

BODY ESTEEM SCALE: A VALIDATION ON ITALIAN ADOLESCENTS

EMANUELA CONFALONIERI ELENA GATTI CHIARA IONIO DANIELA TRAFICANTE

CATHOLIC UNIVERSITY OF MILANO

This work aims to translate and validate the Body Esteem Scale (BES, Mendelson, Mendelson, & White, 2001) in an Italian sample and to evaluate its reliability and dimensionality. The scale was administered to a sample of 674 Italian adolescents aged 11-16 years (M=13.33; SD=2.1). The results showed good reliability and internal validity. Explorative and confirmatory analysis revealed that a three correlated-factor model, similar to that found in the original form, explains the data well. In addition, BES correlates positively with the Body Image Satisfaction questionnaire (Rauste von Wright, 1989; Italian version by Alparone, Prezza, & Camarda, 2000) and the Rosenberg Self-Esteem scale (Rosenberg, 1965; Italian version by Prezza, Trombaccia, & Armento, 1997). The BES, Italian version, seems to offer a good measure of body image perception among adolescents and could be used in research, for assessment, preventative intervention, and health promotion.

Key words: Adolescents; Assessment; Body esteem; Italian validation.

Correspondence concerning this article should be addressed to Emanuela Confalonieri, Dipartimento di Psicologia, Università Cattolica, Largo Gemelli 1, 20123 MILANO (MI), Italy. E-mail: emanuela.confalonieri@unicatt.it

INTRODUCTION

The development of both body perception and body satisfaction among early adolescents and adolescents has received a large amount of attention during the last few years (Bearman, Presnell, Martinez, & Stice, 2006; Jones, 2001; O'Dea, 2006; Ricciardelli & McCabe, 2003; Thompson, Corwin, & Sargent, 1997). Many studies have investigated body satisfaction or dissatisfaction among girls and boys and their engagement in body change strategies (McCabe & Ricciardelli, 2003, 2005a, 2005b; Pope, Olivardia, Gruber, & Borowiechi, 1999). The first results have shown that gender and age are two factors that moderate the sense of satisfaction. In fact, body dissatisfaction increases among girls and decreases among boys during adolescence (Bearman et al., 2006). Despite these differences, the desire to modify shape or weight is common to both genders. Concerns about the body have been documented as widespread among the female population, and adolescence is considered to be an especially vulnerable period for disturbance in body image; also the physical changes during puberty could create an increase of body dissatisfaction (Arim, Shapka, & Dahinten, 2006; Davison & McCabe, 2006). However, in recent years, researchers have estimated that concerns about body appearance do not only affect females but males as well. The latest research has estimated that the number of boys engaging in weight loss strategies range from 21.5 to 50%: one-third of adolescent boys prefers a thinner body size, and TPM Vol. 15, No. 3, 153-165 Fall 2008



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.
BES Italian validation

another one-third prefers a larger and more muscular body (Choane & Pope, 2001; Furnhman & Calnan, 1998; McCabe & Ricciardelli, 2001, 2003, 2004). Moreover, McCabe and Ricciardelli (2005a) indicated that already at the age of eight, boys focus on increasing the size of their muscles and are already receiving messages to achieve this goal. Gender differences are clear: boys focus on the muscular apparatus, while girls focus on weight loss and body image and appearance.

The dramatic impact of body dissatisfaction has been established and the principal factors that increase the risk of body image concerns have been identified. These factors pertain to individual characteristics such as age and pubertal development, social aspects like the role of parents, peers, life-environment, and psychological features like personality traits and self-esteem (Bearman et al., 2006; Davison, Markey, & Birch, 2003; McCabe & Ricciardelli, 2005b). Body changing strategies are associated with many expressions such as emotional distress, means to alter appearance, cosmetic or steroid use, psychiatric disturbances, and eating disorders (Gila, Castro, Cesena, & Toro, 2005; Ricciardelli & McCabe, 2001; Shea & Pritchard, 2007; Stice & Whintenton, 2002). We do not aim to discuss the role of the factors concerning a particular behavior or the strategies used by adolescents, nor the consequences that this behavior has on their lives; the article instead focuses on the wide range of different instruments measuring body image. The most common measures highlight the evaluations of one's own appearance, such as satisfaction or dissatisfaction with a range of physical attributes or general attractiveness, or the level of investment in appearance. This includes how important individuals consider their appearance, the amount of time and effort they invest in maintaining or improving their physique. In literature, researchers rarely discuss social aspects of body image, with the majority of body image instruments failing to take into account the impact that body evaluations by others have on the subject's social aspects. Mendelson and collegues (Mendelson, Mendelson, & Andrews, 2000; Mendelson, Mendelson, & White, 2001; Mendelson, White, & Balfour, 1995; Mendelson, White, & Mendelson, 1996) introduced, in their instrument called Body Esteem Scale for adolescents and adults (2001), a subscale that measures "Attribution": the perception of evaluation attributed to others regarding one's own body. This subscale is designed to measure not only the adolescent's self-evaluation made while looking in the mirror, but also external evaluations such as others' opinions regarding the adolescent's body.

Body esteem refers to self perceptions of one's own body (appearance) and has typically been conceptualized as a global construction (Mendelson et al., 2001) that can be measured by self-report questionnaires, open-ended interviews, or reactions to body-related words. In the 1980's, some researchers have identified body perception as divided domains (Franzoi & Shields, 1984; Tucker, 1981). Their studies showed evidence that there are different domains in body esteem, like physical attractiveness, body strength, physical conditions, weight concern and these domains are relevant for boys and girls alike (Franzoi & Shields, 1984).

Mendelson et al. (1995; 1996) emphasized this concept and came up with a new original theory about body esteem. They claimed that feelings about one's weight can be differentiated from feelings about one's general appearance, and they further suggested that one's own opinions may be differentiated from the opinions attributed to others. So, they constructed an instrument (Body Esteem Scale for adolescents and adults: Mendelson et al., 2001) that was divided into three subscales: Appearance, Weight, and Attribution.

TPM Vol. 15, No. 3, 153-165 Fall 2008



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.
BES Italian validation

Appearance is the general feeling about appearance (example: "I worry about the way I look"). It consisted of 10 items and accounted for 49.3% of the variance (Cronbach's alpha = .92). The second subscale, Weight, is the weight satisfaction (example: "I really like what I weigh"), which consisted of 8 items and accounted for 10.4% of the variance (Cronbach's alpha = .94). The third subscale, Attribution, is the evaluation attributed to others about one's own body and appearance (example: "People my own age like my looks"), and it consisted of 5 items and accounted for 5.9% of the variance (Cronbach's alpha = .81).

The sample of Mendelson et al.'s (2001) study consisted of 1334 Canadian participants (763 females and 571 males) aged 12-25 years (M = 16.8 years).

The data of this sample were analyzed to examine the effects of gender, age, and weight, by a separate hierarchical multiple regression. Age did not account for variance in any of the BES measure. Gender reached significance for Appearance and Weight, females scoring lower than males. Gender X age interaction did not reach significance for any of the variables. The weight effects size for the three scales was small. The main effect of weight on the Weight scale was qualified by the significant gender X weight interaction. For males, the correlation between scores on the Weight scale and weight was small, accounting for less then 3% of the variance. Conversely, for females, weight and the scores on the Weight scale were highly correlated (r = -.54) and weight accounted for more than ten times as much variance as it did in males' scores: overweight females tended to be dissatisfied with their weight.

In order to estimate test-retest reliability, the BES was administered to a sample of 131 adolescents (84 females and 47 males; M = 18.6 years) and 97 of these students (61 females and 36 males) were retested three months later. The test-retest correlations were high (Appearance: r = .89; Weight: r = .92; Attribution: r = .83). To assess the convergent validity, the Rosenberg Self-Esteem scale (Rosenberg, 1965) or the Global Self-Worth Subscale of Self-Perception Profile for College Students (Neeman & Harter, 1986) were administered. Appearance was partially correlated with global self-esteem (r = .39) independent of the other two body esteem subscales, whereas the same was not true of Weight (r = .07) and Attribution (r = .03).

OBJECTIVES AND METHOD

The purpose of this article was to test the Italian version of the Body Esteem Scale for adolescents and adults and to verify the reliability and validity of the scale. Its dimensionality was examined to evaluate the coherence of the three subscales of the original version and internal consistency of the subscales was estimated.

Differences in the BES scores related to age and gender were analyzed. According to previous research (Mendelson et al., 2000), females should have lower BES scores than males and no difference should be related to age.

The Rosenberg Self-Esteem scale (Rosenberg, 1965; Italian version by Prezza, Trombaccia, & Armento, 1997) and the Body Image Satisfaction questionnaire (Rauste von Wright, 1989; Italian version by Alparone, Prezza, & Camarda, 2000) were also administered to test convergent validity of the BES measures.

TPM Vol. 15, No. 3, 153-165 Fall 2008



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.

BES Italian validation

The Sample

The Italian version of the BES was administered to 674 adolescents, aged 11-16 years (M = 13.33, SD = 2.1). Participants were recruited from the 6th, 7 th, 8 th grade of junior high school and the 9 th, 10 th, 11 th grade of high school from the metropolitan area of Milano. Participants had Italian backgrounds and came from upper-middle socioeconomic classes.

Instruments and Procedures

The test materials were administered by the researchers' assistant and were completed by the students during one class period (50 minutes) in a group setting. Letters that outlined the nature and the aim of the study were sent out to the students' parents. Active consent was obtained from both parents and students.

Data from five non-Italian mother tongue students were not included in the further analyses.

All respondents completed three self-report questionnaires:

- 1. Body Esteem Scale (Mendelson et al., 2001);
- 2. Body Image Satisfaction questionnaire (Rauste von Wright, 1989; Italian version by Alparone et al., 2000);
- 3. Rosenberg Self-Esteem scale (Rosenberg, 1965; Italian version by Prezza et al., 1997).

The BES

The Italian version of the Body Esteem Scale was translated by two independent translators. The translation was also verified through back-translation procedure. The scale has 23 items and the respondents indicated their degree of agreement on a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*). There are nine negative items that were reverse-scored. Mendelson et al. (2001) found a three-factor solution: Attribution, Weight, and Appearance. The first factor, Appearance (general feelings about appearance), consisted of 10 items, the second factor, Weight (weight satisfaction), consisted of 8 items, and Attribution consisted of 5 items.

The BIS

The Body Image Satisfaction questionnaire measures the level of satisfaction about one's own body image. It has 26 items that describe all the body parts (arms, legs, nose, feet, etc.) and the respondents indicated their satisfaction level on a 4-point Likert scale ($1 = very \ satisfied$; 2 = satisfied; 3 = unsatisfied; $4 = very \ unsatisfied$). It has two subscales: Face, referring to the parts of the face, and Figure, referring to the parts of the body. The Italian form (Alparone et al., 2000) was validated on 800 adolescents ($352 \ males$ and $448 \ females$) aged 9-20 years. BIS has an adequate reliability (Cronbach's alpha = .88) and test-retest stability (r = .85). For these data, internal consistency was very good (Cronbach's alpha = .91).

Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.
BES Italian validation

THE RSE

The Rosenberg Self-Esteem scale is used to test self-esteem. The 10 items are global statements, and the respondents indicated their level of agreement on a 4-point Likert scale (1 = $strongly\ disagree$; 2 = disagree; 3 = agree; 4 = $strongly\ agree$). Negative items were scored in reverse. Italian sample (Prezza et al., 1997) consisted of 1217 subjects (492 males and 725 females) aged 16-70 years. The scale shows a high internal consistency (Cronbach's alpha = .84) and a good test-retest correlation (r = .76). For the present study internal consistency was good (Cronbach's alpha = .76).

ANALYSES OF THE DATA

The BES

The evaluation of the metric properties of this scale was carried out through explorative and confirmatory analyses, devoted to item analysis and to testing the goodness of fit of the multidimensional model adopted by Mendelson et al. (2001) in the construction of the scale; finally, gender differences were analyzed, in analogy to the original version. Distribution indexes (mean, standard deviation) of the items, internal consistency (Cronbach's α coefficient), and scale homogeneity were provided for the final Italian version.

The exploratory analysis was conducted on 23 items. Scree-test (Cattell & Vogelman, 1977) was used to define the number of components, together with the model proposed by Mendelson et al. (2001) (Figure 1). A principal components analysis with oblique rotation was used to determine how many factors the BES included. We used oblique rotation because previous work has shown that dimensions of BES were intercorrelated (Mendelson et al., 1996).

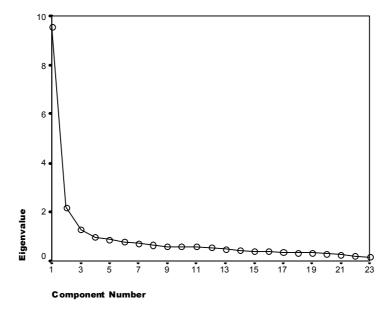


FIGURE 1 Principal component analysis scree plot.

The analysis yielded a three-component solution, that explained 57% of the total variance (Table 1). However, two items, 1 and 3, did not significantly (≥ .40) load on any of the components, and three items, 6, 15, and 22, did not univocally load on one component. Before dropping these five items, a model of confirmatory factor analysis was carried out by EQS (Bentler, 2001) to evaluate the 23-item original version. The covariance matrix was analyzed, the latent factors were allowed to covary, there were no correlated errors among the manifest variables, and items were allowed to load on only one factor. The Maximum Likelihood method was adopted.

TABLE 1 23-item Body Esteem Scale: principal-component loadings

	Item	Weight	Attribution	Appearance
10	I really like what I weigh	.93		
8	I am satisfied with my weight	.89		
4	I am preoccupied with trying to change my body weight	.84		
18	Weighing myself depresses me	.73		
19	My weight makes me unhappy	.67		
16	I feel I weight the right amount for my height	.54		
22	I think I have a good body	.40	.46	
3	I'm proud of my body	< .40		
12	People my own age like my looks		.76	
2	Other people consider me good looking		.76	
20	My looks help me to get dates		.75	
14	I'm as nice looking as most people		.62	
5	I think my appearance would help me get a job		.60	
6	I like what I see when I look in the mirror		.48	45
11	I wish I looked like someone else			66
7	There are lots of things I'd change about my looks if I could			61
9	I wish I looked better			58
21	I worry about the way I look			52
17	I feel ashamed of how I look			48
15	I'm pretty happy about the way I look		.40	45
13	My looks upset me			44
23	I look as nice as I'd like to			43
1	I like what I look like in pictures			< .40
	Initial Eigenvalue	9.55	2.18	1.27
	EV%	41.51	9.50	5.53

Goodness-of-fit indexes were not satisfactory (Table 2) and the Lagrange Multiplier test indicated that not only items 6, 15, and 22, but also items 14, 16, 17, and 19 could significantly load on more than one factor. So, we dropped the above mentioned nine items (1, 3, 6, 14, 15, 16, 17, 19, 22), and a new principal component analysis was carried out on the 14-item version. It produced a three-component solution that accounted for 60% of the total BES variance (Table 3). The first component, Weight (weight satisfaction), consisted of four items and accounted for 38% of the variance. The second component, Attribution (other people's evaluations about one's

body), consisted of four items and accounted for 13% of the variance. The third component, Appearance (general feelings about appearance), consisted of six items and accounted for 9% of the variance. The three components were intercorrelated: respectively, Weight and Attribution were correlated r = .23, Attribution and Appearance were correlated r = .20, Weight and Appearance were correlated r = .40. The confirmatory factor analysis applied on the 14-item three-factor version showed quite good fit indexes (Table 2; Figure 2). An alternative model, in which all items were considered as measures of a single factor, showed inadequate fit (Table 2). The internal consistency and reliability of the final scale, estimated by means of inter-scales correlation and Alpha coefficients, were satisfactory (Table 4).

TABLE 2
Fit indexes for the different Italian versions of BES

Version	GFI	AGFI	CFI	SRMR	RMSEA	90%CI	χ^2	df	χ^2/df
23-item									
3 factors 1 factor	.80 .66	.76 .59	.84 .77	.07 .08	.09 .12	.087,.096 .114,.129	1339.52 1110.77	225 230	5.95 4.83
14-item									
3 factors 1 factor	.95 .75	.93 .66	.96 .71	.05 .10	.06 .15	.051,.068 .141,.157	224.45 1106.67	72 77	3.12 14.37

TABLE 3
14-item Body Esteem Scale: principal component loadings

	Item	Weight	Attribution	Appearance
10	I really like what I weigh	.90		
8	I am satisfied with my weight	.86		
4	I am preoccupied with trying to change my body weight	.82		
18	Weighing myself depresses me	.66		
20	My looks help me to get dates		.78	
12	People my own age like my looks		.75	
2	Other people consider me good looking		.74	
5	I think my appearance would help me get a job		.62	
11	I wish I looked like someone else			.73
7	There are lots of things I'd change about my looks			.65
	if I could			
9	I wish I looked better			.63
21	I worry about the way I look			.53
13	My looks upset me			.51
23	I look as nice as I'd like to			.49
	Initial Eigenvalue	5.37	1.85	1.18
	EV%	38.35	13.20	8.42

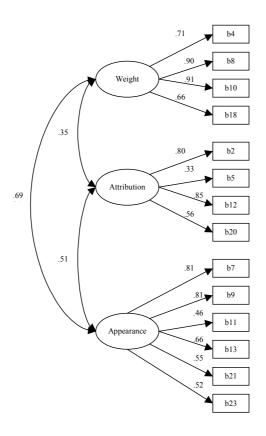


FIGURE 2 14-item BES model.

TABLE 4
14-item Body Esteem Scale: inter-scales correlations and reliability indexes

	Weight	Attribution	Appearance	Item N	M	SD	α
Weight	_			4	10.75	4.95	.87
Attribution	.27*	_		4	7.92	3.34	.74
Appearance	.62*	.37*	_	6	15.56	6.04	.80
Full scale	.83*	.60*	.89*	14	34.00	11.47	.87

^{*} *p* < .001.

The next analysis was carried out to evaluate the degree to which the BES measures were predicted by gender and age. As in Mendelson et al.'s (2001) work, two rules were adopted for accepting a predictor: the F inclusion had to be significant (p < .01), and the squared partial correlation between the predictor and the criterion variable had to be at least .035. Stepwise regression analysis showed that only gender reached inclusion criteria for both Weight ($R^2 = .12$, $\beta = -.34$, t = -8.86, p < .001) and Appearance ($R^2 = .06$, $\beta = -.22$, t = -6.03, p < .001) scales, but not

for Attribution. The comparison between males and females showed significant differences in many items of BES (Table 5). Our data showed that female participants were less satisfied with their Weight and Appearance than males. Instead, no differences were found regarding the Attribution scale. These data show that females are more vulnerable about their body and that the integration of their body changes are harder for them than for males.

TABLE 5 Gender differences in 14-item Body Esteem Scale scores: means, standard deviations, and Student's t

	Item	Female	Male	t
	Weight			
10	I really like what I weigh	1.84 (1.5)	2.66 (1.4)	7.14***
8	I am satisfied with my weight	2.21 (1.5)	2.98 (1.4)	6.49***
4	I am preoccupied with trying to change			
	my body weight a	2.30 (1.5)	3.28 (1.3)	9.22***
18	Weighing myself depresses me ^a	2.88 (1.5)	3.79 (1.0)	9.44***
	Total	9.17 (5.1)	12.61 (4.1)	9.49***
	Attribution			
2	Other people consider me good look-	2.37 (0.9)	2.31 (1.0)	n.s.
	ing			
5	I think my appearance would help me			
	get a job	1.38 (1.2)	1.53 (1.3)	n.s.
12	People my own age like my looks	2.36 (1.0)	2.42 (1.0)	n.s.
20	My looks help me to get dates	1.59 (1.2)	1.90 (1.3)	3.28***
	Total	6.32 (2.6)	6.63 (2.8)	n.s.
	Appearance			
11	I wish I looked like someone else ^a	2.94 (1.3)	3.15 (1.3)	2.06*
7	There are lots of things I'd change			
	about my looks if I could a	2.15 (1.3)	2.73 (1.3)	5.61***
21	I worry about the way I look ^a	1.96 (1.4)	2.76 (1.4)	7.34***
9	I wish I looked better ^a	1.90 (1.4)	2.56 (1.3)	6.48**
13	My looks upset me ^a	3.00 (1.1)	3.50 (1.0)	6.16***
23	I look as nice as I'd like to	2.09 (2.4)	2.54 (1.2)	2.97**
	Total	17.25 (7.1)	20.88 (5.9)	7.14***

a reverse-coded.

BES and Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem scale (RSE, Rosenberg, 1965; Italian version by Prezza et al., 1997) was administered in order to assess the convergent validity of the Body-Esteem Scale. RSE is a measure of self-esteem, with a high score indicating good self-esteem and a low score indicating low self-esteem; we hypothesized that self-esteem would be positively related both to general feelings about appearance and to other's evaluations about own body, but negatively related to weight concerns. The results showed good correlations between self-esteem and the three subscales of Body Esteem Scale (Table 6). Adolescents that had high self-esteem were also more

^{*} *p* < .05, ** *p* < .01, *** *p* < .001.

satisfied with their weight, their appearance and perceived a good external evaluation. High self-esteem seems to be a good protective factor that helps adolescent to better integrate their body changes.

TABLE 6
Correlations between 14-item BES, RSE, and BIS

	BES Weight	BES Attribution	BES Appearance	BES Total
RSE	.30*	.26*	.39*	.41*
BIS — Face	29*	38*	46*	51*
BIS — Figure	64*	33*	58*	72*

^{*} *p* < .001.

BES and Body Image Satisfaction

Body Image Satisfaction (BIS, Rauste von Wright, 1989; Italian version by Alparone et al., 2000) was administered in order to assess the convergent validity of the Body Esteem Scale. BIS measures the level of body satisfaction, with high score indicating low satisfaction and low score indicating high satisfaction: high body satisfaction could be related to a good sense of appearance, attribution, and low weight concern. The results showed good correlations between BIS and Body Esteem Scale (Table 6). Our data have underlined that adolescents that have a good perception of their body and that are satisfied with their weight are more satisfied with their face and figure, as well as having a perception of good external evaluations.

DISCUSSION

The item analysis carried out on the Italian translation of the BES led to items reduction in order to obtain a factorial solution with a good fit to the theoretical model. So the final version has a good face validity.

The 14-item Italian version of the Body Esteem Scale (see Appendix) can then be considered a useful measure to study body perception and weight satisfaction in adolescents. It is easy to administer and psychometrically valid. The EFA confirmed the three subscales: weight satisfaction, attributions of the evaluations about one's body according to others, and general feelings about appearance. This structure was confirmed by the CFA as well. The model also shows that the factors are intercorrelated. The strength of this scale is its capacity to discriminate the differences between feelings about appearance and feelings about attribution and weight satisfaction. BES expands on typical body self-perception by assessing the degree to which individuals attribute positive evaluations of their bodies and appearance to others (Mendelson et al., 2001). As in the Canadian sample, Italian females have lower scores on Appearance and Weight than do males, and age does not account for variance in any of the BES subscales. Finally, there is good evidence for convergent validity: BES correlates with self-esteem, measured by the Rosenberg's test, and with body satisfaction, evaluated by the BIS. Adolescents with high self-



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.

esteem and high level of body satisfaction have high scores for appearance and attribution subscales and low weight concern.

A possible explanation of the different structure of the BES Italian final version compared to the original one may be found in sociocultural issues, such as the influence of the media and society on one's perception of body image (Cusumano & Thompson, 1997; Delaney, O'Keefe, & Skene, 1997).

If we carefully analyze the removed items (because of their loadings on more components), we see that they mainly belong to the Appearance subscale. These items lead the adolescents to reflect about the feelings elicited by their bodies. Italian adolescents seem to have difficulties in evaluating their appearance in a subjective way, considering what others think about their bodies more important.

In conclusion, BES can be considered a good measure to evaluate body satisfaction through the three original subscales (Appearance, Weight, and Attribution) in Italian adolescents as well.

REFERENCES

- Alparone, F. R., Prezza, M., & Camarda, P. (2000). La misura dell'immagine corporea in età evolutiva [Measuring/Measures of body image in the developmental age]. Bollettino di Psicologia Applicata,
- Arim, R. G., Shapka, J. D., & Dahinten, V. S. (2006). The developmental trajectories of psychopathology in adolescence: An investigation of the effects of gender and pubertal timing. Paper presented at the 10th Conference of the European Association for Research on Adolescence (EARA), Antalya, Tur-
- Bearman, S. K., Presnell, K., Martinez, E., & Stice, E. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. Journal of Youth and Adolescence, 35, 229-241.
- Bentler, P. M. (2001). EQS Structural equations program manual. Encino, CA: Multivariate Software, Inc. Cattell, R. B., & Vogelman, S. (1977). A comprehensive trial of the scree KG criteria for determining the numbers of factors. Multivariate Behavioral Research, 12, 289-325.
- Choane, G. H., & Pope, H. G. (2001). Body image in boys: A review of literature. International Journal of Eating Disorders, 29, 373-379.
- Cusumano, D. L., & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. Sex Roles, 37, 701-721.
- Davison, K., Markey, C. N., & Birch, L. L. (2003). A longitudinal examination of patterns in girls' weight concerns and body dissatisfaction from ages 5 to 9 years. International Journal of Eating Disorders, *33*, 320-332.
- Davison, T. E., & McCabe, M. P. (2006). Adolescent body image and psychosocial functioning. The Journal of Social Psychology, 146, 15-30.
- Delaney, M. E., O'Keefe, L. D., & Skene, K. M. L. (1997). Development of a sociocultural measure of young women's experiences with body weight and shape. Journal of Personality Assessment, 69, 63-80.
- Franzoi, S. L., & Shields, S. A. (1984). The Body Esteem Scale: Multidimensional structure and sex differences in a college population. Journal of Personality Assessment, 48, 173-178.
- Furnhman, A., & Calnan, A. (1998). Eating disturbance, self-esteem, reason for exercising and body weight dissatisfaction in adolescent males. *European Eating Disorders Review, 6*, 58-72. Garner, D. M. (1991). *Eating disorder inventory-2: Professional manual.* Odessa, F.L.: Psychological
- Assessment Resources.
- Gila, A., Castro, J., Cesena, J., & Toro, J. (2005). Anorexia nervosa in male adolescents: Body image, eating attitudes, and psychological traits. Journal of Adolescent Health, 36, 221-226.
- Jones, D. C. (2001). Social comparison and body image: Attractiveness comparison to models and peers among adolescent girls and boys. Sex Roles, 45, 645-664.
- McCabe, M. P., & Ricciardelli, L. A. (2001). The structure of the perceived sociocultural influences on body image and body change questionnaire. International Journal of Behavior Medicine, 8, 19-41.
- McCabe, M. P., & Ricciardelli, L. A. (2003). Body image and strategies to lose weight and increase muscles among boys and girls. *Health Psychology*, 22, 39-46.



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D. BES Italian validation

- McCabe, M. P., & Ricciardelli, L. A. (2004). Body image dissatisfaction among males across the lifespan: A review of past literature. Journal of Psychosomatic Research, 54, 675-685.
- McCabe, M. P., & Ricciardelli, L. A. (2005a). A longitudinal study of body image and strategies to lose weight and increase muscles among children. Applied Developmental Psychology, 26, 559-577.
- McCabe, M. P., & Ricciardelli, L. A. (2005b). A prospective study of pressures from parents, peers, and the media on extreme weight change behaviors among adolescent boys and girls. Behaviour Re*search and Therapy, 43,* 653-668.
- Mendelson, B. K., Mendelson, M. J., & Andrews, J. (2000). Self-esteem, body-esteem, and body-mass in late adolescence: Is a competence X importance model needed? Journal of Applied Developmental Psychology, 21, 249-266.
- Mendelson, B. K., Mendelson, M. J., & White, D. R. (2001). Body Esteem Scale for adolescents and adults. Journal of Personality Assessment, 76, 90-106
- Mendelson, B. K., White, D. R., & Balfour, L. (1995). The Body Esteem Scale for adolescents and adults. Montreal, Canada: Unpublished Manuscript. Concordia University.
- Mendelson, B. K., White, D. R., & Mendelson, M. J. (1996). Self-esteem and body-esteem: Effects of sex, age, and weight. Journal of Applied Developmental Psychology, 17, 321-346.
- Neeman, J., & Harter, S. (1986). Manual for the self-perception profile for college students. Denver, CO: University of Denver Press.
- O'Dea, J. (2006). Self-concept, self-esteem and body weight in adolescent females. Journal of Health Psychology, 11, 599-611
- Pope, H. G., Olivardia, R., Gruber, A., & Borowiechi, J. (1999). Evolving ideals of male body image as seen through action toys. International Journal of Eating Disorders, 26, 65-72.
- Prezza, M., Trombaccia, F. R., & Armento, L. (1997). La scala dell'autostima di Rosenberg. Traduzione e validazione italiana [Rosenberg Self-Esteem Scale. Italian translation and validation]. Bollettino di Psicologia Applicata, 223, 35-44.

 Rauste von Wright, M. (1989). Body image satisfaction in adolescent girls and boys: A longitudinal study.
- Journal of Youth and Adolescence, 18(1), 71-83.
- Ricciardelli, L. A., & McCabe, M. P. (2001). Children's eating concerns and eating disturbances: A review
- of literature. *Clinical Psychology Review, 21*, 325-344. Ricciardelli, L. A., & McCabe, M. P. (2003). A longitudinal analysis of the role of biopsychosocial factors in predicting body change strategies among adolescent boys. Sex Roles, 48(7/8), 349-359
- Rosenberg, M. (1965). Society and the adolescence self-image. Princetown: Princetown University Press.
- Shea, M. E., & Pritchard, M. E. (2007). Is self-esteem the primary predictor of disordered eating? *Personality and Individual Differences*, 42, 1527-1537.
- Stice, E., & Whintenton, K. (2002). Risk factors for body dissatisfaction in adolescent girls: A longitudinal investigation. Developmental Psychology, 38, 669-678.
- Thompson, J. K., Corwin, S. J., & Sargent, R. G. (1997). Ideal body size beliefs and weight concerns of fourth-grade children. International Journal of Eating Disorders, 21, 279-284.
- Tucker, L. A. (1981). Internal structure, factor satisfaction and reliability of Body Cathexis Scale. Perceptual and Motor Skills, 53, 891-896.



Confalonieri, E., Gatti, E., Ionio, C., & Traficante, D.
BES Italian validation

APPENDIX BES Italian Version.

Item	Mai [Never]	Raramente [Rarely]	Qualche volta [Sometimes]	Spesso [Often]	Sempre [Always]
2. Gli altri mi considerano di bell'aspetto [Other people consider me good looking]	0	1	2	3	4
4. Sono preoccupato/a rispetto al fatto di cercare di cambiare il mio peso [I am preoccupied with trying to change my body weight]	0	1	2	3	4
5. Penso che il mio aspetto potrebbe aiutarmi a trovare un lavoro [I think my appearance would help me get a job]	0	1	2	3	4
7. Se potessi, cambierei molte cose del mio aspetto [There are lots of things I'd change about my looks if I could]	0	1	2	3	4
8. Sono soddisfatto/a del mio peso [I am satisfied with my weight]	0	1	2	3	4
9. Vorrei avere un aspetto migliore [I wish I looked better]	0	1	2	3	4
10. Mi piace davvero quanto peso [I really like what I weigh]	0	1	2	3	4
11. Vorrei assomigliare a qualcun altro	0	1	2	3	4
[I wish I looked like someone else] 12. Le persone della mia stessa età apprezzano il mio aspetto [People my own age like my looks]	0	1	2	3	4
13. Il mio aspetto mi indispone [My looks upset me]	0	1	2	3	4
18. Pesarmi mi deprime [Weighing myself depresses me]	0	1	2	3	4
20. Il mio aspetto mi aiuta ad avere appuntamenti [My looks help me to get dates]	0	1	2	3	4
21. Mi preoccupo per il mio aspetto [I worry about the way I look]	0	1	2	3	4
23. Mi vedo carino/a proprio come mi piacerebbe essere [I look as nice as I'd like to]	0	1	2	3	4

Note. Three subscales: Appearance $(7^*, 9^*, 11^*, 13^*, 21^*, 23)$; Weight $(4^*, 8, 10, 18^*)$; and Attribution (2, 5, 12, 20). [* negative items, that must be reverse-coded (i.e., 0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0)].