# Weight Stigmatization in Children

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#### Abstract

This study was designed to examine weight stigmatization among Hispanic American children. Fifty-five fifth grade students from a large, urban school district in Southern California were asked to rank six samesex drawings of children with various physical characteristics (related to weight or disability) in order of friend preference (1 = the most preferred, and 6 = the least preferred friend). Positive and negative adjectives were then assigned to the average-weight and obese drawings using the Adjective Checklist (ACL). The majority of the participants (60%) chose the average-weight child as the most preferred and 46% identified the obese child as the least preferred friend. In addition, the average-weight child was assigned more positive and fewer negative adjectives compared to the obese child. Significant differences in ACL composite scores between normal weight and overweight drawings were also found (p = 0.00). It appears that weight stigmatization is present in the current sample, which suggests that Hispanic children living in the U.S. may adopt negative attitudes about weight that are similar to American culture.

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#### Introduction

Current health trends show marked increases in children and adolescents who are overweight or obese (Ogden et al., 2006). The psychological consequences and emotional of being overweight in childhood include stigmatization and negative bias toward overweight children (Puhl & Latner, 2007). Weight stigmatization is defined as negative attitudes and beliefs towards one's weight that are exhibited by stereotypes, prejudice, or other negative responses toward overweight children and adolescents (Puhl & Latner, 2007). Weight stigmatization can occur in the form of teasing, bullying, and relational victimization such as social exclusion or being ignored or avoided (Puhl & Latner, 2007). One's appearance is often the basis of stereotypes, such as when children ascribe less favorable characteristics (such as being lazy, ugly, or dumb) to overweight children compared to normal or lean-weight peers (Brylinsky & Moore, 1994; Greenleaf, Chambliss, Rhea, Martin, & Morrow, 2006; Kraig & Keel, 2001), or even when compared to children with various disabilities (Latner & Stunkard, 2003).

Weight stigmatization and negative bias can lead to lifelong psychosocial and physical problems such as a decrease in physical, social, or of life emotional quality (Schwimmer, Burwinkle, & Varni, 2003), social disadvantages in the form of weight-related teasing and bullying (Janssen, Craig, Boyce, & Pickett, 2004), low self-esteem (Eisenberg, Neumark-Sztainer, & Story, 2003), poor body image and eating disturbances (Ricciardelli & McCabe, 2001), or depression (Ross, 1994; Stunkard, Faith, & Allison, 2003). Furthermore, social relationships can also be affected by weight stigmatization. Strauss and Pollack (2003) found that children who were overweight were significantly less likely to be selected as a friend, compared to their normal-weight peers. Children and adolescents present a greater overall willingness to engage in social, academic, and recreational activities with a thin figured child, compared to an overweight child (Greenleaf et

al., 2006), thus leading to overweight children struggling to "fit in" or gain social approval from their peers.

Weight stigmatization has fueled American sociocultural stereotypes for several decades. Richardson, Goodman, Hastorf, and Dornsbusch (1961) first demonstrated weight bias when having youth compare drawings of children with various physical characteristics, such as normal weight, overweight, and a variety of physical disabilities. The drawing of the overweight child was rated as the least likeable compared to the other drawings. More than 40 years later, Latner and Stunkard (2003) found that the average weight child was ranked more favorable (by 75% of the sample) and the obese child was ranked less favorable (by 70% of the sample) in 2003 compared to 1961. The dominant sociocultural message relayed to children through media, parents, peers and educators that "thin is good" and "fat is bad" (Greenleaf et al., 2006) may continue to generate biased attitudes in children today.

Attitudes regarding body size seem to differ in the Mexican<sup>1</sup> culture when compared to American cultural attitudes and beliefs about weight. For example, only 59% of Mexican parents whose children had a body mass index (BMI) greater than or equal to the 95th percentile classified their child as having a weight problem (Brewis, 2003). In addition, a larger body size in children is typically seen as "socially irrelevant" in the Mexican culture (Brewis, 2003). Moreover, overweight children are viewed as "healthier" than thin children, in that Mexican parents see fat as a sign of health, and feeding a child is viewed as an act of love and caring, which may lead to over-nourished children (Brewis, 2003). Furthermore, Olivera, Suminski and Power (2005) reported that Mexican parents viewed their obese daughters' weight as ideal. In addition, the Mexican culture values a larger stature among boys as it reflects strength and muscularity (Olivera et al., 2005). Greater likelihood of weight stigma occurs in Mexican families who have acculturated in America compared to those living in their native country (Brewis, 2003; Olivera et al., 2005).

Acculturation is the process of one's adaption to cultural or environmental changes, and takes place when adolescents move from a more traditional way of life to a more modern way of life (Valencia & Johnson, 2008). When youth are exposed to two cultures, one's language preference as well as friendship choices becomes influenced by both cultures (Phinney, Romero, Nava & Huang, 2001). It is not known whether cultural beliefs about the body in Mexican culture carry over when children from Mexican lineage are raised in American culture. This study was designed to examine weight stigmatization among Hispanic children living in the United States. It was hypothesized that, similar to past studies that examined weight stigmatization among various races (Brylinsky & Moore, 1994; Kraig & Keel, 2001; Latner & Stunkard, 2003; Tiggemann & Anesbury, 2000), Hispanic American children would display a similar stigmatization towards the obese child, ranking him or her lower than children with other characteristics. Furthermore, it was hypothesized that participants would assign negative adjectives to the obese child when describing the pictures based on appearance alone, compared to assigning positive adjectives to the average weight child.

#### Methods

#### **Study Design**

This study was a descriptive, non-experimental design utilizing self-reports and previously validated questionnaires to determine weight-based bias or discrimination among fifth grade students.

#### Sample

<sup>&</sup>lt;sup>1</sup> For the purpose of this study, the term "Mexican" refers to people who reside in the country of Mexico. The term "Hispanic" is used to describe children of Mexican descent who currently reside in the United States.

Fifth grade students (n = 55; 23 boys and 32 girls) with a mean age of 10.58 (SD = .60) participated in this study. The majority of the children described their ethnicity as Hispanic American (85.5%), with the remaining ethnicities being White (9.1%), Asian (3.6%)

and Other (1.8%). Of the total sample, 69.1%selected Spanish as the primary language spoken in their home, compared to English (10.9%), both English and Spanish (16.4%) and other (3.6%). The students involved in this study were enrolled in two fifth grade classes at an elementary school in a large, urban Southern California school district and were presently involved in research funded by the Physical Education Program (PEP) grant through the YMCA. The school was chosen because 96% of those enrolled were Hispanic children (Greatschools, 2008), and thus was a sample of convenience. The Institutional Review Board of California State University, Fullerton approved this research, and informed consent (from parents) and assent (from children) were collected.

### Measures

Demographic questionnaire. A demographic questionnaire/interview response guide was used to determine the demographic characteristics of the participants as well as their preferences for the pictures presented. Participants wrote their name and their age, and the interviewer recorded the gender of the participant and the responses to subsequent questions. A numerical code was assigned according to the order in which the participant was interviewed. The participant answered two questions: "How would you describe your background?" giving the option of Hispanic (Latino, Mexican, Chicano), African American (Black), White, or Other, and "What is the main language spoken in your home?" given the option of Spanish, English, both, or other.

Figures of children. Six figures of children were presented to the participants, which included an average-weight child with no apparent disabilities, a child in a wheelchair, a child on crutches, a child with a facial disfigurement, a child missing a left hand, and an obese child. These depictions are similar to the drawings used in Richardson and colleagues' original study (1961); however, Latner, Simmonds, Rosewall and Stunkard (2007) updated the drawings to appear more modernized and relatable to today's children. Latner et al. (2007) found significant (p < .01) correlations between the old and new figures. The present study used the same drawings as used by Latner et al. (2007) with the exception of changes to the facial characteristics. The figures were additionally altered for this study to appear Hispanic, adding darker features (hair and skin) as well as changing the facial appearance. The figures were pilot tested to ensure the children could identify the six different conditions (i.e. child with a scar on the face, an obese child, a child in a wheelchair, a child on crutches, a child missing their hand and an average weight child).

The interview response guide consisted of six numbered lines in which the interviewer recorded the order in which the participant selected his/her most preferred (given a score of one) through least preferred (given a score of six) choice of the figures in the drawings. Each participant was presented with six same-sex figures of children representing six different body builds in no particular order, one at a time to give the participant time to look at each picture individually.

Adjective Checklist. The Adjective Checklist (Siperstein, 2006) was used to determine which adjectives the participant felt accurately described the average-weight child and the obese child. Participants responded to the following question: "If you had to describe this child [referring to the target drawing] to your classmates, what kinds of words would you use? Below is a list of words to help you. Circle the words you would use. You can use as many or as few as you want" (Siperstein, 2006). The checklist consisted of 32 adjectives, 16 positive and 16 negative. The adjectives were numbered 1 through 32 and a table of random numbers was used to determine the order of the words on the checklist.

The Adjective Checklist was scored by subtracting the total number of negative adjectives circled from the total number of positive adjectives circled. A value of 20 was then added to this score. Composite scores may range from 4 to 36, with scores greater than 20 indicating a more positive attitude towards the target figure, scores less than 20 indicating a more negative attitude towards the target figure,

and scores equaling exactly 20 indicating a neutral attitude. Previous studies using the Adjective Checklist have observed a coefficient alpha of .81, which demonstrated acceptable levels of internal consistency reliability (Siperstein, 1980). One of the more recent studies had a coefficient alpha of .78 for the obese figure and .81 for the thin figure (Greenleaf et al., 2006), demonstrating an acceptable to moderate level of internal consistency reliability.

#### **Data Collection**

During regular class time, one student was randomly called to a table outside of the classroom to be individually interviewed, where participant the provided demographic information and then was presented with the six drawings (matched to the child's gender), in no particular order. The participant was then asked which child drawing they would most prefer to be friends with, and that drawing was then removed from the lineup, leaving five pictures remaining. This process continued until no drawings remained, leaving the participant to narrow down the drawings to their least preferred choice. The data collector documented the order in which the participant selected the drawings on the data collection form.

The participant was then presented with either the picture of the obese child or the average weight child, in no particular order. However, if the participant had selected either the obese child or the average weight child as their least preferred (ranking the picture number 6), then that drawing remained in front of the participant for the first part of the Adjective Checklist. Once the target picture was in front of the participant, the Adjective Checklist was presented, and he/she was instructed to circle as many or as few words off the list that he/she would use to describe the target figure to their classmates. The alternate picture was then placed in front of the participant along with another Adjective Checklist and the procedure was repeated.

#### **Statistical Analyses**

Each participant's preferences were ranked from 1 through 6 (1 being the highest ranked, or the most preferred, friend choice and 6 being the

lowest ranked, or the least preferred, friend choice). Descriptive statistics were used to determine the mean rank of each drawing for the total sample, as well as by gender. The descriptive statistics also provided minimum and maximum rank scores for each drawing. Frequencies were used to determine how many times each drawing was selected as the most preferred for the total sample, as well as by gender. This was done to determine how frequently each of the six drawings was selected for each preference rank during the interview. Frequencies were used to determine how many times each composite score of the Adjective Checklist exceeded the cut-off value of 20, which represented the demarcation between positive and negative attitude scores. A paired ttest was used to compare the composite Adjective Checklist scores between the average child and the obese child. Lastly, frequencies were utilized to determine the number of positive and negative adjectives that were assigned to either the average weight or obese figure.

 Table 1: Mean Ranking of Preference of Figures

Preference	Mean	SD	Min.	Max
Average Weight	2.00	1.45	1	5
Wheelchair	3.25	1.57	1	6
Crutches	3.29	1.51	1	6
Missing Hand	3.41	1.42	1	6
Facial Scar	4.18	1.52	1	6
Obese	4.85	1.35	2	6

Note: A score of 1 equals the most preferred friend choice and a score of 6 equals the least preferred friend choice.

#### Results

#### Weight Stigmatization

The mean ranking of the six drawings (Table 1) demonstrated that the average-weight child had the highest mean rank of 2.00  $(SD = 1.45)^2$ , which translates to being the most preferred friend choice. In comparison, the obese child had the lowest mean, or least preferred, rank of 4.85 (SD = 1.35). The average weight child was the most preferred and the obese child the least preferred friend choice for both boys and girls.

<sup>&</sup>lt;sup>2</sup> For the purpose of this paper, the results section will focus primarily on comparisons between the normal weight and the obese drawings; the tables will include results that include findings for the drawings of children with various disabilities.

The frequency of the preference ranking by each condition (Table 2) demonstrated that roughly 75% of the total sample chose the drawing of the average-weight child as the most or second most preferred friend choice. In comparison, the drawing of the obese child was never selected as the most preferred, and only 7% chose the obese drawing as the second-most preferred drawing. At the other end of the continuum, 71% of the sample selected the drawing of the obese child as the fifth or sixth preferred friend choice, while only 13% selected the drawing of the average-weight child as the fifth or sixth preferred friend choice.

Table 2: Frequency of Preference Ranking byPhysical Condition

	Frequency	%
Preference 1		
Average Weight	33	60.0
Obese	0	0
Preference 2		
Average Weight	8	14.5
Obese	4	7.3
Preference 3		
Obese	6	10.9
Average Weight	5	9.1
Preference 4		
Obese	6	10.9
Average Weight	2	3.6
Preference 5		
Obese	14	25.5
Average Weight	4	7.3
Preference 6		
Obese	25	45.5
Average Weight	3	5.5

#### The Adjective Check List

The adjective checklist contained 16 positive and 16 negative descriptors used to describe the drawings of the average-weight and obese child. A paired t-test between the composite scores found significant differences (t = 5.18, p < 0.01) between the composite scores of the averageweight (M = 27.7, SD = 4.5) and obese drawings (M = 22.6, SD = 6.0). The frequency scores of the adjective checklist revealed that 89% of the total sample had positive attitudes (> 20) towards the average-weight child while only 5% had a negative (< 20) attitude. However, 65% of the sample had positive attitudes and 34% had negative attitudes towards the obese drawings of children. Further analyses of the adjective checklist revealed the frequencies of each of the adjectives assigned to the average-weight and the obese drawings (Table 3). More than 50% of the sample assigned 10 positive adjectives to the average-weight child, compared to only two positive adjectives to the obese child. In comparison, there were only two negative adjectives that were assigned to the averageweight child by more than 20% of the sample, whereas six negative adjectives were assigned to the drawing of the obese child.

#### Discussion

The purpose of this study was to determine if weight stigmatization was present among Hispanic children living in Southern California. In this study, children demonstrated possible stigmatization towards obese children, and had potentially more favorable attitudes toward average-weight peers. These findings are consistent with previous research among Hispanic American children (Latner & Stunkard, 2003). Bacardi-Gascón, Leon-Reyes, and Jiménez-Cruz (2007), found that children living in Mexico were similar to children living in the United States in that they both demonstrated a stigma towards obese children. On the other hand, Brewis (2003) demonstrated that obese Mexican children were reported to be no more likely than their non-obese peers to have social problems, such as social rejection or isolation (Brewis, 2003). It was suggested that this lack of stigmatization may have been based on ethnographic observations at the schools and homes of the children, in which there appeared to be no particular stigma applied to obese children, and the larger body size appeared to be socially irrelevant (Brewis, 2003).

Many studies that involved the measurement of acculturation among Latino youth have relied solely on a measure of language preference to determine one's level of acculturation (Valencia & Johnson, 2008). Because the two fifth grade classes utilized in this study were predominantly of Hispanic background (85.5%), and the majority of the participants primarily spoke Spanish (69.1%) or both Spanish and English (16.4%) in their home, it appears that acculturation to the U.S. may not have been fully reached. It is important to note that acculturation is a process, in which newcomers gain knowledge about another culture, thus adopting similar ideals and beliefs over time (Berry, Phinney, Sam & Vedder, 2006). Considering one's level of acculturation is important when measuring weight stigmatization, especially when the two cultures have different views on weight preference, as may be the case with the United States and Mexico. Without measuring acculturation directly, it appears that the weight stigma found in our sample is evidence that Hispanic children living in the U.S. may adopt negative attitudes about weight that are similar to American culture.

The origins of weight bias in children are not clear. Puhl and Brownell (2003) hypothesized that, among adults, weight stigma may result from individuals' beliefs that being overweight is a personal choice, attributing excessive weight to internal, controllable causes. The authors also suggested that weight bias is related to "beliefs that hard work and determination lead to success, thus placing high value on self-control and blaming victims for not succeeding" (p. 216). It is not likely, however, that these explanations are as relevant to young children. What is more understood are the possible consequences of weight stigma for youth, which include teasing, low self-esteem, depression, or social isolation (Eisenberg et al., 2003; Greenleaf et al., 2006; Janssen et al., 2004; Ross, All of these consequences can 1994). significantly reduce the effectiveness of health promotion efforts that encourage healthy environments (Cohen, Perales, & Steadman, 2005).

As is common in this type of research, response bias may have been a major limitation of this study, especially in the use of the adjective checklist. In meeting with school officials to gain approval to administer the questionnaire on campus, teachers expressed concern that the

adjective checklist included words that were generally discouraged from being used, such as "stupid," "dumb." and "ugly." Children therefore may have not used such words to describe the drawings in front of the adult researcher even though they may have actually ascribed to such attitudes. In addition, the use of questionnaires to tap into more subtle forms of bias, such as social isolation or bullying, may be limited. Future research should include of behavioral observations children's interactions in various social or academic situations, such as during recess, physical education classes, or at lunch in a cafeteria setting, or reports from parents and educators about their perceptions of stigma in these same environments.

In conclusion, weight stigmatization appears to be present in Hispanic American children, even among those whose lineage is from countries where obesity carries less of a stigma. Educational interventions focusing on weight management and obesity prevention should address the psychosocial consequences affecting overweight children as a result of discrimination and weight stigmatization. As suggested by Puhl and Brownell (2003), according to the social consensus approach, by altering ones negative attitude and/or perception of overweight and obese persons through educational interventions, one's acceptability beliefs can also be positively changed, thus decreasing the stigmatization and bias. Therefore, it is important to address these types of negative outcomes, in every culture and age group, to ensure obese children are not treated differently or poorly due to their weight, as well as to prevent an overweight or obese child from adopting unhealthy weight control methods simply to obtain social approval from their peers.

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# Appendix A

	Average-Weight		Obes	e
	Frequenc	у %	Frequency	/ %
Positive Adjectives:				
Friendly	46	83.6	31	56.4
Smart	44	80.0	29	52.7
Нарру	44	80.0	24	43.6
Healthy	41	74.5	7	12.7
Nice	40	72.7	26	47.3
Kind	35	63.6	26	47.3
Neat	34	61.8	14	25.5
Helpful	33	60.0	22	40.0
Bright	31	56.4	18	32.7
Honest	29	52.7	24	43.6
Cheerful	27	49.1	15	27.3
Glad	26	47.3	18	32.7
Careful	21	38.2	16	29.1
Clever	19	34.5	12	21.8
Alert	11	20.0	10	18.2
Handsome	10	18.2	1	1.8
Negative Adjectives:				
Weak	5	9.1	20	36.4
Slow	5	9.1	16	29.1
Lazy	4	7.3	15	27.3
Careless	12	21.8	13	23.6
Unhappy	3	5.5	12	21.8
Lonely	11	20.0	11	20.0
Sad	5	9.1	9	16.4
Sloppy	0	0	8	14.5
Foolish	6	10.9	8	14.5
Ugly	0	0	6	10.9
Dirty	4	7.3	6	10.9
Stupid	1	1.8	5	9.1
Dumb	1	1.8	5	9.1
Greedy	3	5.5	4	7.3
Ashamed	6	10.9	4	7.3
Selfish	1	1.8	3	5.5

# Table 3: Frequency of Adjectives Assigned to Average-Weight and Obese Children