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Anti-fat or anti-thin attitudes toward peers? Stereotyped beliefs and weight prejudice in Italian children

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Abstract

This study explored weight prejudice in 140 Italian pupils aged 5-10 by examining a) stereotyped beliefs that pupils have regarding overweight, underweight, and normal-weight body picture of children, b) the anti-fat attitudes, c) the choice of best friend and classmate, and d) the relationships between the anti-fat attitudes and the choice of best friend/classmate and the rejection referred to recreational activities expressed toward one of the body pictures. Results showed that pupils attributed negative characteristics to overweight and positive traits to normal-weight body pictures and expressed high levels of anti-fat attitudes toward overweight peers. Pupils chose normal-weight and underweight body picture of children as best friends/classmates and rejected overweight body pictures for recreational activities. Pupils who expressed negative attitudes toward overweight peers chose underweight peers as best friends/classmates and rejected overweight ones. Future researches could investigate measures that can be taken to reduce anti-fat prejudice in Italian school context.

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1. Introduction

In Italy, the issue of childhood obesity has been dealt with the so-called “Okkio alla Salute” National Project (2008) supported by the Ministry of Health and carried out on a representative sample of 45.590 third grade children of 2.610 Primary Schools. Results reported that every third child has a bigger weight than that expected for his or her age. In particular, 23,6% of children are overweight and 12,3% are obese. In addition, significant differences emerged in the Southern Regions, most of all in Campania (with rate of obesity equal to 21%), followed by Sicily (17%) and Calabria (16%), compared to national average equal to 12%. These data are in contrast with the slogan “thin is good, fat is bad” that is widespread in newspapers and social networks, and could emphasize latent or manifest forms of discrimination and rejection among peers in school context, contributing to development of negative attitudes and stereotyped beliefs about overweight individuals.

A considerable amount of international studies have documented the presence of anti-fat and pro-thin attitudes, negative stereotypes toward overweight and obese individuals, and negative prejudices toward the controllability of body size even in very young children (Richardson, Goodman, Hastorf, & Dornbusch, 1961; Sigelman, Miller, & Whitworth, 1986; Crandall, 1994; Brylinsky & Moore, 1994; Cramer & Steinwert, 1998; Morrison & O’Connor, 1999; Frankova, 2000; Tiggemann & Anesbury, 2000; Lowes & Tiggemann, 2003; Musher-Eizenman, Holub, Miller, Goldstein, & Edwards-Leeper, 2004; Penny & Haddock, 2007). In fact, in two of the most classical

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researches carried out on these phenomena, Cramer and Steinwert (1998) and, previously, Richardson et al. (1961) found that, respectively, preschoolers most often chose the thin or average children as potential playmates compared to the chubby children and 10-11 years old children have judged an obese child less able than a child with physical handicap (e.g. with facial disfigurement or in a wheelchair). In addition, more recently Latner and Stunkard (2003) observed that 5th and 6th grade children's attitudes toward overweight peers were more negative than those toward individuals with other types of stigma as physical disabilities (e.g. with crutches, in a wheelchair, without left hand, and with a facial disfigurement): these last findings indicated that stigmatization of obesity by children appears to have increased over the last 40 years.

Children, adolescents, and young adults expressed negative stereotypes toward overweight and obese individuals by attributing more negative and fewer positive traits to hypothetical fat peers such as "lazy", "slow", "gross", "sad", and "unattractive" (Greenleaf, Starks, Gomez, Chambliss, & Martin, 2004) than to thin and normal-weight peers (Brochu & Morrison, 2007). Overweight body pictures were estimated by children as more mean, sick, ugly, stupid, dirty, lazy, and sloppy, and less smart, happy, popular and attractive than normal-weight ones (Tiggemann & Wilson-Barrett, 1998; Davison & Birch, 2004; Harriger, Calogero, Witherington, & Smith, 2010). Recently, Patel and Holub (2011) examined the relationship between weight stereotypes among children aged 4 to 8 (using the five adjective rating scale), selection of overweight peers as playmates and best friends, and willingness to help overweight peers (measured through story books depicting one average-weight and one overweight target figure as needing help in daily situations). As reported by the authors' findings, "children display weight prejudice through their negative stereotypes, their aversion to choose hypothetical overweight peers as friends and playmates, and their unwillingness to help overweight peers" (Patel & Holub, 2011, p.386). The same trend was observed in negative situations, in the sense that children selected the picture of an overweight child as victim of name-calling and teasing more than that of a non-overweight child (Adams & Bukowski, 2008; Nabors et al., 2011). Furthermore, overweight and obese 11- to 16-year-old adolescents were considered more likely to be the victims and perpetrators of bullying than their normal-weight peers (Janssen, Craig, Boyce, & Pickett, 2004).

Children preferred overweight children less than non-obese ones and wished to interact with them less than with average-weight target children (Sigelman, 1991; Bell & Morgan, 2000). They also chose normal-weight or thin peers as best friends and playmates more frequently than overweight peers (Goldfield & Chrisler, 1995; Musher-Eizenman et al., 2004; Margulies, Floyd & Hojniski, 2008). In fact, as demonstrated by Margulies and colleagues' study (2008), when children were shown a large number of drawings depicting underweight, average-weight, and overweight child and asked to choose three playmates and a best friend, they selected the average-weight and thin children on drawings as friends and playmates significantly more often than the overweight ones. As reported by Harper (1999), Bell and Morgan (2000), and Greenleaf and colleagues (2006), children were less likely to choose hypothetical overweight peers as partners in school-related activities and were less likely to interact with them in social-recreational activities because their preferences for playmates depended on their belief that the target child would be able to perform the desired activity.

In the USA and many European countries, a significant attention has been paid to this phenomenon. Meanwhile, the analysis of weight prejudice and stereotyped beliefs toward overweight and underweight individuals among children aged 5-10 is almost entirely absent in the Italian context. This represents the rationale of the current investigation.

2. Methodology

This study was focused on the exploration of children's weight prejudice by examining a) stereotyped beliefs that pupils have about overweight, underweight, and normal-weight body pictures of children, b) the anti-fat attitudes, c) the choice of these body pictures as best friends and classmates, and d) the relationships between the anti-fat attitudes and the choice of best friends/classmates and the rejection for recreational activities. It was hypothesized that pupils will attribute negative stereotyped beliefs to overweight and underweight more than to normal-weight body pictures (H1); pupils will express high levels of anti-fat attitudes toward overweight peers (H2); in addition, pupils will choose normal-weight and underweight peers as best friends and classmates and will refuse to participate in recreational activities together with overweight peers (H3); finally, pupils who will express negative attitudes toward overweight peers will choose underweight peers as best friends and classmates and will refuse overweight ones (H4).

2.1. Participants

One hundred and forty pupils aged from 5 to 10 were randomly recruited from three Public Primary Schools in middle-class neighbourhoods in Catania, Sicily (Italy). Pupils were 70 boys and 70 girls and were divided in two age-groups (71 pupils from 5 to 7 years-old; 69 pupils from 8 to 10 years-old). Based on the information about height and weight provided by parents, pupils' body mass index (BMI) ranged from 11.00 to 29.00 kg/m² ($M = 17.2$, $SD = 3.2$) and, with reference to clinical values (percentiles) reported by Cacciari and colleagues in Italian demographic context (2006), 15,7% of pupils were classified as underweight ($N=22$; BMI percentile <5), 48,6% as normal-weight ($N=68$; BMI percentile between 5 and 85), 25% as overweight ($N=35$; BMI percentile between 85 and 95), and 10,7% as obese ($N=15$; BMI percentile >95). Parental consent was obtained prior to each pupil's participation.

2.2. Measures

2.2.1. Fat Stereotypes Questionnaire

For the exploration of Italian children's fat and thin stereotyped beliefs (see Davison & Birch, 2004), we used the adaptation of *Fat Stereotypes Questionnaire*, consisting of a list with 22 characteristics, half of them being positive (cheerful, sweet, playful, intelligent, courageous, self-confident, honest, keeping promises, kind, quiet, and generous) and another half negative (hungry, rejected by the others, aggressive, whiner, unpleasant, overbearing, lazy, weak, slow, shy, and sick). We proposed three drawings depicting, respectively, overweight, underweight, and normal-weight child (male target in the version for boys and female target in the version for girls). These body pictures were selected by Figures Rating Scale used in Collin's study (1991) and were shown in random order. Participants were asked to assign each of the 22 positive and negative characteristics to one of the three body pictures. All pupils were able to correctly identify the body pictures as overweight, underweight, and normal-weight, and this was a necessary condition to analyze their weight attitudes.

2.2.2. Anti-fat Attitudes Scale

For the analysis of explicit anti-fat prejudice we used the *Anti-fat Attitudes Scale* (AFAS) ($\alpha=.66$; see Crandall, 1994), composed by 18 items on a scale ranging from 1 (=strongly disagree) to 3 intervals (=strongly agree): for example, "Fat children are rejected by their classmates", "Fat children, growing up, will always be fat", "Fat children are less intelligent than others", "Fat children are more cheerful than others", and "Fat children are more able than others to solve a problem". Pupils were asked to indicate to what degree they agreed with each statement about overweight children. Most of the items were phrased so that strong agreement indicated negative attitudes toward overweight children. However, five of the eighteen items were phrased in the reverse and in order to make those items comparable to the other items, it has been necessary to reverse score them. Thus, high mean scores indicated high levels of anti-fat prejudice.

2.2.3. Friendship and rejection tasks

For the measurement of preferences and rejections we applied the friendship selection task (Cramer & Steinwert, 1998; Musher-Eizenman et al., 2004; Harriger et al., 2010) and the rejection selection task. Pupils were asked to indicate one of the three targets (overweight, underweight, and normal-weight body pictures of children) that they would like to have as best friend, one that they would like to accept as classmate, one they wouldn't like to walk around and to play with.

2.3. Data analysis

The examination of data was carried out using the SPSS 15 with bivariate correlation, Student *t* test, and Chi Square Test. The statistical analysis compared scores by BMI percentiles, sex and age-groups as independent

variables using scores on anti-fat prejudices, friendship and rejection measures, and stereotypical beliefs as dependent variables. Correlations indicated no relationship between pupil's BMI percentiles and any of the attitude variables of interest in this study and, for this reason, the BMI is not included in the present analyses.

3. Results

3.1. Stereotyped beliefs toward overweight, underweight, and normal-weight body pictures

As shown in Table 1, the majority of pupils attributed the following positive traits (with the exception of aggressive) to normal-weight body pictures: cheerful, intelligent, courageous, self-confident, honest, keeping promises, kind, quiet, and generous. Most of the pupils assigned the following negative traits to overweight body pictures: hungry, rejected by the others, lazy, overbearing, slow, and sick. Lastly, the majority of participants attributed the following negative traits (with the exception of honest) to underweight body pictures: whiner, weak, and shy. No significant distribution for unpleasant, sweet, and playful was observed.

Table 1. Stereotyped beliefs about body pictures – Total sample (N=140)

Positive and negative traits	Overweight body pictures		Normal-weight body pictures		Underweight body pictures		Chi Square
	N	%	N	%	N	%	
Cheerful	26	18,6	90	64,3	24	17,1	60.40*
Hungry	102	72,9	9	6,4	29	20,7	102.70*
Sweet	18	12,9	64	45,7	58	41,4	Ns
Rejected by the others	86	61,4	22	15,7	32	22,9	50.80*
Lazy	81	57,9	32	22,9	27	19,3	38.16*
Whiner	36	25,7	44	31,4	60	42,9	6.40***
Aggressive	45	32,1	66	47,1	29	20,7	14.76**
Unpleasant	49	35,0	38	27,1	53	37,9	Ns
Playful	43	30,7	58	41,4	39	27,9	Ns
Intelligent	7	5,0	89	63,6	44	31,4	72.27*
Courageous	36	25,7	60	42,9	44	31,4	6.40***
Self-confident	32	22,9	59	42,1	49	35,0	7.99***
Overbearing	66	47,1	32	22,9	42	30,0	13.09**
Honest	29	20,7	59	42,1	52	37,1	10.56**
Slow	103	73,6	14	10,0	23	16,4	102.87*
Keeping promises	16	11,4	70	50,0	54	38,6	32.97*
Weak	38	27,1	19	13,6	83	59,3	46.30*
Kind	35	25,0	65	46,4	40	28,6	11.07**
Quiet	32	22,9	60	42,9	48	34,3	8.46***
Shy	42	30,0	24	17,1	74	52,9	27.49*
Generous	38	27,1	65	46,4	37	26,4	10.81**
Sick	76	54,3	17	12,1	47	33,6	37.30*

Levels of significance for * $p < .001$; ** $p < .01$; *** $p < .05$

Significant sex differences were found in relation to the following characteristics:

- E girls attributed “aggressiveness” to underweight body pictures (75,9% vs. 24,1%) while boys attributed it to overweight ones (60% vs. 40%) (Chi^2 : 10.10, df 2, $p = .006$);
- E girls assigned “weakness” to overweight body pictures (68,4% vs. 31,6%) and boys to underweight ones (60,2% vs. 39,8%) (Chi^2 : 9.11, df 2, $p = .01$);
- E finally, girls attributed “sickness” to overweight body pictures (57,9% vs. 42,1%) and boys to underweight ones (66% vs. 34%) (Chi^2 : 7.21, df 2, $p = .027$).

Moreover, significant differences between age groups were observed:

- E 5-7 year-old pupils attributed “laziness” to overweight body pictures (60,5% vs. 39,5%) while 8-10 year-old pupils attributed it to underweight ones (66,7% vs. 33,3%) (Chi^2 : 7.67, df 2, $p = .022$);
- E 5-7 year-old pupils attributed “unpleasantness” both to overweight (71,4% vs. 28,6%) and normal-weight body pictures (60,5% vs. 39,5%) and 8-10 year-old pupils to underweight ones (75,5% vs. 24,5%) (Chi^2 : 24.42, df 2, $p < .001$);

- E 5-7 year-old pupils attributed “overbearingness” to overweight body pictures (59,1% vs. 40,9%) while 8-10 year-old pupils assigned it to underweight ones (66,7% vs. 33,3%) ($\text{Chi}^2: 7.32, \text{df } 2, p=.026$);
- E 5-7 year-old pupils attributed “generosity” to underweight body pictures (67,6% vs. 32,4%) and 8-10 year-old pupils to overweight ones (65,8% vs. 34,2%) ($\text{Chi}^2: 8.35, \text{df } 2, p=.015$).

3.2. Anti-fat attitudes

Results showed that pupils reported low-medium scores of anti-fat prejudice toward fat peers ($M = 1.92, sd = .31$), with significant differences only among different age groups ($t = 4.59, \text{df } 138, p < .001$): 5-7 year-old pupils expressed higher scores of anti-fat prejudice ($M = 2.03, sd = .32$) than 8-10 year-old pupils ($M = 1.81, sd = .26$).

3.3. Friendship and rejection tasks

As reported in Table 2, most pupils chose normal-weight body pictures of children as best friends and accepted both underweight and normal-weight body pictures of children as classmates more frequently compared to overweight ones. No differences for sex were noticed. On the other hand, most pupils expressed rejection toward overweight body pictures of children both to walk around and to play together.

Table 2. Friendship and rejection tasks for body pictures – Total sample ($N=140$)

Tasks	Overweight body pictures		Normal-weight body pictures		Underweight body pictures		Chi Square
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	
Choice of best friend	16	11,4	85	60,7	39	27,9	52.90*
Choice of classmate	26	18,6	52	37,1	62	44,3	14.80**
Rejection to walk around	80	57,1	20	14,3	40	28,6	40.00*
Rejection to play together	77	55	29	20,7	34	24,3	29.84*

Levels of significance for * $p < .001$; ** $p < .01$

Differences between age groups were found: older pupils preferred overweight body pictures of children as best friends more often than younger ones (81,3% vs. 18,8%), while younger pupils preferred underweight body pictures of children more often than older ones (69,2% vs. 30,8%) ($\text{Chi}^2: 12.10, \text{df } 2, p=.002$). Furthermore, older pupils accepted overweight body pictures of children as classmates more often than younger ones (76,9% vs. 23,1%), while younger pupils chose underweight body pictures of children more often than older ones (58,1% vs. 41,9%) ($\text{Chi}^2: 9.82, \text{df } 2, p=.007$). Lastly, younger pupils rejected to walk around with overweight children more frequently than older ones (63,8% vs. 36,3%), while older pupils rejected normal-weight children more frequently than younger ones (85% vs. 15%) ($\text{Chi}^2: 16.73, \text{df } 2, p < .001$). In addition, younger pupils rejected to play together with overweight children more frequently than older ones (58,4% vs. 41,6%), while older pupils refused underweight children more often than younger ones (70,6% vs. 29,4%) ($\text{Chi}^2: 8.24, \text{df } 2, p=.02$).

3.4. Relations between anti-fat attitudes and friendship/rejection tasks

Bivariate correlations among the anti-fat attitudes, the choice of best friend/classmate, and the rejection to walk around and to play together were computed and almost all relations were statistically significant. The more the pupils expressed high scores of anti-fat prejudice the more they chose underweight children as best friends ($r(140) = .32, p < .001$; only for younger pupils: $r(71) = .32, p = .007$). The more the pupils expressed high scores of anti-fat prejudice the more they rejected to walk around ($r(140) = -.29, p < .001$; only for older pupils: $r(69) = -.26, p = .03$) and to play together with the overweight children ($r(140) = -.30, p < .001$; only for older pupils: $r(69) = -.34, p = .004$; only for girls: $r(70) = -.39, p = .001$).

4. Conclusion

The current investigation studied stereotyped beliefs and weight attitudes in developmental age. According to H1, children were expected to have negative stereotyped beliefs about overweight and underweight body pictures of children rather than normal-weight ones. Similarly to the results obtained in previous researches conducted in other countries (Greenleaf et al., 2004; Tiggemann & Wilson-Barrett, 1998; Davison & Birch, 2004; Harriger et al., 2010), our pupils attributed negative characteristics to overweight and positive traits to normal-weight body pictures. In fact, the stereotyped profile of overweight children was characterized by laziness, overbearingness, slowness, sickness, hunger, and social exclusion, while the stereotyped profile of normal-weight children was characterized by cheerfulness, intelligence, courage, self-confidence, honesty, kindness, quietness, generosity, and fulfillment of promises. In addition, unlike studies about weight beliefs which focused mainly on the analysis of overweight and normal-weight targets, this research investigated negative stereotypes toward underweight children: the profile of underweight children was characterized by weakness, shyness, and whining. Girls expressed the beliefs that overweight children were weak and sick, while boys attributed the same negative characteristics to underweight children. Younger pupils expressed negative stereotyped beliefs toward overweight children and positive stereotyped beliefs toward underweight ones, while older pupils showed the opposite trend.

In relation to H2, we expected that pupils would express high levels of anti-fat attitudes, and this result was partially confirmed only with regard to younger pupils. Lastly, we hypothesized that pupils would choose normal-weight and underweight children as best friends and classmates and reject to walk around and to play together with overweight children (H3): these results were confirmed with significant differences between the two age groups in the sense that younger pupils expressed negative attitudes toward overweight children and positive attitudes toward underweight ones. On the contrary, older pupils rejected underweight children and chose overweight ones as best friends and classmates. This study demonstrated the presence of anti-fat / pro-thin attitudes among 5-7 year-old pupils and, on the contrary, of anti-thin / pro-fat attitudes among 8-10 year-old ones. These differences in relation to age could be explained by the impact of “social desirability bias” in older pupils who seemed to be affected by social roles and moral conventions more than younger ones (see Patel & Holub, 2011; Patterson & Bigler, 2006). This issue suggests the need to use implicit measures to explore anti-fat and anti-thin attitudes in further investigations. As noted by Solbes and Enesco (2010), as children grow older, they reduce their levels of explicit prejudice toward overweight peers and maintain a constant intensity of the implicit one.

Our results were consistent with the findings of Musher-Eizenman et al. (2004), according to which preschoolers chose chubby peers less often than thin and average ones as playmates, and of Margulies et al. (2008) who noted that preschool children selected average-weight and thin peers in drawings as friends and playmates much more often than overweight ones.

Future research should concentrate on finding the best way to reduce latent or manifest forms of discrimination, anti-fat prejudice, and weight stereotyped beliefs in school context, involving both teachers and parents and using both implicit and explicit measures.

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