Factor Structure and Validity of the Body Parts Satisfaction Scale:

Results from the 1972 Psychology Today Survey

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Abstract

In 1972, the first major national study on body image was conducted under the auspices of Psychology Today. Body image was assessed with the Body Parts Satisfaction Scale, which examined the dissatisfaction people experienced with 24 aspects of their bodies. Despite the continued use of this scale, data on the validity of this measure have never been published. As the 40th anniversary of the first major national study on body image approaches, we take this opportunity to examine the prevalence and factor structure of body image concerns in 1972. An exploratory factor analysis conducted on 2,013 participants revealed factors that differed slightly for men (Face, Sex Organ, Height, Lower Body, Mid Torso, Upper Torso) compared to women (Face, Sex Organ, Height, Lower Torso, Mid Torso, Extremities, Breast). The factors were highly intercorrelated, suggesting the scale can be analyzed by item, by subscales, or by total score.
Factor Structure and Validity of the *Body Parts Satisfaction Scale*:

**Results from the 1972 *Psychology Today* Survey**

Despite the maxim “beauty is only skin deep,” people make inferences about a person’s personality and treat them differently based simply on their appearance. Men and women who are more physically attractive experience a host of positive social outcomes, including higher salaries, greater likelihood of receiving job offers, more friends, and more positive treatment by teachers and authority figures (Langlois, Kalakanis, Rubenstein, Larson, Hallam, & Smoot, 2000). Popular media images represent a narrow range of body types as being prestigious and physically attractive, and humans naturally aspire to attain traits that will give them greater social prestige. In every culture across the world, people attempt to enhance their appearance in the hopes of gaining greater social status (Etcoff, 1999).

These social benefits to beauty cause many men and women to evaluate whether or not their appearance matches these ideals, to strive to match them, and to feel dissatisfaction and shame when they believe that they have failed to live up to these standards (Cafri, Yamamiya, Brannick, & Thompson, 2005; Fredrickson & Roberts, 1997). This dissatisfaction is associated with social anxiety (Cash, Theriault, & Annis, 2004), depression (Stice, Hayward, Cameron, Killen, & Taylor, 2000), binge eating (Gordon, Holm-Denoma, Troop-Gordon, & Sand, 2012), a compulsive need for excessive exercise (White & Halliwell, 2010), negative impacts on many aspects of one's life (Cash, Jakatdar, & Williams, 2004), desire for cosmetic surgery (Frederick, Lever, & Peplau, 2007), and discomfort with one's sex life (Peplau, Frederick, Yee, Maisel, Lever, & Ghavami, 2010).

Despite the harmful effects of poor body image, surprisingly there have been no nationally representative studies of adults examining the prevalence of body dissatisfaction. There have been, however, several notable attempts to recruit demographically representative samples or large and broad samples (e.g., Asgeirsdottir, Ingolfsdottir, & Sigfusdottir, 2012; Cash & Henry, 1995; Cash, Winstead, &
The first large-scale attempt to assess the epidemiology of body dissatisfaction came in 1972, when Berscheid, Hatfield [Walster], and Bohrnstedt created the 109 item Body Image Satisfaction Scale and published it in the magazine Psychology Today and asked readers to complete the survey and mail it in. The authors then presented a subset of the results in Psychology Today (Berscheid, Hatfield [Walster], & Bohrnstedt, 1973).

Of most interest here are the first 24 items, which directly assessed dissatisfaction with different aspects of one's body, which have been termed the Body Parts Satisfaction Scale. This scale, or subsets of items from this scale, have been used by scholars conducting research on media (Cameron & Ferraro, 2004; Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999), body image (Petrie, Tripp, & Harey, 2002), sexual orientation (Bergeron & Senn, 1998), gender identity (Kimlicka, Cross, & Tamal, 1983), sexual dysfuction (Adersen & Legrand, 1991), and disordered eating (Brown, Cash, & Lewis, 2006; Mintz & Betz, 1988; Siever, 1994; Tripp & Petrie, 2001). Data on the concurrent validity and underlying factor structure of the full measure, however, have never been published. This paper is intended to remedy that omission.

Specifically, here we present the intercorrelations among the items, a factor analysis of the Body Parts Satisfaction Scale, and the internal consistency of the items within each factor. Further, we predicted that if the measure was valid, then higher levels of body dissatisfaction on this measure would be linked to lower levels of self-esteem (Pesa, Syre, & Jones, 2000), more difficulty interacting with the other sex (Davison & McCabe, 2006), and greater body mass (Frederick, Forbes, Grigorian, & Jarcho, 2007; Frederick, Peplau, & Lever, 2006).
Overview of Research Goals

To summarize, the goals of this study were:

Goal 1: Identifying the extent of body dissatisfaction in 1972. We present the percentage of men and women who were dissatisfied with different aspects of their bodies based on their responses to the Body Parts Satisfaction Scale. We also highlight the percentage of people who were substantially dissatisfied with each aspect of their bodies, and comment on the relevance of these findings for modern research on body image.

Goal 2: Identifying the factor structure and intercorrelations among items. We present the intercorrelations among items and the factors that emerge through and exploratory factor analysis, as well as second order factors that may link together the lower order factors. That is, do people who score high on some items tend to score high on other specific items because responses to them are driven by a latent factor, how many of these latent factors can be identified by the responses, and are there additional factors that link together the first set of factors identified?

Goal 3: Examining links between dissatisfaction with whole body and aspects of body. We examine the extent to which concerns with different aspects of the body predict one's feelings about their overall attractiveness. For example, are concerns with the mid torso area (e.g., abdomen) a better predictor of overall feelings of attractiveness than concerns with one's face, and do these associations differ for men and women?

Goal 4: Establishing concurrent validity of the scale. To demonstrate the predictive validity of the measure, we examine whether people who are more dissatisfied with their bodies report greater feelings of inadequacy, less comfort interacting with the other sex, and greater body mass.

Method

Participants
The data was collected using a questionnaire mailed to the readership of *Psychology Today*. More than 60,000 readers completed and mailed in the questionnaire. This large number of participants made it impossible to code and keypunch every questionnaire. Therefore, a sample of 2,013 (1000 men and 1013 women) was drawn on which to base our analyses. In order to approximate the actual distribution of sex and age in the United States, a sample that had been stratified by sex and age was selected. The chosen sample included roughly 50% men and 50% women, and within each sex, 45% of the sample was 24 years of age or younger, 25% was 25-44 years of age, and 31% was 45 years of age or older.

**Procedure**

The participants completed all 109 items on the questionnaire, a subset of which are presented here. The entire survey can be viewed here: (http://www.elainehatfield.com (research articles, #33)).

**Body Parts Satisfaction Scale.** Participants were presented with a list of 24 aspects of their bodies (see Table 1). They expressed their degree of satisfaction or dissatisfaction with each of these aspects using a six-point Likert scale (1 = Extremely Satisfied, 2 = Quite Satisfied, 3 = Somewhat Satisfied, 4 = Somewhat Dissatisfied, 5 = Quite Dissatisfied, 6 = Extremely Dissatisfied). To facilitate interpretation of the data, we created several different versions of this variable, including the percent expressing any dissatisfaction with each aspect of their body (scores of 4-6 for that item; see Tables 1 and 2) and those expressing substantial dissatisfaction (scores of 5-6) for each item (see Table 2). Higher scores on the items indicate greater dissatisfaction.

**Overall Body Dissatisfaction.** Participants rated their satisfaction with their "overall body appearance" on the six-point Likert Scale ranging from Extremely Satisfied to Extremely Dissatisfied mentioned above. Higher scores indicate greater dissatisfaction.

**Body Mass.** Participants reported their height in inches and weight in pounds. Their weight was then divided by their height to create an assessment of body mass. This approach differs from the
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Currently common convention of calculating body mass using the standard BMI formula (weight divided by height squared using metric system values) but provides a similar assessment of body mass. Higher scores indicate greater body masses.

**Feelings of Inadequacy.** Poor self-esteem was assessed with the Janis-Field Feelings of Inadequacy Scale, which measures lack of confidence with oneself in a variety of life domains and (Janis & Field, 1959). The measure included 10 items such as "How often do you feel self-conscious" (1 = Never, 5 = Very Often) and "When you talk in front of a class or group of persons your own age, how apprehensive do you usually feel?" (1 = Not at all apprehensive, 5 = Very Apprehensive). Cronbach's $\alpha$ for this measure were .84 for women and .82 for men. Higher scores on the scale indicate greater feelings of inadequacy.

**Difficulty Relating to Other Sex.** Participants were presented with the item "In general, I find it difficult to relate well to persons of the opposite sex". They recorded their answers on a Likert scale ranging from 1 (Strongly agree) to 6 (Strongly disagree). Higher scores indicate less difficulty interacting with the other sex.

**Results**

**Overview of Results**

Although the original dataset no longer exists, detailed archival records of the analyses conducted were maintained by George Bohrnstedt. Some of the data analytic procedures reported in this manuscript were state of the art at the time of the analyses, but may have been supplanted with more refined methods. For example, confirmatory factor analysis was just being developed at the time of study and was not conducted on the measure. Therefore, only results of an exploratory factor analysis are reported.

Consistent with Goal 1 (*extent of dissatisfaction*), report the percent who experience significant dissatisfaction as well as the overall percent dissatisfied, with the items grouped according to the subscales.
generated by the factor analysis (Table 1). Consistent with Goal 2 (factor structure), we then present the intercorrelations among the items, showing the extent to which people who express dissatisfaction with one aspect of their bodies tend to express dissatisfaction with other aspects of their bodies (Table 2). We present the factor loadings of each item and the correlations among factors for men and women (Table 3), followed by the average level of dissatisfaction across each of the subscales for men and women (Table 4), as well as the overall intercorrelations among scores on these subscales. We then present the results of the second order factor analysis (Table 5).

Consistent with Goal 3 (linking part to whole body dissatisfaction), we then present the correlations between scores on each subscale and reports of overall body dissatisfaction, and well as a regression predicting overall body dissatisfaction (Table 6). Finally, consistent with Goal 4 (establishing concurrent validity), we present the extent to which people who report more body dissatisfaction on each subscale report more feelings of inadequacy and more difficulty interacting with members of the other sex (Table 6).

**Goal 1: Identifying the Extent of Body Dissatisfaction in 1972.**

It is clear that weight was on people's mind in 1972. As shown on Table 1, dissatisfaction with one's abdomen the most common source of dissatisfaction for both women (50%) and men (36%), and dissatisfaction with weight was ranked third for women (48%) and second for men (35%). Overall, traits that can be affected by increasing or decreasing body fat level, such as abdomen, hips, weight, and buttocks, were among the most common sources of dissatisfaction for women and men. The percentage expressing substantial dissatisfaction with those aspects of the body was substantially lower. Only 19% of women and 11% of men reported being substantially dissatisfied with their abdomen, and 21% of women and 10% of men were substantially dissatisfied with their weight.

Dissatisfaction with muscle tone was somewhat common for women (30%) and men (26%).
Concern for sex specific traits was somewhat common for women (26% were dissatisfied with breasts) and not very common for men (15% were dissatisfied with penis size). When it came to facial features, dissatisfaction with teeth was the only aspect of the face that more than 25% of men and women expressed dissatisfaction with. Only 11% of women and 8% of men expressed dissatisfaction with their face overall. Surprisingly, a full 20% of women were dissatisfied with their feet, as were 11% of men.

**Goal 2: Identifying the Factor Structure and Intercorrelations Among Items.**

**The multidimensional factor structure of body image.** A factor analysis was conducted to determine whether underlying factors could account for covariation among the individual body dissatisfaction items. The intercorrelations (Table 2) among the 24 body-image items were factor analyzed using a principal components algorithm with the square of the multiple correlations in the diagonal, followed by an oblimax rotation (Harman, 1967; see Table 3). Only loadings greater than or equal to .35 are tabled. Two points are immediately clear. First, body image is not unidimensional: not one but five interpretable factors emerge. Second, while the loading patterns for men and women are similar, they are not exactly the same.

For both sexes, Factor I appears to be a *face factor*. For both sexes, the item primarily defining the factor is dissatisfaction with overall facial attractiveness. In addition, for women, dissatisfaction with their faces seems most heavily determined by dissatisfaction with complexion, nose, mouth, and eyes. For men, the relevant features appear to be dissatisfaction with mouth, nose, and chin. The most interesting difference between men and women on this factor is the absence of dissatisfaction with complexion for men and its rather prominent inclusion for women.

The items defining Factor II for women are dissatisfaction with shoulders, arms, hands, and feet. The emergence of this factor suggests that women see these body parts in a unitary way. Given the items that define this factor for the women, it has been named the *extremities factor*. No parallel factor for men
was found. Instead, Factor II for men appears to be an *upper torso factor*, defined by dissatisfaction with chest, shoulders, arms, and general muscle tone.

For both sexes, Factor III appears to be a *lower torso factor* for women and a *lower body factor*.

For women dissatisfaction with hips and upper thighs, buttocks, legs, and ankles (in that order) define this factor. For men, dissatisfaction with feet also loads on this factor. Furthermore, the *pattern* of loadings is somewhat different for men. Dissatisfaction with legs and ankles appears to be the most important item for defining this factor, followed by dissatisfaction with hips/thighs, feet, and buttocks (in that order).

Factor IV is a *mid-torso factor* for both sexes. Dissatisfaction with weight and abdomen are the defining items for the women, while the same two items plus dissatisfaction with buttocks defines this item for the men. This last item is the only one that loaded on more than one factor (it also loaded on Factor IV), a fact that suggests the relative *conceptual* independence of the five factors for both sexes.

When scores were constructed to represent the factors, this item was included with the lower-torso factor since it better fits that factor conceptually.

Factor V is a *sex organ factor* for both men and women. The two items defining the factor for both sexes are dissatisfaction with the size of one’s sex organ and dissatisfaction with its appearance.

Some body parts often believed to be important to body dissatisfaction did not load significantly on any of the factors. For example, for both sexes, dissatisfaction with *height* is relatively independent of any factors. Similarly, for women, dissatisfaction with *breasts* is relatively independent of dissatisfaction with other body parts. This examination of the structure of body dissatisfaction suggests that these are best conceptualized of as specific single-item rather than multiple-item common factors (Harman, 1967).

Therefore when scores to represent the factors are built, these two items are treated as single-item scores.

**Constructing subscales.** To summarize, body dissatisfaction is clearly multidimensional and the items appear linked in ways that make conceptual sense. The factors were substantially correlated with
each other, however, with the average intercorrelation among factors being .31 for women and .38 for men (Table 3). The items for each factor identified above were averaged to create subscale scores. The items composing the various scores are shown in Table 4. In addition to these scores, a separate, one-item score representing dissatisfaction with height and a one-item score for dissatisfaction with breasts (women only) were also used.

Each score was constructed by summing the items and dividing by the total number of items in it in order to standardize the range of the scores. The means, standard deviations, in intercorrelations among the subscores are shown in Table 4. The items are scored so that the higher the score, the greater the dissatisfaction (Range = 1 to 6). While the actual sizes of the correlations are slightly different than those in Table 2 (since the subscores are factor-based, rather than actual factor scores), the pattern of relationships is virtually identical. The reliabilities of the subscores were estimated using Cronbach's \( \alpha \) and are included in the main diagonal of Table 4. All are reasonable in size (ranging from .66 to .82 for women, and .74 to .84 for men).

**Second order factor analysis: Building a single body image score.** The high intercorrelations among the scores suggested that it might be fruitful to do a second-order factor analysis (Schmid & Leiman, 1957), where the intercorrelations among the factors were factor analyzed. If a single, second-order factor emerged, that finding would indicate the plausibility of building a single, overall *Body Image and Satisfaction-24* score as well as a set of subscores.

The results of the second-order factor analysis are shown in Table 4. For men, a single factor emerged that reflected the substantial intercorrelation among the various subscores. For the women, a strong first factor emerged together with a second weaker one. However, since (1) both subscores loaded *higher* on Factor I as well, and (2) the first factor accounted for 70% of the common variance in the correlation matrix, building a single, overall body–image score for women as well as men seemed
warranted. The internal consistency reliability estimates of the total score are .86 and .89 for women and men, respectively. It is not meant to imply that the subscores can now be discarded. However, when an overall score is desired, the findings indicate that its construction is justified.

**Goal 3: Examining Links between Dissatisfaction with Whole Body and Aspects of Body.**

To examine criterion-related validity, the subscores were correlated with an item that asked the respondent to rate dissatisfaction with *overall* body appearance on a six-point scale ranging from extremely satisfied to extremely dissatisfied. The correlation with this item of the total body dissatisfaction score is .78 for both sexes (all *p* < .001). In addition, the correlations of each subscore with the item were computed (see Table 6). They range in size from *r* = .24 to .68, thus providing evidence for the validity of the subscores as well (see Table 5).

For women, dissatisfaction with their mid-torso area, followed by their dissatisfaction with lower-torso area, were most predictive of their ratings of overall body dissatisfaction. This interpretation is supported by the *beta* coefficients produced when dissatisfaction with overall body appearance is regressed on the seven subscores from the *Body Parts Satisfaction Scale* (Table 6). Dissatisfaction with the mid-torso area is clearly the most important determinant followed by dissatisfaction with the face and extremities. Although statistically significant, dissatisfaction with breasts, height, and sex organs were less predictive.

For men, the aspects of the body that were most predictive of overall body dissatisfaction differed from the aspects that were most predictive for women. Dissatisfaction with the mid- and upper-torso areas appears the prime determinant of dissatisfaction with men's overall body attractiveness, as both the zero-order correlations and the *beta* weights in Table 6 indicate. While dissatisfaction with the lower torso and body, face, and height made statistically significant contributions to the variance explained, they were considerably lower in strength.
Goal 4: Establishing the Concurrent Validity of the Scale.

To examine the construct validity of the Body Parts Satisfaction Scale, we examined whether people who scored higher on the subscales and overall scale score reported greater feelings of inadequacy, less comfort interacting with the other sex, and higher body masses.

Feelings of inadequacy. People who were more dissatisfied with their bodies, across all measures, reported greater feelings of inadequacy (all \( p < .001 \); Table 6), with the correlations ranging from \( r = .16 \) to \( r = .43 \). The pattern of results suggests that dissatisfaction with mid-torso, lower-torso, facial, and extremity areas were most highly related to feelings of inadequacy for women. Dissatisfaction with one’s breasts and height appear to be less important. For men, dissatisfaction with the facial, upper-torso, and lower-torso areas along with dissatisfaction with their penises appear to be most highly related to self-esteem. Of less importance was dissatisfaction with height and the mid-torso area. The correlations between the total body dissatisfaction score and feelings of inadequacy were \( r = .45 \) and \( r = .44 \) for the women and men respectively, suggesting that the overall total dissatisfaction score has concurrent and construct validity.

Cross-sex interactions. Construct validity was also examined by correlating the scores with responses to the item dealing with degree of discomfort in cross-sex interactions (Table 6). For women, the correlations range from \( r = -.13 \) to \( r = -.24 \); for men, from \( r = -.12 \) to \( r = -.27 \), with all \( p < .001 \). While not large, these correlations do suggest, as hypothesized, that dissatisfaction with one’s body is related to the less comfort interacting with the opposite sex. It is interesting that the pattern of correlations observed is nearly the same as the patterns of correlations between the scores and self-esteem. For the women, dissatisfaction with the face, extremities, lower-torso, mid-torso, and sex organs is most highly correlated with difficulty in cross-sex interactions. For men, the most important variables appear to be dissatisfaction with the face, upper-torso, lower-torso, and sex organs. The correlations of \( r = -.21 \) and \( r = -.28 \) between
the total score and difficulty in interacting with the opposite sex is evidence of the construct validity of this measure as well.

**Body mass.** Additional evidence for validity of this construct is provided by correlating body mass with the body dissatisfaction subscores and totals (Table 6). Among women, participants with greater body masses were more likely to be dissatisfied with their mid-torsos \((r = .55, p < .001)\), extremities \((r = .23, p < .001)\), and lower-torsos \((r = .33, p < .001)\). Body mass was uncorrelated with dissatisfaction with the face, sex organs, and height. Women with lower body masses were slightly more dissatisfied with their breasts. This relation, however, was a weak one \((r = -.09, p < .001)\). Unfortunately, the correlation between the total body dissatisfaction and body mass was not computed at the time these analyses were conducted and therefore is not reported in Table 6 for either sex.

Among men, participants with greater body masses were more likely to be dissatisfied with their mid-torsos \((r = .38, p < .001)\) but not their upper-torso area \((r = -.15, p < .001)\). Body mass was not significantly correlated with dissatisfaction with lower-torsos, face, or height. A small significant correlation was found between body mass and dissatisfaction with one’s sex organs \((r = .07, p < .05)\), although the correlation is so small as to call into question its substantive importance.

**Discussion**

**Goal 1: Identifying the Extent of Body Dissatisfaction in 1972.**

It is clear that in 1972, many men and women were dissatisfied with aspects of their appearance, particularly aspects of their appearance that change notably as one gains weight. Consistent with much other research, women were more likely to be dissatisfied than men, but many men were also dissatisfied. The number of people who were significantly dissatisfied, however, was relatively low. A total of 23% of the women, and 15% of the men, indicated any dissatisfaction with overall body appearance, and 50% of women and 35% of men reported some dissatisfaction with their weight. It is unclear how this compares
to current levels of dissatisfaction. For example, in a sample of 52,677 heterosexual adults, 21% of women and 11% of men rated their overall body as unattractive, and 63% of women and 52% of men reported being to some degree self-conscious about their weight (Frederick, Peplau, & Lever, 2006). These numbers are not directly comparable to the 1972 results, however, because the wording of the questions and sample recruitment methods differ, and the population of the United States has increased in body mass across the past 40 years.

Consistent with the prestige attached to muscularity and muscle tone (e.g., Frederick, Fessler, & Haselton, 2005), dissatisfaction with muscle tone was relatively common for both men and women, which is consistent with modern research (McCreary & Sasse, 2000). For men, this is likely in part because men perceive that muscularity will make them more intimidating and attractive to women (Frederick et al., 2007) and because women prefer somewhat muscular men, especially in short-term affairs (Frederick & Haselton, 2007)

The face, like the body, can contain cues to one's underlying health and attributes (Gallup & Frederick, 2010; Little, Jones, & Debruine, 2011), so it is not surprising that many people attend to facial appearance when choosing a mate. Most participants were satisfied with aspects of their face, but dissatisfaction with teeth and complexion were most common. Preferences for the color and shape of eyes, ears, chins, and so on may be relatively free to vary, but crooked, yellow, or rotting teeth are commonly viewed as unattractive (Hendrie & Brewer, 2012), as are blotches and pimples.

Given the link between breast size with femininity and penis size with masculinity, the relatively low degree of dissatisfaction with these aspects of the body parts is somewhat surprising. If the sample can be considered representative, these findings suggest that the popular press and the psychiatric literature of the 1970s had overemphasized the importance of these body parts for American men and women. These findings for women contrast with those of Forbes and Frederick (2008), who found that
61% of college women desired larger breasts whereas only 14% desired smaller breasts, and that 25% were often to always dissatisfied with their breast size. Similarly, 70% of women in a broad sample of adults indicated some degree of dissatisfaction with their current breast size or droopiness (Frederick, Peplau, & Lever, 2008). It is possible that more similar results would have been found had the 1972 study asked about self-ideal discrepancies in size and shape of breasts instead of asking only about satisfaction with breasts.

Similarly, the findings for men contrast with those of Lever, Frederick, & Peplau (2006), who found that 45% of adult men desired a larger penis (and 0.2% desired a smaller penis), and those of Tiggemann, Martins, and Churchett (2008), who found that 68% of adult men desired a larger penis (and 1.6% desired a smaller penis). In contrast, however, Morisson, Bearden, Ellis, and Harriman (2005) asked about degree of dissatisfaction rather than desire for larger or smaller penis, and found that only 29% of men were dissatisfied with the length of their non-erect penis, 5% with the length of their erect penis, 6% with the circumference of their erect penis, and 25% with the circumference of their non-erect penis. Few studies have been conducted on this topic, however, which is likely due in part to the potential stigma associated with conducting research on genitalia and sexuality more generally.

The findings highlight two additional aspects of the body that are rarely studied in the field of body image: height and feet. First, 13% of men and women were dissatisfied with their height. The low level of dissatisfaction is surprising. Taller men and earn higher salaries (Judge & Cable, 2004) and are perceived as more dominant (Boyson, Pryor, & Butler, 1999). Many people attend to height when selecting a partner, with people preferring a relationship in which the man is taller than the woman, although men are somewhat more willing to violate this male-taller norm (Salska, Frederick, Pawlowski, Laird, & Rudd, 2008). Jacobi and Cash (1994) found that men and women want to be a little over an inch taller on average. Lever, Frederick, Laird, and Sadeghi-Azar (2007) found that dissatisfaction with height
depended strongly on one's height, with shorter than average men and women expressing the most dissatisfaction. Finally, a surprisingly large number of women expressed dissatisfaction with their feet (20%), and aspect of the body for which there is little research. Fessler et al. (2012) found consistent evidence across seven studies that smaller feet in women are rated more attractive, which may partly explain the dissatisfaction identified here.

**Goal 2: Identifying the Factor Structure and Intercorrelations Among Items**

The factor analysis revealed factors that roughly translated into the following categories for men: face, upper torso, lower body, midtorso, sex organ, and height. The factors were similar for women: face, extremities, lower torso, mid torso, sex organ, breast, and height. These factors suggest that concerns with one's body can be separated by different aspects of one's appearance. These factors are, however, fairly highly intercorrelated, and a second order factor analysis suggests it may be defensible to create an overall body dissatisfaction score from the items on the Body Parts Satisfaction Scale.

**Goal 3: Examining Links between Dissatisfaction with Whole Body and Aspects of Body.**

Some aspects of appearance were more predictive of overall body dissatisfaction than others. Dissatisfaction with the mid-torso was a particularly strong predictor or women \( (r = .68) \), followed by the lower torso \( (r = .59) \), extremities \( (r = .50) \), and face \( (r = .41) \). The biggest contributors to body dissatisfaction for men went up and down the entire torso, including upper torso \( (r = .61) \), midtorso \( (r = .60) \), and lower body \( (r = .54) \), with sex organs not far behind \( (r = .47) \). Many of these aspects are heavily influenced by body fat levels and degree of muscle tone, suggesting the primacy of these concerns when people evaluate their overall attractiveness, in conjunction with how they feel about their faces.

**Goal 4: Establishing the Concurrent Validity of the Scale**

The results supported the validity of the scale. People who reported higher levels of body
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dissatisfaction on the Body Parts Satisfaction Scale tended to report greater feelings of dissatisfaction on a single item measure of dissatisfaction with appearance, higher body masses, greater feelings of inadequacy, and less comfort interacting with members of the other sex.

**Limitations**

While the readership was national in scope, it differed in several respects from a 1970s national probability sample of adults. The readership was somewhat younger and better educated than was the general population, and the sample overrepresented students and underrepresented minority groups.

Despite its limitations, however, the sample was much broader than other samples drawn to examine body image at the time, which were primarily limited to college students (e.g., Berscheid, Dion, Hatfield & Walster, 1971).

An additional limitation is the inability to further access the dataset for further statistical analyses, such as confirmatory statistical analysis. For example, the linear relationship between body mass and body dissatisfaction was assessed, but it is known that there is a strong curvilinear relationship between body mass and body dissatisfaction for men: skinny men tend to feel dissatisfied because they lack the powerful body build that is idealized, fat men tend to feel dissatisfied because body fat is stigmatized, and men in the normal and overweight categories tend to be most satisfied because they have a more powerful appearing body type (Frederick, Forbes, Grigorian, & Jarcho, 2007; Frederick, Peplau, & Lever, 2006).

**Conclusion**

This study provides the first systematic investigation of the factor structure and validity of the Body Parts Satisfaction Scale in a large population of adults. The convergent and predictive validity of the scale suggests that it is useful for investigating body image dissatisfaction concerns across multiple aspects of the body, and that it useful to examine dissatisfaction with specific parts of the body via the individual items, general body areas through subscales identified, and through overall body dissatisfaction.
This study provides a look into the body image concerns and their underlying structure forty years ago. Given that there has never been a nationally representative study of body image concerns, an examination of the prevalence and structure of body image concerns in the population would be a valuable next step for the field.
References


