

# THE RELATIONSHIP BETWEEN BODY APPRECIATION, BODY SELF-ESTEEM AND ATTITUDE TOWARDS EATING IN CHILDREN

Beatrice MAGURAN, Ph.D.

Department of Psychology, West University of Timisoara

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**Abstract:** *Body appreciation among children has received special attention in the health literature, so that the prevention of body image impairment confirms the importance of the relationship between personal identity and family. The purpose of this study is to analyze the relationship between child's body appreciation, attitudes towards eating and body self-esteem. In this respect, children from different schools have completed instruments that measure the level of body self-esteem, eating attitude and the level of body appreciation. For statistical purposes,  $r$  Pearson correlation and hierarchic regression were used. The results showed that eating attitudes correlates positively with body appreciation of the Romanian children ( $n = 418$ ) and that a higher level of body appreciation correlates with a higher level of body self-esteem, also the present study pointed out that a low levels of body self-esteem predict negative eating attitude when we control the gender and BMI.*

**Keywords:** body image; eating attitude; body self-esteem; body appreciation; body appearance;

## 1. Introduction

The development of body perception and body satisfaction among adolescents and children during puberty has received special attention in recent years (Bearman, Presnell, Martinez and Stice, 2006; Thompson, Corwin and Sargent, 1997).

Many studies have investigated body satisfaction or dissatisfaction among adolescent girls and boys and their involvement in body modification strategies through different methods (McCabe & Ricciardelli, 2003; Pope, Olivardia, Gruber, & Borowiecki, 1999).

Going through the literature body image it is revealed to be considered as a multidimensional construct that is defined as an attitude towards the body of an individual. It is also defined as a mental representation of the information that was closely related to the physical aspect, this information being the result of the perception of one's own body (Schilder, 1950 apud. Grogan, 2008). This concept is considered as accepting and maintaining favorable opinions regarding the body, respecting it and in this sense also rejecting the ideals promoted by the media as the only form of beauty (Tylka and Wood-Barcalow, 2015).

Body esteem refers to one's own perceptions of one's body appearance and is conceptualized as a global construct (Mendelson et al., 2001), which can be measured by self-report questionnaires, open interviews or different reactions to words related to body appearance.

In the 1980s, some researchers identified body perception as divided domains (Franzoi & Shields, 1984). Their studies have shown that there are different areas of body esteem, such as physical attractiveness, body strength, physical condition, concern for weight fluctuations, and these issues are relevant to both boys and girls (Franzoi & Shields, 1984).

Mendelson et al. (1995) emphasized this concept and came up with a new original theory of body esteem. They argued that feelings related to body weight can be differentiated from feelings about the general appearance of the person and suggested that their own opinions could be differentiated from the opinions attributed to others.

In this context, against the backdrop of rising obesity rates in children and adolescents, researchers and clinicians are interested in measuring children's attitudes and behaviors regarding weight, body shape and eating habits. This type of information is especially important, as it can warn about the time and, possibly, how to intervene in children behaviors that have unhealthy eating habits.

While adolescence is a crucial moment in a person's life, when dissatisfaction with one's body and maladaptive eating habits are common (Cooke, 2004), many researchers have highlighted that concerns about body image and maladaptive forms of eating nutrition is developed much earlier than during this period (Robin et al., 1998).

For such a statement, there is evidence that even younger children may show signs of dissatisfaction with their own body and show a certain negative attitude towards unhealthy foods (Robinson et al., 2001; Lawrence 1995).

Consistently, researchers have shown that both boys and girls with a higher BMI want to be thinner (Candy & Fee, 1998) found that 78% of girls who were overweight wanted to be thinner, while only 30% of normal girls wanted to be slimmer. Similarly, 60% of boys who were overweight wanted to be thinner, while only 13% of normal weight boys want to be thinner. On the other hand, all boys who were underweight wanted to be larger and 44% of girls who were underweight wanted to be heavier. The differences in these findings reflect not only BMI influences on body image, but also socio-cultural influences to be thin, even when they are already under normal weight.

At the same time, the thin ideal as a body aspect is also associated with disordered eating in children of early age, both simultaneously and longitudinally (Moriarty & Harrison, 2008). Undoubtedly, playing with dolls in thin forms (for example, Barbie) is also associated with body stimulation, especially in young girls (Anschutz & Engels, 2010).

To highlight the contexts that contribute to children's attitude towards food, a meta-analysis by Schultz et al. in 2016 was evaluated. It is important to review the literature that states that the phenomenon of food consumption must be defined as a complex process whereby a substance that has been considered edible is consumed in order not only to ensure the nutrients to satisfy the physiological requirements in maintaining and sustaining life, but also to satisfy psychological and emotional desires (Rozin, 1990; Wellman & Johnson, 1982; Gavrilă-Ardelean & Gavrilă-Ardelean, 2010).

The purpose of this review was to integrate the literature on children's knowledge of food consumption. The evidence indicates that children of all ages know and understand much about food. In particular, evidence shows that even before entering school, preschoolers know about food, despite the fact that many adults question their level of understanding. The evidence in this review also suggests that what children and adolescents believe and that they do know about food items, and not their knowledge of nutritional facts, may be more influential in directing their eating behaviors.

Body image is recognized as a complex of factors that affect the cognitive, behavioral and emotional functioning of individuals. (Pruzinsky & Cash, 2002). Despite this broad conception of body image, most body image research has focused on understanding and investigating the negative aspects of body image (Tylka, 2011). Recently, however, there has been an increase in examining the positive and adaptive components of body image.

Positive body image is largely described as love, respect and acceptance of the physical appearance and function of the body (Wood-Barcalow, Tylka and Augustus-Horvath, 2010; Tylka and Wood-Barcalow, 2015). Specialized studies have revealed common characteristics of individuals with positive body image outcomes, including body acceptance, affective visualization of the body, in-depth filtering of appearance information, and support for a broad conception of beauty (Bailey, Gammage, van Ingen, and Ditor, 2015; Frisé and

Holmqvist, 2010; Holmqvist and Frisé, 2012, McHugh, Coppola, and Sabiston, 2014; Wood-Barcalow et al., 2010).

Corporal assessments have been shown to be related to psycho-social adaptive indicators of well-being including self-esteem, optimism (Avalos et al., 2005) and self-compassion (Albertson, Neff and Dill-Shackleford, 2015, Wasyliw, MacKinnon and MacLellan, 2012). In experimental studies, body appreciation has shown that it effectively protects against distortion of body image induced by the media (Andrew, Tiggemann, & Clark, 2015). At the same time, most of the researchers examined body appreciation using adult women as subjects. Given that a significant proportion of adolescent girls report marked dissatisfaction with their body (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999), it is important that positive body image development be investigated prior to maturity.

Also, satisfaction regarding children's family life is a predictor for their body appreciation level. The better family life satisfaction, the higher body appreciation level is. Results reveals that there is a positive correlation between family life satisfaction and body appreciation level which shows that there is a need to provide a healthy environment for children to develop properly from both mental and psychological aspects (Maguran, 2019).

The body appreciation has been described so far from the point of view of the size and possibly the amount of fat existing on the body so we should not overlook that in fact the body assessment means a combination of factors as presented in a recent study by Grower et al., earlier this year. Also, body appreciation is consider to be a positive dimension of body image (Swami et al., 2017). Through this study, the contributions regarding the pubertal synchronization of the feelings of the young women regarding their body were examined, integrating an important development within the self-objectification. The results indicate that girls who presented with early pubertal development reported even more monitoring of their body experiencing a stronger foundation of their own intrinsic value, reported lack of body appreciation but did not report increased shame in terms of appearance physically and did not report a sexualization pleasure. The study is also based on previous research, which found zero results regarding the early effects of puberty on objectivity (Slater & Tiggemann, 2012; Rousseau, Trekels, & Eggermont, 2018).

## **2. Methods**

Therefore, the purpose of this study is to analyze the relationship between attitude towards food, body appreciation among children and body self-esteem in children.

For this purpose, the following hypotheses were formulated:

*H1. Self-esteem correlates with body appreciation.*

*H2 Self-esteem predicts eating attitudes if we control gender and BMI.*

### **2.1 Participants**

For this study we involved 418 students (n = 418) of which 54.3% were boys, who attended 3 schools in Timisoara and the suburbs: W. Shakespeare, General Giroc, General Chisoda. Participants were between the ages of 9 and 14 (M = 10.46; SD = 1.16). Students were enrolled in different classes with years of study from the third grade to the sixth grade. The participating students had Romanian citizenship and came from different socio-economic backgrounds.

### **2.2. Instruments**

To highlight the results, we used three tools that were given to the children to fill out in order to measure the level of body appreciation among children, as well as to measure the

level of body self-esteem and their eating attitudes. Height and weight were also found in the requested demographic data in order to calculate BMI.

### **Body Appreciation Scale-2 for Children**

(BAS-2C; Halliwella, Jarmana, Tylka, Slater, 2017). This instrument is an Adult Body Appreciation Scale that was adapted in the form of BAS-2C by Tylka and Wood-Barcalow in 2015, which has been translated and validated on the Romanian population by Swami, Tudorel, Goian, Barron and Vintilă in 2017. This scale at its turn was adapted for its use in children, BAS-2C having a one-dimensional factor structure and evidence of good internal consistency, test-retest fidelity and construct validity, related to criteria and incremental validity. In addition, the results suggest adaptive properties of body appreciation for emotional and body well-being among children. The tool contains 10 items with responses on a Likert scale from 1 to 5, where 1 = never; 5 = always.

This instrument has a good internal consistency and in the case of the present study Alfa Cronbach was .87.

**Children Eating Attitude Test** (Linda Smolak and Michael P. Levine in 1993 developed an Eating Attitude Test which has a child friendly form developed by Maloney, McCuire and Daniels in 1988)

This test was proposed because it has been found that as the interest in eating disorders is increasing, there is also an increased need for psychometric measurements regarding attitudes and behaviors towards eating in children. The answers were given using the Likert scale, where 1 = never, and 6 = very often. ChEAT has a questionable internal consistency; Cronbach's Alpha was .69 for our study.

**Body Esteem Scale** (Mendelson et al., 2001);

Body self-esteem scale has 23 items, and subjects indicated responses on a 5-grade Likert scale, ranging from 0 (never) to 4 (always). There are nine negative items that are inverted items. Body Esteem Scales for adolescents and adults was divided into three subscales: Appearance, Weight and Attribution. The first factor, Aspect (general feelings about the appearance), consisted of 10 items, the second factor, Weight (weight satisfaction), consisted of 8 items, and the Attribution consisted of 5 items. The BES in our case has an acceptable internal consistency, Alfa Cronbach being .76.

**Demographic data.** The study participants also provided demographic data with reference to the age, their height, weight, environment of origin, family status of parents.

Height and weight are used to calculate body mass index ( $\text{kg}/\text{m}^2$ ). In the case of children, BMI is represented by age.

### **1.2. Procedure**

The aforementioned tools were given to the children to be completed by the pencil-paper method. Before beginning the completion, they were trained on the process and were informed about the tools and specialized words found in these tools and were also informed about the time required to complete the questionnaires. While completing these scales, they were monitored and provided with answers to questions and explanations in relation to some words or expressions that they did not understand or did not know. The effective completion of the instruments took place in their classrooms.

### **3. Results**

The raw data we collected was subsequently analyzed and interpreted using SPSS for Windows, v. 20.0. This study is a correlational non-experimental one. To investigate the

correlations between the variables we used the Pearson correlation coefficient, and we also used hierarchical regression to investigate the role of self-esteem on eating attitude if we control gender and BMI.

*H1. Self-esteem correlates with body appreciation*

The results show that body self-esteem correlates positively with body appreciation, which means that a higher level of body self-esteem correlates with higher body appreciation level,  $r = .349, p < .01$ ; effect size  $r^2 = .12$ , which represents an average effect (Table 1).

Tabel 1. *Correlations between variables*

Variables	1	2
BE	.349**	-
BA	-	.349**

$p < .01$ ; BE – Body self-esteem; BA –Body appreciation

*H2. Body self-esteem predicts eating attitude if we control sex and BMI*

The results of the hierarchical regression showed that if we control gender and body mass index, a lower level of self-esteem predicts a negative attitude towards eating (Table 2). Thus, after including in the initial model containing gender and BMI ( $R^2$  change = .066,  $F_{\text{change}}(2, 414) = 14.711, p < .001$ ), of the self-esteem factor a better explanation was observed ( $R^2_{\text{change}} = .078, F_{\text{change}}(1, 413) = 5.075, p = .025, p < .05$ ).

Tabel 2. *Results of regression analysis for self-esteem as a predictor of eating attitude for children*

Predictor	<i>t</i>	<i>p</i>
Step 1		
Gender	5.023	.000
BMI	2.771	.000
Step 2		
Gender	5.355	.000
BMI	2.493	.003
BE	2.253	.025

BMI= Body mass index, BE- body self-esteem

**4. Discussion**

The present study was conducted to highlight that healthy self-esteem can predict the attitude towards eating in children if gender and BMI are kept under control. Self-esteem refers to feelings about body and external appearance (Mendelson, 1995) and is inversely proportional to body mass index (BMI, kg / m<sup>2</sup>) (Steeter 2012). Understanding the determinants of body esteem in adolescents is important because of the marked development of their habits of health during this stage of life (Nelson, 2008) and of the negative consequences of body self-esteem.

Reel et al. (2015) argue that adolescence is a vital stage for individuals who develop a positive or negative image of the body. The influences that can contribute to this development include the friends and the mass media. Adolescents with a lack of social support or poor familial relationships, tend to isolate themselves, therefore they will search for online support in the virtual environment (Tudorel & Vintila, 2018; Gavrilă-Ardelean, 2014). Reel et al. (2015) also, say that the development of a negative body perception is related to the development of the eating disorders or the dysfunctional effort. Further study of the consequences of body dissatisfaction underlined that dissatisfaction was a clear predictor of increased depression and low self-esteem during adolescence (Bucchianeri et al. 2013,).

Research on the relationship between self-esteem and body self-esteem is mainly focused on adolescents (van den Berg et al., 2010) and it has already been proven that the overall self-image is correlated with feelings towards one's own body resulting in functional or dysfunctional behaviors : such as withdrawal from social interactions, eating disorders and depression (Orenstein, 2013).

The present study shows that body self-esteem is correlated with body appreciation, thus a higher level of body self-esteem correlates with higher body self-esteem in children. Higher self-esteem increases the level of body appreciation, which shows that it is imperative to provide a healthy environment for children so that they can develop properly both physically and mentally. A major change in understanding the body image was the development of communication on positive body image issues. In this respect, the research has been largely focused on the negative body image, but lately there has been a major interest in understanding positive concepts of body image and the body appreciation which is a facet of the body image.

Also included in this study was the interest regarding the eating attitudes in children because it was found that there is a predisposition among children to have disorganized eating preferences. Schultz showed in a study that was conducted in 2016 that these maladaptive eating behaviors are associated with disorganized eating most often identified as one of the many factors that contributed to the development of obesity in children. This eating behavior is, to some extent, supported by the individual's opinion of himself in the sense that whatever he believes is true. The knowledge of children and adolescents about food consumption is very important and critical because as these eating behaviors are set at the age of 4 to 6 years, they are obese at this age and predict obesity in adult life (Brisbois, Farmer and McCargar , 2012).

## 5. Limitation

As with other researches, our study has limits that we must recognize. First of all, we could point out that the schools from which the sample of participants was formed, although the children came from different social and economic backgrounds, mainly from the surrounding areas of the city. In relation to the age range we can say that it was limited, the children between the ages of 9 and 14 years and this limits our ability to generalize the findings in the case of children and adolescents. Also we could not generalize the results to children who come from other areas and attend well-rated schools. Another highlighted limit could be considered the use of instruments that are not validated on the Romanian population. For future studies, the recommendation is to include in the research a more diversified range regarding

age and geographical location and at the same time to use tools that have been validated on children and adolescents in the country (Tudorel et al., 2018; Vintila et al., 2018).

## 6. Conclusion

In our study, we investigated the relationship between self-esteem and body appreciation in children between the ages of 9 and 14 because we identified, by consulting the literature, a major importance regarding the long-term negative effects of these two aspects that could influence adult life, being a clear predictor of increased depression and self-esteem (Bucchianeri et al. 2013). Following the results, it was pointed out that a high level of body self-esteem correlates with a high level of body appreciation. In this context, we also tried to emphasize that the body self-esteem is a predictor of the attitude towards eating in children if we control the gender and BMI. Education opportunities for families could increase the chance to understand how to manage it (Goian, 2004). It has been demonstrated that social support can improve the capacity to face overwhelming events, becoming a protective factor for these situations (Tudorel & Vintila, 2018; Runcan et al, 2012; Fond-Harmant & Gavrilă-Ardelean, 2016). However, specialists should use specialized language with caution, as this can create a barrier between the professional and the client, sharing or receiving meaningless messages (Goian, 2010).

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