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The views of young people in the UK about obesity, body size, shape and weight

A systematic review

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EPPI-Centre report • April 2013

SSRU Social Science Research Unit

REPORT

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Acknowledgements

It is important to acknowledge the work of the authors of the studies included in this review and the children who participated in them, without which the review would have had no data. Particular thanks also go to Claire Stansfield (CS) and Josephine Kavanagh (JK) from the EPPI-Centre, who worked on several stages of the review; to members of the Steering Group of the EPPI-Centre's Health Promotion and Public Health Reviews Facility for their helpful suggestions and material for the review; to the participants in the National Children's Bureau's Young People's Public health Education, Awareness, Research (PEAR) Group for their work reflecting on the review's findings; to Louca-Mai Brady and Deepa Pagarani from the National Children's Bureau for facilitating a consultation session with the PEAR Group; to the Cochrane Information Retrieval Methods Group, especially Andrew Booth and Mala Mann for searching advice; and to Chloe Austerberry and other members of the Health Promotion and Public Health team for their support and advice.

Funding

This is an independent report commissioned and funded by the Policy Research Programme in the Department of Health. The views expressed are not necessarily those of the Department. The views expressed in the publication are those of the authors and not necessarily those of the EPPI-Centre or the Department of Health. Responsibility for the views expressed remains solely with the authors.

Conflicts of interest

There were no conflicts of interest in the writing of this report.

Contributors

The protocol was developed by JC, KD, JK, RR, CS, JT. JC, KD, RR, CS and CV conducted searches and screened studies. JC, KD, RR and CV developed the data extraction tool, and described, appraised and synthesised studies. The NCB PEAR group commented on interim findings. The report was written by RR, KD, JC, CV and JT.

This report should be cited as: Rees R, Caird J, Dickson K, Vigurs C, Thomas J (2013) *The views of young people in the UK about obesity, body size, shape and weight: a systematic review*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. ISBN: 978-1-907345-52-4

Contents

Preface

Scope of this report

This report describes the methods and findings of a systematic review of research about the perspectives of young people aged 12-18 on obesity and body size, shape and weight. Since it aims to inform a particular country's national policy, it focuses upon young people living in the UK.

This review forms part of a core programme of Department of Health-funded work at the EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. It is designed to dovetail with other EPPI-Centre research projects (all of which are available from the EPPI-Centre website[1]):

- a systematic map of reviews of social and environmental interventions to reduce childhood obesity;
- a map and searchable database of schemes tackling obesity and overweight in children and young people in England;
- a systematic map of the research on the relationship between obesity and sedentary behaviour in young people;
- a systematic review that explores the relationships between obesity and educational attainment; and
- a systematic review of children's views (aged 4-11) about obesity and body size, shape and weight.

Conclusions are discussed in detail, and the policy, practice and research implications of the findings are outlined. There are many useful messages in this work for policy makers, commissioners, practitioners and researchers who have a remit to explore policy issues or to promote or conduct research about young people and obesity.

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[1] http://eppi.ioe.ac.uk/

How to read this report

Because this review is a systematic review, using explicit and rigorous methods to synthesise the evidence in this topic area, the report is necessarily detailed. Without compromising on the transparency that is expected of a systematic review, we have structured this report to help those who are more concerned with the findings of the review, than with its methods:

- For skim readers:
  - There is a seven page executive summary
  - Part I presents more detail. It focuses on the findings of the review, with only very brief information given on methods.
  - Chapter 4 contains the results of the review. Each major theme from the findings has a clear sub-heading in the text with an italicised summary underneath.

- For other readers:
  - Part II describes the review methods in detail, and presents extensive tables that detail the research contained in the review.

A note on language

Descriptive terms for body size are extremely value laden. We have therefore tried to restrict our use of terms that could potentially further stigmatise individuals or cause offence. We have avoided unqualified use of the word 'fat' and other possibly pejorative terms unless young people or others are quoted as using them to describe themselves.

It is also difficult to report body size variation in this literature with precision, since the body sizes of participating young people are often not explicitly specified by study authors, or identified by young people themselves. When authors have indicated a distinction, we have used the phrase 'healthy weight' to contrast young people who are not overweight with those who would be classified as overweight. We have used 'large', 'larger', 'higher weight', 'larger size' or 'overweight' interchangeably to indicate that young people have a larger body size when this information is available in study reports. We have also used the phrase 'very overweight' to indicate that a young person is identified as having been diagnosed as clinically obese, or as having a body mass index in excess of 30.

The measurement of body size for the purposes of a study was rare, although some young people were recruited through obesity treatment programmes. Young people have been identified in this report as being in the obese category ('very overweight') only when they were described by study authors as being in that category at the time of the study, or had self-identified themselves as such. For brevity's sake, the term 'body size' is used when discussion could encompass both body shape and body weight, but these two different aspects of young people's body sizes are distinguished only when study authors' accounts make this possible.

Executive summary

Background

There are high levels of concern about body size in young people in the UK: young people can experience physical and psychosocial problems when young as a result of having a large body size, and young people's attitudes to and beliefs about their bodies, which can include high levels of body dissatisfaction, have also raised concern.

Despite growing understanding about the need to tackle a multitude of complex and multi-levelled influences on body weight, research from the USA in particular shows that blame and responsibility is often placed mainly on those who are overweight. Weight-related stigma and discrimination are widespread, and these impact considerably, both on the well-being of those who are very overweight and on their attempts to modify their size.

Unfortunately there is limited evidence from well-conducted studies to help us decide what can be done to prevent or deal with obesity. Furthermore, little is known about young people's own perspectives on obesity and body size, shape and weight. This systematic review aims to address this gap and to examine recent research findings from the UK where young people aged from 12 to 18 provide views about their own body sizes or about the body sizes of others. It is hoped that this can help inform the development of practice and policy-based initiatives and the commissioning of further research in ways that put young people's experiences in the forefront.

Methods

This systematic review aims to identify, appraise and synthesise published and unpublished research on young people's views about obesity and body size, shape and weight. The review focuses upon young people aged 12 to 18 living in the UK and addresses the following questions:

- What are young people's views about the meanings of obesity or body size, shape or weight (including their perceptions of their own body size), and what experiences do they describe relating to these issues?
- What are young people's views about influences on body size?
- What are young people's views about changes that may help them to achieve or maintain a healthy weight?

Studies were identified through sensitive searches of 18 electronic databases supplemented by searches of other sources such as websites, and contact with experts. Studies needed to have been published since 1997 and to collect the views of young people in the UK aged 12 to 18 using qualitative methods. *Views* were defined as attitudes, opinions, beliefs, feelings, understandings or experiences. Reports also needed to describe basic aspects of a study's methods.

Data extraction of the included studies was carried out using a framework, specifically designed for this review, to record information from each study (e.g. details of the study population and methods of sampling, recruitment, consent, data collection and analysis). The quality of each study was assessed in terms of its methodological rigour, including sampling techniques, data collection, data analysis and grounding of the findings within the data. The extent to which young people's views had been privileged and the breadth and depth of the findings were also used in order to assess the relevance of each study to the review's questions. Data were extracted and studies were assessed independently by two reviewers.

A thematic analysis was conducted to synthesise the studies' findings. A consultation was held with young people (The National Children's Bureau's PEAR group) to explore the credibility of a subset of the findings and their possible implications.

Findings

A total of 28,267 citations were identified and screened for relevance, and the findings from 30 studies were found that could be incorporated into the review's syntheses. The 30 studies varied in terms of their size, aims and approach.

Qualitative analysis of the findings of each study resulted in three main themes and an additional 11 sub-themes. The themes related to young people's views in three areas:

- General perceptions about different body sizes and society's responses to them (*It's on your conscience all the time*);
- Overweight young people's beliefs about influences on size and experiences related to their size (*If I had the choice, I wouldn't be this size*); and
- Overweight young people's experiences of trying to lose and maintain weight and their suggestions for action (*Make sure, even when it's hard, you've got people there*).

It's on your conscience all the time

Young people were more likely to identify personal behaviour, rather than environmental factors, as the main influence on their body size. Larger young people were blamed for their size, but also blamed themselves.

Young women were identified as being particularly concerned about body size, but concern amongst young men and pressures to appear unconcerned were also discussed. Being overweight was something to be avoided mainly for social reasons, as it would result in negative judgements from others. Moral terms were used frequently. Young people of all sizes characterised overweight people as being lazy and lacking in self-discipline. Discussion of body size held considerable potential for offence.

Young people, of various sizes, made it clear that body size was an important issue in their lives, for social reasons. The experience of body image and body size was understood by young people differently according to gender, with young women expected to be 'thin', 'slim' or 'skinny' and young men expected to be muscular. Overweight young people's views on the acceptability of larger body sizes were more nuanced. References to their own bodies included positive appraisals.

If I had the choice I wouldn't be this size

Overweight young people talked about frequent difficulties with social activities and friendship, and about size-related abuse. It was hard to find and wear fashionable clothes. Shopping trips and other interactions with peers could leave them embarrassed, isolated and marked out as being unacceptably different.

Abuse was seen by young people of all sizes as something that was experienced when you had a large body size. Overweight young people recounted severe incidents of physical abuse and reported high levels of distress at receiving unrelenting taunts and less direct forms of abuse. They felt particularly vulnerable to abusive attack in school, and in particular during physical education classes. For some, participation in school had become impossible. These young people identified how these difficulties, and others related to being a large size, could impact on their emotional health.

These experiences of stigma and abuse had led some young people to withdraw in an extreme way from other people and, sometimes, to comfort eating. They described feeling trapped in vicious circles, where size-related bullying, or feeling bad about their size, could lead to overeating, which led to further weight gain, feeling bad because of overeating, and yet more bullying, and so on.

Make sure, even when it's hard, you've got people there

Larger young people described frustration at repeated attempts to lose weight. They were sensitive to the additional effort they felt that they had to put into regulating their food intake compared to their peers. They reported barriers around physical exercise and had experienced problems with health care services and professionals. Home could also be a difficult environment for weight loss and larger young people described getting unhelpful feedback and criticism from family or friends. Success was often seen as being dependent on a person's psychological state, and an emphasis was placed on avoiding laziness.

Larger young people described frustration at the slow rate at which substantial weight loss is achieved. They reported a fear of weight rebounding. They described how feedback on progress was helpful. Also helpful was support from, and giving support to, others who were going through, or had gone through, the same set of experiences.

When asked what should be done to help them and others with their body sizes, young people tended to emphasise things that they, or other high weight young people should do to help themselves, such as eating healthily and exercising, learning more about nutrition and accessing their own psychological resources. When it came to suggestions about what others could do, these centred around the need for professionals and other people to be less judgemental and to give encouragement and other, practical, forms of support.

Conclusions

This review identified a substantial amount of recent research into views about obesity amongst young people in the UK aged between 12 and 18. It finds that these young people discuss larger body sizes in overwhelmingly social terms. Their accounts state that an overweight body size is to be avoided for social, rather than health reasons. Amongst young people with healthy weights, these reasons include not being attractive to others and having fewer friends. Ideal sizes differ to some extent between young women and young men, but these findings suggest that young women might not always be more concerned about their own size than young men. The accounts of young people with experience of being very overweight also make reference to the social nature of size, but here consequences appear far graver. These young people report how their size has impacted seriously on their ability to socialise with their peers, and has also led to severe and unrelenting size-related abuse, and a resultant sense of isolation and of being marked out as unacceptably different.

Young people also emphasise personal responsibility when talking about body size. Regardless of their own size, they also tend to be judgemental of, and apportion blame to, individuals who are very overweight, identifying this as due to a lack of willpower. And yet overweight young people, when reporting their experiences of trying to lose weight, describe a social environment that contains multiple barriers in the way of their success. They describe surveillance and abuse experienced while exercising or attempting to eat healthily, unhelpful food environments at home, and the receipt of unhelpful advice and criticism from others. These young people report how, as a result, they can often withdraw from social contact, avoid school-based physical activity, and eat for comfort. Their accounts also describe the vicious circle of increased weight gain, guilt and otherwise lowered mood that such strategies are likely to incubate. In contrast, positive accounts of weight-loss attempts might be expected to emphasise the benefits of contact with others who are going through, or have gone through, similar experiences.

The accounts of young people who have experience of being very overweight include numerous references to emotion and well-being. As well as the feelings of exclusion, shame and lowered mood described above, they report being offended by terms used to indicate size, including those used to identify people's weight status for health purposes. They express frustration at the time required for substantial weight loss, and fear that weight might easily rebound. Good mental health is seen as key for substantial weight-loss and having taken active steps to reduce weight can be a source of considerable pride, especially when successful.

Young people in the UK have not been asked by researchers to reflect to any great extent on what might help them achieve and maintain a healthy weight. This review suggests, again, that young people will tend to focus on their own behaviour. As well as making more careful efforts to eat healthily and exercise, young people in this review mentioned the need for young people to access their own psychological resources. Only one study in this review included reference to what other people should do. Here young people, many of whom who had experience of trying to achieve, and sometimes achieving, substantial weight loss, emphasised how health professionals and others should be less judgemental, and give encouragement and other practical forms of support.

Implications

Implications for public health and health promotion practice

The findings suggest that there is a need:

- for interventions designed to support young people around body size, shape and weight to build on the knowledge young people have already acquired, while recognising the physical, psychological and social constraints young people face when trying to reach or maintain a healthy weight;
- for programmes aimed at supporting young people who are overweight to consider how they can reduce the stigma that comes with living with a larger body to minimise any potential harm by, for example, focusing on barriers to and enablers of healthy behaviours, more than weight loss itself;
- to consider including a component of peer support and social activity in weight reduction interventions, as young people place value on the shared understanding, encouragement and solidarity gained from being with individuals with similar concerns about and experiences of body size, shape and weight; opportunities for overweight young people to socialise and make friends may go some way to reducing the social isolation they may well be experiencing;
- to provide young people with practical skills to support their emotional health, to help support the daunting task of losing weight and maintaining weight loss, especially after experiences of repeated failure;
- to provide young people with practical skills for identifying patterns of comfort eating and the use of food as a tranquilliser when stressed or angry, a stimulant when bored, or an anaesthetic when in mental distress;
- to deliver long-term weight-loss and maintenance interventions, as young people want time to gain sufficient confidence to engage and to receive ongoing and continued support;
- to support parents and health professionals in understanding and responding effectively, and yet sensitively to the physical, psychological and social challenges faced by very overweight young people.

Implications for policy

The findings suggest that there is a need:

- to address weight stigma in society through social interventions;
- to consider the full range of factors that contribute to obesity, especially those that are social or environmental in nature, and provide opportunities for young people to engage in positive healthy behaviours and to achieve and sustain a healthy weight;
- to involve diverse groups of children in the development and evaluation of initiatives.

Implications for research

The findings suggest that there is a need:

- for research which not only explores the social implications of body size with young people in greater depth but which actively engages young people in how to address these issues both in society generally and through social interventions;
- for further research on young men and on young people from minority ethnic and differing socio-economic groups, and for research to provide a breakdown of the participants who form the sample based on those categories;
- to conduct research which privileges young people's views and which makes attempts to reduce the power imbalance between researchers and young people during data collection the methodological norm rather than the exception.

Part I: Background and findings of the review

1. Background

This systematic review forms part of the programme of Department of Health funded work at the EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. It is designed to dovetail with other work on obesity from the EPPI-Centre[2] that includes:

- a companion review examining children's views (aged 4-11) about obesity and body size, shape and weight;
- two systematic reviews that explore the relationships between obesity and sedentary behaviour, and obesity and educational attainment respectively;
- a map and searchable database of schemes tackling obesity and overweight in children and young people in England;
- a systematic map that describes published reviews of social and environmental interventions to reduce obesity.

This body of work is intended to inform the development of policy and practice so as to reduce problems associated with obesity in children and young people. It builds upon an earlier programme of work from the EPPI-Centre, on barriers to healthy eating and physical activity in children and young people.

The review described in this report incorporates research involving young people in the UK aged between 12 and 18 years old.

1.1 Why body size is an issue

The prevalence of overweight and obesity amongst young men and women has remained constantly high over the period 2004-2008. During this period, approximately one-third of young women and men experienced a body weight judged to be above the healthy range (NHS Information Centre for Health and Social Care 2009).

Young people can experience physical ill health due to obesity while they are still young (Must and Strauss 1999, Wake et al. 2010, Wijga et al. 2010). Several studies have also found low levels of mental health in young people diagnosed with obesity, especially young women (Zametkin et al. 2004). One large Swedish study of 15 and 17 year olds found that obesity was associated with depression, depressive symptoms and feelings of shame (Sjoberg et al. 2005).

Young people's futures are also affected. An increase in weight above the healthy range confers an increased risk of cardiovascular disease, diabetes, osteoarthritis, cancer, rheumatic disease, asthma and other respiratory diseases (Black 1983, Garrow 1991). Obesity during adolescence may increase the risk for young women

[2] Full reports for all projects are freely available on the EPPI-Centre website at http://eppi.ioe.ac.uk.

of developing depression or anxiety disorders in later life (Anderson et al. 2007). One study from the late 1990s estimated that between 25 and 50 percent of young people who were then diagnosed as obese might remain in this category into their adulthood. The risk of adult obesity was estimated to be 2 to 11 times higher for young people who were diagnosed as obese, compared to those who were not (Must and Strauss 1999).

One examination of the social and economic consequences of overweight in adolescence and young adulthood found that women who had been overweight completed fewer years of education, were less likely to be married, had lower household incomes, and had higher rates of household poverty than women who had not been overweight, independent of their base-line socio-economic status (Gortmaker et al. 1993). Communities and wider society are also affected by increases in average body size. The negative health consequences arising from overweight and obesity are likely to result in increased rates of absence from work and reduce economic mobility (Must and Strauss 1999). It has been estimated that the treatment of increased levels of obesity-related illness could cost the UK Government £1.9-2 billion per year by 2030 (Wang et al. 2011).

1.2 Understanding young people's body sizes

Researchers have recently constructed 'system maps' to describe the complex and multi-levelled influences on body weight. The most ambitious of these models have sought to integrate biological and genetic factors, individual behaviour and influences from individuals' social and physical surroundings to provide a complete picture of the 'obesogenic environment' (Butland et al. 2007, Swinburn and Egger 2004, Swinburn et al. 1999). It is argued that major changes in the social and environmental determinants of obesity, such as work patterns, transport and the production and sale of food, have exposed an underlying biological tendency both to put on weight and to retain it (Butland et al. 2007). These authors describe weight gain in the population as, 'the inevitable … consequence [for many] of exposure to a modern lifestyle, and once a certain weight is gained, a large number of factors act to make that weight extremely difficult to lose'.

Young people may also be seen as living in an increasingly individualised world where bodies are considered personal projects that should be improved through dieting, exercise or even surgery (Orbach 2006). At fault, it is argued, are a pervasive visual culture and dieting industry that present increasingly homogeneous, underweight bodies as desirable. There is concern that girls and young women, in particular, are left feeling 'fat in their minds', regardless of their actual body shape or weight (Orbach 2006). Body dissatisfaction is known to grow among girls as they age, and in adolescent girls, it is one of the main risk factors leading to problematic attitudes to eating (Flannery-Schroeder and Chrisler 1996, Ricciardelli and McCabe 2001). Early dieting and related behaviours, such as exercising to lose weight, binge eating, food preoccupation and purging are all risk factors associated with various chronic problems in later life, including obesity, as well as heightened concern over body image, repeated weight gain after weight loss, and eating disorders such as anorexia and bulimia nervosa (Birch and Fisher

1998, Haines and Neumark-Sztainer 2006, Marchi and Cohen 1990, Shisslak et al. 1999).

Further complexity is added when we consider that individuals' interpretation of their own body size might now be changing as body sizes increase (Sobal 1999). A number of studies have explored the possibility that people's perceptions of what constitutes a healthy weight, and what constitutes over- or underweight for their own height, are affected by the sizes of others around them: a so-called 'normalising' effect (Johnson et al. 2008, Murphy Edwards et al. 2010, Wardle et al. 2006). If body sizes are, on average, increasing in the population, it is argued, there would then be a consequent upwards shift in perception as to what is a 'normal' and therefore an acceptable, weight. These studies usually invite participants to describe their body size by selecting from a five or six point scale that ranges from a category of very underweight or very thin at its lowest point to very overweight, or obese at its highest point. One study conducted in universities in 22 different countries found that terms selected to describe body size varied in relation to levels of overweight in the local population (Wardle et al. 2006). In the UK, one population-level study highlighted a decrease between 1999 and 2007 in the proportion of overweight adults who described themselves as such (from 81 percent to 75 percent) (Johnson et al. 2008).

In terms of young people, one study from the US (also running from 1999 to 2007) found that the proportion of overweight young people who described themselves, instead, as 'about the right weight' or 'underweight' ranged between 29 percent and 33 percent (Murphy Edwards et al. 2010). A UK-based study found that, of a sample of young people aged 14-15 whose reported size would classify them as overweight, just over a quarter (26 percent) described themselves, instead, as 'too thin' or 'just right' (Standley et al. 2009). While one interpretation of these findings is that people are getting less accurate at identifying that they have a weight that falls above the healthy range, these studies' authors and others have also noted considerable variation in response to terms used to discuss weight status. Men have previously been identified as more likely to emphasise muscle and fitness as contributing to well-being, and such ideas are common in critiques of body mass index (BMI) as an indicator of unhealthy weight status (Monaghan 2007). Respondents might also be resistant to using terms that they regard as stigmatising. They might be reluctant to identify themselves as overweight when they are accustomed to depictions in the media that illustrate overweight and obesity solely by using images of people who are experiencing the most extreme weights (Gray et al. 2011, Johnson et al. 2008).

And indeed, there is considerable evidence that being 'too fat' is still highly socially problematic and seen as transgressing social norms in most industrialised cultures (Lobstein et al. 2004), with recent anthropological work in other cultures identifying a shift to a similar model (Brewis et al. 2011). In one US study, undergraduates rated hypothetical groups of people classified solely as either 'fat' or 'obese' less favourably and as more disgusting than almost all other groups of stigmatised people they were presented with (Vartanian 2010).

Very overweight people experience societal stigma when others react negatively towards them or make decisions about them that are influenced by negative attitudes towards overweight bodies in general. Stereotyping is common, with overweight bodies linked with socially undesirable behaviours and other attributes, such as weakness of will, laziness and greed. Several studies of employers in the USA, for example, found that job applicants who were overweight were viewed routinely as having less ambition and productivity, poor self-discipline, low supervisory potential and poor personal hygiene (Puhl and Heuer 2009, Rogge et al. 2004). It has been suggested that the term 'civilized oppression' may be attached to the pervasive pattern of denigration and condemnation that is routinely experienced by individuals who would be classed as obese. Previous studies, largely from the US, indicate that very overweight children and young people are far from immune from this stigma, experiencing weight-related stereotyping and bias from their peers, educators and parents (Puhl and Latner 2007).

The rise in obesity has not been shared equally among all young people. While all children are vulnerable to becoming overweight, children whose parents have a low socio-economic status appear to be at a higher than average risk (Shrewsbury and Wardle 2008). Socio-economic inequalities in obesity are also stronger in young women than in young men. Young Asians are more likely to be very overweight than young people who are white (Department of Health Public Health Consortium et al. 2007). The authors of this last study, noting the speed at which the prevalence and the social patterning of obesity in the UK have changed, suggest that this identifies adverse environmental factors as the primary cause. This is a notion reiterated by Butland and colleagues, who write:

this is not to dismiss personal responsibility altogether, but to highlight a reality: that the forces that drive obesity are, for many people, overwhelming. Although what we identify in this report as 'passive obesity' occurs across all population groups, the socially and economically disadvantaged and some ethnic minorities are more vulnerable. (Butland et al. 2007, p5)

Indeed, while it has been reported recently that there are signs that the trend to increased overweight and obesity has levelled off in recent years, the socio-economic gradient has increased, with children of a lower socio-economic status more likely to be overweight than peers of a higher socio-economic status (Stamatakis et al. 2010). In the USA, inequalities also appear to be an issue in public discourses about obesity, with people from minority ethnic groups most likely to be criticised for their obesity on lifestyle grounds. Instead of addressing this complexity, media coverage routinely blames obesity solely on individual choices, without discussing the structural factors that might influence weight gain (Saguy and Riley 2005).

The relative importance of social and environmental factors for obesity, the role of inequality, the varied interpretations of body size classifications and terms, and the social consequences of obesity described above have led many to argue for extreme caution when developing policy and practice in this area. Interventions that solely target individual behaviour, it is argued, are unlikely to be sustainable, especially for those who are most disadvantaged. A preoccupation with body size, in the absence of effective measures to help achieve or maintain a healthy body size, may result only in a lowering of young people's well-being. An emphasis on body size, as the main outcome of programmes, could act to increase the stigma felt by those who are most overweight (Thomas et al. 2010b). The societal emphasis on an individual's accountability for causing and tackling overweight contributes to a situation in which those with stigmatising conditions rated high on personal responsibility, such as obesity, are disliked, evoke little pity and high anger, and receive low ratings of helping tendencies (Puhl and Heuer 2009). Indeed, physical activity and healthy eating initiatives could act to alienate and marginalise very overweight people further (Curtis 2008, Lewis et al. 2010, MacLean et al. 2009, Wills et al. 2008b). Others note that there are important physical risks associated with many weight-loss methods and products, and emphasise that initiatives should aim to improve lifestyles and health, not merely attempt to make or keep people thin (Campos et al. 2006).

1.3 Young people centred frameworks for health

Increasingly, policy in the UK and elsewhere seeks to put children and young people at the centre of their own health-related decisions (Department for Education and Skills 2003, Department of Health 2004b, UNICEF 2009). This emphasis recognises that children and teenagers are people in their own right, and are competent social actors who are able to make sense of their own lives. It also holds that adult-led agendas can be limited in their understanding of young people's health behaviours; children and young people are often portrayed largely in terms of 'adults to be': future contributors to society whose physical health, in particular, can be 'at risk'. In contrast, children and young people can be seen instead as part of cohorts 'of their time', experiencing and reacting to specific social, economic and political contexts (James and James 2004, Mayall 1998).

Never before have young people experienced the current combination of environmental circumstances that make obesity so likely, or lived with such a widespread public emphasis on avoiding body fat and approval for thinness (Butland et al. 2007, Saguy and Almeling 2005). Today's young people hold a vital set of perspectives on what it is like to be a young person in an obesogenic world.

It is also possible that adult society's preoccupation with the health implications of different body sizes does not always resonate with young people's views or experiences. For example, in a recent large-scale study on what makes a good childhood, children and young people did not discuss obesity or fatness in terms of health - or indeed in any other way (Layard and Dunn 2009). Children and young people did say that a good childhood was characterised by supportive friends and family. They identified loneliness, bullying, pressure and lack of support as major influences on their health and well-being.

1.4 Policy background

In 1998, in response to a rise in obesity rates across several nations, the World Health Organization identified a 'global epidemic' in obesity (World Health Organization 1998). In 2001 the National Audit Office's report *Tackling Obesity in England* asserted rather pessimistically that:

Obesity is not an easy problem to tackle, though even modest weight loss confers significant medical benefits. Against a background of rising prevalence, halting the upward trend presents a major challenge. Part of the solution lies in preventing people from becoming very overweight, as much as helping those who are already are. As a lifestyle issue, the scope for policy to effect such changes in a direct way is very limited. The Department of Health cannot by itself be expected to be able to 'cure' the problem. (National Audit Office 2001 p1)

Nevertheless, the Department of Health's 2004 white paper *Choosing Health* identified tackling obesity as a priority (Department of Health 2004a). The core principles of *Choosing Health* have been described as: informed choice, support tailored to individual needs, and working in partnership with health care providers (Commission for Healthcare Audit and Inspection 2008).

The conclusions of the Foresight Report *Tackling Obesity: Future Choices* (Butland et al. 2007) heavily influenced the Scottish Government's longer-term strategy for tackling obesity as presented in *Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity 2008 -2001* (Scottish Government 2008).

Similarly, the strategy *Healthy Weight, Healthy Lives* (Cross-Government Obesity Unit et al. 2008) set out a framework for action in five main areas: 'promoting children's health; promoting healthier food choices; building activity into our lives; creating incentives for better health; and personalised advice and support'. 'Change4Life' was the social marketing arm of the *Healthy Weight, Healthy Lives* cross-governmental strategy for England. The Change4Life advertising campaign began in January 2009, and in the initial stages targeted young families with children aged 5-11 years. Subsequently, the remit of Change4Life was widened and in February 2010, 'Change4Life' for adults was launched.

The focus upon individual choice and responsibility continues, described as 'policy interventions that rely on measures other than prohibition or the elimination of choice' (House of Lords Science and Technology Select Committee 2010). Whilst not necessarily a statement of Government policy, reports such as the Government Social Research Unit's *Behaviour Change Knowledge Review* (Darnton 2008) and the Cabinet Office and Institute for Government report *MINDSPACE: Influencing behaviour through public policy* (Donlan et al. 2010) and the 'Behavioural Insight Team', which draws on theories from behaviour economics to considers the factors that influence individuals' choices (Cabinet Office Behavioural Insights Team 2010), can be seen to be representative of this continuing trend.

1.5 Existing research

Unfortunately, the evidence available to inform effective approaches to both treatment and prevention of obesity is marred by poorly conducted studies using restricted populations and inconsistent methods of assessing and measuring outcomes (Oude Luttikhuis et al. 2009, Summerbell et al. 2005). Despite much research effort, we simply do not know what interventions work to promote healthy body size in young people. As Aicken et al. (2008) note in their mapping of youth obesity schemes in England for children aged 4-18, rigorous evaluation of such interventions is rare.

Another weakness of existing evidence on interventions is its failure to incorporate what young people themselves think (Oliver et al. 2008b). It has long been argued that young people's views can and should play a part in the design of interventions aimed at aspects of their lives (Zaslow and Takanishi 1993). The rights of young people to participate in decision making that relates to them is enshrined in the United Nations Convention on the Rights of the Child (UNICEF 2009) and young people's ideas about health and other areas of their lives are seen as valid contributions to the development of social policy at the governmental level (Department for Education and Skills 2003, Department of Health 2004b). Research that explores how young people experience and make sense of their everyday lives, it is argued, can inform the ways in which interventions aim to bring about positive outcomes (Brannen et al. 1994, Moore and Kindness 1998). Young people will attach a range of meanings to body size and weight that may influence the ways in which they act and communicate around weight and health. They may have insights into factors that influence their own weight and that of their peers, and ideas about how they can be supported to keep their own weight within a healthy range.

Systematic reviews use rigorous methods in searching for, describing, appraising and synthesising the findings of existing research in order to answer a research question in a methodical and transparent way (Harden et al. 2004). Like all kinds of research, systematic reviews have strengths and weaknesses. A well-conducted systematic review can be considered to be an authoritative account of the state of knowledge in a field. One weakness can sometimes be a lack of substantive findings, due to few studies being found to address a review's question or to methodological limitations in the studies identified.

A companion EPPI-Centre review to this one, of the views of children (aged 4-11) about body size, was conducted in 2009 (Rees et al. 2009). The main findings of this earlier review covered the meanings attached by children to body size. Children in the UK appeared not to have been asked by researchers to reflect on what might help them reach or maintain a healthy weight. The review found that:

- children in the UK who had a healthy body size might often not have body size very high on their everyday agendas. When these children saw body fat as a problem it was because of the impact it had on children's lives as social beings.

- many very overweight children, however, experienced body size as a big problem. They were likely to experience unhelpful responses to their own body sizes from other children, as well as adults.
- fat-related name calling and bullying was considered by children, whatever their body size, to be a normal occurrence.
- children, whatever their body size, often did not consider the health consequences of obesity to be important.

Both researchers and children have the potential to describe and interpret young people's experiences, but they do not always have equal power. Strategies which can be useful in minimising unequal power relationships include: allowing young people flexibility in terms of what they talk about; encouraging them to describe their lives through storytelling or using visual media (rather than in question and answer format); using focus groups made up of groups of friends to mimic as much as possible how young people usually interact; and encouraging young people to engage with, and voice opinions about, the research process (Mauthner 1997). Systematic reviews can attempt to examine whether such approaches have been used and can then comment on the quality of the review's findings with respect to the extent to which young people's views have been privileged and the likelihood that young people's perspectives have been missed or distorted. This review therefore sought studies that used open-ended questioning and interpretive methods from researchers to explore children's perspectives from the starting point of these young people's own words.

Systematic reviews that bring together the findings of research about young people's views can help policy makers gain a broader and deeper understanding of obesity from young people's perspectives (Harden et al. 2004). Aside from the EPPI-Centre's previous companion review discussed above, our preliminary searches located only one other systematic review that focused on lay views about body size; this explored the views of adults regarding the growth of infants (Lucas et al. 2007). Our new review addresses this research gap and aims to inform policy and the commissioning of further research in ways that place young people's experiences foremost.

2. Aims and research questions

2.1 Aims

This systematic review aimed to identify, appraise and synthesise published and unpublished research on young people's views about obesity and body size, shape and weight. The review focused upon young people aged 12 to 18 living in the UK and addressed the following questions:

- What are young people's views about the meanings of obesity or body size, shape or weight (including their perceptions of their own body size), and what experiences do they describe relating to these issues?
- What are young people's views about influences on body size?
- What are young people's views about changes that may help them to achieve or maintain a healthy weight?

The review examined studies involving young people from the UK and aged 12 to 18 that examined their attitudes, opinions, beliefs, feelings, understanding or experiences about obesity or body size, shape or weight.

- Studies that solely examined young people's health status, behaviour or factual knowledge were not included.
- The review only covered studies published from 1997 onwards. This date is shortly before the WHO identified obesity as a 'global epidemic' (World Health Organization 1998) and provided a picture of just over a decade's worth of research within a relatively current context.
- The review's focus on studies from the UK aimed to maximize the relevance of the review for the development of UK policy.

3. Review methods

The following section presents a brief summary of the methods of the review. Detailed methods are presented in Part II of this report.

To be considered for inclusion within this review, studies were required to meet pre-specified eligibility criteria. We included reports of studies conducted in the UK and published during or after 1997 which employed qualitative methods (e.g. in-depth or semi-structured interviews and/or focus groups) to collect the views of young people aged 12 -18 years old regarding obesity, body size, shape or weight. Views were defined as attitudes, opinions, beliefs, feelings, understandings or experiences. Reports also needed to have described at least one of two key aspects of a study's methods: either the methods of data collection or methods of data analysis. Further exclusion criteria were applied at a later point in the review (see below).

A sensitive search strategy was developed and a comprehensive, systematic search was carried out. Eighteen bibliographic databases (including specialist registers and library catalogues) and 54 websites were searched. Handsearching of six journals was undertaken. Limited searches were conducted using Google, Google Scholar, and the Scirus and Clusty search engines. Fifteen key informants and experts were contacted with requests for relevant research. Reference lists were scanned for relevant reports and forward citation searching of the included studies was undertaken.

Data extraction of the studies meeting the above eligibility criteria was carried out using a framework, specifically designed for this review, to record information from each study, including details of the study population and methods of sampling, recruitment, consent, data collection and analysis. Studies examining a population composed entirely of young people with a diagnosis of an eating disorder were excluded from the review at this point (see Part II).

The quality of each study was assessed in terms of its methodological reliability, including sampling technique, data collection, data analysis and grounding of the findings within the data. The extent to which young people's views had been privileged and the breadth and depth of findings were also examined, in order to assess the relevance of each study to the review's questions. Data extraction and quality assessment were conducted independently by two reviewers, who then met to compare findings. Studies that failed to meet a minimum quality threshold (they were rated as having both a low reliability and a low relevance for the review questions) were subsequently excluded from the review.

Synthesis of the findings was undertaken by means of thematic analysis (Thomas and Harden 2008a). Studies were first read through separately by each researcher. The study researchers then gathered as a team or in pairs to discuss the findings of each study in turn. The findings were examined line by line, and the researchers suggested and applied descriptive codes to capture meanings in the data. Specialised reviewing software, EPPI-Reviewer 4 (Thomas et al. 2010a) was used to record this coding. Once all studies had been examined more than once, the team then also explored possible similarities and differences between the ideas captured by the codes and looked for matches with the review questions about meanings and experiences, influences and changes.

Codes were grouped and condensed, where possible, to produce higher-order themes, until a smaller number of broad themes emerged, each containing a set of more specific sub-themes. Phrases were then taken directly from the reports and used as theme labels. A diagram of these labels was also created to act as a quick illustration of the themes and sub-themes in the synthesis.

Group meetings and a team journal were used to capture progress at the end of each day of synthesis and to share and record individual and group insights into the content of the studies' findings and the synthesis process.

User involvement was sought for this review by presenting an outline of the interim findings of the synthesis to PEAR (Public Health Education, Awareness and Research), a group of young people working with the National Children's Bureau. The aim of the consultation was for the review team to hear young people's views on the credibility of the findings, to identify any possible gaps or missing themes within the analysis, and to seek views on communicating the findings to young people.

4. Findings

This review synthesises young people's views about obesity and body size, shape and weight. A total of 30 relevant UK-based studies were identified. Further details of the flow of studies through this review are presented in Part II of this report, which also presents the quality ratings assigned to each study, and considers each study's contribution to the synthesis.

This chapter presents the synthesis of findings from these studies. It first describes the young people involved in the studies which were synthesised (Section 4.1). A narrative is then presented which explores the themes that were recurrent or contrasting among these studies (Section 4.2). This narrative is followed by the findings of the consultation with young people on the review's interim findings (Section 4.3). Table 4.1 assigns a number to each of the studies in this synthesis. These numbers are referred to throughout this chapter.

Table 4.1: Studies in the synthesis (N=30)

Number	Study name	Linked studies
1	Billings et al. (2008)	
2	Bramham (2003)	
3	Cockburn and Clarke (2002)	Cockburn (2004)
4	Curtis (2008)	
5	Daley et al. (2008)	
6	Flintoff and Scraton (2001)	
7	Frost (2001)	
8	Gorely et al. (2003)	
9	Griffiths and Page (2008)	
10	Grogan et al. (2009)	
11	Grogan and Richards (2002)	Grogan (2008)
12*	Health Experience Research Group (2010)	
13	Hester et al. (2009b)	Hester et al. (2009a)
14	Holt et al (2005)	
15	Krayer et al. (2008)	
16	Kurtz and Thornes (2000)	
17	Lloyd and Dittmar (1997)	Dittmar et al. (2000)
18	Lucas and Lloyd (1999)	
19	Ludvigsen and Sharma (2004)	
20	Mulvihill et al. (2000b)	Mulvihill (2000a)
21	Owen et al. (2009)	
22	Percy-Smith (2007)	
23	Reid and Hendry (2001)	
24	Shucksmith and Hendry (1998)	
25	Velija and Kumar (2009)	
26	Wallace et al. (2007)	
27	Willett (2008)	
28	Wills et al. (2006)	Wills et al. (2005), Wills (2005a), Wills et al. (2008b)
29	Wills et al. (2008a)	
30	Wills (2005b)	

* To aid transparency, individual webpages are cited when quotes from this study are used, which are labelled 2010 a-w. A full list of topics can be found in Health Experience Research Group (2010).

The views, between them, relate to all three of the questions posed by this review. As is covered in detail below (see section 4.2), young people discussed the meanings of different body sizes, their perceptions of body sizes and influences on body size, and their ideas about what should be done to support young people in this area.

4.1 The young people and studies in the synthesis

The studies involved over 1,250 children aged from 12 to 18 years old. Appendix A details the children's characteristics. Most studies used a mixed-sex sample although seven involved girls only (1, 3, 6, 7, 18, 25, 27) and two focused on solely on boys and young men (2, 11). Most of the children came from England. Four studies recruited children from Scotland (23, 24, 28, 29) and one recruited from Wales (19).

Participants were nearly all recruited through their schools. One study recruited young people from a paediatric cancer clinic (26). Six studies (4, 5, 9, 13,[3] 14, 21) recruited children who had been referred to weight-loss interventions, either clinic based (5, 9, 21) or based on a residential weight loss camp (4, 13, 14). One study reported views of young people, some of whom had attended community-based interventions (12).These seven studies focused on the views of children who were defined in some way as overweight, and this was most commonly determined by the young person's BMI being above a certain threshold (12[4]). Two studies deliberately included in their sample young people whose size classified them as overweight or obese (28, 29). The remainder of the studies reported on the views of young people who were in a mixed sample or were not specifically selected because of their weight status. Young people have been identified in this review as being in the obese category ('very overweight') only when they were described by the study authors as being in the obese category at the time of the study, or had self-identified themselves as such.

The majority of the studies did not report at all on the ethnicity of their sample. Four studies reported samples of young people where the majority were from black and minority ethnic groups (1, 2, 22, 27) and eight reported samples that were

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[3] Where there are linked studies, it is assumed that the first study listed in Table 4.1 is intended. Linked reports are indicated when specifically referred to.

[4] Where this study is referred to broadly, it is referenced as study number 12. When necessary, specific 'chapters' (pages of the website) are referred to individually.

predominantly white (3, 5, 6, 14, 16, 25, 29, 30). Two studies reported ethnically diverse samples (8, 20).

Few studies reported explicitly on their participants' socio-economic status; however, one notable exception was a pair of studies by the same author which aimed to focus on views of young people from working-class (28) and from middle-class backgrounds (29).

Studies ranged considerably in size, aim and approach (see details in Appendices A and B). Ten involved 20 children or fewer (3, 4, 7, 9, 11, 13, 14, 21, 25, 26) and two involved a hundred or more (8, 20).

Thirteen of the thirty studies were focused directly on young people's views of body size. Five of these focused on the views of larger-sized young people who had recently taken part in an intervention to lose weight (4, 13, 14, 21) or encourage physical activity (5). Eight other studies asked young people to describe their own and others' experiences of being a certain body size, or for more general views about body size or image (7, 9, 11, 12, 15, 17, 28, 29).

Of the 17 studies whose principal aim was to examine something other than body size, shape or weight, the focus was on: young people's overall health needs (16, 22, 23, 24), food (19, 30); smoking (10, 18); cancer (26); clothes and identity (27); physical education (2, 3, 6, 8, 25) and physical activity (1, 20).

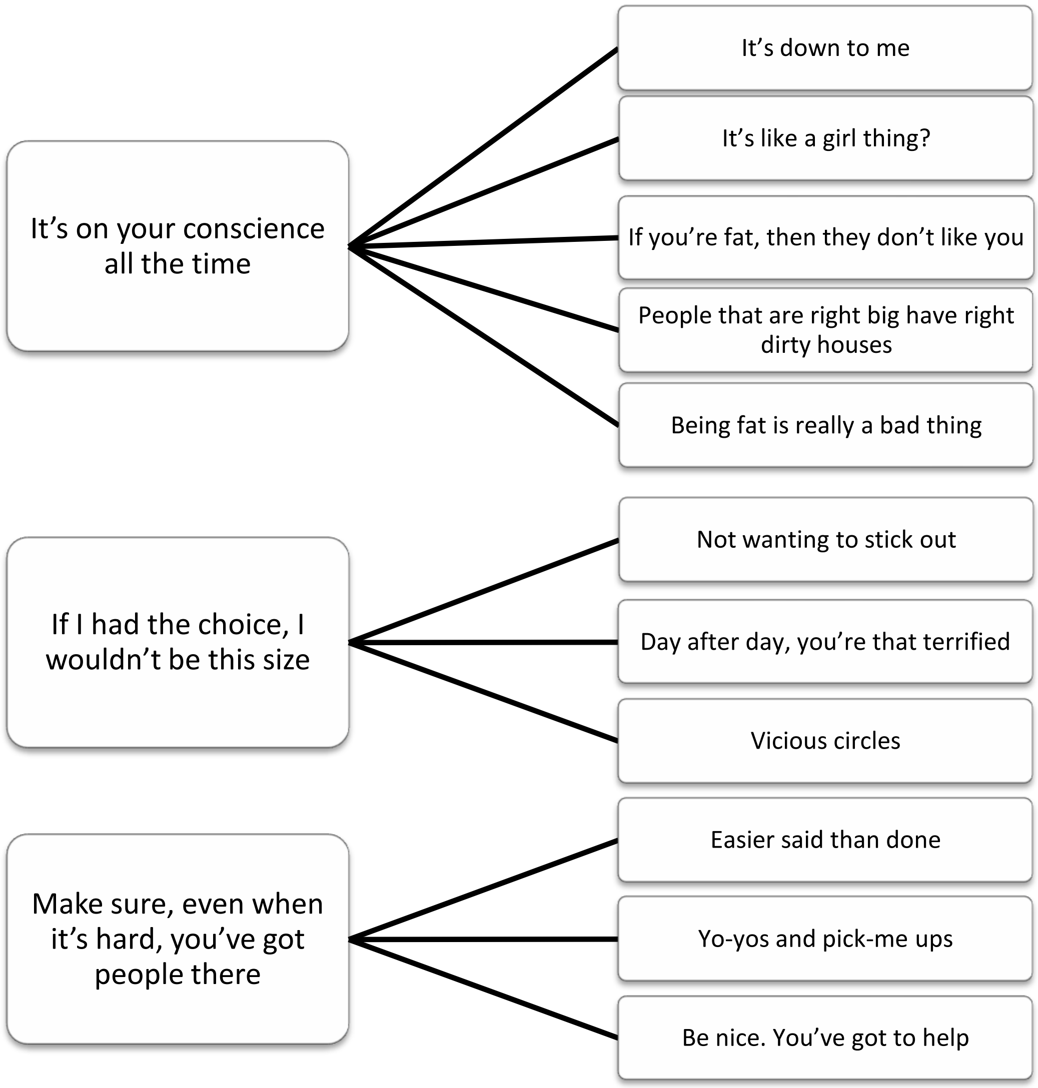
Of the nine studies examining a single-sex population, four aimed to explore gendered experiences of physical education (2, 3, 6, 25).

Young people were involved in group discussions in 10 studies (1, 7, 10, 11, 16, 18, 19, 20, 22, 25) and were interviewed individually in 14 (3, 5, 6, 9, 12, 13, 14, 15, 17, 21, 23, 26, 28, 30). In four studies, participants took part in both group and individual interviews (2, 4, 8, 24). In one of the studies, the young people expressed their views by creating posters (27).

4.2 What were the views of the young people in these studies?

Qualitative analysis of the findings of each study resulted in the identification of three main themes and an additional 11 sub-themes (see Figure 4.1 and text below for explanation).

Figure 4.1: Themes identified across studies of young people's views[5]



The themes were related to young people's views in three areas: (i) general perceptions about different body sizes and society's responses to them - perceptions which were often couched in moral terms (*It's on your conscience all the time*); (ii) overweight young people's beliefs about influences on size and experiences related to their size (*If I had the choice, I wouldn't be this size*); and (iii) overweight young people's experiences of trying to lose and maintain weight

[5] These theme labels use phrases taken from studies included in the review.

and their suggestions for action (*Make sure, even when it's hard, you've got people there*).

Appendix C lists all the sub-themes and indicates whether or not views from each study contributed to a theme's development. The rest of this chapter describes young people's views in each of the three areas in turn.

4.2.1 It's on your conscience all the time

This section examines the views of young people, many, but not all of whom were without experience of being overweight, about the way body size is dealt with in society. More specifically, it contains perspectives on what can influence body size, who is accountable for and concerned about body size, the implications of being overweight and the associated language, ideal and aspired-to bodies, and ideas about what is acceptable.

Young people were more likely to identify personal behaviour, rather than environmental factors, as the main influence on their body size. Larger young people were blamed for their size, but also blamed themselves.

Young women were identified as being particularly concerned about body size, but concern amongst young men and pressures to appear unconcerned were also discussed. Being overweight was something to be avoided mainly for social reasons, as it would result in negative judgements from others. Moral terms were used frequently. Young people of all sizes characterised overweight people as being lazy and lacking in self-discipline. Discussion of body size held considerable potential for offence.

Young people, of various sizes, made it clear that body size was an important issue in their lives, for social reasons. The experience of body image and body size was understood by young people differently according to gender, with young women expected to be 'thin', 'slim' or 'skinny' and young men expected to be muscular. Overweight young people's views on the acceptability of larger body sizes were more nuanced. References to their own bodies included positive appraisals.

It's down to me

Young people's accounts of what could make them become overweight, or lose weight, emphasised individual behaviour, such as exercising and dieting, above all other factors. Young people of all sizes also stressed that individuals were responsible for, and could be blamed for, their own size. When their bodies were already big, young people often felt that their willpower was insufficient.

In terms of factors that could be influential for body size, some young people talked in terms of relatively unchangeable physical phenomena, such as body metabolism, bone structure, puberty or genetics (1, 7, 12, 28, 29). Young people in one study linked quitting smoking with weight gain (10). Young people, regardless of their size, tended to emphasise two influences above all. They said that, to avoid getting large and to lose weight, they should either be physically active, or should watch what they eat, or both (5, 6, 7, 11, 12, 20, 23, 24, 27, 28).

Young people, of various body sizes, also emphasised that a young person's size was within their control (11, 12, 28). Some young people were explicit in attributing blame (11, 12, 29), e.g.:

Obesity is brought on yourself I think, obesity is like when you've got eating, bad eating habits and you don't exercise. [Rachel, female, 16 years, white, overweight] (12: 2010m)

Young people also discussed who was answerable for a person's body size. Young people in one study stated 'quite fervently' that a young person's size was their own responsibility (28). When asked whether parents had any responsibility, none felt they did (28). One of the larger boys in this study said that losing weight was his task alone:

'It's maybe like you… your parents, encouraging [you] and that sometimes Eh? But it's not down tae your parents. It's down to you. I mean if you're the one that wants to lose weight, then you can't say 'Right, mum, can you lose weight for me?' … you're the one who has to go oot for exercise and cut doon on your foods and that eh? That's … what I ken, its doon tae me.' [Nick, male, 13 years, ethnicity unspecified, very overweight] (28 p400)

In only two studies did young people suggest that some responsibility might lie elsewhere (12, 19). In one, a young woman was quoted as saying:

They are saying that we are going to be the generation that are going to be overweight and that, but we can't help it, what's in our canteen…' [girl, 14 years, ethnicity and body size unspecified] (19 p27)

Young people in the other study, many of whom had larger body sizes, again only intimated that responsibility might be shared (see their suggestions for what others could do to help young people in the part of Section 4.2.3 entitled, 'Be nice. You've got to help'). They tended, however, to present more nuanced views about influences on size. One young woman, for example, considered that influences might differ from one person to another, and could depend on circumstances:

I don't know, I think there, there are some sort of genetic implications, I mean all the women in my family have been large, but then again my sister isn't, so, and then again it's confidence. Some people have different eating habits that sometimes it's the fact that people have high metabolisms that makes them sort of skinny and so on. Because it's different with people, but I suppose they just have the situations where, where they're living and, and if they, if they like chocolate then I'm sure they'd sit around and eat it all day. I don't know, I think it's, sometimes it's an emotional thing where, you know, they comfort eat, and sometimes it's just how they're made. I don't know. [Holly, female, 18 years, white, very overweight] (12: 2010m)

Among the young people who felt overweight or already were large, many made it clear that they knew they had to do something. As one young women put it:

if, if you don't do exercise and you, you know, if you know that it's, you're overweight you kind of got to just take action really. [Emily, female, 14 years, white, overweight] (12: 2010t)

Many described previous, unsuccessful attempts to lose weight (also see 'Easier said than done' in Section 4.2.3). While these young people sometimes made claims for the strength of their own will, more often they were critical of it, e.g.:

I would love to say it's all to do with genetics and I have nothing to do with it, but I know that what I do isn't particularly healthy and therefore it's due to me as well … because I prefer to go and eat chocolate, and have a couple of ... for a treat, then I do that, so I think it's for me it's just the fact that I'm stubborn and lazy and that I like eating my food. [Holly, female, 18 years, white, very overweight] (12: 2010m)

It's like a girl thing?

Many young people identified young women as being more interested in their body size. Other accounts, however, identified young men's concerns. Young people also described situations where they might feel under pressure to hide how they felt about their own or others' sizes.

Young people across many studies expressed the idea that young women in general are more concerned than young men about their body size, (7, 8, 10, 11, 15, 19, 29, 12: 2010b), e.g.:

Everyone wants to be really popular and get a girlfriend or boyfriend, especially girls. I think girls go on at each other about size. Boys don't take any notice and don't care, well most of them anyway. Girls are more sensitive than boys. They look in the mirror and compare themselves. [Male, 13 years, ethnicity and body size unspecified] (8 p439)

Some young people also said that young women were more likely than young men to compare their body with others', or against some other standard (7, 15, 17), e.g.:

Don't think boys worry that much, girls are always going on about how fat they are when they're skinny. [Female, 17-18 years, ethnicity and body size unspecified] (17 p11)

It's like a girl thing. It's like 'oh she is wearing some tight jeans she looks awful'. [Male, 13 years, ethnicity and body size unspecified] (15 p895)

Young people presented various reasons for young women's relative concern about their bodies. In addition to, as specified above, being in some way being psychologically more prone (7, 8, 17, 12: 2010b), or being affected differently by the media (7) (also see below), young women were seen as having figures that were less able than boys to hide fat (7), being affected by changes at puberty (7, 8), and feeling judged by others and teased about their bodies by boys in particular (8) (regardless of size). With respect to the last of these, both young women and men reported the teasing and scrutiny of young women with healthy body sizes during school physical education (PE) (2, 3, 6, 8), e.g.:

…lads are more dominating and they will take control. They will refer to girls' physiques and to girls' looks. Then a girl might say, 'Oh, well you're thick', whilst a boy might say, 'Well you're ugly. [Paul, male, Afro-Caribbean, age and body size not specified] (2 p64)

While only two studies focused specifically on the views of young men, their findings suggest that they, too, consider body size to be important, although in different ways from young women. Young men also described comparing their bodies with those of other young men, though with the additional focus of height and musculature, challenging the idea that young men were unconcerned with or unaffected by their body shapes, e.g.:

Tobias: 'Yeah, I need to be a bit bigger because my brothers are like six foot and I'm a couple of inches shorter than all my friends as well and I feel pressure.' Tom: 'If you've got friends who are like quite big in build you want to be the same as them. Although you might not be able to do anything about it, it's on your conscience all the time. You want to be that sort of size.' [Tobias and Tom, male, 16-17 years, ethnicity unspecified, healthy weight] (11 p229)

One young woman identified how young men who were 'a bit skinny [and with] thin legs and so on' were vulnerable to ridicule [Anne, female, 15 years, white, healthy weight] (2 p69); in two other studies young men and women were seen as being equally self-conscious but showing it differently (7, 17) with young men suggesting elsewhere that some young people felt fat but joked about their size in order to hide their concerns (11).

Some young people claimed that young women compared themselves with the bodies of celebrities, and might want to change their bodies as a result (7, 12: 2010b, 15, 22, 27). Again, singling out young women in particular, one young woman said:

Girls, I think are more susceptible to models, magazines etc showing images of perfect women …' [Female, 16-18 years, ethnicity and body size unspecified] (7 p149)

Some of the young people with larger bodies were particularly emphatic that ideals prevalent in the media encouraged body dissatisfaction. As one young man put it:

everyone's just like, 'Oh celebrities' … and there's so much like going around about it, and in young people it's just everywhere. Everywhere, everywhere everyone wants to be like a model, who eats barely anything and size zero. [Huw, male, 17 years, white, overweight] (12: 2010v)

When talking about themselves, however, young people with healthy body sizes tended to downplay the impact of seeing representations of ideal bodies, e.g.:

I know I can't look like women in magazines but as long as I look good for myself. [Female, 15 years, ethnicity and body size unspecified] (6 p9)

Another young person, in contrast, argued that young people are indeed affected by body size ideals:

Well, you know, it's about what you're supposed to look like, to look good. And being thin looks good. All the magazines and models and such. You aren't supposed to believe that, but everybody does. That's what girls look for, want to look like. That is what boys think is good looking. [14-17 years, gender, ethnicity and body size unspecified] (23 p156)

Here, it is suggested that not only are young people affected by a thin ideal, but that they may also feel under pressure to act as though they are not affected in this way (for additional views on ideal and acceptable body sizes, see 'Being fat is really a bad thing', below in this section. One young woman, however, was attracted to the way one public figure (the American singer Beth Ditto) appeared comfortable with her large body size:

She's, she's massive. But it's not about her being big that makes people attracted to her so much. It's that fact that she seems so confident with it and she seems so comfortable in being the size she is, the way she is. She just doesn't seem to care ... Whereas all the skinnier celebrities or whatever, always seem like, you know, they exercise too much, always dieting, they're always not eating something, they always look really, some of them look really ill sometimes. But her, she just seems to not care and that's the bit that appeals.' [Annan, female, 18 years, Somali, overweight] (12: 2010v)

If you're fat, then they don't like you

When young people talked about the consequences of being a larger size, these consequences were largely social in nature; the impact on health was mentioned mainly by those who were already larger. Young people saw body size as being very important when wanting to attract the opposite sex.

Young people do not necessarily equate a large body size with ill-health, though some (mainly young men) did report concern that an increased size might, or already was, reducing physical ability or performance (16, 28, 29). In one study focused around body size, where participants ranged across healthy to very high weights, only a minority spontaneously mentioned improved health as a benefit of losing weight (28). In contrast, health implications were discussed in some depth in studies of young people with a high weight, often with them identifying the need to take action for the sake of their future health (12: 2010k), e.g.:

And all the things that you see, you know, oh you can get heart disease and all this … to me that would be a big risk because I would not want to be older and have that worry kind of thing, I would not want to self-inflict that kind of damage on my own body. [Becca, female, 17 years, white, overweight] (12: 2010k)

Young people, however, placed the most emphasis by far on the impact of body size on relationships. Young people with a healthy size identified how overweight young people would not be respected (18), or would be picked on (7), or bullied (28). (For overweight young people's perspectives on size-related abuse, see the part of Section 4.2.2 entitled, 'Day after day, you're that terrified'). Larger young people also considered that being overweight could prevent you being liked:

[When asked about their perception of an ideal world] I'd probably have more friends because a lot of people, you know like popular people at school, they just don't like fat people. They've got no reason to but they don't like them. They'd like me more 'cos I was … thin. I'd probably be a lot happier all the time instead of being quite [angry] a lot. [Danni, female, 15 years, ethnicity unspecified, very overweight] (13: 2009a p63)

More than anything, healthy weight young people emphasised the negative impact of larger body sizes on relationships with the opposite sex, (8, 11, 12: 2010j, 25, 30) e.g.:

Simon: '…if you were fat you'd be looking at yourself thinking you're right ugly.' Sandy: 'And if you're hanging around with a mate who is right muscular and stuff and he's got a right good body shape all women are hanging round him, that would depress you a bit that would.' [Simon and Sandy, males, 16-17 years, ethnicity and body size unspecified] (11 p229)

… they [boys] think that if you look good then you're okay but if you're fat … then they don't like you.' [female, 11-14 years, ethnicity and body size unspecified] (18 p24)

'People that are right big have right dirty houses'

Young people with a wide range of body sizes were judgemental about being large. They used a variety of terms to capture different states of being overweight. Larger young people found many of these terms derogatory and unhelpful.

Young people, many of whom were themselves a large size, attributed a consistently similar set of negative characteristics to people with large bodies, describing them as lazy, or unable to control their desire for food, or both (5, 17, 29) , e.g.:

Like when you start thinking ahead, like what are you going to be like, people just sit at home eating pizza all time, I wouldn't like to be one those boring people. I want to be a person that can go out, go on holiday, go to work, have lots of friends, get out of the house … when you watch a lot of programmes all people that are right big have right dirty houses. [male, 14 years, white, very overweight, BMI 31.3] (5 p814)

While sometimes young people made efforts not to appear judgemental of people with large bodies, this was not always the case, e.g.:

Fat people, I hate fat people. I don't hate their personalities, I just don't like the way they look. I just don't know why folk would do that to themselves. [Elspeth, female, 13-15 years, white Scottish, body size unspecified] (29 p7)

One very large young man saw himself making the very same negative judgements as others, and so felt he knew what criticisms were going through people's heads:

I see people and I think they've put on weight! They need to do something about that! I do it myself and I think everyone must think that about ME! You don't want people to have that perception of you. It shows a weak quality if you're not able to control your WEIGHT, it's like not being able to control yourself and that's a very big weakness to show. [Ashley, male, 16 years, ethnicity unspecified, very overweight] (13 p6)

Larger young people described several occasions of being completely dismissed by their peers, solely on the basis of their size (12: 2010j, 12: 2010r). Some were despondent as a result of this treatment (see 'If I had the choice I wouldn't be this size' in Section 4.2.2), but others were clear about the ignorance of others and of the injustice being served, e.g.:

I was just like, 'Oh and you're really clever'. Like is that the best you can do, like pick on someone about the way they look? … I would never ever, ever, ever, ever like use against them how they look, because it's just so pathetic and unfair and uncalled for. [Vicki, female, 18 years, white, overweight] (12: 2010j)

Young people used a variety of words to sum up body sizes. The same words were sometimes seen as morally loaded or merely descriptive, depending on who was using them. In one study, it was noted that young people used the term 'overweight' relatively infrequently, and only when talking in the abstract, for example about 'healthiness' or when talking about others (28 p399). In this same study, young people used the terms 'big' and 'fat' to describe their own bodies, almost interchangeably. In this and other studies, however, young people also recounted use of the word 'fat' in episodes of teasing and bullying (4, 9, 12, 28), giving the word a derogatory meaning.

Young people of various sizes commented on the potential for offence in the different terms used to describe body size. At the smaller end of the body size spectrum, one young man reported that being called 'skinny' was fine … because I've never seen that as an offensive thingy whatsoever'. [Edward, male, 18 years, white, healthy weight] (12: 2010b)

In contrast, several young people who would be classified clinically as obese considered the more medical terms for their body sizes to be not only offensive but also unhelpful, e.g.:

I don't look in the mirror and think you're obese, you're overweight. I just find those two words really negative, and the connotations that they have are just horrible … I would hate for other people to describe me using those two words … Because I think whenever you say that someone is that, it instantly makes them feel worse … And yes they are more matter of fact or whatever, but they're just not nice, and you know, by telling people that they are these things, you're not helping them. [Anann, female, 18 years, Somali, overweight] (12: 2010o)

Being fat is really a bad thing

Young women and men identified ideals consistently for their own bodies that were very different for the two sexes. Young people considered body size to be a very important component of their appearance. Overweight young people expressed more nuanced views about preferred and acceptable bodies, and references to their own bodies included positive appraisals.

Young people's ideas about what body sizes were valued, or not, were consistent across studies. Both sexes characterised an ideal young woman's body as thin (12: 2010o, 12: 2010v, 24, 30), slim (17: 2000) or skinny (12: 2010b, 12: 2010r, 12: 2010v, 22). For both sexes, the ideal for young men was muscular (2, 11, 15, 17), and looking fit (11, 17). Young men themselves added not too muscular (8, 11, 12: 2010b) and toned (12: 2010b). When young people with healthy sizes talked about their own aspirations, these tended to make reference to these ideals, or to avoiding being very large. However, in one study, young women diagnosed with cancer in the previous two years emphasised their enjoyment of being 'normal' again, regardless of their size (26).

In terms of unacceptable body sizes, over half the participants in one study of young women identified weight as the deciding factor for judging whether your appearance was acceptable or not (7 p148). One young person in another study was more specific, saying:

Being fat is really a bad thing, more than anything. More than having a face that is not so good looking. [14-17 years, gender, ethnicity and body size unspecified] (23 p156)

Young people who were a larger size, in comparison, had more nuanced views about their own bodies. They tended to have more practical objectives for their own size, such as 'to drop a dress size in three months' (12: 2010l), or 'to cut down [so as to be able] to go clothes shopping' (12: 2010d).

In one study, while some expressed 'utter disapproval' for their bodies, three-quarters of the young people who would be classified as overweight or larger, 'either had positive things to say about their weight, body size or parts of their body, or reported being comfortable with their body's size or shape' (28). One overweight young woman reported how her regard for her body could change from day to day:

… there are some days when I absolutely hate ... I look in the mirror and think, 'Oh my God. You need to lose some weight girl'. And there are some days when I think, 'Oh, you look quite cuddly today'. [Sami, female, 18 years, white, very overweight] (12: 2010w)

Others who were overweight in this same study emphasised that it was important to value yourself, regardless of size. One boy claimed this was the key to being accepted by others:

I think it's all down to like your mental, your mental picture of yourself really because, again, going back to this friend ... she cakes herself with make-up - but it makes her feel beautiful. And if you feel beautiful, people will see you as beautiful, and she wears the most outrageous clothes and she's so bubbly and it's lovely, and that's so, that's such an attractive thing to have. But it's when you're like, 'Oh I feel so bad and ugly today'. That, that's when you become really bad, and so size isn't the thing, it's more ... the way you act, if you act like all closed and in a corner and not socialising, then I mean attractive is someone who is the life and soul of the party, dancing in the middle, having a good laugh. [Huw, male, 17 years, white, overweight] (12: 2010j)

4.2.2 If I had the choice, I wouldn't be this size

This section examines the views of overweight young people, or young people who have been overweight, about their experience of being that size. Views on the more specific issue of attempting to lose weight or maintain weight loss are presented below (see 'Make sure, even when it's hard, you've got people there' in Section 4.2.3). These young people talked about frequent difficulties with social activities and friendship, and with size-related abuse. They identified how these difficulties, and others related to being overweight, could impact on their emotional health, and in turn lead to yet further difficulties, including additional weight gain.

Overweight young people talked about frequent difficulties with social activities and friendship, and about size-related abuse. Shopping trips and other interactions with peers could leave them feeling embarrassed, isolated and marked out as unacceptably different. It was hard to find and wear fashionable clothes.

Abuse was seen by young people of all sizes as something that was experienced when you had a large body size. Overweight young people recounted severe incidents of physical abuse and reported high levels of distress at receiving unrelenting taunts and less-direct forms of abuse. They felt particularly vulnerable to abusive attack in school, and in particular during physical education classes. For some, participation in school had become impossible. These young people identified how these difficulties, and others related to being a large size, could impact on their emotional health.

These experiences of stigma and abuse had led some young people to withdraw in an extreme way from other people and, sometimes, to comfort eating. They described feeling trapped in vicious circles, where size-related bullying, or feeling bad about their size, could lead to overeating, which led to further weight gain, feeling bad because of overeating, and yet more bullying, and so on.

Not wanting to stick out

Larger young people described how everyday social activities could leave them feeling isolated and somehow wrong for their age. Relationships with friends could be difficult. These young people were constantly reminded, even by friends, about their difference from their peers.

Overweight young people identified how their size made it difficult for them to take part in important social activities (4, 9, 12, 28). In one study, all participants suggested that dissatisfaction with their physical self-made it harder to be in social situations (4). One young woman explained:

I can't join in or I don't want to join in because I know that I can't do it ... or perhaps I won't go down the high street because I know I'll be left behind. [Jane, female, 17 years, ethnicity unspecified, very overweight, BMI 46.7] (9 pS43).

Shopping trips and other social events could leave them feeling excluded, ashamed and different, and could often lead to them questioning their identity (12: 2010d, 28) and spending a great deal of time on their own at home (4). Some felt that if they were a smaller size, it would be different, e.g.:

I mean we've got a new mall, lovely clothes shops to go in but none, none, in my size, and I have to watch my friends and then I have to go and shop in like other places which have bigger sizes, which is so rubbish sometimes, and makes you feel crap when everyone else is wearing fashion. [Huw, male, 17 years, white, overweight] (12: 2010d)

But the places where I go most of the clientele are like a lot older than me – you know they're like mid forties plus. And that's weird to think that, you know, you'll be, you're wearing the same clothes as like your 50 year old neighbour or whatever. That's kind of weird, you know ... It's not pleasant because you think, you just kind of think, 'If I was thinner I wouldn't be doing this you know. Again it's because I'm fat that I'm doing this.' And it isn't nice ... you are always thinking about it, especially in public... if I had the choice I wouldn't be this size. [Rachael, female, 'A' level student - age otherwise unspecified, white, overweight] (12: 2010d)

These larger young people described how friendships could be hard to navigate (9, 12). Some young people reported others saying that they were ashamed to be seen with them (12); others described feeling more confident with peers who knew them before they became overweight (9 pS42). Sometimes people's attitudes about their size had led to them not being able to be themselves. One young woman felt she had responded by being more outgoing than she actually was (12: 2010g), whereas another had joined in with a quieter group because its members did not attempt to criticise her (12: 2010j). Others questioned the nature of their friendships:

I always think … girls are quite good friends with me because they know I'm not a threat to them, you know, in like a relationship sense … because they know that deep down their boyfriend isn't want to go out with a fatty [laughs]. [Rachael, female, 'A' level student - age otherwise unspecified, white, overweight] (12: 2010j)

Some young people described how people would be friendly sometimes and then start bullying them at others (9). One young woman expressed her fear that friends might be hurtful, e.g.:

… if it were a sleepover you just thought oh, I don't want to get changed in front of them and they might laugh at me. But … you think if they are, they're not really your true friends, because they should like you for who you are and not what you look like and things like that. [Alex, female, 14 years, ethnicity unspecified, overweight] (12: 2010j)

In addition to explicit cases of ridicule and abuse (see 'Day after day, you're that terrified', below), many young people described being reminded by their peers of their size by less deliberate behaviours. One overweight young man described his annoyance at having to take part in conversations where his peers (whom he said were not overweight) stated that they were fat, solely to gain reassurance that they were not. These kinds of conversations were described in several studies (4, 12, 17, 28). This young man felt that this served merely to emphasise his larger size.

He also noted that his experience of relationships and socialising in general was different from the normal teenage preoccupation with being part of a group,

Huw: 'I just wanted to fit in, just wanted to be part of the crowd and not to stick out like a sore thumb' Interviewer: 'And this sort of wanting to fit in, that was because you wanted to be the same size, or look the same as other people or?' Huw: 'It wasn't as much fitting in as just not sticking out. Because sticking out … when someone sees the person who looks, who is bigger than … most of them, almost everyone there, that makes you feel really bad. And, it 'cos you stick out, sometimes you just want to like become invisible and just blend into the wallpaper. But never gonna happen.' [Huw, male, 17 years, white, overweight] (12: 2010b)

Day after day, you're that terrified

Overweight young people commonly described experiences of physical, verbal and less direct forms of abuse because of their size. School was the setting for much of the abuse which had become so serious for some of these young people that they were unable to attend. Young people identified physical education (PE) lessons as a particular source of exposure to humiliating ridicule. Responses to abuse were not always successful. This abuse could have a profound impact on the emotional health of overweight young people, sometimes driving them to thoughts of suicide.

In just over a third of studies, young people identified bullying as something that was experienced when you had a large body size, (2, 3, 4, 5, 9, 11, 12, 13, 14, 15, 24, 28) with one estimating that about half of overweight young people were bullied because of their weight (28). Abuse varied in its form, but very overweight young people reported severe incidents of physical abuse (4, 9, 12: 2010c). Incidents included being threatened with a knife, beaten, kicked, pushed down stairs and having objects thrown at them (9, 12: 2010s). School was the main site for abusive attack; for some young people, these attacks made participation in school impossible:

I couldn't go to like the dining hall or anything like that because I'd always get hit or I had stuff thrown at me, and it got to the stage where I couldn't go to any of my lessons, I had to stay in this one little room where there was just one teacher and I had to be taken out with, I had to wait for the teacher and then I could go out. I weren't allowed to go out for breaks. I couldn't have toilet breaks, I had to wait till the end of the day. Got to the last four month I had to be home-schooled because bullying got that bad. [Gemma, female, 17 years, white, overweight] (12: 2010c)

Day after day, walking in ... you're that terrified that you don't want to go school, this is what my point of view were like... three years I tried not going to school because I used to get bullied and my mum got took to court. [Eve, female, age and ethnicity unspecified, very overweight] (4 p414)

Verbal abuse, such as name calling and using slurs, and various forms of less direct or non-verbal abuse, such as deliberate and extended isolation, whispering or sniggering, were reported in one study to be more common than physical abuse (9). Larger young people reported high levels of distress at receiving these kinds of abuse (2, 9, 12: 2010b, 12: 2010c). The experience was also described as unremitting, e.g.:

…like it wasn't just a group thing, it was walk down the corridor, and I actually counted this one day, counted how many people said something to me, just walking about a hundred yards twenty-three people I think, and you know every day in between every lesson and going, you know, it gets a lot … [Becca, female, 17 years, white, overweight] (12: 2010c)

The name calling varied, but young people often described abuse that had a clear reference to their size. As well as various terms for larger bodies, reference was made to inappropriate eating, or to furniture being insufficiently strong (9, 12: 2010c). This kind of tailored verbal abuse (combined with physical abuse) was illustrated by one young man who had 'things thrown at me saying, 'Eat this', like rocks and things' [Daniel, male, 14 years, Iranian English, overweight] (12: 2010c).

One young man saw some taunting as acceptable and as being 'almost like a sign of friendship'. He considered it his responsibility to prevent taunts aimed at him from escalating, as friends might not know when they cross the line into affecting 'your self-confidence and self-image' [Huw, male, 17 years, white, overweight] (12: 2010c).

As well as the school environment generally, larger young people singled out school PE classes in particular. Having to wear a PE kit compounded these difficulties, by highlighting physical differences between peers (3). PE classes were experienced as places of surveillance, verbal and less-direct abuse, and subsequent misery and inability to perform:

I've put on the weight and I still want to do it [participate in PE classes] but it's the glances, it's the sniggers, it's the laughs, stupid things that people were saying, 'look at her running along, she can barely keep-up'. [Sam, female, 15ys, overweight, BMI 38.0] (9 p41)

Young people in more than one study described active things that they chose to do so as to avoid bullying, that merely resulted in their being bullied more. One described how she helped staff in the school canteen so as to avoid lunchtime bullying and this led to others liking her less (4). Another, described how she found happiness from being:

just really studious, and you know - a bit of a loner to be honest … and that's why I got picked on even more. [Sami, female, 18 years, white, very overweight] (12: 2010r)

Some young people responded to this bullying by telling teachers about it; however, others explained that this could be a dangerous course of action, leading to increased bullying, and this was therefore not an option that all young people felt able to take (12: 2010c, 12: 2010r). Some young people retaliated as a means of deterring abuse (4, 9, 12: 2010c) and reported different responses from adults to this strategy. One young woman recounted how her own aggressive response to a bully had led to her being labelled as having problematic behaviour and she had been excluded from school on several occasions (4), whereas another found that teachers could be more understanding (12: 2010c).

Size-related abuse was heavily implicated by young people as a negative factor for their emotional health, leading to reduced confidence, anxiety (especially around venturing into public spaces), loneliness and depression (9, 12: 2010c, 12: 2010i, 12: 2010n, 12: 2010r, 12: 2010w). In three studies, larger young people who were not being bullied considered that this was because they were part of a group or had friends (9, 12: 2010r, 28). One said:

if I ever had any trouble … about being overweight, like they'd stick up, like they stick up for me. [Vicki, female, 18 years, white, overweight] (12: 2010r)

Overweight young people attributed various emotional responses to abuse, including withdrawing from social life, hiding their true feelings, and comfort eating (12: 2010i, 12: 2010w) (see 'Vicious circles' below). Some larger young people described feeling extremely desperate as a result. One young woman considered surgery to put a stop to bullying (12: 2010b), and others considered suicide:

But then if I was really down and depressed that day, I'd go on a self harm website, I'd look at eating disorder pages and stuff like that and, like pictures of suicide and self-harm ... I also did join a suicide pact at that point when I was about twelve, however a couple of years later I realised that it was a silly idea and I got out of it, but it was a group of four or five of us … [when] something got too bad for all of us then we would all commit suicide together. [Sami, female, 18 years, white, very overweight] (12: 2010n)

The young people who had been large for much of their youth described how they had experienced size-related abuse for much of that time (9, 12: 2010c). Their responses had sometimes changed as they got older, but not always. After several years of it, some young people appeared to have come to some sort of acceptance of abuse, at least of the verbal kind (9, 12: 2010c). Others appeared to have developed a coping strategy that was more defiant:

I know more fat jokes than anybody else going. I'm better at it than they are. I spent just such a long time being bothered by it and I got so low on so many occasions. Now it's just like, 'you have a problem with me, that's your problem'. Ultimately, mocking doesn't get them anywhere, not any more. [Ann, female, 17 years, ethnicity unspecified, overweight, BMI 43.3] (9 pS42)

Vicious circles

Overweight young people described a variety of ways in which they had dealt with the difficult social experiences associated with being large. Some recounted how difficult experiences related to their body size had led to extreme withdrawal from other people. Others described how they resorted to food. Frequently, they held bullying responsible for these responses. Some described how these responses could leave them feeling worse and lead to other, additional difficulties, including further weight gain.

Larger young people described a variety of ways in which they had dealt with stigma, abuse and other difficulties associated with being large (for accounts that relate to trying to lose weight and maintain weight loss see Section 4.2.3). As a result of their experiences of stigma and abuse, some larger young people withdrew, sometimes almost completely, from other people. One young woman who described her state prior to attending a weight-loss programme said:

I was just getting bullied all the time and nobody wanted to be with me. I was always on my own in my bedroom doing my own thing …. [For the first] six weeks of the program I just sat in a corner, didn't talk to anybody. I wouldn't even talk to any of the friends that I'd made. I just sat in the corner. [Chelsea, female, 17 years, white, overweight] (12: 2010s)

In some cases, shame or a fear of rejection made young people keep their distance from those who might want to be intimate with them (9, 12: 2010j); one mother is reported to have used this as a threat, saying: '[you've] got to lose weight as nobody's ever going to love you' (9 pS42). Several overweight young people in one study had hidden from their families their lack of friends, or the fact that they were being bullied. As an explanation, one young woman said that sorting out bullying was her responsibility. Another had felt, when she finally did tell, that the bullies had, in some way won (12: 2010n, 12: 2010r).

Food was discussed in some detail by larger young people (also see ‘Easier said than done’ in Section 4.2.3 below), who emphasised in particular how their moods and specific experiences could affect what they ate. One young woman explained the seeming irrelevance of controlling your eating when you are severely depressed (12: 2010i), whereas others described eating more when they were bored, especially when stuck at home (12: 2010c, 12: 2010s). Others described how the comfort of food had helped them deal with being bullied:

And the more you got bullied, the more upsetting … and the more depressed. And you find that eating food and that really does comfort you …. sometimes eating food is like … like if you’re just getting cuddled and getting loved. And it’s just something that you can, something that you can just do straight away. [Bella, female, 15 years, white, unspecified size] (12: 2010c)

The comforting effect could be very short lived, however, e.g.:

You only get the comfort when you’re eating. And then once it’s gone, you just think, ‘Oh crap, I really wish I didn’t do that.’ And then you put more heavy on yourself for doing it. So you feel good when you’re doing it, then afterwards you think, ‘Oh God. Why, why do I keep doing this to myself? Why, why can’t I just think of doing summat else? [Gemma, female, 17 years, white, overweight] (12: 2010n)

This response of feeling bad after eating to improve mood, was reported by several larger young people. Many were aware that this chain of negative events could spiral out of control (12: 2010i) and, when comfort eating was a reaction to bullying, it could then make bullying even more likely, and so on, e.g.:

when I cry I eat, but then I eat because I’m crying, but I’m crying because I’m getting bigger, and it’s just a vicious circle [Vicki, female, 18 years, white, overweight] (12: 2010i)

… yeah like being bullied definitely a huge factor because you just get into like a circle of you are bullied because you are fat so you eat for comfort, and then you get bullied again and round and round and round. [Becca, female, 17 years, white, overweight] (12: 2010w)

4.2.3 Make sure, even when it’s hard, you’ve got people there

This section presents young people’s views about what happens when they are overweight and try to lose weight, as well as their perceptions of the timeframes over which weight gain and loss play out. Also presented here are young people’s suggestions as to what actions should be taken to support them in maintaining or reaching a healthy weight, and with coping with the stresses and anxieties related to their body size. Unless otherwise specified, the views in this section come from young people who were overweight or very overweight at the time they participated in a research study, or had had experience of being very overweight.

Easier said than done

Larger young people described frustration at repeated attempts to lose weight. They were sensitive to the additional effort they felt they had to put into regulating their food intake compared to their peers. They reported barriers around physical exercise and problems with health care services and professionals. Home could also be a difficult environment for weight loss and larger young people described getting unhelpful feedback and criticism from family or friends. Young people who had taken action successfully over their size emphasised the central importance of avoiding laziness, and of their own psychological state.

Many overweight young people had found trying to modify what they ate extremely difficult (12: 2010i, 12: 2010q, 13, 14). In addition to having experienced difficulties with family practices and beliefs around food (see below), they expressed frustration at how intensive and sensitively managed the task of watching what they ate needed to be. They commonly compared themselves with others around them who appeared not to have to monitor their food intake at all, and so could lead far more normal and enjoyable lives (12: 2010w, 13, 24), e.g.:

I thought 'I've been good now surely I can't spend the rest of my life spending as much focus on my weight as I have been doing'. You shouldn't have to work to lose weight … people manage to stay the same weight and they don't really focus on it. They have their food … and they live their life. [Ashley, male, 16 years, ethnicity unspecified, very overweight] (13 p310)

Some complained of surveillance at school and of a particular kind of abuse as a result of choosing to eat healthy foods, coupled with a sense of injustice that those monitoring their food choices were themselves eating unhealthy food (4), e.g.:

… I don't eat like in a cafeteria, I eat outside, and because people walk past I'm always self-conscious of the fact that they'll see me like, eating Weight Watchers, and think, oh she's fat, she's on a diet, and they'll take mickey out of me, so I just don't eat. [Kym, female, age and ethnicity not specified, very overweight] (4 p414)

Larger young people had encountered psychological, physical and social barriers when they tried to increase their activity levels. In addition to relating abuse received when exercising in school (see 'Day after day you're that terrified' in Section 4.2.2 above), some said that getting tired or out of breath too quickly got in the way of their exercising (5, 12: 2010f). For others, exercise was made difficult by physical complications related to their size, such as asthma or leg pains (12: 2010k). Some emphasised how other commitments, such as schoolwork or friendships, left them with insufficient time for organised physical activity in general and going to the gym in particular (5, 12: 2010f). Identifying a combination of many of these factors, one larger young woman described how she had tried, but given up, having a personal trainer at the gym:

'they started treating me like an adult and I were about eleven, twelve … The hours he were making me do, the strictness, absolutely everything …. and like if I couldn't do it he'd just basically say, "Oh, you just don't want to do it, you're not trying." … And like there were no breaks, and I couldn't do it.' Interviewer: 'Physically couldn't do it?' Gemma: 'Yeah, and it started off like going at weekend, then he wanted me to try and go every single day if I could. I couldn't have done that. As well as school, and then going there, I couldn't have done it.' [Gemma, female, 17 years, white, overweight] (12: 2010f)

Larger young women reported problems around swimming. One felt too ashamed about her size (12: 2010s). Another wanted to go only if friends accompanied her (28). Two described how, as Muslims, they needed female-only exercise sessions, which were difficult to find (12: 2010f).

As well as their own psychological state (see below) many larger young people identified health care services and the routines, beliefs and behaviours of others to be important when trying to lose weight. Young people reported problems both with the organisation of services and with health professionals' attitudes. Young people had not always been able to access weight-loss schemes, and one young woman reported having to wait six months before she was seen (12: 2010k). Several young people who had been referred for help with their size felt that the treatments had been insufficiently personalised or too infrequent (5, 12: 2010u, 21). Some felt that health professionals held negative attitudes about their size, or lacked tact, and appreciated help from a professional who was also larger (12: 2010p).

Home was not always an easy environment for weight loss. The availability of calorie-dense foods sometimes made it difficult to stick to healthy eating plans, especially when other people at home were enjoying different kinds of food (12: 2010l, 14), e.g.

I've got a younger brother and we've got all these sort of stuff in house for him and then that's just like a bit, a bit of a temptation … And sometimes when he gets right nice stuff and I'm sat there eating, I don't know, fish, chips, and mushy peas and it's just not right. [Reg, female, 13 years, white, overweight] (12: 2010l)

Others reported how family and friends' own weight-loss beliefs had been a challenge. Some had been offered unhelpful and incorrect dietary advice (12: 2010i, 13) or had been told that their size was not something they should take action about (12: 2010j). Other young people reported being on the receiving end of unhelpful criticism or pressure from family members (13: 2009a, 28). One young man described his dissatisfaction [he had been asked to describe an ideal life] by saying:

'First sign would be… [Mum saying], 'Your breakfast is on the table' - something like that rather than saying, 'Right so what's the plan of action? What are you gonna do? [Why] are you going wrong?' [Ashley, male, 16 years, ethnicity unspecified, very overweight] (13: 2009a p63)

In terms of approaches that were tried to lose weight and maintain weight loss, overweight young people were often extremely positive about avoiding being inactive (5, 12: 2010f, 28), and emphasised how important it was to them that they could be proud of themselves because of action that they themselves had taken (12: 2010g, 13, 21, 28) e.g.:

I feel a lot better wi' mysel', 'cause I'm tryin' 'y at least … ken I'm no' … ken I'm no' just sittin' doon aw day, I'm tryin' 'y lose a bit 'y weight. [Roy, male, 13 years, ethnicity unspecified, overweight] (28 p402)

I felt healthier and better and stuff and I felt like I had actually done something [after an exercise intervention]. Rather than going home and being a couch potato. [Male, 15 years, white, very overweight, BMI 37.6] (5 p814)

Others emphasised the importance of their own psychological state when trying to lose weight or to maintain weight loss, identifying self-confidence, self-esteem, willpower and feelings of being in control as key for success (12: 2010u, 28) (also see 'Be nice. You've got to help', below). One young person identified how a dietician's target to lose two pounds in three months was insufficiently motivating:

to me that was a bit of an under-achievement … You know I wanted to be able to push myself a little bit harder and to actually set myself a target that would make me feel better because for me losing two pounds in three months wouldn't necessarily make me feel better. [Becca, female, 17 years, white, overweight] (12: 2010u)

One young man summed up how challenging it can be to lose weight once you have become very overweight. He had rated how things were for him since leaving a weight-loss camp, using a 10-points scale, where '0' stood for the worst it had been and '10' stood for the best it can be. He stated:

To be able to manage my weight myself is actually better, although it was better managed at camp. Me being a 7 at home is much more of an achievement than being a 10 at camp - it's like doubling the achievement. [Ashley, male, 16 years, ethnicity unspecified, very overweight] (13 (2009a) p64)

This same young man had come to realise that knowing how to lose weight was simply not enough:

I still know it all … what I [learned] at camp and all that. It's still up there … I can't apply it now because I've had a bad patch. I don't think I possess the answer. It's something that frustrates me because if I knew the answer I would do something about it – just start eating normally, healthy-ish food [and] do a bit of exercise and it can't be that hard – easier said than done obviously! I try and relate to camp and I think WHY? And I can't see any answers. (13 p5)

Yo-yos and pick me ups

Larger young people described frustration at the slow rate at which substantial weight loss is achieved. They reported a fear of weight rebounding. They described how feedback on progress was helpful. Also helpful was support from, and giving support to, others who were going through, or had gone through, the same experience.

Young people who were, or who previously had been very overweight, described experiences of attempting to lose weight. Far from being something that was easy to achieve, these young people described frustration at the failure of repeated diets (12: 2010c).

The larger young people in the one study that asked them for their histories varied in the way in which they had come to be overweight. Some described being overweight from early or mid-childhood, whereas others felt that certain one-off or infrequent experiences such as holidays, bereavements and moving to a new country were responsible for weight gain (12: 2010u, 12: 2010w).

Young people expressed frustration at the length of time required for substantial weight loss, where initial success often gave way to no overall change and reduced motivation (12: 2010g, 12: 2010j, 12: 2010w). They were often preoccupied with the idea that their weight could rebound (13, 14), and in one study, several larger young men were worried about becoming thinner in case they did then regain the weight lost (28).

Young people who had regained weight described how devastating it was to put it back on again (12: 2010e, 13), e.g.:

I was 14 years old and having so much like, being so unhappy being overweight, finally getting the weight off is amazing, then piling it all straight back on was just absolutely heartbreaking. Yo-yoing up and down in normal diets just, has just become a way of life really now. Like, being fat, then thinner, then fat and then thinner, just it gets just a pain at the backside really. It's just like, 'Am I ever gonna be able to do it like?' It just makes you really doubt yourself. [Vicki, female, 18 years, white, overweight] (12: 2010e)

One young man who had ultimately succeeded in losing more than four stone described the fluctuating path of his weight loss. This process had taken over a year:

… it's a bit of a rollercoaster year ish. It sort of, it sort of went up and down and sort of stayed stable for a couple of weeks where it didn't do anything and then it, then some weeks it came off more than others and then some weeks it would jump up, jump back up quite a bit. But got to target eventually. [Duncan, male, 18 years, white, body size unspecified (lost over 4 stone)] (12: 2010l)

When talking about things that were helpful for coping with this long-term process of weight loss, young people identified goals, feedback and support from others in particular. Goals needed to be realistic (12: 2010l) and were helpful in keeping on track over a period of time:

… because it makes you actually think about it and realise how much … because you've got a goal, you've kind of had to work out how to reach that goal. [Male, 15 years, ethnicity unspecified, overweight] (21 p240)

Feedback could come from young people seeing their own size change, or from others' comments to this extent, e.g.:

I have felt so much better in myself … I am on a thing where I get weighed every week … so if I go and get weighed and I have lost weight you, you think, you have got the next week thinking 'I want to do that again' because that kind of rush that you get from knowing that you have done something good to your body by losing weight, I mean obviously like I need to lose weight but for me knowing that I have lost weight is a good thing. [Becca, female, 17 years, white, overweight] (12: 2010t)

Young people also found it helpful to get support from, and give support to, peers who were also dealing with being a large size:

[commenting on experience of a community-based weight-loss intervention] you have so many people who are willing to support you. You have people who are in the same situation as you … who know what it's like and things like that. If you have a problem or if you have like just a total collapse … you've got people who will just pick you back up. And I think that's been the most thing about it, the most important thing that I've had for me. [Emily, female, 14 years, white, overweight] (12: 2010l)

Be nice. You've got to help

Larger young people were asked in one study what should be done to help them and others with their body sizes. These young people tended to emphasise things that they or other high-weight young people should do to help themselves, such as eating healthily and exercising, learning more about nutrition and accessing their own psychological resources. When it came to their suggestions as to what others could do, these centred around the need for professionals and other people to be less judgemental and to give encouragement and other, practical, forms of support.

Larger young people tended to suggest things that they themselves could or should do to support themselves. Some stated that education regarding the benefits of healthy eating and exercise was important (12: 2010a, 12: 2010h). They also encouraged other overweight young people to access their psychological resources, be accepting of themselves and positive about the future, (12: 2010a, 22) e.g.:

…don't let it bog you down really. If you really want to do it, you'll find it in yourself to do it. And like, I know it sounds really corny and stuff, but exercise really is the key, it really does help and like and you can definitely do it like, you've just got to put your mind to it, like if you like want it enough you can do it. [Vicki, female, 18 years, white, overweight] (12: 2010a)

Others suggested that initiatives specifically targeted to help overweight young people, such as local weight management groups and websites would be helpful (12: 2010a, 12: 2010h). However, in promoting any initiative and in broaching the subject of tackling a weight problem, young people called for tact and sensitivity, e.g.:

There's ways to be more tactful. As you know, the doctors that I've had haven't always been particularly nice about it … yeah, there's ways to say things nicely, and although sometimes you need to go for the approach that says, 'You need to do something about your weight now', there's, there's ways to be nice about it. [Holly, female, 18 years, white, very overweight] (12: 2010p)

Two young people requested support in terms of emotional health and suggested that, without an understanding of the emotional implications of being overweight and comfort eating, young people may not be in a position to choose to achieve or maintain a healthy weight (12: 2010p, 13: 2009a) e.g.:

Physical health is not the only thing that they should be worried about with overweight teenagers and children, it's the mental health they should be worried about, because without mental health, mental health being sorted you can't start with the physical health. And so they need to do a lot more work with young people and a lot more counselling services, when you actually talk about their experiences… don't even start trying to help them with the physical health and not trying to help them lose weight, because you can't unless they feel happy and they're going to comfort eat, or they'll do something else, and they'll feel really bad, and it's a vicious circle. You need to help them to break out of the vicious circle and you can't do that, until they're feeling happier. [Huw, male, 17 years, white, overweight] (12: 2010p)

In one exchange, two young women identified how they felt health professionals could improve their practice by listening very carefully to larger young people, discussing things fully and not assuming things about them:

Naz: '… do not chuck information in people's faces because I don't know how to take it in myself, the way they just chucked it in my face. Take time to listen to them properly. What they want to say and discuss it properly as well.' Anaan: 'Yes, listen to what they have to say is really important for a start.' Naz: 'Break, break the information down, bit by bit basically. That's the main thing.' Anaan: 'But don't think you already know what they want, because sometimes you might think you know what they're asking your help for, but really you don't. That's the kind of thing. Just listen. That's the big, big one, listen to what they're saying, and really listen, not pretend to listen, or act like you're listening or anything else. Really listen to what they have to say, and don't look down on them.' [Naz, female, 17 years, Pakistani, overweight; Anaan, female, 18 years, Somali, overweight] (12: 2010p)

Young people repeatedly emphasized the need for support and encouragement and suggested that families could support them by joining in with their attempts to pursue a healthy lifestyle rather than focusing on the negative aspects of their overweight. e.g.:

I'd just say to like parents that like all your child needs is support. And without you, you won't be, your child won't be able to do it. And you've got to help them as much as they're helping themself. And just, if you don't help them, they'll think, 'Well, nobody's bothered, and, I do try but nobody sees difference'. [Alex, female, 14 years, ethnicity unspecified, overweight] (12: 2010a)

Make sure that even when it is hard, you've got people there. [Cris, 14 years, gender, ethnicity and body size unspecified] (13 p4)

4.3 How credible are the review findings and how should they be reported?

This section presents the results of the consultation with young people (members of NCB's PEAR group) about the findings of the synthesis.

The PEAR group reported that they considered the interim findings to be believable. They were struck by the young age of some of the participants in the studies that they examined (12 years) and pointed out that one very overweight participant had only just moved to a new school but was already talking about how they were having difficulties with their school peers. An emphasis on difficulties with peers because of size was already in the synthesis, although there was only one mention of school transitions in the young people's accounts. The synthesis was not modified as a result of these comments.

The group were also concerned by the severity of the accounts that they read during the session. They suggested that in our write-up we should use young people's accounts to bring to life the potentially damaging impact of the negative things people can say about body size, but be very careful how we do this. We should avoid making things worse for people, or even upsetting people who read the report, and consider adding something to comfort people who might feel they're being pressured or bullied, e.g., some examples where young people are being accepted for who they are. It was said that we should also consider adding a list of websites for young people to go to and treat the issue of who, or what, is to blame very carefully indeed. We built the first of these into the final refinements of the full version of the synthesis, where quotes were available. We attempted to put cases at the end of each section of the findings, where young people are showing constructively resistant or positive attitudes, to show that some young people, at least, were able to be resilient or defiant in response to really difficult situations and unacceptable behaviour from others.

5. Discussion

5.1 Discussion of principal findings

As Thomas et al. note (2010b), the involvement, perceptions and engagement of potential recipients of interventions are well recognised as cornerstones for developing effective programmes. This review makes a valuable contribution to the study of obesity and body size, shape and weight by giving a louder voice to young people aged 12-18, one which has previously been largely unheard.

The findings of this review of young people's views are similar to, but also differ from, our earlier companion review on the views of children aged 4-11 on obesity and body size, shape and weight (Rees et al. 2011).

As was found to be the case for children, the social implications of body size are the main concern for young people who have healthy weights, rather than the implications for health. Body ideals were clearly gendered, as they were in children's accounts, with young women aspiring to a thin body and young men aspiring to a muscular body. Peer group acceptance was seen as dependent on being the right size; however, unlike children, the young people in this review saw it as important to avoid fat in order to be attractive to the opposite sex. Our earlier review found that body size was not always on the day-to-day agenda of children who had a healthy body size. In contrast, young people with a healthy weight in the current review emphasised the central role of body size in making their appearance acceptable.

The focus on emotional health and stigmatisation is greater in this review than it was in the review of children's views. Young people are likely to be more aware of their emotions and social experiences and better able to articulate their ideas than children. In addition, researchers might be willing to tackle these issues in greater depth with older participants. The set of studies represented here is undeniably richer, in terms of breadth, depth and the privileging of young people's views, than that found in the earlier review.

Moralising attitudes to obesity and reports of weight-related shame and bullying were seen to some extent in the views of children found in our earlier review; however the experiences of stigma, shame and abuse reported by very overweight young people in the current review are described in far more intense terms and in ways that make impacts clear. Young people in our review described the serious consequences of stigmatisation in terms of their emotional and mental health. The findings of our review corroborate those of others who have observed that overweight and obesity serve as a gateway to mental and emotional health problems, engendering low self-esteem, depression and anxiety, none of which are conducive to successful attempts to control weight (Amaral et al. 2006, Erermis et al. 2004, Puhl and Heuer 2009, Puhl and Latner 2007, Viner et al. 2006).

The voicing of opinions that are solely based upon the appearance of another is widely regarded as judgemental if not immoral, and yet we have young people voicing such opinions in our review. It might also be expected that overweight young people would have difficulty in talking openly about being victimised and shunned as a result of being overweight, and yet they have done so with frankness. However, a large number of the views of overweight young people expressed in our review are extracted from a relatively small proportion of the total number of studies. These few high-quality studies have a richness not found in the majority of less-rigorous studies, which failed to make the same attempts to put young people at ease, build rapport between researchers and interviewees, reduce the power imbalance between the two and encourage young people to ‘tell their story’ in their own words. In particular, the Health Experiences Research Group study benefits from access to the opinions of some children who had become accustomed to discussing their problems and feelings as part of a weight reduction intervention (Health Experiences Research Group 2010). Considering the limitations of the methods used in much of the research reviewed, and bearing in mind the difficulties that young people may have in openly expressing emotive or negative experiences and views, it may be that young people’s experiences around body size are even more challenging than is suggested by the findings of the body of research reviewed here. This review concurs with research from other countries (Sjoberg et al. 2005, Zametkin et al. 2004) that indicates that the consequences of obesity for young people are both immediate and extremely negative in terms of their social status and emotional health.

Given the attitudes of those around them, it is unsurprising that larger young people are sensitive about the issue of modifying their body size. They are likely to anticipate negative attitudes from others, if this is what they have previously encountered, for example, from health and fitness professionals, teachers, family members, friends and peers. These young people might, with reason, be afraid of being subjected to further stigma by being identified as ‘problem’ individuals. The research we examined corroborated previous reports that very overweight people feel disrespected, are reluctant to approach others about their weight problem, and consider that they will not be taken seriously because of their weight (Puhl and Heuer 2009).

The terminology used to describe larger people is often used to insult others, giving these words derogatory connotations. Indeed, simply being labelled ‘obese’ was offensive to some of the young people in this review. Such views are put in context by studies such as one from the US of over 620 primary care physicians, where over half reported that they viewed very overweight patients as awkward, unattractive, ugly and non-compliant, and one-third characterised these patients as weak-willed, sloppy, and lazy (Foster et al. 2003). Acceptance and support may not always be forthcoming from health professionals: those to whom young people of a high weight might be expected to turn for help.

The young people in this review, regardless of their size, placed great emphasis on the role of personal responsibility in achieving and maintaining a healthy weight. Far from abandoning this responsibility, young people of a high weight appeared all too aware of their perceived inadequacies. They described repeated failed attempts to successfully maintain weight loss and blamed and doubted themselves because they had not managed to lose weight. When weight loss was successful, they were often proud at having conquered 'laziness'. This representation of the self as responsible was set within these same young people's accounts of extremely challenging social environments. When these young people had taken steps to lose weight, such as engaging in physical activity or eating healthy foods, this exposed them to ridicule and humiliation. It is notable that exercise, which might otherwise prove helpful to young people of a higher weight, is rendered so demeaning that avoidance is often considered to be the best option.

Indeed, many of the young people of a higher weight in this review identified themselves as being subject to vicious cycles. Barriers to weight control described by young people included: the physical impediments of overweight to exercising; the psychological consequences of obesity, such as depression, low self-esteem and lack of confidence, as impediments to motivation; and the repeated experience of weight gain after weight loss, or failure to lose weight, as disincentives to continued control over their food intake. Essentially, when young people reflect on their experiences of living with a higher weight, they describe that they are limited in their ability to change their predicament.

Obesity can currently be viewed as a chronic condition, given that very overweight individuals who succeed in sustaining long-term weight loss are the exception rather than the rule. Evidence on effective interventions for young people who are highly overweight is poor, and many common behaviours for weight loss are counterproductive and ineffective, as they result in long-term weight gain and the negative health consequences of repeatedly gaining weight after weight loss (Puhl and Heuer 2009, Thomas et al. 2010b). It is notable, however, that young people with other chronic conditions, such as type 1 diabetes, can reasonably expect to be supported by their friends and peer group, whereas the same cannot always be said for young people of a high weight. The young people in this review repeatedly emphasised their need for support and encouragement, and were particularly welcoming of the support of friends and of interventions which fostered a sense of solidarity in the participants. Indeed, it has been reported that overweight people will continue going to and paying for commercial diet clubs despite the fact that they believe the diet to be ineffective, simply because it provides an environment in which they can obtain help and support from other overweight people (Thomas et al. 2010b).

Stigma has been conceptualised as being experienced when perceptions are in 'reasonable anticipation of an adverse social judgement' (Scambler 2009 p441). The views presented in our review are consistent with this understanding, with internalisation of stigma resulting in acceptance of abuse by some young people of a higher weight. Young people also describe how direct social exclusion is accompanied by self-isolating and avoidant behaviours in order to escape anticipated abuse.

It has been claimed that support groups for 'big' people might be thought to sanction against discrimination on the basis of size, the argument being that the rise of the average body size into the overweight range may curtail the pressure for overweight people to reduce their weight through social discrimination (Swinburn and Egger 2004). However, despite increased and relatively high levels of obesity amongst the population, there does not appear to have been an attendant reduction in stigma (Rudd Center 2008). In contrast, it has been noted that social stigmatisation may exacerbate depression, anxiety and low self-esteem, which in turn may prompt binge or comfort eating and result in lethargy, lack of motivation and a consequent reduction in physical activity (Swinburn and Egger 2004). Others have stated that stigmatisation of very overweight individuals threatens health, generates health disparities and interferes with effective obesity intervention efforts (Puhl and Heuer 2009). Appropriating blame and shame as motivators for weight control would appear to be a risky strategy and it is certainly not one that the young people of a high weight in this review would advocate.

As Burris states, stigma is:

[a] harmful phenomenon experienced by vulnerable groups … the state and those working under its auspices should not be promoting or indulging that stigma in any way, because stigma is a barbaric form of social control that relies upon primitive and destructive emotions. And chances are it won't work anyway. (Burris 2008, p475)

The young people in this review noted that, in terms of promoting weight control, simply educating and admonishing individuals about the benefits of a healthy lifestyle and the disadvantages of being overweight is not enough. Young people identify the need for encouragement, support, motivation and the freedom from persecution and stigma in order to pursue successful attempts at weight loss.

5.2 Strengths and weaknesses of this review

This is the first systematic review of which we are aware that attempts to seek out, analyse and synthesise the findings from studies of young people's views about body size. Confidence in its findings is bolstered by the comprehensive searches undertaken. Very sensitive searches of bibliographic databases were supplemented by other methods to seek out less easily found literature, including unpublished reports. This included individual contact with 15 experts and key informants, hand searching of relevant journals and searching of 54 websites.

The review benefited from access to one study's excerpts from its interview transcripts (all available online) (Health Experiences Research Group 2010). We were able to access some of this study's 'raw' data directly in some context, as interviewer questions and the responses to these were presented together and often in sequence. This was one of only 3 of the 36 studies found that were considered to have findings that were highly reliable (the other two were Curtis 2008, Wills et al. 2006). The relative richness of this study in terms of the breadth and depth of its findings in comparison to the other studies included within the review, means that it is highly represented within the review. The sample of this same study, which had a preponderance of overweight young people, along with the sampling approach of six other studies, gives this review a good basis from which to study the views of overweight young people in particular.

It must be noted, however, that the studies' approaches to identifying body size in their participants meant that we were limited in the extent to which we could explore differences in perspective between young people with different body sizes. When study participants self-identified as being in the obese category, or when authors used this classification, we attached this information to quotes and other findings related to those participants. There were very few findings that were attributable to participants that were clearly in a category of overweight but not obese.

A further strength of this review is that it is cognisant of stakeholder perspectives achieved through a consultation with young people working with the National Children's Bureau. We were able to present our preliminary findings in order to gauge their resonance with young people, explore whether we might have missed anything important to people of this age group, and gather suggestions for framing and presenting our analysis of the findings.

A limitation of the review was that it identified only a small body of studies that could be characterised as being research 'for' young people, rather than 'of' them (Hood et al. 1996). Only one study, for example, appears directly to have asked young people what they thought should be done to support them in developing or maintaining a healthy body size (Health Experiences Research Group 2010). This kind of research, which aims to engage people directly in developing the public health agenda, has been found to be scarce in previous systematic reviews of studies of young people's views (Brunton et al. 2005, Brunton et al. 2006, Oliver et al. 2008a, Rees et al. 2006, Shepherd et al. 2006, Thomas et al. 2003).

Twenty-one of the studies in the review reported methods that were judged to some extent to have privileged young people's own framing of issues in their lives. Of these, seven were judged as having made a 'thorough attempt' to do so. However, very few started from the position that young people themselves may usefully contribute ideas and analyses so as to help develop theories about their own lives.

Unfortunately, this review provides very little evidence that can be used to consider inequalities in obesity among young people. While seven studies focused solely on young women's views, only two studies focused on the views of young men. Young people from several minority ethnic groups are also more likely to experience obesity (Department of Health Public Health Consortium et al. 2007), yet no studies provided sufficient information to explore how young people's views might vary according to their ethnicity. Similarly, sufficient information regarding the socio-economic status of participants was only rarely provided.

6. Conclusions and implications for policy, practice and research

6.1 Conclusions

This review identified a reasonable amount of recent research into views about obesity among young people in the UK aged between 12 and 18. It finds that young people discuss larger body sizes in overwhelmingly social terms. Their accounts state that an overweight body size is to be avoided for social, rather than health reasons. Among young people with healthy weights, these reasons include not being attractive to others and having fewer friends. Ideal sizes differ to some extent between young women and young men, but these findings suggest that young women might not always be more concerned about their own size than young men. The accounts of young people with experience of being obese also make reference to the social nature of size, but the consequences appear far graver. These young people report how their size has impacted seriously on their ability to socialise with their peers, and has also led to severe and unrelenting size-related abuse and a resultant sense of isolation and of being marked out as being unacceptably different.

Young people also emphasise personal responsibility when talking about body size. Regardless of their own size, they also tend to be judgemental of, and apportion blame to individuals who are very overweight, identifying this as due to a lack of willpower. And yet overweight young people, when reporting their experiences of trying to lose weight, describe a social environment that contains multiple barriers in the way of their success. They describe experiences of surveillance and abuse while exercising or attempting to eat healthily, unhelpful food environments at home, and the receipt of unhelpful advice and criticism from others. These young people report how, as a result, they can often withdraw from social contact, avoid school-based physical activity and eat for comfort. Their accounts also describe the vicious circle of increased weight gain, guilt and otherwise lowered mood that such strategies are likely to incubate. In contrast, positive accounts of weight-loss attempts might be expected to emphasise the benefits of contact with others who are going through, or have gone through, similar experiences.

The accounts of young people who have experience of being very overweight include numerous references to emotion and well-being. As well as the feelings of exclusion, shame and lowered mood described above, they report being offended by terms used to indicate size, including those used to identify people's weight status for health purposes. They express frustration at the time required for substantial weight loss, and fear that weight might easily rebound. Good mental health is seen as key for substantial weight-loss and having taken active steps to reduce weight can be a source of considerable pride, especially when successful.

Young people in the UK have not been asked by researchers to reflect to any great extent on what might help them achieve and maintain a healthy weight. This review suggests, again, that young people will tend to focus on their own behaviour. As well as making more careful efforts to eat healthily and take exercise, young people in this review mentioned the need for them to access their own psychological resources; only one study in this review included reference to what other people should do. Here, young people, many of whom had experience of trying, and sometimes succeeding, in losing substantial amounts of weight, emphasised how health professionals and others should be less judgemental, and give encouragement and other, practical, forms of support.

6.2 Implications

The studies included in this review encouraged young people to talk about their experiences of interventions to reduce body size and to share their views about actions that might be helpful. However, this review does not study the effectiveness of those interventions or actions. Thus, the implications, although drawn directly from the findings, are broader, and more general in form, relating to areas that need to be addressed, rather than specific ways in which issues might be addressed.

6.2.1 Implications for public health and health promotion practice

Young people of all sizes discussed the ways in which they attempted to take individual control of their weight. Overweight young people, who had often taken part in organised weight-loss programmes, stated that knowledge alone was not sufficient, and cited various barriers to gaining or maintaining a healthy weight, many of which were outside their own control. Interventions designed to support young people around body size, shape and weight should build on the knowledge that young people have already acquired, while recognising the constraints they face when trying to reach or maintain a healthy weight. These constraints can include a reduced capacity for physical activity, emotional health difficulties, the threat of ridicule from peers when attempting to exercise or eat healthily, unhelpful food environments, unhelpful criticism or pressure from family members, insufficient or apparently uncaring health care services, and competing commitments on their time.

Based on their experiences of trying to lose weight and their participation in weight-loss interventions, young people with larger bodies identified specific components of interventions which they considered to be helpful. They considered it important to avoid drawing attention to a participant's size, especially in front of their peers, as they wanted to be free from further exposure to abuse or ridicule. Programmes aimed at supporting young people who are overweight need to consider how they can reduce the stigma that comes with living with a larger body to minimise any potential harm. Because school is a common site for weight-related abuse, those planning or running school-based initiatives need to be particularly sensitive to the ways in which they identify, recruit and work with young people.

Peer support should be considered as a component of weight-reduction interventions, as young people place value on the shared understanding, encouragement and sense of solidarity gained from being with individuals with similar concerns about, and experiences of, body size. In addition, interventions which provide opportunities for young people to socialise and make friends may go some way to reducing the social isolation they may well be experiencing.

Larger young people might also benefit from gaining practical skills to support their emotional health. This could be helpful for building up confidence and self-esteem to support the daunting task of losing weight and then maintaining this weight loss, especially when they have previously experienced repeated failure. For some, additional skills might help them identify patterns of comfort eating and the use of food as tranquiliser when stressed or angry, as a stimulant when bored, or as an anaesthetic when in mental distress.

Weight-loss and weight-maintenance programmes need to be delivered long term. Larger young people express a need for ongoing and continued support and, given that some may be accustomed to withdrawing from others, they may require time to gain sufficient confidence to engage in programmes.

Understanding, encouragement and motivation from parents and health professionals are factors identified as key to their well-being and successful weight loss by larger young people. Interventions that provide training for all those responsible for caring for and supporting young people need to take into account the physical, psychological and social challenges of weight loss identified by young people in this review. Given the concerns from young people about the attitudes and behaviours of health care professionals, it may be particularly important to target this group.

Interventions aiming to promote healthy weight among young people should be cognisant of the wishes expressed by those affected and be tactful and sensitive to the impact that they may have on their lives. Failure to do so may exacerbate the very problems that they are attempting to address. In particular, interventions should not alienate those who require support to tackle problems which are difficult to address within the constraints of obesogenic environments. We should take particular care not to expose young people of a high weight to further abuse.

6.2.2 Implications for policy

Young people experience body size-related abuse which can contribute to psychological and physical ill-health, as well as impacting on other areas, such as relationships with family and friends and educational attendance. There is, therefore, a need to address weight-related stigma through society-wide social interventions.

In addition to interventions which target the individual and social behaviours of young people and the people with whom they interact, there is also a need to consider the environmental factors that contribute to obesity. Providing opportunities for young people to engage in positive healthy behaviours and to achieve and sustain a ‘healthy’ weight also requires addressing the resources that are available to young people and their primary care givers, for example, access to places and people supportive of healthy eating, and spaces that encourage an inclusive approach to physical activity.

It is important to involve young people from a range of diverse backgrounds in the development and evaluation of interventions addressing obesity. This can go some way to ensuring that young people's direct experiences of body size, shape and weight inform our response to the challenge of obesity.

6.2.3 Implications for research

Despite the richness of data provided by overweight young people about their experiences of body size stigma, and the impact this has on their emotional state and behaviour, few studies asked young people directly what might be done to tackle these issues. Similarly, studies which asked young people about their experiences of body size interventions were mostly framed in terms of the specific aims and impacts of the interventions themselves, without questioning young people as to how these interventions and others might fit with the full circumstances of their lives, and what else might be required to help them act within their everyday circumstances.

Thus there is a need for research which not only explores the social implications of body size with young people in greater depth, but which also actively engages young people in identifying ways of addressing these issues, both through potential interventions for them and others with whom they interact, and in society more generally.

There was variation in the types of studies included in the review, some of which focused specifically on body size, and some of which referred to body size in relation to other topics, such as physical education, food and eating, or overall health needs. This variation did not translate into a representative diversity in young people's voices, however. Only two studies, which investigated social class in relationship to body size, were able to provide an accurate breakdown of findings by socio-economic status; only two studies focused on young men's perspectives; and in the majority of studies, ethnicity was either not specified or was unclear. This calls for further research, and better reporting of research, which not only focuses on young people from minority ethnic and differing socio-economic groups, but which clearly identifies those forming the sample and examines the potential for identifying different experiences and needs between groups.

Compared with the companion review that explored the views of children, there were a greater number of studies in this review which privileged participants' views and made attempts to reduce the power imbalance between researchers and participants during data collection; however, this methodological approach was still the exception rather than the norm. Further research with young people on health promotion and social inequalities would benefit from taking into consideration how young people can be actively involved in the research process. For example, this could include framing research around questions and topics that young people identify as important; asking children for their consent and describing this process in research; and using methods recommended as being ‘young people friendly’.

Part II: Technical description of the review

7. Detailed methods

This section of the report describes in detail the methods used to search for, identify, describe, appraise and synthesise studies included in the review. It also provides supplementary detail on the studies that were examined during the review. Presentation of this information encourages transparency, helps to open up the review's methods to scrutiny and puts our findings into the context of the broader literature.

Review questions

Our review sought to identify studies of the views of young people in the UK aged from 12 to 18 on obesity and body size, shape or weight, so as to answer the following questions:

- What are young people's views about the meanings of obesity or body size, shape or weight (including their own body size) and what experiences do they describe relating to these issues?
- What are young people's views about influences on body size?
- What are young people's views about changes that may help them to achieve or maintain a healthy weight?

Views were defined as attitudes, opinions, beliefs, feelings, understanding or experiences, as opposed to measurement of health or weight status, behaviour or factual knowledge. Views could be collected in written or oral form.

7.1 Stakeholder involvement

Involvement of potential users of the review at key stages of the review process can help to increase a review's relevance (Oliver 1997, Rees and Oliver 2007). User involvement was sought for this review through contact with the review's funder (the Department of Health for England and Wales - DH), and through consultation with a group of children and young people who were working with the National Children's Bureau – the Public Health, Education, Awareness, Research (PEAR) group.

The review's funder identified the population group for the review, in that the review team were commissioned to conduct a follow-up with an older age focus, to complement their earlier review focused on young children. Policy specialists at the DH also approved, at a later point, the restriction of the review's synthesis to studies that did not solely focus on young people with a diagnosis of an eating disorder.

The aim of the consultation with the PEAR group was twofold: it was hoped that these young people could help us explore the validity of the review's findings by commenting on whether the findings appeared credible to them or fitted their own beliefs, and whether they considered anything to be missing.

Some of the participants in the PEAR Group had met several months earlier with a member of the EPPI-Centre to explore similar issues for the companion review on children's views. To help inform the current review, two members of the review team (RR and JC) ran a workshop at the group's summer residential. They presented interim details of the review and led much of the discussion. Work with the group lasted approximately one and a half hours.

At the start of the session, to help participants engage with the review's topic and methods, the reviewers showed two videos. One showed part of an interview from one of the studies included in the review (a large number of these were available from the study's website); the other illustrated an early stage in a review's synthesis (where reviewers consider a study's findings on a line by line basis and create and attach codes to the text so as to describe the findings). Participants were then handed excerpts from two study reports that had been analysed by the review team. They were then invited to work in groups to see if they could identify any themes themselves in the excerpts. After a discussion of the excerpts and a discussion about possible themes that arose in the excerpts, the reviewers presented the interim findings of the synthesis as a whole. They presented a diagram of the main themes, and an illustration, in the form of a quote, for each theme. The participants were asked whether they thought the themes seemed believable to them, and whether any key themes might have been overlooked. Participants were then asked for their ideas about how the review's findings should be presented. The discussions from the workshop were considered by this report's first author when finalising the synthesis and when writing up the report of the review as a whole.

7.2 Inclusion and exclusion criteria

To be included in the review, reports of studies had to meet all of the following criteria:

- Studies had to be about obesity or body size, shape or weight.
- Studies had to report young people's views about obesity or body size, shape or weight (we excluded reports of trials or other outcome evaluations, unless it was clear from the abstract that they collected data about views as part of a process evaluation).
- Methods for collecting young people's views had to include in-depth or semi-structured interviews, focus groups, or some other qualitative method.
- The study population had to be young people between the ages of 12 and 18 (when the age-range of a study went beyond these boundaries the average age had to be between 12 and 18, or data needed to be presented separately for this age group).
- Studies had to be published in 1997 or later.
- Studies had to be conducted in the UK.
- Studies had to be published in English.

A report was excluded if it met all of the above criteria but:

- was not a primary study;
- did not provide a description either of the methods of data collection or of the methods of data analysis.

As a result of applying the above criteria, the review included:

- studies where researchers specifically sought to explore children's views on obesity or body size, shape or weight;
- studies where the research question was framed around another topic (such as physical activity or healthy eating), but at least one of the views expressed by participating children referred to obesity or body size, shape or weight.

Subsequent to characterising the studies (see Section 7.5 below) a decision was taken, in consultation with the Department of Health, to exclude those studies with a population composed entirely of young people with anorexia or bulimia. Thus the review includes studies examining populations of underweight, 'healthy' weight, overweight and very overweight young people but does not examine the experiences or perceptions of young people with a clinical diagnosis of either anorexia or bulimia. The rationale for this decision was that young people with a diagnosis of an eating disorder may be considered exceptional in terms of their requirements for achieving or maintaining a healthy weight, and are also subject to clearly defined clinical pathways that differ from those that would be recommended for other young people. This group has also been intensively studied elsewhere and the inclusion of their views in this review, alongside the views of other young people, might have acted to dilute the voices of both groups without necessarily adding to our understanding of any similarities or differences between them.

7.3 Searching

A highly sensitive search using both indexing and free-text terms was developed in PubMed and is presented in Appendix D. The PubMed search was then tailored to individual databases. Searches were carried out from February to March 2010. Systematic searches were undertaken on the following 18 bibliographic databases from the fields of health, public health, education, social science and social care:

- ASSIA (Applied Social Sciences Index and Abstracts)
- BIBLIOMAP
- BEI (British Education Index)
- British Index to Theses
- British Library Integrated Catalogue (BLIC)
- CINAHL (Cumulative Index to Nursing and Allied Health Literature)
- EMBASE (Excerpta Medica Database)
- ERIC (Education Resources Information Centre)
- Health Promis (Database of the Health Development Agency)

- IBSS (International Bibliography of the Social Sciences)
- Physical Education Index
- ProQuest Dissertations and Theses - UK and Ireland
- Psycinfo
- Pubmed (Public Medical Literature Analysis and Retrieval System Online)
- Social Policy and Practice
- SIGLE (System for Information on Grey Literature in Europe)
- SSCI (Social Science Citation Index)
- ZETOC (British Library Table of Contents)

Searches were made of the web using the Google, Google Scholar, Scirus and Clusty search engines. A full list of the 54 websites searched is also presented in Appendix D. Six journals were hand searched (*Children and Society, Childrenz Issues, Health Education, International Journal of Paediatric Obesity, Men and Masculinities, The Sociology of Health and Illness*). These journals were selected because they focused on body size or image and/or children and young people and were not well indexed in the databases searched. Fifteen experts and key informants were contacted with a request for relevant research. The reference lists of included studies were scanned for potentially relevant reports and forward citation searching of included studies was also undertaken for the identification of further relevant research. The full search strategy is available from the lead author on request.

Studies were managed during the review using the EPPI-Centre's online review software EPPI-Reviewer (versions 3.0 and 4.0) (Thomas et al. 2010a).

7.4 Screening for eligibility

Reviewers piloted the eligibility criteria by applying them to a subset of 20 studies and discussing decisions as a team. Following this, a two-stage process was used to screen studies. Eligibility criteria were initially applied to titles and abstracts identified through searching. Where no abstract was available from bibliographic database records, an attempt was made to retrieve the full paper. Studies included on title and abstract alone were subsequently re-screened using the full report. Quality assessment of the screening process was carried out by one of the authors (RR) using a sample of 150 records. The eligibility criteria are presented in Section 7.2 above.

7.5 Characterising the studies and extracting their findings

Each study was described using a set of questions developed specifically for the review which built upon frameworks used in previous reviews examining the barriers to, and facilitators of, health behaviour change among children and young people (e.g. Harden et al. 2001). The areas covered included the study's focus, the study population (e.g. sample size, details of weight status), sampling, and data collection and data analysis methods. Studies were described independently by two reviewers, who then met to compare findings. Disagreements were resolved through the arbitration of a third party where required. Where studies examined a mixed population which included individuals outside the age range of interest, or individuals with a clinically diagnosed eating disorder, consideration was given only to the views of those participants aged 12-18 and without an eating disorder.

7.6 Appraising the quality of study findings

Before studies were entered into a synthesis, they were examined to appraise the quality of their findings. Quality was assessed using a modified set of criteria that had been developed for examining the findings of evaluations of intervention processes in a review of behavioural interventions for sexually transmitted diseases in young people (Shepherd et al. 2010) (see Appendix E for full details). The criteria were based on previous work at the EPPI-Centre on assessing the quality of qualitative research and process evaluations (Harden 2007a, b) and the work of others in the field (Popay et al. 2003). Again, when appraising quality, reviewers worked first independently and then compared their decisions, with additional arbitration where required.

Reviewers assessed each study according to the extent to which:

- steps were taken to increase rigour in sampling;
- steps were taken to increase rigour in data collection;
- steps were taken to increase rigour in data analysis;
- findings were grounded in/supported by the data;
- breadth and/or depth were achieved in the findings;
- the perspectives of children were privileged.

As a final step in the study assessment, reviewers assigned to the studies ratings for two types of 'weight of evidence': reliability and usefulness. First, they assigned a weight (low, medium or high) to rate the reliability or trustworthiness of the findings (the extent to which the methods employed were rigorous thus avoiding bias and error). The reliability weighting focused on criteria 1 to 4 above. Secondly, they assigned a weight (low, medium, high) to rate the usefulness of the findings (how rich and complex the description and analysis of children's views was in a study's findings and whether or not the data threw light on children's own explanations around body size). The usefulness weighting focused on the criteria numbered 5 and 6 above. The breadth and depth of the findings were considered in relation to their ability to answer our review question, as opposed to the aims and objectives of each individual study. Guidance was given to reviewers to help them reach an assessment on each criterion and the final weight of evidence. Studies failing to meet a minimum quality threshold (i.e., those scoring low for both reliability and usefulness) were subsequently excluded from the review.

7.7 Synthesising study findings

7.7.1 Synthesis methods

Four reviewers (RR, JC, KD and CV) worked on the synthesis.

The method adopted was used previously for the interpretive synthesis in the comparison review of children's views about obesity and body size, shape and weight. Termed *thematic synthesis*, it is described in detail elsewhere (Thomas and Harden 2008b). The findings and conclusions were analysed using an inductive coding tool in the EPPI-Centre's EPPI-Reviewer 4 software (Thomas et al. 2010a). Studies were read through separately by individual researchers to identify potential themes. Reviewers then worked as a team or in pairs to examine the findings of each study in turn, creating and then assigning one or more codes to describe each sentence or paragraph within the text. When all studies had been looked at once, each of the studies was revisited by a different reviewer, using the entire collection of codes, and examined to see if further codes could be applied.

When all studies had been looked at in this way, the reviewers each looked at a batch of codes, along with the text labelled with those codes. They considered the appropriateness of each code, the possible similarities and differences between codes and their relationship to one another and the review's questions about meanings, experiences, influences and changes that might be helpful. Similar codes were grouped and condensed, where possible, into higher-order themes, until a smaller number of broad themes emerged, each containing a set of more specific sub-themes. Phrases were then taken directly from the reports and used as theme labels. A diagram of these labels was also created to act as a quick illustration of the themes and sub-themes in the synthesis.

Group meetings and a team journal were used to capture progress at the end of each day and to share and record individual and group insights into the content of the studies' findings and the process of synthesis. A draft narrative account of the synthesis was written up by one of the reviewers (RR) and examined for coherence, completeness and consistency by the rest of the team.

8. Detail of studies encountered in the review

8.1 Flow of studies through the review

Our searches identified a total of 28,267 citations. After removing 9,897 duplicates, the titles and abstracts of 18,370 records remained. Most reports did not meet the inclusion criteria and were excluded from the review (N=18,298). A high proportion were excluded because they were not about young people's views (N=6,745, 37 percent) or were not about obesity, body size, shape or weight (N=5,507, 30 percent); 3,447 (19 percent) reports were excluded because they did not use in-depth or semi-structured interviews, participant observation, or focus groups to collect data; (1,459, 8 percent) on the grounds that the study did not involve children from the UK; 791 (4 percent) did not include the age range of interest to the review (children aged between 12 and 18); 176 were excluded because they were published prior to 1997; 152 reports were excluded because they did not describe primary studies (e.g. were a review of the literature); and a further 10 reports because they reported no detail of either their methods of data collection or data analysis. Eleven studies were excluded as they were concerned with young people who had a clinically diagnosed eating disorder(Allwood et al. 2006, Evans et al. 2004, Fox et al. 2005, Garratt et al. 1997, Rich 2004, 2006, Rich and Evans 2005, Rich and Evans 2009, Skårderud 2007, Tan et al. 2003, Tierney 2008).

A total of 28 reports were not available or could not be obtained within the timescale of the review.

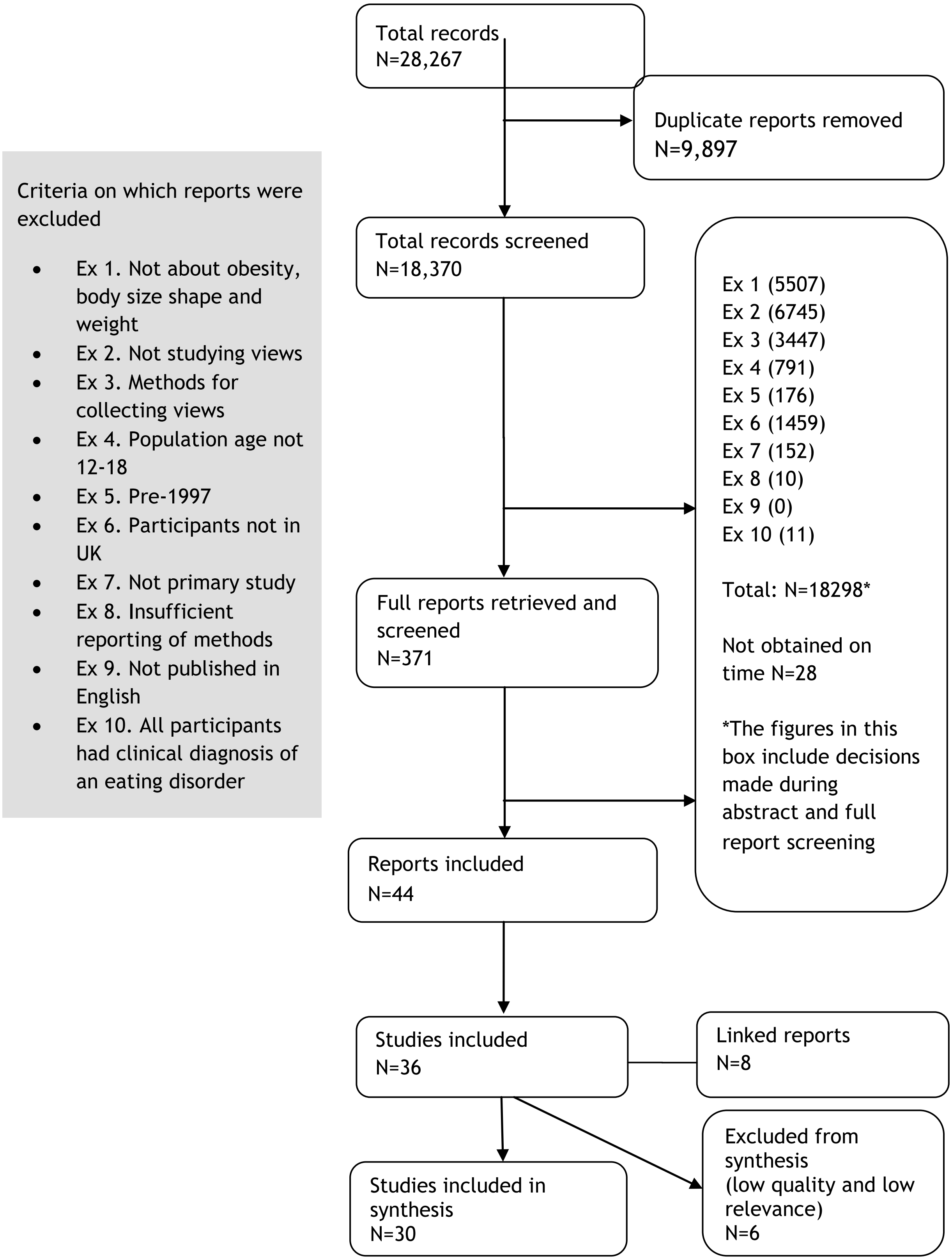
A number of reports were found to be linked to others, in that they described the same study, reporting on different aspects of it. A total of eight reports were consequently coded as linked (secondary) reports (Cockburn 2004, Dittmar et al. 2000, Grogan 2008, Hester et al. 2009a, Mulvihill et al. 2000a, Wills 2005a, Wills et al. 2005, Wills et al. 2008b). Six studies were excluded subsequent to quality assessment as they were judged to have both low reliability and usefulness; these are listed in Section 8.2.1. The studies varied in the reliability and usefulness of their findings for understanding children's views. They all reported very little about the methods they used to study children's responses to open-ended questions. In addition, they did not present findings in much depth or breadth, and described taking relatively few steps to privilege children's perspectives.

At the end of this process, a total of 38 reports of 30 separate studies had been identified for inclusion in the review. The Health Experiences Research Group study was comprised of 24 webpages that we have treated as though they were chapters in a book, and have referenced separately (Health Experiences Research Group 2010, 2010a-2010[6]). This research team's methods are described in another journal

[6] Health Experiences Research Group 2010 is the topic list, and is given as a generic reference to the full study where necessary.

article (Ziebland and McPherson 2006). Figure 8.1 summarises the flow of studies through the review.

Figure 8.1 Flow of studies through the review



8.2 The quality of the study findings in the syntheses

8.2.1 Overview of study quality

Reviewers' judgements about the quality of the study findings were based upon considerations of reliability and usefulness, which were judged to be high, medium or low. As described in 7.6, reviewers judged the reliability of individual studies by looking at the extent to which rigour in the methods of sampling, data collection and data analysis had eliminated systematic bias, and the extent to which the findings of the study were grounded in and supported by the data. When judging the usefulness of the findings, reviewers examined the extent to which the study had privileged the perspectives and experiences of children (by putting them at ease during interviews and allowing them to develop their own ideas) and the richness and complexity of descriptions and analyses of children's views displayed within a study (the breadth and depth of the findings). The breadth and depth of the findings were considered in relation to their ability to answer our review question as opposed to the aims and objectives of each individual study. Table 8.2 describes the quality of the findings of 36 studies (the 30 studies that were ultimately included in the synthesis, and the six that were excluded). Sections 8.2.2 and 8.2.3 below detail variation in study reliability and usefulness. In brief:

- Of the three studies which were judged to be highly reliable, all were also judged to be highly useful (Curtis 2008, Health Experiences Research Group 2010, Wills et al. 2006).
- Of the 24 studies judged to have medium reliability, ten were considered to have low usefulness, ten were considered to have medium usefulness, and four were scored as highly useful.
- Of the nine studies considered to have a low reliability, six were also considered to have a low usefulness and were therefore excluded from the synthesis (Bhugra and Bhui 2003, Inchley et al. 2008, Jackson and Harris 2007, Kaplan-Myrth 2000, McAlister and Neill 2007, Reid 2009). Three studies considered to have low reliability were judged to have medium usefulness.

8.2.2 Reliability of study findings

In terms of reliability, three studies scored high, 24 studies achieved a medium rating and nine studies were judged to have low reliability (see Table 8.1).

It is a notable result of the quality assessment that only three of 36 studies were considered to have findings that were highly reliable (Curtis 2008, Health Experiences Research Group 2010, Wills et al. 2006). Curtis (2008) examined the attitudes and experiences of young people with obesity who had attended an obesity intervention programme. The study by Wills et al. (2006) focused upon the perceptions of socio-economically disadvantaged young people in relation to their own and others' bodies. Half of the sample was classified as overweight or obese, with the remainder designated 'healthy' weight. The study by the Health Experience Research Group (2010) examined a range of issues related to weight and health. All of the young people interviewed had been affected by weight issues. Some of the young people had been told they were overweight or were in the medical category 'obese'; others had been diagnosed with an eating disorder (although, because of the rationale presented in 7.2 above, the views of the young people from this last group were not captured for use in the synthesis).

Of the 21 studies with a specific focus upon obesity or body size, shape or weight (rather than, for example, on physical activity, healthy eating or health needs), three were judged to be highly reliable as described above, the majority were considered to be of medium reliability (n = 11), and seven were considered to have low reliability.

The reliability criterion met the least often amongst the 36 studies was rigour in data analysis (see Table 8.2 for a breakdown of each study's rating against each criterion). Sixteen of the 36 studies either failed to report or indeed take any steps to increase rigour in the analysis of their data. Only six studies reported a thorough attempt to increase rigour in data analysis; the remainder of the studies took minimal (n = 6) or several (n = 6) steps. With respect to sampling, nine studies presented no detail of their methods, whilst half (n = 18) took only a few or minimal steps to increase rigour. Only three studies failed to provide any information regarding steps taken to increase rigour in data collection; almost half (n = 17) took several steps, with five making a thorough attempt.

8.2.3 The usefulness of study findings

In terms of usefulness, 7 studies scored high, 13 studies scored medium and 16 studies were judged to have low usefulness (see Table 8.1).

Of the seven studies judged to be highly useful, only one, an account of girls' experiences and motivations in PE, focused upon a population which was composed entirely of non-overweight young people (Cockburn and Clarke 2002). Two studies were concerned with the participation experiences of young people diagnosed as obese: in an exercise therapy intervention (Daley et al. 2008) and in a weight loss camp (Hester et al. 2009b). The study by the Health Experience Research Group (2010) examined a range of issues related to weight and health. All of the young people interviewed had been affected by weight issues (both overweight and underweight) (Health Experiences Research Group 2010). The study by Grogan and Richards (2002) examined the perceptions of young men in relation to body shape ideals, body esteem, exercise and diet. Similarly, the study by Wills et al. (2006) explored the perceptions of socio-economically disadvantaged young people regarding their own and others' bodies. Finally, the study by Griffiths and Page (2008) focused upon the peer relationships and victimisation experiences of young women diagnosed as obese.

Of the 16 studies rated to have low usefulness, only three had a topic focus which dealt with obesity or body size shape and weight (Jackson and Harris 2007, Owen et al. 2009, Reid 2009). All three were judged to have limited depth and breadth, and both Owen et al. (2009) and Reid (2009) were considered to have limited grounding of the findings within the data presented. Jackson and Harris (2007) and Owen et al. (2009) were judged to have privileged the views of young people only a little, whereas Reid (2009) was found not to have privileged the views of young people at all.

One of the 16 studies considered to be of low usefulness dealt with acculturation in the context of eating disorder symptoms (or lack thereof) (Bhugra and Bhui 2003). In the remainder of the studies, the principle focus was variously upon smoking (Grogan et al. 2009, Lucas and Lloyd 1999), diet and eating habits (Ludvigsen and Sharma 2004, Wills 2005b), body image (Kaplan-Myrth 2000, McAlister and Neil 2007, Wallace et al. 2007), health needs (Kurtz and Thornes 2000, Percy-Smith 2007, Reid and Hendry 2001) and exercise and physical education (Billings et al. 2008, Inchley et al. 2008).

The usefulness criterion met the least often amongst the 36 studies was breadth and depth within the findings (see Table 8.2 for a breakdown of each study's rating against each criterion). Thirteen of the studies were considered to have limited breadth and depth. The majority of studies privileged the views of young people more than a little (n = 23) and were considered to be fairly well grounded (n = 22), with seven judged to have limited grounding of the findings within the data and seven judged to be well grounded.

Table 8.1: Weight of evidence judgements

	Study	Weight of evidence					
		Reliability of findings			Usefulness of findings		
		Low	Medium	High	Low	Medium	High
1	Bhugra and Bhui (2003)*	✓			✓		
2	Billings et al. (2008)		✓		✓		
3	Bramham (2003)		✓			✓	
4	Cockburn and Clarke (2002)		✓			✓	
5	Curtis (2008)			✓			✓
6	Daley et al. (2008)		✓				✓
7	Flintoff and Scraton (2001)		✓			✓	
8	Frost (2001)	✓				✓	
9	Gorely et al. (2003)	✓				✓	
10	Griffiths and Page (2008)		✓				✓
11	Grogan et al. (2009)		✓		✓		
12	Grogan and Richards (2002)		✓				✓
13	Health Experience Research Group (2010)			✓			✓

Study		Weight of evidence					
		Reliability of findings			Usefulness of findings		
		Low	Medium	High	Low	Medium	High
14	Hester et al. (2009b)		✓				✓
15	Holt et al (2005)		✓			✓	
16	Inchley et al (2008)*	✓			✓		
17	Jackson and Harris (2007)*	✓			✓		
18	Kaplan-Myrth (2000)*	✓			✓		
19	Krayer et al. (2008)		✓			✓	
20	Kurtz and Thornes (2000)		✓		✓		
21	Lloyd and Dittmar (1997)		✓			✓	
22	Lucas and Lloyd (1999)		✓		✓		
23	Ludvigsen and Sharma (2004)		✓		✓		
24	McAlister and Neill (2007)*	✓			✓		
25	Mulvihill et al. (2000b)		✓			✓	
26	Owen et al. (2009)		✓		✓		
27	Percy-Smith (2007)		✓		✓		
28	Reid (2009)*	✓			✓		
29	Reid and Hendry (2001)		✓		✓		
30	Shucksmith and Hendry (1998)		✓			✓	
31	Velija and Kumar (2009)		✓			✓	
32	Wallace et al. (2007)		✓		✓		
33	Willett (2008)	✓				✓	
34	Wills et al. (2006)			✓			✓
35	Wills et al (2008a)		✓			✓	
36	Wills (2005b)		✓		✓		

*Studies rated low for both reliability and usefulness were not incorporated into the synthesis.

Table 8.2: Quality of studies of young people's views: studies meeting each criterion

Quality appraisal question	**Answer options (see Table 8.1 for key to study numbers)**			
	Not at all/Not stated	Minimal steps	Several steps	A thorough attempt
1) Were steps taken to increase rigour in sampling?	N = 9 1, 4, 17, 19, 23, 24, 27, 28, 32	N = 18 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 18, 21, 22, 31, 33, 36	N = 5 20, 25, 26, 29, 35	N = 4 2, 13, 30, 34
2) Were steps taken to increase rigour in data collection?	N = 3 1, 18, 28	N = 11 7, 9, 15, 16, 17, 20, 22, 26, 27, 33, 36	N = 17 3, 4, 6, 8, 10, 11, 12, 14, 19, 21, 23, 24, 25, 29, 32, 34, 35	N = 5 2, 5, 13, 30, 31
3) Were steps taken to increase rigour in data analysis?	N = 16 1, 3, 4, 7, 8, 9, 12, 17, 18, 20, 23, 24, 25, 28, 32, 33	N = 8 2, 14, 19, 22, 27, 30, 31, 36	N = 6 6, 15, 16, 26, 29, 34	N = 6 5, 10, 11, 13, 21, 35
4) Were the findings of the study grounded in/supported by data?	No grounding N = 0	Limited grounding/support N = 7 1, 22, 25, 26, 28, 32, 35	Fairly well grounded/ supported N = 22 3, 4, 7, 8, 9, 12, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 27, 29, 30, 31, 33, 36	Good grounding/support N = 7 2, 5, 6, 10, 11, 13, 34

Quality appraisal question	**Answer options (see Table 8.1 for key to study numbers)**			
5) Breadth and depth of findings	Limited breadth and depth N = 13 1, 2, 17, 18, 20, 22, 23, 26, 28, 29, 31, 32, 36	Good/fair breadth, limited depth N = 7 4, 16, 21, 25, 30, 33, 35	Good/fair depth, limited breadth N = 6 9, 11, 15, 19, 24, 27	Good breadth and depth N = 10 3, 5, 6, 7, 8, 10, 12, 13, 14, 34
6) To what extent did the study privilege the perspectives and experiences of young people?	Not at all N = 3 1, 8, 28	A little N = 10 7, 9, 11, 15, 16, 17, 22, 25, 26, 35	Somewhat N = 16 2, 3, 4, 18, 19, 20, 21, 23, 24, 27, 29, 31, 32, 33, 34, 36	A lot N = 7 5, 6, 10, 12, 13, 14, 30

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Appendices

Appendix A: Details of included studies: aims and sample characteristics (N=36)

Study	Aims and objectives	Characteristics of children of interest to this review
Bhugra and Bhui (2003) This study was excluded from the synthesis - see Section 8.2.1	To explore the prominence of bulimic symptoms and acculturation indices in order to explain the association of the two.	**Location:** East London, England **Sample number:** 31 **Age range:** 13-14 **Gender:** Mixed (22 female, 9 males). **Class:** Not stated for interviewees. **Ethnicity:** 17 White, 9 Asian and 5 African. **Weight status:** None of the individuals [interviewed] was diagnosed to have an eating disorder on DSM-III-R criteria. Other information: None.
Billings et al. (2008)	To explore factors which motivate and create barriers to engagement in regular physical activity for 11-12 and 14-15 year old girls.	**Location:** Thanet, East Kent, England. **Sample number:** 91 **Age range:** 11-12, 14-15 **Gender:** Girls only. **Class:** Not stated. (However, both schools were located in disadvantaged areas; one school had below average rates for free school meals and the other had above average rates for free school meals) **Ethnicity:** Not stated. (However one school sample had above-average rates and the other school had below-average rates for ethnic minority students where English was their second language.) **Weight status**: Not stated. **Other information:** One Roman Catholic school with new sports facilities and one non-denominational with less up-to-date sports facilities.

Study	Aims and objectives	Characteristics of children of interest to this review
Bramham (2003)	To explore boys' perceptions and experiences of school-based PE and involvement in extra-curricular and out-of-school physical activities.	**Location:** Large North-Eastern city, England. **Sample number:** 24 **Age range:** 15 **Gender:** Boys only. **Class**: Not stated. **Ethnicity:** Majority White British, but also British Pakistani Muslim and African Caribbean. **Weight status:** Mesomorphic (i.e. compact and muscular) (mainly). **Other information:** All schools large, co-educational, comprehensive with multi-ethnic intakes. Young people mainly able bodied.
Cockburn and Clarke (2002)	To explore the cultural and sub-cultural aspects of teenage girls' and young women's lives which influence their involvement in sport and PE.	**Location:** Hampshire and Cambridgeshire, England. **Sample number:** 6 **Age range:** 13-14 **Gender:** Girls only. **Class:** Upper working class or middle class. **Ethnicity:** White British (N=5), Asian British (N=1) **Weight status**: Not stated. **Other information:** None.
Curtis (2008)	To explore the experiences of young people with obesity within the secondary school environment in relation to areas of concern prioritised by the HSP (Healthy Schools Project)	**Location:** South Yorkshire, England. Sample number: 17 **Age range:** Not stated. (However, sample was selected for an intervention for 10-17 year olds.) **Gender:** Mixed (Numbers not given separately for boys and girls but authors state more young women than young men participated in the study overall.) **Class:** Not stated. **Ethnicity:** Not stated. **Weight status:** Not stated. (However, participants were recruited from a community-based obesity intervention programme.) **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Daley et al. (2008)	A qualitative study nested within a randomised controlled trial explored obese adolescents' experiences of participation in an exercise therapy intervention.	**Location:** Sheffield, England. **Sample number**: 25 **Age range:** 11-16 **Gender:** Mixed (16 female, 9 males). **Class:** Not stated. (However, over half the sample (N=13) were from the most highly deprived area of Sheffield. **Ethnicity:** White (N= 23), Black (N= 1), South Asian (N=1) **Weight status:** Classified as obese or morbidly obese. **Other information:** None.
Flintoff and Scraton (2001)	To explore young women's perspectives of and attitudes towards involvement in physical activity and physical education (PE). Explores the nature, purposes and experiences of involvement, both in and out of school and interface between identities, structures and cultural settings. Located within developing feminist theoretical debates.	**Location:** Large North-Eastern city, England. **Sample number:** 21 **Age range:** 15 **Gender:** Girls only. **Class:** Not stated. (However, the sample represented a range of socio-economic backgrounds.) **Ethnicity:** White (mainly). **Weight status:** Mesomorphic (mainly). **Other information:** All schools large, co-educational, comprehensive with multi-ethnic intakes. Young people mainly able bodied.
Frost (2001)	A theoretical, feminist, sociological enquiry examining the direct perception of young women about how they, and their contemporaries, experience their bodies.	**Location:** Rural location, England. **Sample number:** 10 (School, N=7; Psychiatric Unit, N=3) **Age range:** 16-18 **Gender:** Girls only. **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** Girls at a medium-sized school (all 6th form). Some girls in sample had been diagnosed with appearance disturbance difficulties.

Study	Aims and objectives	Characteristics of children of interest to this review
Gorely et al. (2003)	To develop the concept of gender-relevant physical education combining the work of Pierre Bourdieu and his notion of the habitus and feminist philosopher Iris Marion's analysis of feminine motility by drawing on data generated from a study of young people's articulation of the relationships between muscularity, physicality and gender.	**Location:** England, UK. **Sample number:** 348 **Age range:** 11-14 **Gender:** Mixed (183 females, 165 males). **Class:** Not stated. (However, the schools represented a range of socio-economic circumstances, four of which served socially and economically deprived catchment areas.) **Ethnicity:** Not stated. (However, one school is reported as having a high ethnic minority population.) **Weight status**: Not stated. **Other information:** The schools represented a wide range of geographical locations across England representing a range of cultural circumstances. Eight schools were located in urban settings, and seven in semi-rural or rural areas; one school was a single-sex school for girls.
Griffiths and Page (2008)	To examine the relationship between obesity and victimisation, and the impact it has on peer relationships.	**Location:** Bristol, England. **Sample number:** 5 **Age range:** 12-17 **Gender:** Girls only. **Class:** Not stated. **Ethnicity:** Not stated. **Weight status:** Classified as obese. **Other information:** Participants were excluded if they had genetic susceptibilities for obesity, e.g. Prader–Willi syndrome or learning difficulties, or if English was not their first language.

Study	Aims and objectives	Characteristics of children of interest to this review
Grogan et al. (2009)	To investigate how young men and women smokers and non-smokers talk about the impact of smoking on appearance, with the aim of using these accounts to inform anti-smoking campaigns targeted at young people.	**Location:** Leeds, England. **Sample number**: 47 **Age range:** 16-17 **Gender:** Mixed (25 females, 22 males). **Class:** Pupils selected from two schools from broadly middle-class and two schools from working-class areas in Leeds. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.
Grogan and Richards (2002)	To understand how men and boys construct body image including their views on body dissatisfaction, body shape ideals and behavioural concomitants of body image.	**Location:** Sheffield and Kent, England. **Sample number:** 12 **Age range:** 13 and 16 (study also included 19-25 year olds) **Gender:** Boys only. **Class:** Working and middle-class backgrounds. **Ethnicity:** White. **Weight status:** All were of average build for their height (i.e., none were notably over- or underweight as judged by the researchers). **Other information:** None.
Health Experience Research Group (2010)	To examine a range of peoples' perspectives in terms of what someone might expect to experience when diagnosed with a particular condition or illness. All the young people and parents interviewed had been affected by weight issues. The research was done with the aim of populating a website 'youthhealthtalk.org', so as to help people 'share in young people's experiences of health and illness.'	**Location:** UK. **Sample number:** 24 (study as a whole included 36 young people, 9 parents). **Age range:** 12-18 (sample included over 18s). **Gender:** Mixed. Of those aged ≤18 years old and not suffering from eating disorder 20 females, 4 males. **Class:** Not stated. **Ethnicity:** Majority white British. Also Pakistani, Somali, Iranian and Israeli. **Weight status:** Some of the young people had been told they were overweight or were in the medical category 'obese'; others had been diagnosed with an eating disorder. **Other information:** Majority of sample overweight or obese.

Study	Aims and objectives	Characteristics of children of interest to this review
Hester et al. (2009b)	To uncover in-depth qualitative accounts of intervention impact from obese young people during a period of lifestyle change after attending a residential weight-loss camp.	**Location:** Leeds, England. **Sample number:** 5 **Age range:** 14-16 **Gender:** Mixed (2 females, 3 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status:** Classified as obese. **Other information:** None.
Holt et al. (2005)	To explore children's perceptions of attending a residential paediatric weight-loss camp.	**Location:** North East, England. **Sample number:** 15 **Age range:** 10-16 **Gender:** Mixed (6 females, 9 males). **Class:** Not stated. **Ethnicity:** White. **Weight status:** Classified as obese. **Other information:** Participants had attended a six-week residential weight-loss camp five months earlier and were a subset of a group that then also attended a reunion. The characteristics of the camp attendees as a whole were not reported.
Inchley et al. (2008) This study was excluded from the synthesis - see Section 8.2.1	To explore young people's attitudes towards physical activity and factors which might influence physical activity participation, and to further illuminate findings from the questionnaire survey.	**Location:** West Lothian, Scotland. **Sample number:** 46 **Age range:** 12-13 **Gender:** Mixed (numbers not given separately for females and males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Jackson and Harris (2007) This study was excluded from the synthesis - see Section 8.2.1	To seek input from 13 year old children about what future levels of obesity might be and the consequences of and potential responses to obesity.	**Location:** Essex, England. **Sample number**: 24 **Age range:** 13 **Gender:** Mixed (numbers not given separately for females and males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.
Kaplan-Myrth (2000) This study was excluded from the synthesis - see Section 8.2.1	To explore blind people's 'body image', starting with the hypothesis that without mirrors for visual surveillance, blind people's sense of their bodies and selves is 'embodied' (focused on corporeal experience rather than on appearance).	**Location:** London, England. **Sample number:** 12 **Age range**: 18 (study also included one 44 year old) **Gender:** Mixed (9 females, 3 males). **Class:** The participants were reported as coming 'from diverse socio-economic backgrounds' **Ethnicity:** Not stated, but see immediately above **Weight status**: Not stated. **Other information:** One of the participants was hearing impaired; two were wheelchair bound because of neurological disorders. The participants had varying levels of visual impairment, and they attended a boarding school.
Krayer et al. (2008)	To describe the nature of social comparison processes mentioned spontaneously by boys and girls with a particular focus upon enhancement comparisons.	**Location:** United Kingdom. **Sample number:** 20 **Age range:** 12-14 **Gender:** Mixed (11 females, 9 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Kurtz and Thornes (2000)	To gather children's views about their health needs to inform policy and the strategic development of services for school-age children in England.	**Location:** A rural locality in the South West; a suburban city locality in the North East; an inner city locality in the Midlands; and a mixed country town/rural locality on the South coast, England **Sample number:** 43 **Age range:** 5-16 **Gender:** Mixed (exact numbers not given separately but approximately even number of females and males). **Class:** Mixed (numbers not given separately but population sampled from areas of high levels of socio-economic deprivation and middle range socio-economic characteristics). **Ethnicity:** Mixed (numbers not broken down by ethnic group). **Weight status**: Not stated. **Other information:** Demographics of the population from each geographical region are reported – see study for further details.
Lloyd and Dittmar (1997)	To broaden and deepen understanding of 'normal' adolescent boys' and girls' body image concerns, in order to provide an appropriate basis for interventions aimed at promoting healthier diet and lifestyle.	**Location:** East Sussex, England. **Sample number:** 56 **Age range:** 12, 14 and 16 **Gender:** Mixed (30 female, 26 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.
Lucas and Lloyd (1999)	To explore adolescents' use of cigarettes to moderate negative emotions.	**Location:** East Sussex, England. **Sample number:** Not stated. (32 groups with 2-6 girls in each group were recruited from four schools) **Age range:** 11-14 **Gender:** Girls only. **Class:** Not stated. **Ethnicity**: Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Ludvigsen and Sharma (2004)	To examine the influences upon children and young people in their food choices during the school day.	**Location:** London and North-East England, Wales and Scotland. Sample number: 54 **Age range:** 14-15 (study also included 4-5 and 9-10 year olds) **Gender:** Mixed (numbers not given separately for females and males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.
McAlister and Neill (2007) This study was excluded from the synthesis – see Section 8.2.1	To illustrate that what 13-25 year old young women from Northern Ireland cite as being potentially positive aspects of growing up or being a young woman often have negative experiences and implications attached to them.	**Location:** Belfast and Derry/Londonderry, Northern Ireland. Sample number: 43 **Age range:** 13-18 (study also included 18-25 year olds). **Gender:** Girls only. **Class:** Not stated. **Ethnicity:** Not stated. (However, sample reported as including participants from minority ethnic backgrounds.) **Weight status**: Not stated. **Other information:** Participants were from rural areas (one predominantly Catholic, one predominantly Protestant), urban Belfast (predominantly Protestant), an interface area outside Belfast (predominantly Catholic); some attended mixed religion grammar schools and mixed religious areas (Londonderry).

Study	Aims and objectives	Characteristics of children of interest to this review
Mulvihill et al. (2000b)	To provide data on the reported drivers and barriers to physical activity among young people aged 5-15 years.	**Location:** Manchester, Durham, Leicester, Birmingham, Devon and London, England. **Sample number:** 103 **Age range**: 11-15 **Gender:** Mixed (61 females, 42 males). **Class:** Not stated. (However, there was a bias towards those in lower socio-economic groups. The percentage of students in receipt of free school meals has been used as a crude indicator of social background. Durham 33%, Manchester 49%, Birmingham 32%, Leicester 16%, London 33%, Devon 5%.) **Ethnicity:** Not stated. (However the authors reported that the sample was selected to reflect participants from diverse ethnicity backgrounds.) **Weight status**: Not stated. **Other information:** There was a bias towards those with lower levels of physical activity.
Owen et al. (2009)	To explore children's (and parents') views and experiences of attending a hospital-based childhood obesity clinic, in order to inform the development of services in primary care.	**Location:** Bristol, England. Sample number: 11 **Age range:** 11-18 (the study also included 5-10 year olds). **Gender:** Mixed (52 females, 51 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status:** Overweight. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Percy-Smith (2007)	To explore young people's understandings and experiences of health as experienced in their everyday lives and according to their own terms of reference rather than in response to policy priorities.	**Location:** London, England. Sample number: 62 **Age range:** 13-18 (the study also includes 18-21 year olds). **Gender:** Mixed (exact numbers not given separately but approximately two-thirds were female). **Class:** Not stated. **Ethnicity:** Not stated. (However, approximately 75% of the young people who attended the community event were reported as coming from minority ethnic, largely Asian groups.) **Weight status**: Not stated. **Other information:** None.
Reid (2009) This study was excluded from the synthesis - see Section 8.2.1	To provide updated understanding of the current awareness, knowledge and attitudes of key target groups of parents, young people and health professionals towards child healthy weight, with a view to informing the work Health Scotland does to support Health Boards in their marketing, engagement and delivery of healthy weight interventions	**Location:** Edinburgh, Greater Glasgow, rural Angus and rural Grampian, Scotland. **Sample number:** 24 **Age range:** 13-14 **Gender:** Mixed (12 females, 12 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.
Reid and Hendry (2001)	To examine young people's health concerns within the context of young people's own perspectives.	**Location:** Wester Ross, Shetland, Caithness, Aberdeenshire and Angus, Scotland. **Sample number:** 37 **Age range:** 14-17 **Gender:** Mixed (18 female, 19 male). **Class:** Not stated. **Ethnicity**: Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Shucksmith and Hendry (1998)	To examine young people's views about diet, weight, their appearance and the impact of fashion norms.	**Location:** Grampian, Strathclyde, 'inner-city', Scotland. **Sample number:** 50 (group interviews), 44 (individual interviews). Age range: 15 **Gender:** Mixed (numbers not given separately for females and males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information**: None.
Velija and Kumar (2009)	To explore, through focus group interviews with Year 10 girls, how girls' experiences of PE and GCSE PE are gendered.	**Location:** North East, England. **Sample number:** 16 **Age range:** 14-16 **Gender:** Girls only. **Class:** Not stated. (However, school was located in a predominately affluent area.) **Ethnicity**: White. **Weight status**: Not stated. **Other information:** None.
Wallace et al. (2007)	To explore adolescents' experience of the impact of having cancer, including the burden of illness, treatments and resultant appearance changes.	**Location:** Bristol, England. **Sample number:** 8 **Age range:** 12-19 **Gender:** Mixed (6 female, 2 male). (However, this paper focused on the interviews with female participants because they were markedly different from those with male participants.) **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Willett (2008)	To provide empirical evidence which will look past the structure-agency dichotomy to see how human agency and social structure act through each other to influence pre-teen and teen girls' consumption of fashion and digital media.	**Location:** London, England. **Sample number:** 26 **Age range:** 12-13 **Gender:** Girls only. **Class:** Not stated. (However, the school represented pupils from backgrounds which reflect mixed but, overall, considerable levels of social and financial hardship. A high proportion of the pupils were eligible for free school meals.) **Ethnicity:** 75% of the pupils on roll were from minority ethnic groups, the largest being African-Caribbean followed by Bangladeshi. **Weight status**: Not stated. **Other information:** Sixty percent of the pupils at the school spoke English as an additional language, although less than 5% of the pupils were new to English. Nearly half the pupils at the school had special educational needs.
Wills (2005b)	To examine how the new social contexts experienced by young people after leaving school are related to everyday food practices and eating habits.	**Location:** South East, England. **Sample number:** 31 **Age range:** 16-18 (the study also included 19-24 year olds). **Gender:** Mixed (25 female, 6 males). **Class:** Not stated. **Ethnicity:** Not stated. **Weight status**: Not stated. **Other information:** None.

Study	Aims and objectives	Characteristics of children of interest to this review
Wills et al. (2006)	To explore the embodied perceptions of obese, overweight and 'normal' weight young teenagers, within the socio-cultural contexts in which these young teenagers live their everyday lives.	**Location:** East Scotland. **Sample number:** 36 **Age range:** 13-14 **Gender:** Mixed (18 female, 18 males). **Class:** Participants were identified from youth groups in areas within eastern Scotland classified as socio-economically disadvantaged. Areas were identified using the Breadline Britain Index, a measure based on multiple measures of deprivation. **Ethnicity:** Not stated. **Weight status:** Classified as overweight or obese (N=18), 'normal' weight (N=18). **Other information:** Participants who were underweight were excluded from the interview sample.
Wills et al. (2008a)	To examine the dietary practices and health and weight conceptualisations of BMI-defined obese/overweight and non-obese/overweight young teenagers from middle-class families; to situate these observations within the 'habitus' of the family by exploring these issues from the perspectives of their parents; and to compare these data to the data already collected in an earlier study involving young working class teenagers.	**Location:** Edinburgh, East Lothian and Fife, Scotland. **Sample number:** 36 **Age range:** 13-15 **Gender:** Mixed (18 female, 18 males). **Class:** Middle or higher social class. **Ethnicity:** White Scottish. **Weight status:** Classified as overweight or obese (N=18), 'normal' weight (N=18). **Other information:** Participants attended one independent and three state secondary schools

Appendix B: Details of included studies: methods and study quality (N=36)

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Bhugra and Bhui (2003)	East London secondary school pupils over the age of 13 years were given the BITE eating disorders questionnaire and an acculturation schedule. A random sample of 31 students proceeded to a second stage unstructured interview, during which a diagnosis on DSM-III-R criteria was established to contextualise gathered data.	**Sampling frame** Minority ethnic groups in the UK. Selection On random days of the week random classes were circulated with a questionnaire. A one in ten random sample of the questionnaires were identifiable by a conspicuous mark placed on the front page before students completed them. Students who completed marked questionnaires were then asked to proceed to a qualitative interview. **Recruitment** Following ethical committee approval, a school in East London serving a multicultural population was approached. Students were approached through an identified teacher, who agreed to act as liaison between the first author and the school staff as well as students. **Consent** Not stated.	Students were asked open-ended questions focusing on their identity and their relationship with their family, how they saw themselves and how others saw them.	Not stated.	Reliability Low Usefulness Low This study was excluded from the synthesis – see Section 8.2.1

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Billings et al. (2008)	Focus groups examining girls' understandings of the relationship between health and physical activity and their attitudes towards sport both in and out of school conducted with girls aged 11-12 and 14-15, from two schools in Thanet, East Kent.	**Sampling frame** Two secondary schools (specialist sports college and specialist technology college). **Selection** Two contrasting secondary schools participating in the School Sports Partnership were selected because they drew from a range of demographic profiles. The specialist technology college had less up-to-date sports facilities. Inclusion criteria were that the participants should be within study age range, able to communicate in English and be able-bodied (to ensure consistency of experience). **Recruitment** The School Sports Co-ordinator and PE staff encouraged interest in the study with the school staff and pupils and actively recruited girls of varying levels of sporting enthusiasm into the groups. **Consent** Parental and participant consent sought: Consent was sought in advance from parents by distributing a 'pack' via the pupils, containing an information sheet, parental explanatory letter and consent form. Those girls whose parents had returned a signed consent form were allowed to participate in the research. At the start of each session, the project was re-explained to the girls (who had all read the information sheet with their parents) and they in turn signed a consent form in order to participate.	Six girls from School One were asked by the School Sports Co-ordinator to join a research advisory group during the developmental phase of the project, providing an opportunity for researchers to elicit the views of young people on both the interview schedules and the written communication material for the project. As the focus groups were fairly large (8-14 girls), each group had a 45 minute slot during a regular PE lesson. The semi-structured focus group interview schedule explored general attitudes towards physical activity and aimed to draw out barriers/facilitators for engagement. Data were recorded and transcribed verbatim.	Content analysis: transcriptions were analysed using a content analysis approach, whereby predetermined themes extracted from the focus group schedule were loosely applied to enable the data to be sorted into categories. Data were also explored for any newly emerging themes. Data from both schools were then compared for similarities and differences between focus groups.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Bramham (2003)	Group and subsequent individual interviews with twenty-four 15 year old young men from a large city in the north east of England. Study framed by a pro-feminist perspective, acknowledging growing demands to explore 'the crisis in hegemonic masculinity'.	**Sampling frame** Male pupils from four inner-city comprehensive schools, north east England. **Selection** Aim was to interview young men who were equal in number in terms of attitude (positive/ indifferent/ negative) to school PE. PE teachers selected potential volunteers. Cross-section was achieved in two out of four schools; in the other two, boys positive about school's PE programme who were taking PE as an exam subject were over-represented. **Recruitment** Heads of PE asked to recruit volunteers. **Consent** Process not stated. Reports that students never knew the precise relationship between outside researchers and school staff, implying no discussion of measures to assure confidentiality.	Individual interviews were conducted by male interviewers (one middle-aged and white, one young black postgraduate researcher). Tapes of group interviews were listened to by researchers before individual interviews. Participants were asked to comment on the issues, strategies and arguments developed by other boys in the group discussion they had attended and were asked to reflect on the research process and their involvement in it. They were also asked whether they felt comfortable about the group discussion process/had a voice to articulate their own experiences and opinions. Group interviews were taped and partially transcribed.	Not reported.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Cockburn and Clarke (2002)	In-depth, semi-structured interviews exploring six 13-14 year old girls' experiences and motivations in PE.	**Sampling frame** Comprehensive secondary schools in Hampshire and Cambridgeshire. Selection Schools chosen in provincial towns of Hampshire and Cambridgeshire that were considered to be representative of many British secondary schools. Eleven girls were selected for interview based on their responses to the questionnaire in an earlier study. Girls were chosen who were willing and able to express themselves well, who demonstrated strong opinions and sound arguments, and who, according to the answers on their questionnaires from the earlier survey, demonstrated a range of attitudes towards and experiences of PE, such as 'enjoyment of lessons'. **Recruitment** Access was obtained from head-teachers. Authors then selected participants in the qualitative study based on their answers to the earlier quantitative study. **Consent** Parental, participant and teacher consent sought: Permission was given by the PE teachers, girls themselves and their parents.	In-depth semi-structured interviews were recorded. An interview schedule was used. A pilot study was used as a practice run for the questions, for the interview process and for the researcher as an interviewer. The girls involved in the pilot study helped with the wording of the interview schedule and the verbal introduction to the interview. The girls also commented on the presentation of 'the interviewer', the ethics of the interview process, and the suitability of the questions in the schedule.	Reflexive interpretation and biographical analysis of in-depth interviews were utilised to explore the themes of the relationship between 'sportiness' and heterosexual desirability, and the polarised images of 'tomboy' and 'girlie'.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Curtis (2008)	Focus group discussions and individual interviews examining the attitudes and experiences of 17 young people with obesity who attended an obesity intervention programme in South Yorkshire.	**Sampling frame** Participants of a community-based obesity intervention programme already in operation in South Yorkshire. **Selection** The young people were invited to take part in focus group discussions or individual interviews. Seventeen of the 18 participants chose to participate. **Recruitment** Access to the young people was managed by the programme leader who agreed to post letters to young people and their parents. Separate letters and information leaflets were provided for parents and for young people. An alternative information leaflet was made available to those children who might benefit from a format suitable for less advanced reading skills (including those with learning difficulties). **Consent** Parental and participant consent sought: Parents were asked to return a signed consent form agreeing to their child's participation. Young people were asked to sign a separate consent form ensuring that they understood what participation would mean for them and that they were happy to be involved. Individuals whose parents had returned a signed consent form were allowed to participate in the research.	Interviews were arranged to suit the requirements of the individual and took place in the young person's home. All focus group discussions and the individual interview followed a similar format. The young people were invited to take part in focus group discussions or individual interviews. Seventeen of the 18 participants chose to participate, with friends, in one of four focus groups (with between two and five young people in each); one young person who did not complete the intervention programme preferred to be interviewed individually. In the interview schedule, the following questions were asked: What are the things you like most about school? What are the things you like least about school? What sort of things do you do outside of school – in the evenings and weekends? Do you feel that people around you treat you differently because of your weight? Interviews and discussions were recorded and transcribed verbatim.	Thematic analysis: Undertaken following principles of cross-sectional, categorical indexing. Each young person who indicated his or her interest in receiving a transcript of their discussion was given a copy, and presentations of initial analytical themes were made to young people during scheduled sessions of the intervention programme and to their parents at the end of the programme. Feedback of preliminary analytical themes provoked interested discussion which helped to sensitise further analysis.	Reliability High Usefulness High

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Daley et al. (2008)	Semi-structured interviews exploring 23 obese young people's experiences of participation in an exercise therapy intervention.	**Sampling frame** Participants with experience of an exercise therapy intervention. **Selection** Of participants randomised to an exercise therapy intervention (N = 28), 25 agreed to be interviewed and 23 provided useable information. Recruitment Participants randomised to an exercise therapy intervention were approached. **Consent** Parental and participant consent sought: Written, informed consent from participants and their parents was sought prior to entering the study.	Semi-structured, individual interviews took place at the end of an eight-week exercise therapy intervention. Interviews lasted between 15 and 25 minutes and were recorded and transcribed verbatim.	Thematic analysis with principles of analysis outlined. The existence of thematic categories was validated by two researchers reliably able to allocate responses to category headings.	Reliability Medium Usefulness High
Flintoff and Scraton (2001)	Individual, in-depth, interviews exploring attitudes towards involvement in physical activity and PE with 21 young women who had earlier participated in group interviews.	**Sampling frame** Female pupils from four inner city comprehensive schools, north east England. **Selection** Schools selected from a set identified in an earlier study as being interested or proactive in gender equity practices. Aim was to interview young women who varied in terms of PE interest and abilities. PE teachers selected potential volunteers. **Recruitment** PE teachers were asked to recruit volunteers. **Consent** Process not stated. Interviews were recorded with young women's consent.	Individual interviews were recorded and transcribed. No details of interview materials, setting or interviewer. Interviews were structured around three key themes: young women's perceptions of PE and their position within it; the role and place of physical activity in their out-of-school lives; and their views on activity and its relationship to health and fitness.	Thematic analysis.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Frost (2001)	School-based focus group and individual interviews with ten 16-18 year old young women (3 individual interviews in an adolescent psychiatric unit). Used feminist sociological enquiry to explore how young women experience their bodies.	**Sampling frame** School in rural location and adolescent psychiatric unit, UK. **Selection** Not stated how school or psychiatric unit identified or selected. School focus group sample were all taking an optional school subject ('A' level art). Assume all lesson participants invited to interview. Process for selecting psychiatric inpatient unit sample not stated. **Recruitment** Method for recruiting in schools not stated. In unit, approval sought from consultant and young people asked if they wanted to participate in a group and/or in an individual discussion. **Consent** Parental consent sought: Not stated for school sample. Parental consent sought for interviews with girls in the psychiatric unit. Ethical Committee approval was granted for interviews in the Unit (not reported for school sample).	A focus group was held immediately prior to an art class with an assignment of producing self-portraits. Portraits then formed the basis of a discussion about how young women viewed themselves. Reference is made to interview schedule areas but unclear whether for group or individual interviews. No detail of interview setting (other than in school), interviewer or approach (other than that questioning on views about own appearance was 'non-intrusive'). Questionnaires also used after interviews for 'information in relation to specific appearance related topics'. Topics/ questions: views on: general experience of young women in relation to their appearance, including impact of media, friends, families; whether different for boys; what it's like for you personally.	Not stated.	Reliability Low Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Gorely et al. (2003)	Group and individual interviews with 348 eleven to fourteen year old secondary school pupils exploring views on the relationships between muscularity, physicality and gender.	**Sampling frame** Fifteen schools in England participating in a large-scale school-based project to develop innovative forms of physical education for adolescent girls. **Selection** The authors stated that pupils for interviews were selected by teachers on the same basis as pupils involved in the group interviews, but did not provide criteria for that selection. **Recruitment** Not stated. **Consent** Not stated.	Group and individual interviews: the majority (95%) of pupils were interviewed in single-sex friendship groups of two, three or four, and represented a range of interest and ability in PE as determined by their teachers. The group interviews were 30-40 minutes in duration and were constructed around a series of visual 'triggers'. The images were intended to stimulate discussion among the group members centred on the construction of embodied identity, including body shape and size, attractiveness, gender-appropriate bodies, and sporting bodies and gender. Individual interviews were conducted with 29 girls and 26 boys, 15 from Year 7, 19 from Year 8, and 21 from Year 9.	Not stated.	Reliability Low Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Griffiths and Page (2008)	Five obese female adolescents participated in multiple, semi-structured, in-depth interviews exploring a range of themes including peer relationships and victimization experiences.	Sampling frame Care of Children with Obesity Clinic, Royal Hospital for Children, Bristol, UK. Selection Criterion sampling was used to purposefully identify information-rich cases worthy of in-depth study. Patients were identified who were (i) female; (ii) aged 12–18 year; (iii) above the 95th percentile of British age- and gender-specific growth reference data, thereby defining them as obese; and (iv) had English as a first language. Those who had genetic susceptibilities for obesity, e.g., Prader–Willi syndrome or learning difficulties, were excluded. **Recruitment** Obese young people and their parents were recruited from the obesity clinic. Authors state that eligible patients were invited - no details on whether participant information leaflets were distributed, or where, how and by whom the patients were recruited. **Consent** Participant consent sought: Five young women provided verbal and written consent.	Multiple (two or three) interviews were conducted by the author to develop good rapport and enhance honesty and disclosure from participants. Interviews were semi-structured and covered a range of themes, including peer relationships and victimisation experiences. Interviews were recorded and transcribed, and ranged in duration from 45–120 minutes, with follow-up sessions taking place one week later.	Interpretative phenomenological analysis (IPA): interpretative, intensive engagement with texts and transcripts.	Reliability Medium Usefulness High

Study	**Study design summary**	**Sampling, recruitment and consent**	**Data-collection methods**	**Data-analysis methods**	**Study quality**
Grogan et al. (2009)	Eighty-seven smokers and non-smokers aged 17–24 from schools and a university in the Leeds area (47 aged 16-17) took part in 24 focus groups where they were asked to talk about impacts of smoking on appearance.	**Sampling frame** Schools and a university in the Leeds area. **Selection** Not stated. **Recruitment** School pupils were recruited by contacting relevant members of staff, who then put authors in contact with adolescents who were willing to take part in focus groups. All participants were paid £10 for participation. Consent Participant consent sought: Informed consent was obtained from each participant prior to the focus groups.	A list of topics was prepared prior to the focus groups, based on pilot work and previous literature. Topic headings included: Routes to smoking; Motivations for smoking; Smoking and health; Social pressure to smoke and not to smoke; Appearance issues; and Stopping smoking. Focus groups took place in quiet rooms in the target schools, lasted around an hour each and were transcribed verbatim.	Thematic analysis: Transcripts were submitted to a thematic analysis, adopting a broadly critical realist perspective. The first stage of analysis, involved careful reading and re-reading of all transcripts by the second author, and line-by-line open coding to identify initial themes apparent in the data, resulting in six clusters of themes. These were then submitted to axial coding by the first author, where relational sampling and constant comparison (comparing text segments from different informants and categories systematically for similarities and differences between them) were used to confirm and elaborate categories, and to investigate the relationships between categories. The third phase involved selective coding, with systematic sampling from accounts provided by each group of participants in the remaining 12 focus groups to confirm and verify the categories, to examine negative instances, and to ensure that theoretical saturation had been achieved as far as possible. Categories and themes were validated by the remaining three authors through face-to-face and on-line discussion, prior to determining the final model.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Grogan and Richards (2002)	English boys and men (aged 8, 13 and 16 years and young adults) gave accounts of body shape ideals, body esteem, exercise and diet in a series of focus groups (12 boys aged 13 and 16).	**Sampling frame** One state primary and one state secondary school in Sheffield, two sixth form colleges in Kent and Manchester Metropolitan University. **Selection** The participants self-selected by volunteering to take part in the study. The authors did not provide details of any basis on which they might have refused some participants over others, other than that they only wanted boys/men from wide age range. **Recruitment** It is not clear how the authors made their study known in order to attract participants to volunteer to take part. Consent Parental and participant consent sought: All participants completed research contracts prior to the study that outlined their right to withdraw from the study at any time and the extent of confidentiality of the data. Parental permission was also sought for the boys and adolescents. Participants were assured of anonymity, and all gave permission for the conversation to be recorded prior to the focus group.	A set of themes was produced to be used as an interview guide. These covered body image issues such as weight and appearance. Focus group interviews were recorded. The focus groups took place in quiet rooms at school or college and were facilitated by some of the researchers (white women in their twenties). Participants were first engaged in semi-formal chat to try to make them feel at ease. Discussion centred on body shape (current and projected future ideals, satisfaction, reference groups), weight (current, ideal, satisfaction, reference groups), and diet (current, ideal, beliefs about diet). Sessions lasted about 30 minutes and were closed when the conversation 'dried up' naturally.	Thematic analysis: Thematic decomposition with a close reading separating the transcript into coherent stories or 'themes'. Particular attention was paid to similarities and differences in discourses presented by men of different ages.	Reliability Medium Usefulness High

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Health Experience Research Group (2010)	In-depth, open-ended individual interviews followed by semi-structured interviews conducted with 36 young people aged 12-20 years old and 9 parents of teenagers about a range of issues related to weight and health. All of the young people and parents interviewed had been affected by weight issues. Some of the young people had been told they were overweight or were in the medical category 'obese'; others had been diagnosed with an eating disorder.	**Sampling frame** Young people affected by weight issues, UK. Selection Purposive (or maximum variation) sampling: interviews collected until the main experiences and views of people within the UK judged to be represented. Data presented for 24 respondents aged 12-18 years old. **Recruitment** Via GPs and hospital consultants, support groups and newsletters, advertising in the press, on websites and by word of mouth. Doctors and nurses handed out recruitment packs (which included a 'study information sheet', an introductory letter, a reply slip and stamped addressed envelope) to potential participants, who could then contact researchers if they were interested in hearing	Each set of interviews was collected and analysed by an experienced and trained researcher. The researchers were all social scientists by training, with backgrounds in sociology, anthropology, health policy, psychology, discourse analysis and history. Each researcher was fully trained in the research process, and given a detailed handbook to refer to. Study was informed by an expert advisory panel including patients, health professionals and researchers with a special interest in weight issues. They provided advice to the researcher throughout the project and ensured that an appropriate range of people were interviewed. Interviews took place mainly in respondents' homes. If people preferred they could be interviewed elsewhere. Interviews were usually with the respondent only, but sometimes a partner or friend was present. Sometimes videos were made of interviews. In the first part of the interview, people were asked to tell the story of what had happened to them, from when they first began to suspect there was 'a problem'. The researcher did not interrupt. When	Thematic analysis: As described by Ziebland and McPherson (2006). During analysis, all sections of the interviews that covered a similar topic were grouped and linked. When this 'coding' was finalised, material on a particular topic was gathered together in 'reports'. These were analysed to make topic summaries. Two researchers looked at the reports and together they made sure that important points, and every respondent's perspective, had been included in summaries. There was discussion about meaning and interpretation of points made during interviews. Two researchers from the team looked at the interview transcripts for the study and discussed which topic summaries should be written and presented on a website. The topic list was also discussed with the advisory panel.	Reliability High Usefulness High

		more. **Consent** Not stated: Participants' consent was sought for recording interviews. Participants sometimes decided that there were sections of the interview that they would rather did not appear on the website, in which case the researcher removed them from the final version.	this story had finished, the researcher asked additional questions, prompted by issues the respondent raised or those identified in earlier interviews or from a review of the literature. Two members of the research team discussed emerging themes after a few interviews had been completed. It is unclear whether this led to changes in the interview guide for subsequent interviews. All interviews were recorded and transcribed verbatim.		

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Hester et al. (2009)	Five 14-16 year old residents of a weight-loss camp participated in a progressively focused process: single end-of-stay interviews, followed by interviews repeated in the home environment at 3 months and at 9 months.	**Sampling frame** Residents of a weight-loss camp, UK. Selection Inclusion criteria included UK residency and a minimum stay on the residential programme of >5 weeks. Detailed accounts from emergent information-rich 'cases' were obtained. The three stages in interviewing were: 1) 44 single end-of-stay interviews; 2) 15 interviews repeated in the home environment at 3 months; 3) 5 interviews repeated in the home environment at 9 months. Thus, inclusion in follow-up interviews reflected willingness to discuss experiences. **Recruitment** Not stated. **Consent** Parental and participant consent sought: With parental approval and assent from participants, 44 young people were interviewed.	To develop a close appreciation of the camp experience, the first researcher spent 8 weeks of intensive (up to 18 hours per day) engagement in the camp programme, including participating in activities, eating meals together and sharing leisure time. Field notes were maintained during each day, supported by regular debriefing with the other authors. This experience was used to develop the initial end-of-camp interview structure. To address ethical concerns that discussing lifestyle behaviours with obese young people might upset them, the interview schedule was developed to reflect core principles of solution focused therapy (SFT). No therapy was provided. The interview techniques drawn from SFT were: 1) following a solution discourse, 2) the miracle question and 3) scaling. All interviews were recorded and transcribed verbatim.	Thematic analysis: Transcripts were read several times to acquire an overall sense of the data. Emergent and recurrent issues were noted alongside the reading. Issues associated with intervention impact were identified and a number of themes were clustered.	Reliability Medium Usefulness High

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Holt et al. (2005)	Semi-structured interviews with fifteen 10-16 year old attendees of a weight-loss camp in Leeds.	**Sampling frame** Returnees from a 2002 residential weight-loss camp - Carnegie International Camp-UK, Leeds - who also attended a reunion. **Selection** Purposive sampling was used to represent a breadth of experiences arising from the camp, but actual sampling technique is not reported. Fifteen of the 27 attending the reunion participated but the number refusing consent is unclear. **Recruitment** We are told only that participants were recruited by the second author (a researcher and camp counsellor). Consent Parental and participant consent sought: Written informed consent was obtained from the participants and their parents/guardians by the second author, who was also a counsellor on the camp staff.	Interview guide developed by study authors. No piloting. Sections comprised: 1) goals and aspirations; 2) pre-camp concerns; 3) experiences during the first few weeks of camp; 4) experiences during the rest of the camp; 5) evaluation of strengths and weaknesses of camp. Probing and clarifying questions/statements used. Authors described the aim to create positive and safe interviewing environment to make children feel at ease, but details not given.	Thematic analysis: Constant comparative method used to identify individual 'meaning units', themes and categories. Inter-rater reliability check (97% consistency) performed by second researcher/camp staff member, using 50% of raw data and their resultant themes.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Inchley et al. (2008)	Individual Interviews examining attitudes towards physical activity in forty-six 12-13 year old West Lothian secondary school pupils previously interviewed aged 10-11.	**Sampling frame** West Lothian primary and secondary schools. **Selection** The interview sample was selected from one local authority area (West Lothian) to reduce geographical variation. **Recruitment** Schools were invited to take part in the study by the Director of Education. Pupils within those schools were recruited by information sheets. Consent Parental and participant consent sought: Information sheets and consent forms were sent to all parents of P7 pupils in the first year of the study, and to parents of new pupils in subsequent years. An opt-out system was employed whereby any parent or guardian wishing to withdraw their child from the study could do so. Pupils were also provided with information sheets and consent forms on the day of the survey and were able to opt out if they so chose.	Paired, individual Interviews with follow-up after two years.	Thematic analysis.	Reliability Low Usefulness Low This study was excluded from the synthesis - see Section 8.2.1

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Jackson and Harris (2007)	Workshops with open-ended questions about 'obesity in the future' involving twenty-four 13 year old school pupils from Essex.	**Sampling frame** 13 year old school pupils. **Selection** Not stated. **Recruitment** Not stated. **Consent** Not stated.	Workshops were conducted at a nearby off-campus location. In session 1, participants were encouraged to speculate about what the future might be like. In session 2, they were asked to write a day in the life of someone living in their future scenario or to draw images capturing an aspect of the future. In session 3, participants were asked to suggest changes which might result in a healthy weight and lifestyle.	Not stated.	Reliability Low Usefulness Low This study was excluded from the synthesis - see Section 8.2.1
Kaplan-Myrth (2000)	Individual case studies of body image in twelve 18 year old pupils of a Royal National Institute for the Blind (RNIB) co-educational boarding school, London.	**Sampling frame** Co-educational boarding school for the blind. **Selection** Participants were selected for varying degrees of visual impairment. **Recruitment** Not stated. Consent Not stated.	Semi-structured interviews and group interviews: semi-structured interview topics included: 1) Coming of age in blindness (knowledge about the maturing body) and 2) the relevance of 'appearance'.	Thematic analysis (inferred from text). Details of methods not stated.	Reliability Low Usefulness Low This study was excluded from the synthesis - see Section 8.2.1

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Krayer et al. (2008)	In-depth interviews with twenty 12-14 year old boys and girls from two secondary schools, exploring the use of social comparison appraisals in young people's lives.	**Sampling frame** Two UK secondary schools. **Selection** The sample was a convenience sample, whereby interested participants were identified by teachers. **Recruitment** Two schools were approached to collect data from 12- to 14-year old children. Consent Parental, participant and teacher consent sought: A hierarchical consent procedure was used after institutional ethical approval had been granted. Head teacher's approval was sought before parents/guardians and then the adolescents themselves were approached. All received information outlining the nature and purpose of the study. Young people were given the opportunity to discuss their potential participation with their parents/guardians before deciding to join the study. Parents/guardians and participants were assured of confidentiality.	Individual semi-structured interviews, lasted 45 minutes each. The interviews took place in a private room in the school. Rapport was established through setting a positive tone, seeking information in depth, reflecting on what had been said, and closing the interview on a positive note. Questions focused on specific themes, such as types of media consumed and messages received about physical and personal attributes. New questions were included, based on issues emerging in interviews and data analysis. Direct questions about comparisons were only asked towards the end of the interview, as research has shown that direct questions might invoke social desirability concerns.	Grounded theory approach: collection and interpretation of data were cyclical, starting with line-by-line coding, which provided the basis for a more in-depth analysis and further data collection, increasing the depth of interpretation. The process was iterative and focused on the participants' perceptions. The interviews were read line by line, asking sensitising and theoretical questions. Coding focused on incidents that demonstrated evidence of comparison appraisals in the data and the targets and attributes under comparison. Theoretical sampling was conducted by comparing incidents and events in terms of how they gave density and variation to the concepts to which they related. Saturation was achieved for the sample in terms of sufficient details identified.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Kurtz and Thornes (2000)	Focus groups to gather views about the health needs of 99 secondary school pupils (43 aged over 12 years) at four Healthy Schools Programme sites in the South West, North East, South coast and Midlands of England.	**Sampling frame** One secondary school and one feeder primary school in each of four Healthy Schools Programme sites in England. **Selection** Sites were selected to include populations and environments with different characteristics. Attention was given to working in different parts of England: in the inner city, a medium-sized town, and rural areas; in a community with a high proportion of minority ethnic groups; and in areas demonstrating high levels of socio-economic deprivation and middle range socio-economic characteristics. Schools chose the participants purposefully (from any age group), so that each group comprised children who were willing to put forward their views. **Recruitment** Healthy Schools Programme team identified schools that were interested in the project and were willing to take part. Researchers then liaised with the headteacher and a named teacher at each of the schools, to plan visits. Method of recruiting young people in the study is not reported. Consent Parental consent sought: Permission for their children to take part in the focus groups was obtained from parents, by the school, using a letter that we designed for this purpose in discussion with each school.	All the focus groups were held on school premises. They were run in a semi-structured manner. Informal 'headings' included: what is health; how is health maintained and promoted; what are the causes of unhealthiness and how can it interfere with daily life; and where to go for help and advice. During the discussion, chronic conditions, disability, emotional health, behavioural issues and risk-taking behaviour were also included. Care was taken to allow children to express themselves freely, in their own words. Generally, a minimum of guidance was needed and issues were raised spontaneously. Participants were given an opportunity early in the session to discuss the meaning of health with a partner. Thus interests and gaps were identified to ensure all aspects of health needs were considered later in the session. Detailed notes were taken throughout the focus groups.	Not stated.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Lloyd and Dittmar (1997)	Individual interviews and focus group discussions to encourage fifty-six 12-16 year old school pupils to talk about concerns relating to their bodies, appearance, ideal body image and related issues.	**Sampling frame** Mixed comprehensive school in a small country town in East Sussex that had taken part in an earlier survey. Selection Not stated. **Recruitment** Not stated. **Consent** Parental consent sought.	Individual interviews and focus group discussion: one class in each of Years 8, 10 and 12 participated. Pupils were asked to form friendship sets of no more than five people to take part in focus group discussions. One member from each focus group was also interviewed individually. Both interviews and group discussions began with a few opening questions designed primarily to put the young people at ease. The question schedule focused on the following themes: importance and meaning of 'looking good' for boys and for girls, identities associated with appearance (including thinness/fatness), strategies to achieve the 'ideal body, and changes in body image concerns over time. Interviews and group discussions were recorded and transcribed verbatim.	Thematic analysis: Data analysis involved an initial identification of the main themes, the development of a coding system to mark chunks of text, and repeated revision of the coding system until a satisfactory number and structure of main and subsidiary themes had been achieved.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Lucas and Lloyd (1999)	Focus groups with 11-14 year old East Sussex schoolgirls discussing smoking, mood control and body image concerns.	**Sampling frame** State secondary schools in East Sussex. **Selection** Six secondary schools were chosen both as representative of the county and on the basis of willingness to participate in the project. **Recruitment** Thirty-two groups were recruited from four of the six schools that had participated in a questionnaire survey. Each school contributed at least four groups from each of Years 7 and 9. Group size ranged from two to six girls. Girls were recruited by asking friendship groups to volunteer to take part. **Consent** Not stated.	Focus group discussions were preceded by specially produced videos of a young teenage girl and her friends. The video material was used to elicit free descriptions of girl smoker and girl non-smoker. The impression formation task always preceded focus group discussions. A young woman researcher conducted all the focus group discussions. She was closer in age to the girls participating. Discussions were recorded and transcribed. Another researcher made contextual notes during the discussion and then collaborated on further notes after the session. The groups were conducted either in free class periods or after school. The researcher used a prepared protocol to ensure that smoking behaviour, satisfaction with body image, stress and coping, home environment, peer relations and smoking identities were discussed.	Thematic analysis.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Ludvigsen and Sharma (2004)	Group interviews focused on children's views and opinions about social and environmental factors that influence their food preferences in the school setting, conducted with 174 children and young people in 9 schools in England, Wales and Scotland at 3 key stages: 4-year-olds at nursery schools, 10-year-olds at primary schools and 15-year-olds in secondary schools (54 aged 14-15 years).	**Sampling frame** Two secondary schools in areas of high deprivation (in addition to children attending nursery schools and primary schools). **Selection** Not stated. **Recruitment** The majority of the schools were contacted with the help of Barnardo's services. Consent Participant and parental consent sought: Before the research took place, children were provided with information leaflets explaining the purpose and use of the research in age-appropriate language. Schools were also asked to distribute parent consent forms. Primary and secondary school children were also asked to complete a children's consent form. All focus groups were recorded, except on one occasion where the children did not give their permission for the session to be recorded.	Participant observation and questionnaires followed by semi-structured group interviews using photographs as prompts. Interviews were recorded, and although conducted in school, did not take place in classrooms. Children and young people were also invited to write down their suggestions.	Not stated.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
McAlister and Neill (2007)	Feminist action research involving 7 focus groups with a total of 48 young women aged 13-25 years in various locations throughout Northern Ireland (43 aged 13-18 years).	**Sampling frame** Young women from Belfast and Derry/Londonderry, Northern Ireland. **Selection** Not stated. **Recruitment** Not stated. **Consent** Not stated.	A Young Women's Working Group of young women from diverse backgrounds throughout Northern Ireland was set up to inform the research at all stages; the group considered what information to collect from young women in the focus group interviews and the appropriate means of running these. Firstly, a short group exercise acted as a form of 'stimulus material'. Focus group discussions lasted 60-90 minutes and, with the permission of all participants, were recorded. Questions were asked regarding 'The good and bad things about being a women' including: 'Beauty and fashion'; 'Choices and constraints'; 'Becoming a woman'; and 'The significance of menarche'.	Not stated.	Reliability Low Usefulness Low This study was excluded from the synthesis - see Section 8.2.1

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Mulvihill et al. (2000b)	Interviews to identify drivers and barriers to involvement in physical activity conducted with 103 young people aged 11-15 in six sites across England.	**Sampling frame** Secondary schools and out-of-school settings (youth clubs and shopping mall) across urban and rural/suburban areas in the North, Midlands and South of England. **Selection** A purposive sampling procedure was used to select participants in schools for interview. The sample was selected to reflect diversity in terms of socio-economic background, ethnicity and levels of physical activity/inactivity. There was a bias towards those in lower socio-economic groups, those with lower levels of physical activity, and young women aged 13-15 years. Selection for out-of-school settings not stated. **Recruitment** In secondary schools, participants were recruited by the investigator and year group form tutor by means of a brief classroom discussion. In out-of-school settings, respondents were recruited by the fieldworker after a brief talk explaining the purpose of the focus group sessions. **Consent** Consent to participate overall was not reported; however, all interviews were recorded in full, with the permission of respondents, and they were assured of their right to withdraw from the study at any time without explanation.	Young people were interviewed in heterogeneous groups (determined by age, gender and levels of activity). Semi-structured interview topic guides were developed and piloted. However, young people participating in the study were encouraged to exert influence over the choice of issues that were talked about and their relevance to the individual. Each focus group began with an introductory question where respondents were asked for their name and details of their family. All interviews were recorded.	Not stated.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Owen et al. (2009)	In-depth interviews exploring the views and experiences of eleven 11-18 year old attendees of a hospital-based childhood obesity clinic. The sample also included 5-10 year olds.	**Sampling frame** Hospital-based childhood obesity clinic in Bristol. **Selection** Purposive sampling to ensure that interviews were held with participants of varying age, gender and success in reducing their BMI. **Recruitment** It is not clear what methods were used to recruit participants, other than that parents were first asked to take part and then their children. **Consent** Parental and participant consent sought.	Two separate interview guides were used: one for parents and another for children. Both guides included questions about the child's referral to the clinic, descriptions and feelings about appointments, suggestions for improvements and reasons for non-attendance. Most of the interviews took place in the hospital, but four were conducted in participants' own homes, and one was held by telephone. On average, child interviews lasted 14 minutes. All interviews were recorded and transcribed. Interviews were undertaken until saturation of key themes was reached.	Thematic analysis: Each transcript was read and re-read in order to gain an overall understanding of the children's views and experiences. This process was also used to identify themes and to develop a coding frame. Transcripts were read by another member of the research team, so that the analysis and coding frame could be refined through discussion. Data coded under specific themes, for example, diet, were then retrieved and summarised. Comparisons were then made between the accounts given by 'successful' and 'unsuccessful' patients/parents and non-attenders; between girls and boys; and between children (aged 5-10 years) and young people (aged 11–18 years) and their parents. Thematic patterns and deviant cases were noted. Original transcripts were then re-read to ensure that the resulting findings accurately reflected and fully mapped the data collected.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Percy-Smith (2007)	Participative action research exploring young people's understandings and experiences of health as experienced in their everyday lives with young people aged 13-21, community leaders and professionals in Hounslow, London (62 aged 13-18).	**Sampling frame** Young people attending secondary school in Hounslow. **Selection** Not stated for peer research projects. No limit was placed on the number of young people who came to the event, although young people who had been involved in prior peer research were encouraged to attend for continuity. **Recruitment** Not stated for peer research projects. The Community Health Council (CHC, the project funder) already had a youth peer leader scheme operating, from which volunteers for this research were recruited. The youth peer leader scheme was established by the CHC to support individual young people in taking a more active role in their community, working with the CHC to promote healthier lifestyles. Consent Parental and teacher consent sought: Not stated for peer research projects. The young people had to seek permission from parents and their head teacher to attend the event. Schools and colleges were given written permission from the Director of Education in the local authority to absent young people from school for this event.	The event involved four phases. Phase 1 concerned presentation of youth peer research, with opportunity for participants to respond with their own comments and questions to focus subsequent inquiry. Phase 2 involved bringing young people and professionals together to discuss 'what a healthy life means to young people' and to consider 'what most affects young people's health', based on the peer research. Specially designed flip sheets were used to capture key issues and conversations. Phase 3 involved professionals and young people working separately using visual media to envision how to create more healthy futures for young people in response to understanding of emerging health issues. Participants were invited to work in small groups to produce a newspaper front page with a headline, visual material and written detail of the changes they felt were necessary. Young people and professionals were then invited to regroup to reflect on the local policy implications of the messages in the posters. The final phase involved a plenary discussion with a panel of young people and professionals to reflect on the learning and actions from the event.	Thematic analysis: A 'grounded theory' approach was used to thematically collate data.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Reid (2009)	In-depth interviews examining awareness, knowledge and attitudes towards child healthy weight conducted with twenty-four 13-14 year old children (in addition to parents and health professionals).	**Sampling frame** 13 and 14 year old young people from Edinburgh, Greater Glasgow, rural Angus and rural Grampian, Scotland. **Selection** Not stated. **Recruitment** Not stated. **Consent** Not stated.	Each individual, in-depth interview lasted 30-40 minutes.	Not stated.	Reliability Low Usefulness Low This study was excluded from the synthesis - see Section 8.2.1

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Reid and Hendry (2001)	Individual, semi-structured interviews with thirty-seven 14-17 year old secondary school pupils from rural northern Scotland discussing their personal health concerns, and responding to a list of common health concerns generated by their peers.	**Sampling frame** Secondary school pupils in rural northern Scotland. **Selection** An attempt was made to interview eight pupils from each school (two from each age and gender group per site). They included single communities in Wester Ross, Shetland, Caithness, Aberdeenshire and Angus. They were all located within northern Scotland, yet varied in geography, community size, local economy and proximity to an urban centre. The sample for the follow-up study was drawn from a larger survey sample. Eight individuals from different groups defined by class, gender and a random selection of friendship groupings were successively recruited. Further care was taken to stratify recruitment of two boys and two girls who stayed in different home locations (for example, in the 'town' or school site area, or out-with and more remote to this area). **Recruitment** Contact with potential participants occurred within local secondary schools. Consent Parental and participant consent sought: Parents had been notified about both studies prior to the survey administration, and could object to their child's participation. Only three parents objected from the larger sample of over 2,000 pupils. Participation was voluntary and the interview format was explained in advance. All interviews were recorded with participants' consent.	Two interview sessions were conducted in order to allow adequate time to cover the concerns presented. Each session took 45- 60 minutes. To stimulate discussion, a list was provided that represented the 23 most frequent health concerns given by earlier focus groups of the same age. During each session, the fieldworker asked participants to elaborate earlier comments in order to clarify or to qualify interpretations. All interviews were recorded.	Thematic analysis: Data were analysed by two independent coders using a framework including the concern topic, cause of or factors related to each concern, and responses made to each concern. After coding, relationships between codes were examined.	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Shucksmith and Hendry (1998)	Group and individual interviews examining young people's views on diet, weight and appearance conducted with 15 year old secondary school pupils from Scotland.	**Sampling frame** Secondary school pupils, Scotland. **Selection** Teachers were asked to suggest a single student of each gender according to specifications laid down by a research assistant in each case. Each student was then to be asked to suggest up to four or five friends with whom they would like to be interviewed. The group was then approached to seek their agreement to take part in the session. However, in practice, it is clear that despite careful briefing of teachers by the fieldworkers, shortcuts were often taken in schools and the groups which were presented to the fieldworkers as friendship groups were selected on the basis of teachers' knowledge and not by young people themselves. **Recruitment** Almost all those involved in the groupwork agreed to be involved in the second phase of the fieldwork. Consent Parental consent sought: In some cases, schools required written permission from parents before going ahead. At the group interview, young people were asked if they wished to participate further in individual interviews. Schools were asked to distribute a pamphlet aimed at informing young people about the aims of the study.	Semi-structured group interviews were piloted and then recorded and transcribed. Individual interviews were piloted. Boys' interviews were conducted in a more structured format than girls' interviews. Individuals' interviews were recorded and transcribed.	Thematic analysis: Data analysis was shared between four members of the research team. Fieldworkers identified initial themes they saw emerging clearly from young people's accounts. Transcriptions were then examined to gather data on these topics. In discussion within the team, other topics were subsequently identified and themes of a more conceptual nature were explored in discussion and then through the data.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Velija and Kumar (2009)	Focus group interviews with sixteen 14-16 year old girls exploring how girls' experiences of PE and GCSE PE were gendered.	**Sampling frame** Schools from the North East of England. **Selection** The first focus group consisted of 8 girls that had chosen GCSE PE and the second of 8 girls that had not chosen GCSE PE. **Recruitment** Not stated. **Consent** Participant and teacher consent sought: Consent for the study was granted by the Head of PE, and the girls themselves. All the children were informed that participation in the study was on a voluntary basis and that all information would be confidential. Participants received a consent form and letter of invitation.	A pilot study was conducted prior to final data collection in the form of a single focus group lasting 45 minutes. This was used to test the interview guide, practise the researcher's interview technique and check audibility of the recording and location. The pilot study endorsed modifications to the interview guide in the form of more age-sensitive language. Both focus groups took place in a classroom in the school and were recorded and transcribed verbatim. The pilot study and both focus groups were supervised by a member of the school staff for child protection reasons. The interviews began with a brief discussion about the nature of the research, and offered the young people a chance to ask questions. The interview schedule was semi-structured, but girls were given the freedom to discuss issues that arose relatively freely and were encouraged to interact and converse with one another about these issues. The following areas were covered: whether girls liked PE; experiences of PE prior to GCSE PE; reasons why they had chosen or not chosen GCSE PE and what had influenced their decision; and issues that affected their participation and engagement in PE.	Thematic analysis: Thematic content analysis involving a hierarchical method of analysis whereby similar themes were grouped into first-order themes and then condensed into higher orders, until a general dimension emerged, was employed. Data were organised into a three-tier hierarchy. Recurrent themes were initially structured into 40 first-order themes and then reduced into 13 second-order themes. The second-order themes were then condensed into five general dimensions. The authors judged that the general dimensions reflected the content of the transcripts and were exhaustive, being entirely distinct from each other with no overlap.	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Wallace et al. (2007)	In depth, semi-structured interviews exploring the impact of appearance changes conducted with six 14-19 year old young women who had completed treatment for cancer within the previous two years.	**Sampling frame** Adolescents who had completed treatment for cancer at Bristol Children's Hospital (BCH). **Selection** Adolescents who had completed treatment for cancer within the last two years. Patients with any cancer type were included. Patients considered too vulnerable by their consultants to participate in this research were not approached. **Recruitment** Eleven female and 12 male young people and their parents were contacted by their consultant at BCH, informed of the study and asked whether they would like to participate. Consent Not stated. Ethics approval was sought and granted by the United Bristol Healthcare Trust Local Research Ethics Committee.	Interviews were conducted and recorded at participants' homes across the south-west of England. Parents were not present in the interview room to allow for confidentiality. The interview schedule included three sections: general questions designed to learn more about the lifestyle of participants and establish rapport; questions concerning the cancer and its treatment; a section regarding appearance and the impact of appearance changes. Interviews were semi-structured, enabling the interviewer to pursue areas of interest as they arose, and lasted 45-75 minutes. Interviews were transcribed verbatim.	Interpretative phenomenological analysis (IPA).	Reliability Medium Usefulness Low

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Willett (2008)	Interviews exploring online fashion, body shape and body image conducted with twenty-six 12-13 year old young women who took part in media production workshops at a specialist information and communication technology (ICT) centre connected to a school in inner-city London.	**Sampling frame** Inner-city London secondary school. **Selection** Author asked for a group of girls to be selected to reflect the population of the school. Girls were suggested for the workshops by the form tutor based on various individual factors (e.g., a perceived need to gain more confidence and have more ICT experience, a perceived need to be recognised for the informal ICT skills they had developed through their own online activities). **Recruitment** Recruitment was done by the form tutor. **Consent** Not stated.	Visual designs provided data in themselves. Conversations the girls had during the design process were recorded. The designs provided a stimulus for more direct conversations about girls, fashion and media. Semi-structured interviews were held to discuss general ICT usage, specific design processes, fashion choices and awareness of adult anxieties toward fashion and various dress-up activities. Interviews were conducted in small groups (two to four girls), based on the groups that the girls had established when working on their designs.	Thematic analysis.	Reliability Low Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Wills et al. (2006)	In-depth interviews with 36 socio-economically disadvantaged Scottish school pupils aged 13–14 years, examining their perceptions regarding their own and others' bodies. Half of the sample had a body mass index (BMI) classifying them as overweight or obese, whilst the remainder were classified as being 'normal' weight.	**Sampling frame** Young people from secondary schools and youth groups in areas within Eastern Scotland classified as socio-economically disadvantaged. **Selection** Schools and youth groups in areas within Eastern Scotland classified as socio-economically disadvantaged were contacted as they were expected to contain a high proportion of young people fitting the criteria of disadvantage. Young people who were underweight were excluded from the interview sample. 36 young people were selected based on their agreement to be contacted about an interview, their gender, their BMI, and their socio-demographic details (young people living in the most deprived postcode sectors within the area were chosen and account was also taken of household composition, parental occupation/s and car use). **Recruitment** Not stated. After receiving ethical approval from each relevant education authority, members of the research team	Interviews were conducted in participants' homes, by the first author, for 45-90 minutes. Interviews were arranged when a parent or guardian was at home, but they were not present during the interview. A topic guide was used to prompt discussion about young people's everyday lives, and their perceptions about health, food and eating, weight, body image and appearance. Questions about participants' own bodies and those of their family and friends were included. The interviewer avoided using value-laden terms related to body size and shape (e.g. fat and big) so that each participant could spontaneously introduce into the interview the terms with which they were familiar and comfortable. Questionnaire data were	Thematic analysis: Analysis began whilst the data were still being collected allowing emergent themes to be explored in further detail in later interviews. All members of the research team read the transcripts repeatedly. Some members of the team read some of the transcripts without being aware whether each participant was 'normal' weight, overweight or obese. This ensured that themes were initially discussed and interpreted without interference from any preconceived ideas about individuals who were of varying weights. Regular team meetings were then held: to refine the analytical codes; to explore young peoples' underlying reasoning; to discuss data on young people who were dissimilar from their peers in some way; and to identify new research questions.	Reliability High Usefulness High

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
		visited three schools. **Consent** Parental and participant consent sought: Ethical approval from each relevant education authority was granted. Double consent was sought: parents were asked to 'opt out' if they did not wish their child to take part in the study and each young person was asked to give their own written consent. Interviews were recorded with each respondent's consent.	used to provide prompts within the interview. Interviews were recorded and transcribed.		
Wills et al. (2008)	In-depth interviews with thirty-six 13-15 year old young people from middle-class families, half classed as obese or overweight by their BMI. Interviews also held with participants' parents. Follows on and considers relationship of data to findings from another study	**Sampling frame** Young people from middle-class families attending secondary schools in Eastern Scotland with a relatively low number of students eligible for free school meals. **Selection** Screening questionnaire contained an option for young people to indicate that they wished to be considered for an interview. Students in years 3 and 4 had their weight and height measured and provided socio-demographic details in the questionnaire, which was	Individual in-depth interviews lasting 45-90 minutes, conducted mostly in participants' homes. Interviewer not described. Interviews were recorded and transcribed. Topics covered not reported, except that some detail from participants' questionnaires were used to prompt discussion (e.g. favourite foods and perception of own body size). Questionnaire was based upon one used in	Thematic analysis: Transcripts were read through in analytical team meetings approximately every six weeks, to establish emergent and recurrent themes in the data. A broad coding scheme used by Wills et al. (2006) for teenagers in working-class families was found to be appropriate for coding of this data, with the addition of one further code (to capture extensive data on physical activity). Team members produced individual accounts of their own determination of themes, sub-themes and	Reliability Medium Usefulness Medium

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
	(Wills et al. 2006) into perspectives of young people from working-class families in the same geographical area.	questionnaire completed by 400 students. A small minority, all girls, declined to have measurements taken. Participants were then selected for interview on the basis of their gender, BMI and social class. **Recruitment** Parents of young people selected for interview were telephoned (and also asked if willing to be interviewed themselves). **Consent** Parental and participant consent sought: Parents were sent information sheet and asked for consent for their own participation before interviews commenced (consent was assumed for young people's participation). Young people asked for their written consent before filling in screening questionnaire. A debate was held in class prior to this. Ethical approval was sought from the relevant local education authorities and University of Hertfordshire ethics committee. No detail given regarding assurances of confidentiality.	an earlier study of teenagers from working class families (Wills et al. 2006).	issues across cases. Meetings were structured to concentrate on particular emergent themes and analysis of either young people, parents or young people and parent dyads. Data were also interrogated in relation to findings from the earlier, working-class study and comparative analyses were run to determine whether interpretations could be validated across and between social class groups.	

Study	Study design summary	Sampling, recruitment and consent	Data-collection methods	Data-analysis methods	Study quality
Wills (2005)	Semi-structured biographical interviews examining the social contexts experienced by young people in relation to food practices and eating habits in 31 16-18 year old students of a school of science and health within a college of further education in the South East of England.	**Sampling frame** 480 students enrolled in the school of science and health in a college of further education in the South East of England for the academic year 2000-01. **Selection** The college of further education was chosen because it was the major provider of further education for 16-18 year olds in the area and a large proportion of students were aged 16-24 years. The students were predominately female, reflecting the gender-biased intake of the health and beauty courses, and were mainly enrolled for level one or two courses (equivalent to National Vocational Qualifications at levels 1 and 2). There was also a bias towards the younger end of the age range of 16-24 years. This meant that there were very few older male students in the sampling frame. By the time the fieldwork began, in February 2001, 47 students aged 16-24 years had withdrawn from their course, leaving 281 (86 per cent) in the sampling frame. **Recruitment** Letters were sent to students in September 2000 asking them to participate. **Consent** Not stated. Interviews were recorded with participants' consent.	The young people were asked to keep a 24-hour descriptive food diary, detailing what they ate, where they were and who they were with at the time, and to add any other comments if they wished to. Individual interviews were carried out, after a pilot phase, with 31 students in a private room at the college. Each interview lasted 50-90 minutes. The interviews were semi-structured, and used a topic guide and food diary as prompts to elicit information about respondents' everyday food practices and eating habits, and the social contexts in which these took place. Each respondent was interviewed using a biographical approach, that is, they were each asked to recall as much information as possible about their food practices and eating habits from their early teenage years to the time of the interview, using the key events considered salient to each young person as prompts for recall. Interviews were recorded, and transcribed immediately after the interview had taken place.	Thematic analysis: The analysis was an iterative process of searching for broad themes across transcripts and then clarifying sub-themes within each transcript. New themes were explored further in interviews with subsequent respondents. Other substantive areas and associations arising from the literature were explicitly looked for among the data and categories. Conclusions and theories became increasingly objectified and were situated in context at both individual and aggregate levels.	Reliability Medium Usefulness Low

Appendix C: Themes from the synthesis: the contribution of each study

Themes from the synthesis	Billings et al. (2008)	Bramham (2003)	Cockburn and Clarke (2002)	Curtis (2008)	Daley et al. (2008)	Flintoff and Scraton (2001)	Frost (2001)	Gorely et al. (2003)	Griffiths and Page (2008)	Grogan et al. (2009)	Grogan and Richards (2002)	Health Experience Research Group (2010)	Hester et al. (2009b)	Holt et al. (2005)	Krayer et al. (2008)	Kurtz and Thornes (2000)	Lloyd and Dittmar (1997)	Lucas and Lloyd (1999)	Ludvigsen and Sharma (2004)	Mulvihill et al. (2000)	Owen et al. (2009)	Percy-Smith (2007)	Reid and Hendry (2001)	Shucksmith and Hendry (1998)	Velija and Kumar (2009)	Wallace et al. (2007)	Willett (2008)	Wills et al. (2006)	Wills et al. (2008a)	Wills (2005b)
It’s down to me	■				■	■	■			■	■	■							■	■			■	■			■	■	■	
It’s like a girl thing?		■	■			■	■	■		■	■	■			■		■		■			■	■				■		■	
If you’re fat then they don’t like you							■	■			■	■	■			■		■							■			■	■	■
People that are right big have right dirty houses				■	■				■			■	■				■											■	■	
Being fat is really a bad thing		■					■	■			■	■			■		■					■	■	■		■		■		■
Not wanting to stick out				■					■			■					■											■		
Day after day, you’re that terrified		■	■	■	■				■		■	■	■	■	■									■				■		
Vicious circles									■			■																		
Easier said than done				■	■							■	■	■							■			■				■		
Yo-yos and pick-me-ups												■	■	■							■							■		
Be nice. You’ve got to help												■	■									■								

Appendix D: Search strategy

The full search strategy is available from the lead author on request. The following is a record of the search run on the Pubmed database, and the websites searched for this review.

Pubmed

Searched on 8.2.10.

(child[mh] OR adolescent[mh] OR minors[mh] OR puberty[mh] OR child*[TIAB] OR schoolchild*[TIAB] OR Boy[TIAB] OR boys[TIAB] OR Girl[TIAB] OR girls[TIAB] OR Minors[TIAB] OR preadolescence[TIAB] OR preadolescent*[TIAB] OR adolescent*[TIAB] OR teen*[TIAB] OR (school[TIAB] AND student*[TIAB]) OR pupil*[TIAB] OR young people[TIAB] OR youth[TIAB] OR youths[TIAB] OR adolescence[tiab] OR pubert*[TIAB] OR Secondary school*[TIAB])

AND

(body composition[tiab] OR body dismorph*[tiab] OR Body Weight[MeSH Terms:noexp] OR Body Size[MeSH Terms:noexp] OR "body size"[TIAB] OR "body shape"[TIAB] OR "overweight"[TIAB] OR "thin"[TIAB] OR "thinness"[TIAB] OR "skinny"[TIAB] OR "body mass index"[mh] OR "overnutrition"[mh] OR "body image"[mh] OR "body image"[TIAB] OR "obese"[tiab] OR "obesogenic"[tiab] OR obesity[tiab] OR obesity[mh:noexp] OR (weight[TIAB] AND body[TIAB]) OR weights[TIAB] OR "body fatness"[TIAB] OR fatness[TIAB] OR "weight gain"[TIAB] OR body weight changes[mh:noexp] OR weight gain[mh] OR Weight loss[mh:noexp] OR Emaciation[mh:noexp] OR Cachexia[mh:noexp] OR Overweight[mh:noexp] OR Obesity[mh:noexp] OR Thinness[mh] OR Ideal body weight[mh] OR Bulimia[tw] OR Anorexia[tw] OR Binge-eating[tw] OR "binge eating" OR Eating disorders[mh:noexp] OR Waist Circumference[mh] OR waist-hip ratio[mh] OR disordered eating[tiab] OR underweight[tiab] OR body composition[mh:noexp] OR "weight loss"[TIAB] OR "weight change"[TIAB] OR "weight changes"[TIAB])

AND

(((ethnolog*[tiab]) OR (stories[tiab]) OR (content analysis[tiab]) OR (ethnographic[tiab]) OR (audiorecording[tw]) OR (observational methods[tiab]) OR (participant observation[tiab]) OR (field notes[tiab]) OR "ethnopsychology"[mesh terms] OR "focus groups"[mesh terms] OR "interviews as topic"[mesh terms] OR "empirical research"[mesh terms] OR "emotions"[mesh terms] OR "awareness"[mesh terms] OR "comprehension"[mesh terms] OR "self concept"[mesh terms:noexp] OR "health knowledge, attitudes, practice"[mesh terms] OR "attitude"[mesh terms:noexp] OR "attitude to health"[mesh terms:noexp] OR "focus groups"[mesh terms] OR "qualitative research"[mesh terms] OR experiences[tiab] OR experience[tiab] OR narratives[tiab] OR narrative[tiab] OR discourse[tiab] OR inter-personal[tiab] OR individual-level[tiab] OR repertory grid[tiab] OR self-worth[tiab] OR self-identification[tiab] OR pre-occupation[tiab] OR preoccupation[tiab] OR acceptability[tiab] OR worry[tiab] OR worries[tiab] OR feelings[tiab] OR dissatisfied[tiab] OR satisfied[tiab] OR ideal shape[tiab] OR over-concern[tiab] OR concerns[tiab] OR concern[tiab] OR prejudice[tiab] OR prejudices[tiab] OR process evaluations[tiab] OR process evaluation[tiab] OR emotions[tiab] OR ethnopsychology[tiab] OR focus groups[tiab] OR behavioral research[tiab] OR behavioural research[tiab] OR narration[tiab] OR satisfaction[tiab] OR dissatisfaction[tiab] OR meanings[tiab] OR meaning[tiab] OR perspectives[tiab] OR perspective[tiab] OR ideas[tiab] OR idea[tiab] OR concepts[tiab] OR concept[tiab] OR beliefs[tiab] OR belief[tiab] OR attitudes[tiab] OR attitude[tiab] OR perceived[tiab] OR perceives[tiab] OR perceive[tiab] OR perceptions[tiab] OR perception[tiab] OR views[tiab] OR view[tiab] OR qualitative[tiab] OR interviewed[tiab] OR interviewing[tiab] OR interviewer[tiab] OR interviews[tiab] OR interview[tiab] OR comprehension[tiab] OR attitudinal[tiab] OR outlook[tiab] OR in depth[tiab] OR case studies[tiab] OR case study[tiab] OR opinions[tiab] OR opinion[tiab] OR expectations[tiab] OR expectation[tiab] OR thoughts[tiab] OR narratives[tiab] OR standpoint[tiab] OR standpoints[tiab] OR viewpoints[tiab] OR viewpoint[tiab] OR (audio record[tiab] OR audio recorded[tiab] OR audio recorder[tiab] OR audio recording[tiab] OR audio recordings[tiab]

OR audio records[tiab]) OR thematic analysis[tiab] OR phenomenol*[tiab] OR grounded theory[tiab] OR grounded studies[tiab] OR grounded research[tiab] OR purposive sampling[tiab] OR constant comparative[tiab] OR constant comparison[tiab] OR purposive sample[tiab] OR field study[tiab] OR field studies[tiab] OR field research[tiab] OR biographical method[tiab] OR theoretical sampl*[tiab] OR open-ended[tiab] OR "open ended"[tiab] OR "life world"[tiab] OR life-world[tiab] OR conversation analysis[tiab] OR conversation analyses[tiab] OR theoretical saturation[tiab] OR "thematic analyses"[tiab] OR anxiety[tiab] OR anxieties[tiab] OR anxious[tiab])

AND ("1997"[PDat] : "3000"[PDat])

AND English[lang])

AND (((Northern Ireland[PL]) OR (United Kingdom[PL]) OR (Britain[PL]) OR (Scotland[PL]) OR (Wales[PL]) OR (England[PL]) OR (great britain[MeSH Terms] OR (europe[MeSH Terms:noexp]) OR (Northern Ireland[MeSH Terms]) OR UK OR Scotland OR England OR Wales OR "Northern Ireland" OR Europe OR British OR Scottish OR Welsh OR International OR U.K. OR "United Kingdom" OR European OR Britain OR "Channel Isles" OR "Channel Islands" OR English[tiab] OR Irish OR "EU Member"[tiab] OR "district council" OR "local council" OR "local authorities" OR "NHS Trust" OR "primary care trust" OR "borough council" OR "county council" OR "local authority" OR "district councils" OR "local councils" OR "NHS Trusts" OR "primary care trusts" OR "borough councils" OR "county councils" OR Eur)) OR (("Social Care Trust" OR Aberdeen OR Aberdeenshire OR "Abertawe Bro Morgannwg" OR Albans OR Alderney[tiab] OR "Aneurin Bevan" OR Anglesey OR Angus OR Antrim OR Argyll OR Armagh OR Arran OR Ashfield OR Ayrshire OR Bangor OR Barking OR Bath[tiab] OR Bedfordshire OR Belfast OR "Betsi Cadwaladr" OR Bexley OR Birmingham OR Borders OR Bradford OR Brecknock OR Brent OR Bridgend OR Brighton OR Bristol OR Buckinghamshire OR Bute OR Caerphilly OR Cambridge OR Cambridgeshire OR Camden OR Cannock OR Canterbury OR Cardiff OR Carlisle OR Carmarthen OR Carmarthenshire OR Ceredigion OR Chelsea OR Cheshire OR Chester OR Chichester OR Clackmannanshire OR Clwyd OR Conwy OR Cornwall OR "County Down" OR Coventry OR Croydon OR Cumbria OR "Cwm Taf" OR Cynon OR Dagenham OR Dartford OR Davids OR Denbighshire OR Derby OR Derbyshire OR Devon OR Dorset OR Dudley OR Dumfries OR Dunbartonshire OR Dundee OR Durham OR Ealing OR Edinburgh OR Ely OR Enfield OR Essex OR Exeter OR Falkirk OR Fenland OR Fermanagh OR Fife OR Flintshire OR Forth OR Fulham OR Furness OR Galloway OR Gateshead OR Glamorgan OR Glasgow OR Gloucester OR Gloucestershire OR Grampian OR Gravesham OR Greenwich OR Guernsey OR Gwent OR Gwynedd OR Hackney OR Halton OR Hamlets OR Hammersmith OR Hampshire[tiab] OR Haringey OR Harlow OR Hartlepool OR Harwell OR Helens OR Hereford OR Hertfordshire OR Highland OR Hounslow OR Hull OR Humber OR Inverclyde OR Inverness OR "Isle of Man" OR Wight OR Islington OR Jersey[tiab] OR Kensington OR Kent OR Kinross OR Knowsley OR Lambeth OR Lanarkshire OR Lancashire OR Lancaster OR Leeds OR Leicester OR Leicestershire OR Lewisham OR Lichfield OR Lincoln OR Lincolnshire OR Lisburn OR Liverpool OR London OR Londonderry OR Lothian OR Loughborough OR Luton OR Lynn OR Manchester OR Meirionnydd OR Merseyside OR Merthyr OR Middlesbrough OR Midlands OR Midlothian OR Monmouth OR Monmouthshire OR Montgomery OR Moray OR Neath OR Newcastle OR Newham OR Newport[tiab] OR Norfolk OR Northamptonshire OR Northumberland OR Norwich OR Nottingham OR Nottinghamshire OR Orkney OR Oxford OR Oxfordshire OR Pembroke OR Pembrokeshire OR Perth OR Peterborough OR Plymouth OR Pontypridd OR Portsmouth OR Powys OR Preston OR Radnor OR Redbridge OR Renfrewshire OR Rhondda OR Ripon OR Rushmoor OR Salford OR Salisbury OR Sandwell OR Scarborough OR Scilly OR Sheffield OR Shetland OR Shropshire OR Somerset OR "South Holland" OR Southampton OR Southwark OR Staffordshire OR Stirling OR Stockton OR Stoke OR Suffolk OR Sunderland OR Surrey OR Sussex OR Swansea OR Talbot OR Tayside OR Thurrock OR Torfaen OR Truro OR Tyne OR Tyneside OR Tyrone OR Wakefield OR Walsall OR Waltham OR Warwickshire OR Wells OR "Western Isles" OR Westminster OR Wiltshire OR Winchester OR Wirral OR Wolverhampton OR Worcester OR Worcestershire OR Wrexham OR "Ynys Mon" OR York OR Yorkshire) NOT ("New Jersey" OR Alabama OR Ontario OR "New London" OR "New England" OR "New South Wales" OR "New York")))

Website searched	URL
Advertising Education Forum (AEF)	http://www.aeforum.org/
Association for the Study of Obesity	http://www.aso.org.uk/
Barnardo’s	http://www.barnardos.org.uk/
Calouste Gulbenkian Foundation	http://www.gulbenkian.org.uk/
Centers for Disease Control and Prevention	http://www.cdc.gov/
Child and Adolescent Health Research Unit	http://www.education.ed.ac.uk/cahru/
Child Growth Foundation	http://www.childgrowthfoundation.org/
Children and Young People Now	http://www.cypnow.co.uk/
Children in Scotland	http://www.childreninscotland.org.uk/
Children in Wales	http://www.childreninwales.org.uk/index.html
The Children’s Commissioner	http://www.childrenscommissioner.gov.uk/
Children’s Research Centre	http://childrens-research-centre.open.ac.uk/
The Children’s Society	http://www.childrenssociety.org.uk/
Economic and Social Research Council	http://www.esrc.ac.uk/
European Commission	http://ec.europa.eu/index_en.htm
European Congress on Obesity	http://www.easo.org/eco2012/
Evidence Informed Practice Portal	http://eip.iriss.org.uk/
The Fabian Society	http://www.fabians.org.uk/
Girlguiding UK	http://www.girlguiding.org.uk/home.aspx
Healthy Weight for Children Hub	http://www.healthyweight4children.org.uk/
l’Institut national de santé publique du Québec	http://www.inspq.qc.ca/
Institute of Education Library	http://www.ioe.ac.uk/services/392.html
International Association for the Study of Obesity	http://www.iaso.org/
International Life Sciences Institute	http://www.ilsi.org/Pages/HomePage.aspx
International Obesity Taskforce	http://www.iotf.org/
International Physical Activity and the Environment Network	http://www.ipenproject.org/
The King’s Fund Library	http://www.kingsfund.org.uk/library/
National Conferences on Obesity and Health	http://obesityandhealth.co.uk/*
National Obesity Forum	http://www.nationalobesityforum.org.uk/
National Obesity Observatory for England	http://www.noo.org.uk/

Website searched	URL
NHS Evidence – Child Health	http://www.library.nhs.uk/childhealth/*
NHS Health Scotland Library	http://www.healthscotland.com/resources/library/index.aspx
NHS National Library for Public Health	http://www.library.nhs.uk/publichealth/*
North West Grey Literature Service	http://www.fade.nhs.uk/
NSPCC	http://www.nspcc.org.uk/
NSPCC Inform	http://www.nspcc.org.uk/Inform/informhub_wda49931.html
Ofcom: Office of Communications	http://www.ofcom.org.uk/
Online Research Bank	http://www.ark.ac.uk/orb/
Policy Hub	http://www.nationalschool.gov.uk/policyhub/ *
Save the Children	http://www.savethechildren.org.uk/
School Food Trust (now the Children's Food Trust	http://www.schoolfoodtrust.org.uk/
Schools and Students Health Education Unit	http://www.sheu.org.uk/
Scottish Government	http://www.scotland.gov.uk/Home
Social Issues Research Centre	http://www.sirc.org/
Social Science Research Network	http://www.ssrn.com/
SPEEDY: Sport, Physical Activity and Eating Behaviour	http://www.mrc-epid.cam.ac.uk/Studies/Speedy2/speedy1.html
UCL Department of Epidemiology and Public Health	http://www.ucl.ac.uk/hbrc/diet/projects.html
UK Faculty of Public Health	http://www.fph.org.uk/events/archive/2010
UK Preventive Medicine	http://www.ukpreventivemedicine.com/
University of Kent Library	http://www.kent.ac.uk/library/
Welsh Assembly Government	http://wales.gov.uk/
World Advertising Research Centre	http://www.warc.com/
Young Minds	http://www.youngminds.org.uk/

*Searched during the systematic review, but no longer available

Appendix E: Criteria used for appraisal of study quality

1. Were steps taken to increase rigour in the sampling? Consider whether: *the sampling strategy was appropriate to the questions posed in the study (e.g. was the strategy well-reasoned and justified?); *attempts were made to obtain a diverse sample of the population in question (think about who might have been excluded; who may have had a different perspective to offer); *characteristics of the sample critical to the understanding of the study context and findings were presented (i.e. do we know who the participants were in terms of, for example, basic socio-demographics, characteristics relevant to the context of the study, etc.).	Yes, a fairly thorough attempt was made Yes, several steps were taken Yes, a few steps were taken No, not at all/Not stated/Can't tell
2. Were steps taken to increase rigour in the data collected? Consider whether: *data collection tools were piloted/(and if quantitative) validated; *(if qualitative) data collection was comprehensive, flexible and/or sensitive enough to provide a complete and/or vivid and rich description of people's perspectives and experiences (e.g. did the researchers spend sufficient time at the site/with participants? Did they keep 'following up'? Was more than one method of data collection used?); * steps were taken to ensure that all participants were able and willing to contribute (e.g. processes for consent, language barriers, power relations between adults and children/young people).	Yes, a fairly thorough attempt was made Yes, several steps were taken Yes, minimal few steps were taken No, not at all/Not stated/Can't tell
3. Were steps taken to increase rigour in the analysis of the data? Consider whether: * data analysis methods were systematic (e.g. was a method described/can a method be discerned?); *diversity in perspective was explored; *the analysis was balanced in the extent to which it was guided by preconceptions or by the data); *the analysis sought to rule out alternative explanations for findings (this could be done by searching for negative cases/exceptions, feeding back preliminary results to participants, asking a colleague to review the data, or reflexivity).	Yes, a fairly thorough attempt was made Yes, several steps were taken Yes, minimal few steps were taken No, not at all/Not stated/Can't tell

4. Were the findings of the study grounded in/supported by the data? Consider whether: *enough data are presented to show how the authors arrived at their findings; *the data presented fit the interpretation/support claims about patterns in data; *the data presented illuminate/illustrate the findings; * quotes are numbered or otherwise identified and the reader can see that they don't just come from one or two people.	Good grounding/support Fair grounding/support Limited grounding/support
5. Please rate the findings of the study in terms of their breadth and depth. (NB: it may be helpful to consider 'breadth' as the extent of description and 'depth' as the extent to which data have been transformed/analysed) Consider whether: *a range of issues are covered; * the perspectives of participants are fully explored in terms of breadth (contrast of two or more perspectives) and depth (insight into a single perspective); *richness and complexity has been portrayed (e.g. variation explained, meanings illuminated); *there has been theoretical/conceptual development.	Limited breadth or depth Good/fair breadth but very little depth Good/fair depth but very little breadth Good/fair breadth and depth
6. To what extent does the study privilege the perspectives and experiences of children? Consider whether: * there was a balance between open-ended and fixed response options; * children were involved in designing the research; * there was a balance between the use of an a priori coding framework and induction in the analysis; *the position of the researchers was reported (did they consider it important to listen to the perspectives of children?); * steps were taken to assure confidentiality and put young people at ease.	Not at all A little Somewhat A lot
7. Overall, what weight would you assign to this study in terms of the reliability/trustworthiness of its findings? Guidance: Think (mainly) about the answers you have given to questions 1 to 4 above.	Low Medium High

8. What weight would you assign to this study in terms of the usefulness of its findings for this review? Guidance: Think (mainly) about the answers you have given to questions 5 and 6 above and consider: *the match between the study aims and findings and the aims and purpose of the synthesis; *its conceptual depth/explanatory power.	Low Medium High

First produced in 2013 by:

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ISBN: 978-1-907345-52-4

The **Evidence for Policy and Practice Information and Co-ordinating Centre** (EPPI-Centre) is part of the Social Science Research Unit (SSRU), Institute of Education, University of London.

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