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Manual for the Body-Esteem Scale for Adolescents and Adults

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Research has found high and robust correlations between global self-esteem and self-evaluations of physical appearance across the lifespan (Harter, 1993). As well, self-evaluation of physical appearance, or body esteem, is the only specific domain of self-esteem that has been studied extensively in overweight individuals (see Mendelson, White, & Mendelson, 1996 for a bibliography). As such, it is a construct that merits closer investigation.

Body esteem has typically been treated globally, whether measured by self-report questionnaires (Gray, 1977; Harter, 1985, 1988; Mendelson & White, 1985), open-ended interviews (Allon, 1979), or reactions to body-related words (Secord & Jourard, 1953). Yet there may be "domains" of body esteem (Franzoi & Shields, 1984). As well, feelings about one's weight may be differentiated from feelings about one's general appearance, and the embarrassment caused by social stigma attached to overweight (Allon, 1979) may be independent of other aspects of body esteem. As well, there may be important sex differences in the way individuals evaluate their bodies. Typically, women hold more stringent standards for their bodies than do men, and, if they fail to reach these high standards, their evaluations of their bodies might suffer.

The purpose of this manual is to outline the evolution of the Body-Esteem Scale for Children (1982) into its present form as a scale suitable for adolescents and adults. The original 24-item scale (Mendelson & White, 1982) used a yes/no format to tap children's affective evaluations of their bodies. The background as well as data on the reliability and validity of that scale are outlined elsewhere (see Research Bulletin, 1993-94, Concordia University), and the scale was used in two studies (Mendelson & White, 1982, 1985).

In a subsequent study (Mendelson, White, & Mendelson, 1996), four items were dropped from the original measure and the 20-item scale was administered to a large number of youngsters between 8 and 15 years old, some of whom were tested twice over a 2-year period. A factor analysis with oblique rotation was applied to the data, and a three-factor solution was adopted, although two items were not included because they did not exceed a loading of .5 on any of the factors. The factor analysis suggested that body esteem is comprised of three factors: BE-Appearance (general feelings about appearance), represented by 12 items; BE-Weight (weight satisfaction), represented by 3 items; and BE-Attribution (others' evaluations about one's body and appearance), represented by 3 items (see Research Bulletin, 1993-94, Concordia University, for details).

However, further modifications to the scale were still necessary. The yes/no response format, originally more suitable for children, was changed to a 5-point Likert scale, with respondents asked to express how often they agreed with statements, ranging from "never" to "always." The 5-point scale is more robust than the original dichotomous format and provides data that more fully meet the assumptions of factor analysis. Both the BE-Weight and the BE-Attribution subscales, which had only three items each, were increased to 9 items, in order to increase the validity and reliability of the subscales. The BE-Appearance subscale remained intact at 12 items. Some of the items were re-written to make them age-appropriate for adolescents and adults. Finally, the items on the expanded scale were re-ordered.

The newer, 30-item version of the Body-Esteem Scale for Adolescents and Adults Scale was then given to a large developmental sample, as described below. The Rosenberg Self-

Esteem Scale (Rosenberg, 1965) or the Global Self-Worth subscale of the Self-Perception Profile for College Students (Neeman & Harter, 1986) was also administered to the participants. The factor structure of the Body-Esteem Scale for Adolescents and Adults could be confirmed for adolescents and young adults. We were then able to assess how the different body esteem factors related to global self-esteem as well as to age, sex, and relative weight. In line with previous research, we hypothesized that women would have lower body esteem than men and that relative weight would uniquely affect only weight satisfaction. Although global self-esteem seems to be highly related to unidimensional self-evaluations of physical appearance across the life-span (Harter, 1993), we hypothesized that global self-esteem would be more highly related to general feelings about appearance than to weight satisfaction or to others' evaluations about one's body and appearance.

Method

Participants. The participants were drawn from English-speaking, elementary schools, high schools, colleges and universities in Montreal, Quebec, Canada. The sample included 1,334 participants (761 females; 571 males) between 12 and 25 years old ($M = 16.8$ years).

Procedures. The Body-Esteem Scale for Adolescents and Adults which assesses participants' attitudes and feelings about their bodies and appearance, contained 30 items (e.g., "I like what I look like in pictures"; "I am satisfied with my weight"; "My looks help me get dates"). Respondents indicate their degree of agreement using a 5-point Likert scale from 0 (Never) to 4 (Always). The negatively worded items were reversed scored. In addition, self-esteem was measured with the Self-Esteem Scale (Rosenberg, 1979) in two of the samples and with the Global Self-Worth subscale of the Self-Perception Profile for College Students (Neemann & Harter, 1986) in one of them. The participant's relative weight was taken at the end of the study, but that was not convenient for 107 older adolescents, who, nonetheless, self-reported their height and weight (cf. Stunkard & Albaum, 1981). Body mass index was then computed for each participant as weight (kg) divided by squared height (m^2).

Results

Body Esteem: Factor analysis. A factor analysis with oblique rotation was used to determine if the Body-Esteem Scale for Adolescents and Adults tapped more than one construct.¹ Oblique rotation was used because previous work had shown that aspects of body esteem were intercorrelated (Mendelson et al., 1996). Five items with problematic wording were dropped. The analysis yielded a four-factor solution, but it was rejected because the fourth factor contained only two items. The analysis was recomputed without the seven items and the recomputed analysis yielded the three-factor solution shown in Table 1, which shows the factor loadings ($> .40$) for the retained items.

¹ Of the 1,334 participants, 1,227 provided complete data for the original factor analysis of 30 items. However, data from additional participants could be used, when items were dropped for subsequent analyses. The final factor analysis was applied to the data from 1,240 participants who answered all 23 of the relevant items. The Cronbach alpha's, reported below, were based on varying numbers of participants who answered all the items retained for each factor ($N_{be-appearance} = 1308$; $N_{be-weight} = 1312$; $N_{be-attribution} = 1283$).

Table 1 about here

The first factor, BE-Appearance (general feelings about appearance) consisted of 10 items and accounted for 49.3% of the variance. The mean of the items was computed to form a BE-Appearance score, which had high internal consistency: Cronbach's alpha = .92; item to total rs (1306) = .56 to .79 ($M_r = .71$), $ps < .01$.

The second factor, BE-Weight (weight satisfaction) consisted of eight items and accounted for 10.4% of the variance. The mean of the items was computed to form a BE-Weight score, which had high internal consistency: Cronbach's alpha = .94; item to total rs (1310) = .72 to .85 ($M_r = .78$), $ps < .01$.

The third factor, BE-Attribution (others' evaluations about one's body and appearance) consisted of five items and accounted for 5.9% of the variance. The mean of the items was computed to form a BE-Attribution score, which had high internal consistency: Cronbach's alpha = .81; item to total rs (1281) = .48 to .72 ($M_r = .62$), $ps < .01$.

The final 23-item version of the Body-Esteem Scale for Adolescents and Adults is shown in Appendix 1 (for negatively starred items in Table 1, the scoring is reversed).

Norms. The mean for the appropriate items forms the subscale scores. The response format ranges from 0 (Never) to 4 (Always). The higher the score for a particular subscale, the more positive is the respondent's body esteem on that dimension. Subscale means and standard deviations for males and females combined and at each age are presented in Table 2. Overall, women scored lower than men on each body-esteem subscale, $F_s(1,1332) = 20.68$ to 209.03 , $ps < .001$, which provides construct validation of the scale.

Table 2 about here

Correlations and regressions. Correlations of the three subscales with age, sex, and relative weight are shown in Table 3. The zero-order correlations show that BE-Attribution is significantly correlated with age, sex, and relative weight while BE-Appearance and BE-Weight are significantly correlated only with sex and relative weight.

Table 3 about here

To assess how each body esteem factor may be related to age, sex, and relative weight, each body-esteem subscale was subjected to a separate hierarchical multiple regression. The three main effects (age, sex, and relative weight) were entered as a set into the regression equation first, followed by the three interaction terms (Age x Sex, Age x Relative Weight, and Sex x Relative Weight). The Age x Sex x Relative Weight interaction was entered last. Relative weight inversely predicted the three body-esteem subscales ($ps < .001$), but the part correlation was greater for BE-Weight (-.37) than for BE-Appearance (-.21) or BE-Attribution (-.16).

Follow-up analyses examined the partial correlation of each body-esteem subscale with relative weight, controlling for the other two subscales. The negative partial correlation was significant only for BE-Weight, $r_{\text{partial}}(1332) = -.34, p < .01$; that is, BE-Weight was related to relative weight independent of the other two subscales, but the other subscales were not independently related to relative weight.

Test-retest reliability. The Body-Esteem Scale for Adults and Adolescents was given to a sample of 131 junior college students (84 women and 47 men : $M = 18.6$ years) and 97 of these students (61 women and 36 men) were retested 3 months later. The test-retest correlations were high (BE-Appearance: $r(95) = .89$; BE-Weight: $r(95) = .92$; and BE-Attribution: $r(95) = .83$), which supports the reliability of the measures.

Convergent validity. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) or the Global Self-Worth subscale of the Self-Perception Profile for College Students (Neeman & Harter, 1986) were administered in order to assess the convergent validity of the Body-Esteem Scale for Adolescents and Adults. Both of these measures are general measures of self-esteem, with a high score indicating good self-esteem and a low score indicating low self-esteem.

We hypothesized that global self-esteem would be more highly related to general feelings about appearance than to weight satisfaction or to others' evaluations about one's body and appearance. Partial correlations between each body-esteem subscale with the self-esteem scores on the Self-Esteem Scale (Rosenberg, 1979) or the Global Self-Worth subscale of the Self-Perception Profile for College Students (Neemann & Harter, 1986), partialling out the other body-esteem subscales for males and females are shown in Table 4. At almost every age, for both males and females, BE-Appearance was partially correlated with global self-esteem independent of the other two body-esteem subscales, whereas the same was not true of BE-Weight and BE-Attribution.

Table 4 about here

Discussion

Thus, the 23-item Body-Esteem Scale is an easy-to-administer, psychometrically sound instrument that taps three aspects of body esteem in adolescents and adults: general feelings about appearance, weight satisfaction, and others' evaluations about one's body and appearance. The present study illustrates that the scale is a valid and reliable measure of body esteem. Since it was administered to a wide age range, the scale can be confidently given to children as young as 12 and well into adulthood.

This study also clearly demonstrated the unique relationship between global self-esteem and feelings about appearance, independent of weight satisfaction and others' evaluations of one's body and appearance. Most importantly, the results reinforce the belief that, regardless of actual weight, global self-esteem is uniquely related to positive feelings about appearance.

Harter (1985) has indicated that global self-worth reflects the extent to which one is successful or competent in domains that one considers important. However, self-evaluation of physical appearance may be related to global self-worth whether or not individuals claim that

they value physical appearance (Harter, 1993). Physical appearance may remain a critical aspect of general self-esteem because it is usually evaluated by others before judgments are made about competence in other domains.

References

- Allon, N. (1979). Self-perceptions of the stigma of overweight in relationship to weight losing patterns. *American Journal of Clinical Nutrition*, 32, 470-480.
- 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.
- Gray, H. (1977). Social aspects of body image: Perception of normalcy of weight and affect of college undergraduates. *Perceptual and Motor Skills*, 45, 1035-1040.
- Harter, S. (1985). Manual for the Self-Perception Profile for Children. Denver, CO: University of Denver Press.
- Harter, S. (1988). Manual for the Self-Perception Profile for Adolescents. Denver, CO: University of Denver Press.
- Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87-116). New York: Plenum.
- Mendelson, B. K., & White, D. R. (1982). Relation between body-esteem and self-esteem of obese and normal children. *Perceptual and Motor Skills*, 54, 899-905.
- Mendelson, B. K., & White, D. R. (1985). Development of self-body-esteem in overweight youngsters. *Developmental Psychology*, 21, 90-96.
- Mendelson, B. K., & White, D. R. (1993-94). Manual for the Body-Esteem Scale for Children. Concordia University, Research Bulletin, Vol. XII, No. 02.
- Mendelson, B. K., White, D. R., & Mendelson, M. J. (1996). Self-esteem and body esteem: Effects of gender, age, and weight. *Journal of Applied Developmental Psychology*, 17, 321-347.
- Neeman, J. & Harter, S. (1986). Manual for the Self-Perception Profile for College Students. Unpublished manuscript, University of Denver.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Secord, P. F., & Jourard, S. M. (1953). The appraisal of body-cathexis: Body cathexis and self. *Journal of Consulting Psychology*, 17, 343-347.
- Stunkard, A. J., & Albaum, J. M. (1981). The accuracy of self-reported weights. *American Journal of Clinical Nutrition*, 34, 1593-1599.

Table 1

*Factor Loadings (> .40) for Body-Esteem Items***BE-APPEARANCE:** 10 items (Alpha = .92)

11.	*	I wish I looked like someone else.	.86	
7.	*	There are lots of things I'd change about my looks if I could.		.80
9.	*	I wish I looked better.	.77	
13.	*	My looks upset me.	.76	
17.	*	I feel ashamed of how I look.	.71	
21.	*	I worry about the way I look.	.69	
6.		I like what I see when I look in the mirror.	.51	
23.		I'm looking as nice as I'd like to.	.50	
15.		I'm pretty happy about the way I look.	.50	
1.		I like what I look like in pictures	.42	

BE-WEIGHT: 8 items (Alpha = .94)

8.		I am satisfied with my weight.	.96	
10.		I really like what I weigh.	.92	
16.		I feel I weight the right amount for my height.		.89
19.	*	My weight makes me unhappy.	.77	
4.	*	I am preoccupied with trying to change my body weight.		
.73				
18.	*	Weighing myself depresses me.	.69	
22.		I think I have a good body.	.61	
3.		I'm proud of my body.	.58	

BE-ATTRIBUTION: 5 items (Alpha = .81)

2.		Other people consider me good looking.	.83	
20.		My looks help me to get dates.	.77	
12.		People my own age like my looks.	.74	
5.		I think my appearance would help me get a job.		.64
14.		I'm as nice looking as most people.	.61	

* a negative item that must be reversed scored

Table 2

Means and Standard Deviations) of Body-Esteem Subscales for Males (and Females at each age.

Age	Sex					
	Female			Male		
	Mean	SD	N	Mean	SD	N
(a) BE-Appearance						
12 - 13	2.2	1.0	42	2.9	0.7	48
14	2.1	0.9	85	2.9	0.7	65
15	2.0	1.0	110	2.8	0.9	54
16	2.0	0.8	98	2.9	0.7	95
17	2.1	0.8	92	2.9	0.7	101
18	2.3	0.8	115	2.9	0.7	76
19	2.3	0.9	88	2.6	0.6	49
20 - 25	2.5	0.7	133	2.7	0.7	83
Total	2.2	0.9	763	2.8	0.7	571
(b) BE-Weight						
12 - 13	2.2	1.2	42	3.2	0.8	48
14	2.1	1.2	85	3.1	0.8	65
15	2.0	1.1	110	2.6	0.9	54
16	1.9	1.1	98	3.0	0.8	95
17	1.8	1.1	92	3.0	0.8	101
18	2.1	1.0	115	2.7	0.9	76
19	2.2	1.2	88	2.7	0.9	49
20 - 25	2.3	1.0	133	2.7	0.8	83
Total	2.1	1.1	763	2.9	0.8	571
(c) BE-Attribution						
12 - 13	1.8	0.9	42	2.4	0.8	48
14	1.9	0.8	85	2.1	0.9	65
15	2.0	0.8	110	2.1	1.1	54
16	2.1	0.7	98	2.5	0.8	95
17	2.2	0.8	92	2.4	0.7	101
18	2.2	0.7	115	2.4	0.7	76
19	2.2	0.8	88	2.4	0.7	49
20 - 25	2.5	0.7	133	2.4	0.8	83
Total	2.1	0.8	763	2.3	0.8	571

*Table 3**Correlations of Body-Esteem Subscale with Age, Sex, and Relative Weight*

Subscale	Age		Sex	Relative Weight
BE-Appearance	.03	.37**	-.21**	
BE-Weight	-.03	.37**	-.38**	
BE-Attribution	.15**	.13**	-.15**	

****** $p < .01$

Table 4

Partial Correlations Between Each Body-Esteem Subscale with a Self-Esteem Measure, Controlling for the Other Body Esteem Subscales, for Males and Females

Age	SE ^a	df	BE-App	BE-Wt	BE-Att
(a) Males					
13	RSE	43	.31*	-.04	.09
14	RSE	61	.38**	.09	.04
15	RSE	50	.39**	.05	.06
16	RSE	89	.44**	.11	.06
17	RSE	68	.28*	.35**	.42**
17	SEGLOB	28	.52**	.03	.03
18	SEGLOB	36	.61**	.09	-.05
19	SEGLOB	18	.71**	-.16	-.32
20-25	RSE	50	-.17	.07	-.08
(b) Females					
13	RSE	39	.63**	.36*	-.06
14	RSE	82	.47**	-.04	.30**
15	RSE	105	.54**	-.02	-.01
16	RSE	91	.51**	.23*	-.06
17	RSE	51	.53**	-.00	.11
17	SEGLOB	27	.43*	.18	.08
18	SEGLOB	44	.69**	-.19	.12
19	SEGLOB	23	.76**	.09	-.38
19	RSE	18	-.21	.32	.11
20-25	RSE	94	-.17	-.03	.19

Note: * $p < .05$; ** $p < .01$; partial correlations were negative in some cases, but the zero-order correlations were all positive.

^a SE = Self-esteem measure; RSE = Rosenberg Self-Esteem Scale; SEGLOB = Global Self-Worth Subscale of the Self-Perception Profile for College Students

Appendix 1
Body-Esteem Scale for Adolescents and Adults
Beverley K. Mendelson, Donna R. White, and Morton J. Mendelson

Indicate how often you agree with the following statements ranging from "never" (0) to "always" (4). Circle the appropriate number beside each statement.

		Never	Seldom	Some- times	Often	Always
1.	I like what I look like in pictures.	0	1	2	3	4
2.	Other people consider me good looking.	0	1	2	3	4
3.	I'm proud of my body.	0	1	2	3	4
4.	I am preoccupied with trying to change my body weight.	0	1	2	3	4
5.	I think my appearance would help me get a job.	0	1	2	3	4
6.	I like what I see when I look in the mirror.	0	1	2	3	4
7.	There are lots of things I'd change about my looks if I could.	0	1	2	3	4
8.	I am satisfied with my weight.	0	1	2	3	4
9.	I wish I looked better.	0	1	2	3	4
10.	I really like what I weigh.	0	1	2	3	4
11.	I wish I looked like someone else.	0	1	2	3	4
12.	People my own age like my looks.	0	1	2	3	4
13.	My looks upset me.	0	1	2	3	4
14.	I'm as nice looking as most people.	0	1	2	3	4
15.	I'm pretty happy about the way I look.	0	1	2	3	4
16.	I feel I weigh the right amount for my height.	0	1	2	3	4
17.	I feel ashamed of how I look.	0	1	2	3	4
18.	Weighing myself depresses me.	0	1	2	3	4
19.	My weight makes me unhappy	0	1	2	3	4
20.	My looks help me to get dates.	0	1	2	3	4
21.	I worry about the way I look.	0	1	2	3	4
22.	I think I have a good body.	0	1	2	3	4
23.	I'm looking as nice as I'd like to.	0	1	2	3	4

Three subscales: BE-Appearance (1, 6, 7*, 9*, 11*, 13*, 15, 17*, 21*, 23); BE-Weight (3, 4*, 8, 10, 16, 18*, 19*, 22); and BE-Attribution (2, 5, 12, 14, 20). [* negative items, which must be recoded for scoring by reversing the scale (i.e., 0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0).]

Address correspondence, including requests for a copy of the manual for the Body-Esteem Scale for Adolescents and Adults, to Dr. Beverley K. Mendelson at <bev@ego.psych.mcgill.ca>.