1 child describing it as too much choice and 1 child wanting more choice. The types of activities available compared favorably to those available in school:

“You do lots of different things each week. Like at school, you do the same things every week so it’s pretty boring!” (Callum, 10)

The responses from the older children suggested that wearing their own clothes and being able to choose which activities they wanted to take part in was important to them. Activities that focused on health and fitness (gym, swimming) were more popular than playing games.

In contrast the younger children commented more on the types of games available. For example, less traditional activities requiring imaginative play such as ‘cross the golden bridge,’ ‘Sharkey’ and ‘parachute games,’ were mentioned by a number of the younger children.

“... So what kind of things do you like about coming here?” (Interviewer) “Fun games and parachute.” (Jasmina, 8)

#### Personal Goals.

The children were not forced to compete in teams, where they may feel under pressure not to let team mates down. Instead their individual efforts to escape capture, to reach the other side or to run around the parachute, provide a less threatening competitive element. For the older children they are competing against themselves and the challenges and goals that they set.

### Competence Motivation

#### Perceived Capability.

The children overwhelmingly described feelings of increased competency in their physical activity capabilities, both at the sessions, and interestingly in other physical activity settings too (from ‘playing out’ to school P.E. lessons). The children described how, as they participated more, they gained in confidence in their physical abilities.

“It’s aiming to teach me that I’m stronger and building my sports confidence. ... The first time I came I wasn’t confident, but the more times I came the more confident I got.” (Sam, 8)

Some of the children described how they were now ‘faster’ or ‘fitter’ and this was also the case in their P.E. lessons and in the playground, as well as in the activities provided on the scheme. None of the children described the physical activity as too difficult nor reported not being able to take part in the activities on offer:

“I do more exercise here, and I do more exercise at home with my Mum, and all the family goes walking with the dog” (Sophie) “So do you feel fitter?” (Interviewer) “Yeah, and happier.” (Sophie, 15)

#### Enjoyment.

The children interviewed overwhelmingly described the physical activity sessions they attended as part of the scheme as ‘fun and enjoyable’; all the children and young people viewed the sessions positively:

"It's fun, energetic, it tires you out and it's healthy." (Tom, 10)

Many children also described how they felt better about themselves not only while taking part in the activity sessions, but also how they felt better in general about themselves and their lives:

"How do you feel about coming to X" (Interviewer) "Really happy and I've made lots of new friends)." (Ben, 7)

The positive descriptions from the children suggest that they are gaining positive experiences from taking part and feel capable and competent at the activities available. Although weight loss may have been their (or their parent's) initial reason for attending, they continued to participate because they enjoyed the experiences, felt more confident in their physical skills and better about themselves in general for attending. They are not motivated to continue because they feel they have lost, or need to lose weight, or for any other health reasons, but simply because they want to. The issue of weight seemed to be neither a motivator nor hindrance to the children's participation, although fitness and an ability to keep up with others were important to them. This suggests that to facilitate increased activity of overweight and obese children it is not necessary for them to lose weight, but it is necessary for them to feel comfortable with their bodies being active. The physical and psychological changes experienced by the children and young people were also accompanied by changes in their social skills. This is exemplified by Chloe (11) who expresses an increased confidence in her ability to communicate with others: "I'm getting good at talking to people now" (Chloe, 11).

## Relatedness Motivation

### Parental Support.

The role of significant others has been found to be important for physical activity participation and for younger children in particular, parent's support is important.<sup>8</sup> Children have a need to feel valued and accepted by significant others to support their intrinsic motivation. Most of the children and young people reported that they were either encouraged to take part (emotional support), and/or physically taken to the sessions (instrumental support), by one or both parents. For a few children, a grandparent was more involved than either parent.

"I've got my mum who takes me. . . . She thinks it's really good for me." (Rachel, 7)

"It were my Nana that told me. . . . She wanted me to come and I agreed." (Simon, 7)

### Instructor Support.

The children and young people interviewed placed a great deal of emphasis on the role of the instructors in encouraging them to continue attending, praising both their organizational and control abilities as well as their abilities to make them feel good about themselves while at the sessions. The children and young people appeared to 'like' the instructors as well as respecting them. This is an important emerging finding from this study which suggests that it is not just parent's and peers who are influential in children's participation but also the instructors.

"Cos at school, like, they don't treat you as well as they do here." (Mark, 8)

"They're friendly and kind, and they boost your confidence." (Jack, 10)

The instructor's attitude and behavior impacts how the child feels *while* they are engaging in activity and provides immediate feedback. This is in contrast to the role of parents who may reinforce the behavior before or after the session.

The older children also described how they did not feel bullied at the sessions compared with school and felt it was a collective experience, being with other overweight young people, and that the instructors were more respectful toward *them*.

“When you’ve been bullied at school . . . they [instructors] make you feel good in yourself and make you feel like your confidence has grown back. . . . They’re very friendly [and] help you.” (Harry, 14)

The children acknowledged the role of parents/grandparents in getting to the sessions (instrumental support) but were keen to highlight the more emotional support they received, in particular from instructors, as being a reason why they wanted to continue.

*Group Support.* Making new friends was a common theme emerging from the younger children and the opportunity for extending social networks at the physical activity sessions was highly valued and increased their feelings of well-being. Older children also valued the opportunity to make new friends, many describing how they joined in, to make friends. The older children were able to articulate a variety of reasons for attending, all of which contributed to making them feel good about themselves.

“I think it’s brilliant . . . you know you make new friends, it helps you lose weight and get out of the house, everything really. I like the sports. I like people what come to the sessions and I like making new friends.” (Mathew, 12)

The children are describing an experience in which they made social connections and felt part of a group. Far from avoiding or dreading the physical activity, they convey a sense of wanting to take part because they find it intrinsically rewarding. The rewards driving them are not external (weight loss, certificates, trophies) but the ‘feel good’ factor derived from feeling socially accepted.

## Discussion

This study provided an opportunity to interview a number of children, of different ages, gender and ethnicities, all with a shared experience of being overweight or obese, engaged with a physical activity scheme. This facilitated an in depth exploration of the experiences of a marginalized segment of the population who are often talked about, but not often listened to. The qualitative nature of the study allowed an in depth insight into the children’s perceptions of what it means to be physically active, these qualitative insights are increasingly recognized as important in developing the evidence base for public health.<sup>8</sup>

The children who participated believed that being physically active was ‘worth it’ as they not only enjoyed being active while on the session, but also now enjoyed being active at other times. Their success on the scheme led them to feel more capable, they now believe that they can successfully participate and this has increased their feelings of well-being. They described how they were more confident to be active in front of their ‘normal weight’ peers as well as their ‘overweight’ peers. The children felt intrinsically motivated to participate as they were enjoying themselves, this in turn was due to the choice of activities available (noncompetitive, play based and individual fitness pursuits), and the supportive environment created by the instructors and other group members.

Systematic reviews of the evidence have consistently associated enjoyment, with youth physical activity participation.<sup>9,10,35</sup> What these reviews have failed to do is identify the weight status of the children and what it is about the participation that makes it enjoyable. One of the most important findings from this study is that overweight and obese children *can* enjoy physical activity participation. This is in contrast to the few previous studies of overweight and obese children that suggest they enjoy P.E. and sport less than their normal weight counterparts.<sup>18,19,36</sup>

For the obese child P.E. can become another arena for public humiliation as they may perceive themselves as less competent and exposed. The result is that the obese child avoids P.E. as it is seen to exaggerate their physical differences and leads to negative feedback and an uncomfortable experience. Myers et al noted that children who do not participate in school P.E. are also less likely to be active throughout the rest of the day.<sup>37</sup> This suggests P.E. is failing in its goal of preparing children for a lifetime of physical activity, and that further investigation of how physical activity can make a positive impact on the lives of overweight and obese children is warranted. Weight loss is a difficult goal to achieve in the short term, however increased fitness is easier to achieve and may lead to more intrinsically motivated behavior.<sup>34</sup> The children in this study described feeling fitter and healthier as a result of their participation and this sense of achievement may be more motivating, yet equally important, in improving the comorbidities of obesity than weight based outcomes.

One of the reasons given for enjoyment of the physical activity sessions in this study was the range of noncompetitive, nonteam based activities. Feda et al<sup>38</sup> similarly found that providing a broad range of activities for children, compared with no choice, increased the duration and frequency of physical activity participation. Previous studies of children and young people, not identified as overweight,<sup>11,18</sup> have also highlighted the competitive nature of activities as a barrier to participating. These findings have been echoed in a recent large scale study of girls and sport which found that girls want to be active but school sport is perceived as focusing too much on traditional competitive sport, which encourages aggressive behavior, and the attention of P.E. teachers is directed toward those who already exhibit sport specific proficiency.<sup>39</sup> The National Curriculum is currently under review however the delivery of traditional sport remains the focus of policy both in the UK and abroad.<sup>39</sup> If children continue to be pitted against each other in competitive team games where a lack of skill, speed and or fitness highlights some pupils as inadequate, it may continue to turn off those most in need.

Promoting a supportive social environment has also previously been found to increase participation in nonoverweight children and young people reluctant to engage in physical activity.<sup>11</sup> What this study adds is that the barriers and facilitators for participation in physical activity of overweight and obese children are similar to that of other nonactive groups. If schools could create a more inclusive environment more children would be able to enjoy physical activity and barriers based on size, gender or race could be broken down.

In interpreting the findings of this study, it is important to acknowledge its limitations. The participants were all motivated to increase their physical activity levels as they had all, once identified as being eligible to take part, made the decision to attend. However, the majority of children identified their previous, school based activity, negatively. All the children interviewed had at least 1 supportive parent or guardian. Children without supportive parents or those not motivated to take part may need a different approach. The validity of research when verbally engaging with children may be questioned as, especially in the younger age groups, they may not have the developmental capabilities to manage the demands of the research.<sup>40</sup> To increase the validity of this study a number of steps were taken: i) the researchers joined in the physical activities, so that the children had a chance to see them in a relaxed setting before they were invited to interview; ii) the interviews took place during the physical activity sessions so the children could easily recall their recent experiences; iii) a topic guide was followed, but the questions and probes were adapted to the development level of the child; iv) the guide was based on a theoretical model which has been applied to other studies of overweight children.<sup>34</sup>

One of the most important implications of this study is that once they have increased in confidence in one physical activity setting, the children report more confidence in other physical activity settings, there are few previous studies that have explored this. Some previous school intervention studies that have increased physical activity in the school setting have led to a decrease in activity out of school.<sup>41</sup> In contrast children in this study discussed being more active in general. An increase in sports confidence was also found in an exploratory study by Brooks and Magnusson (2006) investigating the reengagement of P.E. adverse adolescent's through changes in the culture and ethos of the P.E. program.<sup>11</sup> Similarities can be found with the participants of this study, suggesting that we do not need to change the attitudes and beliefs of those reluctant to participate (by educating them on the benefits as is often the preferred intervention), but we need to change the opportunities available to them and the attitudes and beliefs of those providing the activity. The role of friends and peers in providing a supportive social environment is also acknowledged as an important contributor to overweight and obese children's activity levels. Further studies are needed to investigate if positive experiences in one physical activity setting can lead to increased activity in others, in particular incidental activity, which is likely to have greater impact on obesity levels than occasional structured activity.

## Conclusion

The findings from this study suggest support for the SDT. Children need to feel some autonomy regarding the type of activities and goals set; to feel competent at the activities so as to increase their confidence to participate and to feel valued and respected both by the instructors and other group members. Further studies on how instructors can support and encourage children of all levels would be valuable, in particular during P.E., as school is where many children's beliefs and attitudes toward physical activity are formed. Studies of less motivated overweight and obese children and those without supportive parents are also warranted.



From the age of 2 onwards children on average become less active and from adolescence there is a steep decline.<sup>42</sup> Children's experience of P.E., may not be encouraging physical activity and may in fact be turning them away—in particular those who are overweight and do not feel competent. Physical inactivity is one of the greatest health problems facing developed nations and for the obese child there are many complex reasons as to why they participate less. P.E. teachers, schools and the Government have a responsibility to listen to and respond to their needs. This study suggests that a more cooperative and collaborative approach to providing a positive environment for physical activity will encourage participation in children previously reluctant to engage in physical activity.

### Acknowledgments

Funding for this study has been provided by Kirklees Council, Kirklees NHS Primary Care Trust, the Big Lottery Fund, and Sport England.

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