"No fat friend of mine": Young children's responses to overweight and disability

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ABSTRACT

Two studies investigated 4- to 6-year-old children's weight bias. In Study 1, 126 children read illustrated books where a main character ('Alfie') was healthy weight, in a wheelchair, or overweight. In Study 2, 150 children read the same stories where the character was female ('Alfina'), or stories where her friends were fat. Children rated 'Alfie'/'Alfina' and a comparison character on nine attributes/behaviours, and chose one that best represented each attribute. Fat and wheelchair 'Alfie'/'Alfina' were rated less likely to win a race, and fat 'Alfie'/'Alfina' as having fewer friends. When forced to choose between characters, fat 'Alfie'/'Alfina' was rejected on most constructs. Children's gender, self-perceived shape, and character's friends' size had no effect on judgements. These findings show children's preferences away from fatness rather than outright rejection, and mostly clearly in friendship choices. Understanding young children's weight bias is important given their increasing involvement in obesity surveillance, prevention, and management.

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Introduction

Bias against people with obesity is evident through well-documented inequities in key areas of people's lives such as employment, education, and healthcare (Puhl & Heuer, 2009). The unacceptability of fatness is reflected in media such as advertising and TV programming and in a portrayal of weight loss that is contingent on personal effort. Given that people with obesity are consequently blamed for their state of body it is unsurprising that experienced (and perceived) weight bias increases vulnerability to psychological and emotional distress.

Social marginalisation is pivotal to weight bias and stems from the pervasive negative stereotypes regarding the character and behaviour of people with obesity (Puhl & Heuer, 2009). Research into children's obesity stereotyping has a long history and originated in studies of their perception of disability. Asking 10- to 11-year-old children, "Which boy (girl) do you like best" from six drawings of children with different physical disabilities, no disability, or obesity, showed the obese child was generally the last to be selected (Richardson, Goodman, Hastorf, & Dornbusch, 1961).

In a replication some 40 years later, pre-teen children were even less likely to choose the obese child drawing as being liked over any of the others (Latner & Stunkard, 2003). Increases in obesity prevalence over this period and children's presumed increased familiarity with obesity appear to have done little to ameliorate these negative views.

Reviewing the literature on weight stigma in children and adolescents, Puhl and Latner (2007) distinguish educators, parents, and peers as the primary sources of weight bias. The rejection of an obese target (usually a drawing or cartoon) as a friend, someone to play with, or to date, is common to many studies of teens and younger. This social rejection has been observed in 9-year-olds (Hill & Silver, 1995) and these stigmatising attitudes found to consolidate during primary school years (Wardle, Voltz, & Golding, 1995). As to when weight stigma emerges, for at least some children in the US it is apparent at pre-school age. Studies by Brylinski and Moore (1994) and Cramer and Steinwert (1998) were the first to describe negative attitudes to overweight in American 3- to 5-year-olds, regardless of the child's gender or own body build.

However, there are several problems with the existing literature. For example, there are far fewer studies of young children relative to those of older primary and secondary school age. So we know much less about the nature of anti-fat attitudes expressed by young children, e.g., whether they are generalised or specific to particular traits. The quality of drawings and other

research materials is generally poor, making them unrealistic and unfamiliar to young children, and so potentially fostering social desirability biases. In addition, comparisons with children's views of people with other visible differences (e.g., physical disability) are relatively rare. This makes it difficult to distinguish children's views on appearance difference more generally, from those specific to being fat. Investigating young children's responses to a character who was drawn as either healthy weight, fat, or in a wheelchair was a main aim of the present studies.

The methods used to gauge children's views have undoubtedly affected the determination of weight bias. For example, rank ordering simple line drawings may indicate preference but ranking reveals little about how negative attitudes are, and may even over-estimate negativity (Jarvie, Lahey, Graziano, & Framer, 1983). The same is true of studies that ask children to match adjectives (e.g., lazy, dirty, ugly) to fat or thin drawn figures (Dunkeld Turnbull, Heaslip, & McLeod, 2000; Staffieri, 1967). Children are forced to label one body shape negatively, regardless of how much they agree with this label. Consequently, researchers have developed alternative approaches such as rating thin and fat body shapes on semantic differential scales (Brylinski & Moore, 1994; Musher-Eizenman, Holub, Barnhart Miller, Goldstein, & Edwards-Leeper, 2004), matching these body shapes to the character (mean or nice) of a child in a story (Cramer & Steinwert, 1998), and even asking children why they made these choices (Su & Aurelia, 2011). However, there have been few attempts to compare methodologies, particularly in their potential to favour negativity (Jarvie et al., 1983). A second feature of the present research was the concurrent collection of children's attribute ratings and their choices between body shapes, with the aim to compare these methods in their assessment of negativity.

There is conflicting evidence of gender differences (respondent and target character) in young children's negative stereotyping (Cramer & Steinwert, 1998; Dunkeld Turnbull et al., 2000), and uncertainty whether this is related to the trait or attitude assessed, e.g., the nature of being mean or victimising differing between boys and girls (Puhl & Latner, 2007). This contrasts with much clearer evidence of gender differences in older children and adolescents (Rees, Oliver, Woodman, & Thomas, 2011). Accordingly, investigating young children's responses to a female character drawn identically to the male character above (healthy weight, fat, in a wheelchair) was the main aim of the second study. The possible impact of the body size of others in these stories was also investigated.

With increasing surveillance of overweight in very young children, and the focus on early prevention and obesity management interventions, more detailed knowledge about weight bias at this age would be extremely valuable. In England, for example, all children are involved in the National Child Measurement Programme which measures their weight and height at age 4 to 5 and again at 10 to 11, and feeds back their relative weight to parents (Health & Social Care Information Centre, 2015). Weight bias will affect how children respond to these programmes. It may impact on how they relate to their peers, and, as they get older, on their own self-perception and well-being.

Two studies were conducted that aimed to investigate young children's ratings of, and choices between, story characters who varied in weight and physical disability, were presented as male or female, and who had fat or healthy weight friends. The hypotheses tested in Study 1 were that a male story character would be rated more negatively when fat than in a wheelchair, and that negative stereotyping would be clear in choices between characters but much less so in children's ratings. Checks were made for any effects of respondent's gender or age.

Study 1

Method

Design. The experiment was a 3 (between groups) story condition design. Children were presented with and read a story in which a central character ('Alfie') was drawn either as healthy weight (and non-disabled), as fat, or in a wheelchair.

Participants. One hundred and twenty-six children (63 girls, 63 boys, M age 5.3, range 4.4 to 6.3) from four primary schools in the North of England took part in the study. All participants were either in reception class (first year of primary school, $n = 79$) or Year 1 ($n = 47$) of the national curriculum in England and were those for whom parental consent was received and who attended school on the study day. Parental consent was obtained by returning a signed information and consent letter. This sample represented 54% of the school register for these classes. No information is available on the non-participants. Regarding ethnicity, 88% were white and 12% from black and minority ethnic groups. None of the children were in a wheelchair. The schools' catchment areas varied but were mostly low to middle class. Ethical approval for the study was from the Leeds University Institute of Psychological Sciences ethics committee.

Materials.

Story books. A story book was written and designed for the study with the assistance of a professional illustrator. There were four pages in the story book, each with text and an illustration showing all of the characters: two boys ('Alfie' and 'Thomas'), a girl ('Holly'), and a cat ('Toby'). The story was a simple narrative describing a cat that runs up into a tree chasing birds (Fig. 1). The story was designed to be colourful, clear, and simple, with the aim of being enjoyable for the child taking part. The presentation style was consistent with a popular reading scheme used in English schools with this age group of children.

Three versions of the books were produced. They were identical except that one of the main characters ('Alfie') appeared as healthy weight in one version of the book, in a wheelchair in a second, and as overweight in a third (Fig. 2). All the other characters were identical in the three versions and always depicted as healthy weight. Each child saw one version of the book.

Ratings and choices. Following the story, children were shown a series of large laminated cards, each with a question written across the top, a story character in the middle (Fig. 3), and a rating scale (five circles of increasing size numbered 1 to 5) across the bottom. Each question was asked separately for 'Thomas' (always normal weight) and then for 'Alfie' (shown as healthy weight, in a wheelchair, or as fat, depending on the version of the story the child was read). The structure of questioning was based on Harter and Pike's (1984) Pictorial Scale of Perceived Competence and Social Acceptance for Young Children, designed to reduce the tendency to socially desirable responding. In this, the child is read two brief statements, one positive and one negative, that go with two illustrations: typically, they describe a child who is very good at a task and a child who is not very good at the task. For the present study, these were combined and the question relating to physical competence, for example, was, "*Some children are very good at sports while others are not so good. How likely do you think Thomas would be to win in a race?* The child was then asked to select the size of the circle from the scale to represent how well that character would do in a race (smallest circle = not at all likely, largest circle = extremely likely). The next card showed the character 'Alfie'. They were asked