

A Correlational Study of Body Image and  
Perceived Parental Nurturance in College Females

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Whether addressed in schools, with families, or in a counseling session, the psychological concept of self-esteem appears quite common in the world today. Due to its importance in society, the study of self-esteem (its antecedents and its components) has merit. Through the empirical study of self-esteem, potential exists for acquiring significant and important knowledge regarding its components, qualities, and relationships. However, due to ethical concerns, the most feasible method of study in this area is correlational analysis. Through the processes of replication and repetition, people may begin to understand the complexities of self-esteem with more clarity.

Regarding the antecedents and components of self-esteem, past research suggests strong positive correlations between self-esteem and interpersonal relationships (Sears, 1970; Thomas & Sanandaraj, 1985). A study conducted by Sears (1970) indicated positive correlations between self-esteem and the following variables: (a) high reading and math achievement; (b) small family size; (c) early ordinal position in the family; and (d) high parental warmth (Sears, 1970). For boys, results also indicated a positive correlation between low father dominance in the marital relationship and self-esteem. High femininity was negatively correlated with self-esteem in both sexes. Therefore, not only was the hypothesis regarding parental warmth and child self-esteem supported, but several other variables also emerged as potential correlates of self-esteem.

Another study regarding the antecedents of self-esteem also suggests several familial correlates of self-esteem (Thomas & Sanandaraj, 1985). Through factor analysis, the researchers analyzed data from 624 secondary school students in India who were selected through stratified random sampling. Results indicated three primary factors of self-esteem which the authors labeled family harmony, physical facilities, and parenting practices. While no causal inferences can be drawn regarding this analysis, this study suggests that parental relationships comprise two

of the three factors associated with children's self-esteem.

To further examine the relationship between self-esteem and parental relationships, one might consider research conducted on perceived parental relationships and self-esteem (Gecas, 1971; Gecas & Schwalbe, 1986; Graybill, 1978). Rather than correlating a child's self-esteem with actual parental behaviors, these studies focused on parental behavior as perceived by the children. Gecas (1971) describes the reasoning behind this approach as stemming from theories of socialization in which individuals internalize the ideas and attitudes of significant people in their lives. This internalization then theoretically leads the individual to view him/herself as others perceivably do. The results of Gecas' (1971) study suggest a positive relationship between parental support and adolescent self-evaluation.

A study by Gecas and Schwalbe (1986) further analyzes perceived parental relations as components of self-esteem. In this study, 128 families (mother, father and adolescent) completed questionnaires regarding parent-child relationships and child self-esteem. Results indicated a low correlation between the parent-child relationship ratings that parents and children gave.

Furthermore, while both of these ratings correlated positively with self-esteem, children's ratings correlated more than parents' ratings with the construct. These findings suggest that a child's perception of parental behavior/attitudes may play a larger role in the development of his/her self-esteem than the actual behavior of the parents.

An earlier study conducted by Graybill (1978) also supported the theory of using the child's perspective to examine the relationship between self-esteem and parental behaviors. Fifty-two children, ages seven to 15, rated their mothers' behaviors and completed a self-esteem questionnaire. Results suggested that children who viewed their mothers as "nurturing" (or warm, loving, and supportive) had high self-esteem, while children who viewed their mothers as

“using psychological pressure to discipline” had low self-esteem (Graybill, 1978).

To examine the relationship between parental nurturance and self-concept, the researchers administered the Parental Nurturance Scale (PNS) in a mother version and a father version, along with a self-concept scale to 33 college students (Buri, Misukanis, & Mueller, 1987). One should note that the mother and father versions of the PNS are identical in content, varying only on gender references as appropriate. Results indicated a positive correlation between self-esteem and both maternal ( $r = .512$ ) and paternal ( $r = .526$ ) nurturance. The strength of these relationships is further evident in the fact that 37% of the variance in self-esteem was associated with parental nurturance.

The PNS, due to high reliability and substantial correlation with self-esteem, appears an appropriate measure in testing self-esteem correlates. Several other studies retested and confirmed the positive correlation between self-esteem and the PNS (Buri, 1989; Buri, Kirchner, & Walsh, 1987; Buri, Murphy, Richtsmeier, & Komar, 1992). Therefore, it appears that perceived parental nurturance (as measured by the PNS) is a significant component and potential antecedent of self-esteem.

Due to the complexity and broad nature of self-esteem, it may be beneficial to further break down the concept and examine correlations between parental nurturance and the subcategories of self-esteem. A study by Hopkins and Klein (1993) examined the different self-perception linkages to parental nurturance, as well as gender differences in these areas. One subcategory of self-perception found in post hoc analysis to correlate positively with father's nurturance was women's self-perception of appearance, or their appearance-based self-esteem. This finding suggests the importance of father nurturance in the development of daughter self-perception of appearance.

Appearance-based self-esteem can, in itself, be further broken down into various components. It is reasonable to assume that one such component of appearance is body image, or the self-perception of one's own body. Given that the perceived appearance of one's body plays a role in appearance-based self-esteem, as well as the results of the post hoc analysis of Hopkins and Klein (1993), it is logical that body image (or body-esteem) should correlate positively with perceived parental nurturance.

As a component of self-esteem, body image has also become a commonly discussed and important aspect of society. A longitudinal study on the body images of teenagers in 1966 reveals the deep roots of body dissatisfaction present in American culture (Huenemann, Shapiro, Hampton, & Mitchell, 1966). By interviewing and surveying 1000 teenagers over a period of four years, the researchers found a prevalence of distorted body images. Because of this, a potential need exists for determining correlates of body image, which may lead to knowledge regarding prevention or treatment of this societal issue.

Given the apparent relationship between self-esteem and perceived parental nurturance, as well as the importance of body image as a subcategory of self-esteem, the need to study correlations between body image and parental nurturance becomes apparent. Research has clearly suggested a positive correlation between perceived parental nurturance and self-esteem (Buri, 1989; Buri, Kirchner, et al., 1987; Buri, Misukanis, et al., 1987; Buri, et al., 1992). Furthermore, in breaking down self-esteem into different subgroups, research indicated a positive correlation between perceived parental nurturance and women's self-perception of appearance (Hopkins & Klein, 1993). Since body image is part of appearance perception, the logical deduction is that body image will also correlate positively with perceived parental nurturance.

Using the PNS and BSQ as measures of the given constructs, the researcher predicted a positive correlation between perceived parental nurturance and body image concern in college females. In other words, she predicted that people with low body image would also perceive low parental nurturance, whereas people with high body image would perceive high parental nurturance. Since this is a correlational study; however, it is important to note that no causal relationships may be inferred. Rather, the study's purpose is to further explore the relationship between perceived parental nurturance and body image among female college students.

## Method

### *Participants*

Fifty-two female undergraduate students at a small, Midwestern, Christian liberal arts college volunteered (without compensation) to participate in the study. According to self-reported demographic information, all participants were Caucasian and ranged in age from 18 to 22 ( $M = 19.21$ ). The researcher discounted five incomplete surveys, thus reducing the sample size to 47. Given that participation was voluntary and the sample was not representative, results of the study cannot generalize to any population of college females.

### *Instruments*

The researcher utilized two separate surveys in measuring the variables of perceived parental nurturance and body image concern. Both paper and pencil measures required self-report.

#### *Measuring Perceived Parental Nurturance.*

To measure the construct of perceived parental nurturance (parental approval, acceptance, and affirmation of a child), the researcher utilized the Parental Nurturance Scale (PNS; Buri, Misukanis, et al., 1987). To separate maternal and paternal nurturance, two forms of the scale

exist (a mother version and father version), differing only on appropriate gender references. Researchers normed the scale on 128 Caucasian undergraduate students (61 females, 67 males) at a large liberal arts college in the Midwestern United States (Buri, et al., 1987). The PNS has high internal consistency, with alphas of .95 for mothers and .93 for fathers. Temporal stability for the scale is also quite high, with a two-week test-retest coefficient of .92 for mothers and .94 for fathers. This high reliability combined with good concurrent validity and widespread utilization suggests the usefulness of the PNS as a measurement of perceived parental nurturance.

The 24-item PNS (Buri, Misukanis, et al., 1987) attempts to measure the aforementioned construct through a self-report Likert-scale, designed to address children's perceptions of parental nurturance. For each of the 24 items, the participant responds with a number from the 5-point Likert-scale (1-Strongly disagree; 2-Disagree; 3-Neither agree nor disagree; 4-Agree; 5-Strongly agree). Sample items include the following statements: (a) My mother seldom says nice things about me; (b) I am an important person in my mother's eyes; (c) My mother often acts as if she doesn't care about me; (d) My mother enjoys spending time with me (Buri, Misukanis, et al. 1987). As noted earlier, the mother and father versions are identical except for gender references. Scoring of the PNS includes summing up individual responses for a total score, with items 1, 3, 7, 8, 11, 13, 14, 16, 18, 19, 21, and 24 reverse-scored (5 = 1, 4 = 2, etc.). Possible scores on the PNS may range from 24 to 120, with higher scores indicating more perceived (or better) parental nurturance. No norm scores exist for the measure.

#### *Measuring body image.*

To measure the construct of body image concern among females, the researcher utilized the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987). Researchers

developed the BSQ from open-ended interviews with different females regarding body image concern. After compiling and categorizing the responses into 34 items, researchers tested the validity of the scale, finding it to have concurrent validity with other measures of body image concern and known-groups validity in yielding appropriately different scores for eating disorder patients ( $M = 136.9$ ,  $SD = 22.5$ ) and non-patients ( $M = 81.5$ ,  $SD = 28.4$ ). A later examination of the reliability and validity of the BSQ also indicated concurrent validity as well as a high 3-week test-retest reliability of .88 (Rosen, Jones, Ramirez, & Waxman, 1995).

The 34-item BSQ (Cooper, et al., 1987) measures body image concern through a 6-point Likert-scale. For each of the 34 statements, participants respond with the number that reflects their feelings or experiences over the past four weeks (1-Never, 2-Rarely, 3-Sometimes, 4-Often, 5-Very Often, 6-Always). Sample items include the following questions: (a) Has feeling bored made you brood about your shape? (b) Have you been so worried about your shape that you have been feeling that you ought to diet? (c) Have you thought that your thighs, hips, or bottom are too large for the rest of you? (Cooper, et al., 1987). To score the BSQ, one must sum up the individual responses, thus yielding a possible score between 34 and 204. Higher scores indicate higher concerns about body shape, or poorer body image.

#### *Procedure*

The researcher conducted the study on five separate occasions. After addressing and collecting the signed informed consent forms, the researcher distributed the three surveys (BSQ, mother's PNS, father's PNS) to the volunteers who noted that their mothers and fathers were both influential in their lives. The researcher attempted to control for response bias by encouraging participants to respond truthfully and accurately to all items, and reminding them of the anonymity and confidentiality of their responses. Participants had as much time as needed to

complete the surveys, which was approximately 15 minutes. When all surveys were complete, the researcher collected them, then debriefed and thanked the volunteers for their participation.

### Results

After tallying the scores on each of the surveys, the researcher analyzed the descriptive statistics and correlations in the data to test the hypothesis that perceived parental nurturance and body image are positively correlated. Scores on the BSQ ranged from 42-148 ( $M = 84.6$ ,  $SD = 29.02$ ) out of the possible range of 34-204. For the mother's and father's PNS, scores ranged from 81-120 ( $M = 109.4$ ,  $SD = 10.42$ ) and 59-120 ( $M = 100.53$ ,  $SD = 15.21$ ), respectively, out of a total possible range of 24-120 for the measure. Using the Pearson Product Moment correlation coefficient, the researcher found correlations between the BSQ and the mother's and father's PNS ( $r = .08$ , and  $r = -.09$ , respectively) to be insignificant at the  $p = .05$  level. The only significant correlation ( $r = .47$ ) existed between the mother's and father's PNS scores ( $p = .00$ ).

To further analyze the relationship between perceived parental nurturance and body image in a post hoc analysis, the researcher split the participants into two groups – at risk and not at risk – based on BSQ scores. Given that Cooper, et al. (1987) found that  $M = 136.9$  ( $SD = 22.5$ ) for bulimic patients, the researcher grouped all scores within approximately one standard deviation below this mean and above together as “at risk” ( $n = 9$ ), and those below one standard deviation of the mean as “not at risk” ( $n = 38$ ). Scores on the BSQ for the at risk group ranged from 116-148 ( $M = 129.89$ ,  $SD = 12.66$ ), while not at risk scores ranged from 42 to 113 ( $M = 73.87$ ,  $SD = 19.87$ ). The Pearson correlation coefficient revealed a significant ( $p = .04$ ) negative correlation of  $-.629$  between the BSQ and Mother's PNS for the at risk group. A significant positive correlation ( $r = .56$ ,  $p = .00$ ) existed between the two forms of the PNS only for the not at risk group, as these two forms did not correlate for the at risk group.

## Discussion

The purpose of this study was to examine the relationship between perceived parental nurturance and body image as defined by the PNS (Buri, Misukanis, et al., 1987) and BSQ (Cooper, et al., 1987), respectively. The researcher predicted a positive correlation between the two variables of perceived parental nurturance and body image, based on previous research (Buri, 1989; Buri, Kirchner, et al., 1987; Buri, Misukanis, et al., 1987; Buri, et al., 1992; Hopkins & Klein, 1993). Given the positive correlation between perceived parental nurturance and appearance-perception (Hopkins & Klein, 1993), a similar relationship should exist between perceived parental nurturance and body image, provided that body image is a component of appearance-perception.

Results of the descriptive statistics and correlations yielded fails to support the hypothesis, as the correlations were insignificant (Mother's PNS  $r = .08$ , Father's PNS  $r = -.09$ ) at the  $p = .05$  level. This suggests that no significant relationship exists between perceived parental nurturance and body image for the sample tested in this study.

Although the small  $n$  (9) of "at risk" participants analyzed in the post hoc analysis limits the validity of the correlation, one may note the significant negative correlation ( $r = -.63$ ,  $p = .04$ ) between the BSQ and Mother's PNS scores for this group. Because high scores on the BSQ indicate poor body image, whereas high PNS scores indicate high parental nurturance, this negative correlation suggests a positive relationship between perceived parental nurturance and body image. However, this small  $n$  post hoc analysis remains insufficient to support the hypothesis, but does suggest the need for further research.

The assumption that body image is a component of self-perception of appearance may have influenced the results of this study. Most importantly, no empirical support exists for this

assumption. Furthermore, as this marked the first time perceived parental nurturance and body image were linked in a study, the results neither support nor contradict prior research. To better examine the relationship between the variables, future research should include a measure of self-perception of appearance and self-esteem. Including such measures may enable the researcher to examine the correlations between perceived parental nurturance, appearance-perception, self-esteem, and body image. This control would test the assumption that body image is a component of appearance-perception (and self-esteem), as the two should exhibit a positive correlation.

Examining the ranges and mean scores of the students on the BSQ and PNS also suggests a potential confound in the results of the study. While the range of possible scores for the BSQ is 34-204, the range for this sample is much narrower at 42-148. Only nine of the 47 scored within one standard deviation of the mean score for bulimic patients. Furthermore, regarding the PNS, participants' scores ranged from 81-120 ( $M = 109.4$ ) and 59-120 ( $M = 100.53$ ) for the Mother's and Father's scales, respectively, out of a possible range of 24-120. This suggests a possible ceiling effect, which may have confounded the results. The fact that students in the sample scored so high on both of these measures also suggests the sample in itself may have been exceptionally "healthy" regarding the variables. Factors such as participating in sports or having strong religious beliefs may have influenced the results.

To avoid the potential confounds that may have biased the results of this study, future research could make several adjustments. Besides including a measure of appearance-perception, researchers may also increase sample size, randomly select participants, and attempt to control for social desirability to reduce random error. Due to the positive relationship suggested in the post hoc analysis regarding body image and mother's nurturance among the nine "at risk" participants, future research may focus on "at risk" populations, such as people with eating

disorders, to examine the relationship further. Researchers may also wish to utilize measures other than self-report in attempt to increase validity of the study and decrease potential systematic error.

Through a correlational analysis, the researcher attempted to further examine potential correlates of parental nurturance and body image. Although the data did not support the researchers' hypothesis regarding a positive correlation between perceived parental nurturance and body image, previous research (Buri, 1989; Buri, Kirchner, et al., 1987; Buri, Misukanis, et al., 1987; Buri, et al., 1992; Hopkins & Klein, 1993) as well as logical assumptions and the results of the post hoc analysis suggest the question remains worthy of studying. By examining the relationships between such factors, researchers may acquire important knowledge and information regarding their components, characteristics, and qualities. Such understanding may potentially lead to facilitation of techniques to improve one's overall self-esteem as well as parent-child relationships.

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