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Gender Differences in Peer and Parental Influences: Body Image Disturbance, Self-Worth, and Psychological Functioning in Preadolescent Children

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The connections between body image disturbance and psychological functioning have been well established in samples of older adolescent girls and young women. Little is known, however, about body image in younger children. In particular, little is known about possible gender differences in preadolescent children. The current study explored self-reported body image disturbance and psychological functioning in relation to peer and parental influences in 141 elementary school-aged girls and boys aged 8–11. Results suggest that girls are more concerned about dieting and are more preoccupied with their weight than are boys. Girls also reported a greater drive for thinness and a higher level of family history of eating concerns than did boys. Correlations suggested that girls' experiences of body image concerns (body dissatisfaction, bulimia, and drive for thinness) were related to a number of factors (such as family history of eating concerns, peer influences, teasing, depression, and global self-worth) whereas boys' experiences of body image concerns were related to fewer factors. On the basis of these findings, the assessment and treatment of body image concerns in preadolescent children (especially girls) are of great importance. Implications for intervention and prevention programs are discussed.

KEY WORDS: body image; peers; parents.

The prevalence of weight and body image concerns among preadolescent children is overwhelming. Between 30 and 50% of adolescent girls are either concerned about their weight or are actually dieting (e.g., Thompson and Smolak, 2001). Such concerns about size and/or appearance have been found to predict onset of eating disturbances prospectively (Cattarin and Thompson, 1994; Stice, 2001). Although most of the previous research on eating disorders has focused on adult women and adolescent girls, it has recently been shown that weight concerns and body image disturbance exist in younger girls and boys (Cusumano and Thompson, 2001; Field *et al*., 2001; Ricciardelli and McCabe, 2001; Ricciardelli *et al*., 2000; VanderWal and Thelen, 2000). Self-esteem concerns appear to be related to body image disturbance in young children, but there does not appear to be a causal link between self-esteem and body image disturbance (Mendelson *et al*., 1996). Specifically, body image disturbance and poor self-esteem appear to develop concurrently in young boys and girls. Given these important issues, the current study attempted to examine the psychological, familial, and social correlates of weight concerns and eating disturbances in preadolescent girls and boys.

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BODY IMAGE AND DIETING BEHAVIOR IN ADOLESCENTS AND CHILDREN

The connections between body image disturbance and psychological maladjustment in adolescence have been well documented. There appears to be pervasive concerns among adolescents with respect to their weight, body image, dieting, and eating behavior (Smolak and Levine, 2001; Thompson *et al*., 1999). In fact, average-weight adolescent girls are almost as likely to be dieting as their overweight peers (Rodin *et al*., 1985). These patterns are evident in both clinical and nonclinical samples. Bunnell *et al*. (1992) investigated body shape concerns among 5 samples of female adolescents: anorexia nervosa clients, bulimia nervosa clients, subclinical anorexia, subclinical bulimia, and noneating disordered females. They found that body shape dissatisfaction was a prominent concern for most adolescent girls regardless of their level of eating pathology. Thus, by the time of adolescence, the majority of girls have developed weight and body concerns and many have tried dieting or other strategies to alter their physical appearance.

Although these issues have received less research attention in preadolescent children, many of the same patterns have emerged in studies of younger children. Children as young as 6 years old express dissatisfaction with their body and a substantial amount (40%) have attempted to lose weight (Thelen *et al*., 1992). There is evidence that children as young as 7 are reliable in their reports of dieting (Kostanski and Gullone, 1999). In a sample of third- through sixth-graders, children were very knowledgeable about weight control methods (Schur *et al*., 2000). Body dissatisfaction appears to be related to dietary restraint rather than age. In a study that compared 9-year-olds and 14-year-olds, girls with highly restrained eating patterns in both age groups showed low body esteem, and discontent with their body shape and weight (Hill *et al*., 1992).

Consistent with research on adolescents and young adults, young girls tend to show this dissatisfaction to a greater extent than boys. In samples of children between the ages of 5 and 11 (Collins, 1991; Cusumano and Thompson, 2001; Williamson and Delin, 2001; Wood *et al*., 1996), girls reported significantly greater body dissatisfaction than did boys. More girls than boys were dieting in a sample of 10–12 year olds (Sands *et al*., 1997). Thus, the "normative discontent" that is shown in adolescent girls and young women (Rodin *et al*., 1985) appears to be present in younger girls as well.

FAMILIAL INFLUENCES ON BODY IMAGE

A logical question relates to why these body image disturbances occur in such young children. Theories of body image disturbance include biological, sociocultural, familial, and peer-related influences (Smolak and Levine, 2001; Steinberg and Phares, 2001). Recently, a great deal of attention has been focused on familial and peer influences in the development of body image. Regarding familial influences, 2 primary mechanisms have been proposed: parental modeling of dysfunctional eating attitudes and behavior, and parents' influence over their children by direct transmission of weight-related attitudes and opinions, such as comments or teasing. There has been support for both mechanisms in adolescent samples.

When compared with mothers of daughters in a nonclinical control group, mothers of adolescent girls with disordered eating patterns showed greater eating disturbance, had a longer history of dieting, and wanted their daughters to lose more weight (Pike and Rodin, 1991). Rieves and Cash (1996) found that daughters' eating disturbances were related to their perceptions of maternal concern with appearance and preoccupation with being overweight. These studies suggest that adolescent girls may be modeling dysfunctional eating attitudes and behaviors from their parents. There is evidence that parents influence their adolescents' eating disturbances and body image through direct transmission of weight-related attitudes and opinions. Thelen and Cormier (1995) found that mothers' and fathers' encouragement of weight control were related to daughters' desire to be thinner, daughters' weight, and dieting behaviors. When actual body weight was controlled statistically, only the relationship between daughters' dieting and fathers' encouragement to diet remained significant. Direct parental comments about children's weight had a strong relation with children's body image, especially mothers' comments about their daughters (Smolak *et al*., 1999). Thus, it appears that both maternal and paternal influences may be relevant to the development of body image concerns and related issues. These findings suggest that parents can influence their attitudes and opinions of weight through direct transmission, although the relative salience of mothers versus fathers has yet to be established.

Negative verbal commentary within the family, also known as teasing, has received attention recently. Teasing can be considered an indirect transmission of parental attitudes and opinions. In a sample of older adolescent college students, parental teasing of females, but not of males, was related to body image dissatisfaction (Schwartz *et al*., 1999). In addition, higher levels of teasing and appearance-related feedback predicted higher levels of psychological disturbance. Taken together, these studies all point to the relationships between adolescents' body image concerns and parental attitudes and behaviors. Few studies, however, have addressed these issues in younger children.

PEER INFLUENCES ON BODY IMAGE

The same point can be made for peer influences on body image. Although significant relationships have been found in samples of adolescents, few studies have explored these issues in younger children. When investigating adolescents, one study found that adolescents' disturbed eating and weight concerns were related to the dieting and weight control strategies of peers as well as to the amount they reported talking with peers about dieting (Levine *et al*., 1994). In addition, adolescent girls reported their peers as one of the primary sources of information on weight control and dieting (Desmond *et al*., 1986). Adolescent girls, more so than adolescent boys, worried about their weight, figure, and popularity with peers (Wadden *et al*., 1991).

Negative verbal commentary by peers has been explored in relation to body image disturbance. Teasing by peers seems to have a strong influence on the development of eating and weight concerns (Rieves and Cash, 1996; Thompson, 1996; Thompson and Heinberg, 1993). Teasing by peers tends to be common during childhood with physical appearance and weight as the primary focus. Cash (1995) reported that 72% of college women recalled being teased as children, usually with respect to their facial features or body weight and shape. In a study of adolescent girls, Cattarin and Thompson (1994) found that teasing was a significant predictor of overall appearance dissatisfaction above and beyond the influence of age, maturational status, and level of obesity. In one of the few studies done with children, Oliver and Thelen (1996) found that children's perceptions of peers' negative messages and increased likability by being thin influenced their body image and weight concerns. Overall, peers' attitudes and teasing appear to influence body image concerns.

Taken together, these studies suggest patterns of familial and peer influence on the development of body image concerns. Little is known, however, about the associations of these issues within young children. Even less is known about how familial and peer influences are related to body image concerns and psychological functioning in young girls versus young boys.

THE CURRENT STUDY

On the basis of the findings with adolescent and young adult populations, the current study extends these research questions to preadolescent girls and boys. Because the majority of previous research was limited to maternal influences on body image (Phares, 1996), the current study will also extend this line of research to explore paternal influences on body image. It was hypothesized that gender effects would be revealed concerning young children's body image concerns, with young girls reporting more body dissatisfaction and weight-appearance-related concerns than young boys. It was expected that both girls and boys who reported higher levels of body image concerns would show more psychological problems as exhibited by higher levels of depression and lower levels of perceived competence. Both familial influences and peer influences were expected to be related to girls' and boys' body image and eating concerns.

METHOD

Participants

A total of 141 children (64 boys and 77 girls) from two public elementary schools in a large urban area in the southeast participated in the study. On the basis of a power analysis (α level $= 0.05$, power $= 0.80$, and a medium effect size), it was determined that a minimum sample size of 64 boys and 64 girls would be adequate to test the hypotheses (Cohen, 1992). The mean age of the overall sample was 9.23 years (SD $= 1.08$) and did not differ between boys ($M = 9.31$; SD $= 1.04$) and girls ($M = 9.17$; SD $= 1.12$; $t(139) = 0.79$; $p = 0.434$). The sample was ethnically diverse (63.1% Caucasian, 21.3% African American, 12.8% Hispanic/Latino/Latina, 0.7% Asian American, and 2.1% other). With respect to grade level, 14.2% were in the second grade, 44.0% were in the third grade, 27.6% were in the fourth grade, and 14.2% were in the fifth grade. The distribution of girls and boys did not differ for race/ethnicity or for grade level (ps > 0.05). A total of 77 mothers and 48 fathers participated in the study.

Measures

Family Influences

Two measures were used to assess functioning within the family. The Perceptions of Teasing Scale (POTS) is a revised and extended version of the Physical Appearance Related Teasing Scale (Thompson *et al*., 1995). The measure has been used with children as young as 10 years old, therefore, the 8- and 9-year-old participants in this study were younger than previous participants who completed the POTS. The Weight Teasing Scale, which consists of 6 questions concerned with the frequency of appearance-related teasing, was used in the current study. Participants answered these questions for their mother and father separately, and scores were totaled for an overall frequency of parental teasing score. Higher numbers on this 5-point scale reflect greater frequency of negative verbal commentary. Coefficient αs in the current study were adequate for

reports of mothers (0.72) and fathers (0.84). Note that only 24% of the children in this sample scored above a 0 on this measure.

Children, mothers, and fathers completed the Family History of Eating (FHE-Child and FHE-Parent; Moreno and Thelen, 1993). Both versions of the FHE are scored along a 5-point Likert scale and are used to assess attitudes concerning body shape and weight, dieting, and familial eating patterns and behaviors. The parent version assesses parents' perceptions whereas the child version focuses on the child's perception of the family. Higher numbers reflect greater familial concern with body shape and weight. Reliabilities in the current study were adequate based on the coefficient α for children (0.80), mothers (0.77), and fathers (0.75).

Peer Influences

Children completed the Inventory of Peer Influence on Eating Concerns (IPIEC; Oliver and Thelen, 1996), which is a 30-item measure of peer influence on children's eating and body shape concerns. The measure consists of 5 factors: Messages, Interactions/Girls, Interactions/Boys, Likability/Girls, and Likability/Boys. The Messages factor reflects the frequency with which children receive negative messages from peers regarding their body or eating behaviors. The Interactions factors address the frequency with which children interact with peers (boys and girls) about weight and eating habits. The Likability factors measure the degree to which children believe that being thin will increase the degree to which they are liked by their peers (boys and girls). Items are rated on a 5-point Likert scale, where higher numbers reflect greater peer influence. For the present study, total mean scale scores of all items were used to calculate a total peer influence score. The coefficient α in the current study (0.94) was strong.

Obesity Level

The Quetelet's Index of Fatness is a body mass index (BMI) that is computed for each child with the following formula: weight/(squared height). The Quetelet's Index is used routinely as an index of adiposity and is correlated highly with skinfold and other fatness measures. Height and weight were obtained by self-report. Previous research has shown that young adolescents' self-reports are highly correlated with actual measurements of weight and height (Brooks-Gunn *et al*., 1987; Field *et al*., 2002).

Eating Disturbance and Body Image

Children completed the Eating Disorder Inventory for Children (EDI-C; Garner, 1984), which measures self-perceptions of eating disturbances and body image. Items are answered on a 6-point Likert scale and subscales are averaged to produce mean scale scores. Three of the eight subscales were used in the present study: Drive for Thinness (excessive concern with dieting, preoccupation with weight, and extreme fear of weight gain), Body Dissatisfaction (dissatisfaction with overall shape and with the size of those body regions of most concern to individuals with eating disorders), and Bulimia (thinking about and engaging in uncontrollable overeating, or binging behaviors). Coefficient αs were adequate in the current sample for the Drive for Thinness subscale (0.83), the Body Dissatisfaction subscale (0.63), and the Bulimia subscale (0.76). On all subscales, higher numbers reflect higher levels of body image concerns or related behaviors.

Psychological Functioning

Children completed 2 measures that assess their psychological functioning. The Children's Depression Inventory (CDI; Kovacs, 1992) is a widely used self-report measure of affective, cognitive, and behavioral symptoms of depression in children. Items are scores on a 0- to 2-point scale, with higher scores reflecting higher levels of depression. The total CDI score, which showed good reliability in the current sample (coefficient $\alpha = 0.91$) was used.

Children also completed the Self-Perception Profile for Children (Harter, 1985), which assesses children's perceptions of themselves across different domains. For the current study, the global self-worth subscale was used. Note that the global self-worth scale consists of questions that are separate from any of the other domains (e.g., the physical appearance domain is not subsumed under the global self-worth rating). Higher scores on the 4-point scale reflect higher perceptions of global self-worth. Adequate reliability (coefficient $\alpha = 0.79$) was shown in the current sample.

Procedures

Active parental consent and child assent were given for involvement in the study. Once consent and assent were obtained and data collection was initiated, no children dropped out of the study nor did any children refuse to take part in the study. Participating children completed questionnaires in small groups at school. Examiners read each question aloud and children put their answers on the questionnaires individually. Parents were mailed their questionnaires (the FHE-P and a brief demographics form) and were asked to return their completed questionnaires to the researchers in a postage-paid envelope. Multiple mail-

Table I. Means and *t*-Tests for Gender Comparisons

Variable	Girls ($n = 77$), mean (SD)	Boys ($n = 64$), mean (SD)	t	p
Body mass index (BMI)	18.91 (3.80)	19.01 (3.80)	0.09	0.932
Body Dissatisfaction	20.29 (10.10)	18.38 (8.83)	−1.18	0.239
Bulimia	13.38 (7.32)	15.05 (7.63)	1.32	0.188
Drive for Thinness	18.21 (9.64)	13.13 (6.61)	−3.58	0.000[a]
Family History of Eating—Child	19.99 (8.38)	17.56 (5.54)	−1.98	0.049[a]
Inventory of Peer Influence on Eating Concerns	1.80 (0.84)	1.66 (0.73)	−1.02	0.311
Perceptions of Teasing—Frequency	1.62 (4.62)	1.33 (2.97)	−0.44	0.660
Depression	48.83 (12.06)	49.13 (13.47)	0.14	0.892
Global Self-Worth	19.06 (4.74)	18.92 (4.75)	−0.18	0.859

[a]Statistically significant.

ings were sent in an attempt to obtain maximum parental participation. The final response rate was 54.6% ($n = 77$) for mothers and 34.0% ($n = 48$) for fathers.

RESULTS

Gender Comparisons

As expected, girls showed somewhat greater concern over weight and body image issues than did boys. Significantly more girls (61.0%) than boys (35.9%) wanted to lose weight, $\chi^2(2) = 13.38$, $p < 0.001$. As can be seen in Table I, there were additional gender differences on body image, restriction, and disturbed eating behaviors measures. When compared with boys, girls reported a higher drive for thinness, $t(139) = -3.58$; $p < 0.001$, and a more troubled family history of eating concerns, $t(139) = -1.98$; $p < 0.05$ (i.e., girls reported receiving more messages regarding weight and dieting from their parents than did boys). Girls and boys did not differ significantly on body mass index, body dissatisfaction, bulimic behaviors, peers' eating concerns, or frequency of parental teasing. There were also no gender differences in depressive symptoms or global self-worth. Thus, there was some limited support for gender differences.

Relations Between Body Image and Psychological Functioning

Correlational analyses were computed in order to investigate the relations between body image and psychological functioning. As can be seen in Table II, significant correlations were revealed for all of the measures for girls and most of the measures for boys. Girls' reports of body dissatisfaction, bulimic tendencies, and drive for thinness were related to higher levels of depression and lower levels of global self-worth. For boys, body dissatisfaction was related to higher levels of depression and lower levels of global self-worth. Bulimic tendencies were not significantly related to either depressive symptoms or global self-worth. Drive for thinness was related to lower levels of global self-worth but was not significantly related to depression. Thus, the expected pattern of results was found for girls consistently, and partial support was found for boys.

Table II. Correlations Between Eating Disturbance and Psychological Functioning Variables

	1	2	3	4	5	6	7	8
1. Body Dissatisfaction	—	0.47***	0.56***	0.53***	0.49***	0.32**	0.58***	−0.64***
2. Bulimia	0.42**	—	0.55***	0.56***	0.55***	0.34**	0.60***	−0.48***
3. Drive for Thinness	0.42**	0.25*	—	0.58***	0.48***	0.27*	0.55***	−0.49***
4. Family History of Eating—Child	0.32*	0.23	0.67***	—	0.53***	0.44***	0.63***	−0.52***
5. Inventory of Peer Influences on Eating Concerns	0.26*	0.10	0.32*	0.12	—	0.38**	0.59***	−0.52***
6. Perceptions of Teasing—Frequency	0.44***	0.29*	0.60***	0.41**	0.18	—	0.45***	−0.35**
7. Depression	0.37**	0.14	0.19	−0.03	0.29*	0.29*	—	−0.71***
8. Global Self-Worth	−0.42**	−0.01	−0.39*	−0.03	−0.21	−0.37**	−0.58***	—

Note. Boys are in the lower left quadrant and girls are in the upper right quadrant.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

Relations Between Parental Influences, Peer Influences, and Body Image Disturbance

Table II also reports the results of correlations for parental influences, peer influences, and body image disturbance. For girls, all of the correlations were significant. Specifically, girls' body dissatisfaction, bulimia, and drive for thinness were related to higher levels of family history of eating concerns, peer influences on eating concerns, and perceptions of teasing. For boys, 7 of the 9 correlations were significant. Specifically, boys' body dissatisfaction was significantly related to higher levels of family history of eating concerns, peer influences on eating concerns, and perceptions of teasing. Boys' tendency toward bulimia was significantly related to perceptions of teasing, but not family history or peer influences. Boys' drive for thinness was related to family history, peer influences, and perceptions of teasing. Overall, there was somewhat more support for the connections between parental influences, peer influences, and body image disturbance for girls, but there was clear evidence of connections for boys when body dissatisfaction and drive for thinness were considered.

Parental Data

For exploratory purposes, paired t tests were conducted to examine the differences in mothers' and fathers' reports of parental influence regarding weight and body shape concerns. Mothers ($M = 18.57$, SD $= 5.32$) placed more emphasis on weight and body shape concerns than did fathers ($M = 15.94$, SD $= 5.29$), $t(47) = -3.96$, $p < 0.001$. Further examination of parental differences revealed that mothers reported placing more importance on weight and body image concerns than did fathers for both their daughters, $t(29) = -2.93$, $p < 0.006$, and sons, $t(27) = -2.61$, $p < 0.01$. These results suggest that, regardless of child gender, mothers tend to place more emphasis on weight and dieting than do fathers.

To examine the relationship between children's self-reports and parental reports, correlations were conducted for parents' reports of family history of eating concerns and children's reports of eating disturbance and psychological functioning. A significant correlation was revealed for mothers' reports of family history and children's reports of family history, $r(77) = 0.25$, $p < 0.05$. These results suggest that mothers and children perceived similar familial influences regarding weight and body shape. In addition, significant correlations were revealed for maternal report of family history and children's report of global self-worth, $r(77) = -0.27$, $p < 0.05$. No other significant correlations were revealed for maternal or paternal reports of family history and children's reports of eating disturbance and body image concerns. These findings suggest that children's perceptions of family history and parents' perceptions of family history are not related strongly.

Missing Parental Data

To assess whether there were systematic differences between parents who did or did not participate, t tests were conducted to examine any possible differences between children whose parents returned questionnaires and those children whose parents did not return questionnaires. With the exception of family history, $t(139) = 2.33$, $p < 0.02$, no other significant differences were revealed. Children whose parents returned questionnaires reported significantly higher levels of family emphasis on weight and body shape ($M = 20.15$, SD $= 7.90$) than children whose parents did not return questionnaires ($M = 17.32$, SD $=$ 6.20). There were no significant differences between children with parental data and children without parental data on the following variables: Body Dissatisfaction (from the EDI-C), Bulimia (from the EDI-C), Drive for Thinness (from the EDI-C), peer influences (from the IPIEC), or perceptions to teasing (from the POTS). Thus, the exploratory analyses with parental data are likely to be generalizable for all of the variables other than family history.

DISCUSSION

Overall, the results of this study support and extend previous research suggesting that both parental and peer influences are related to the development of body image and weight concerns in preadolescent girls and boys. It is likely that both factors play an integral part in children's formations of maladaptive beliefs, attitudes, and expectations concerning weight, physical appearance, and body image. Further, there appear to be some differences but some similarities in how girls and boys experience these issues.

Similar to previous research, girls in this study exhibited a somewhat greater degree of concern regarding weight and body image issues than did boys. Not only were they more aware of issues surrounding weight and dieting, but girls were more active in attempts to become and/or remain "thin." In addition, it appears that girls received more messages within the family setting regarding weight and body image concerns. Although most investigations of body image concerns tend to recruit only female participants (e.g., Attie and Brooks-Gunn, 1989; Cattarin and Thompson, 1994), the studies of gender differences

in body image have used primarily adolescent samples (e.g., Childress *et al*., 1993; reviewed in Cohane and Pope, 2001). The present results support similar findings for preadolescent children, which indicates that these gender differences begin to develop at an earlier age, prior to any pubertal changes (Collins, 1991; Oliver and Thelen, 1996; Shapiro *et al*., 1997; Wood *et al*., 1996).

The results of this study provide support for a relationship between body image concerns and depressive symptoms (Herzog *et al*., 1992) and self-esteem (Wood *et al*., 1996). Overall, children who expressed higher levels of body image disturbance reported higher rates of depressive symptoms and lower levels of global self-worth. Although this pattern was more evident in girls, the same pattern existed for boys when body dissatisfaction was considered.

Prior research has revealed support for both parental (Sanftner *et al*., 1996; Thelen and Cormier, 1995) and peer (Cattarin and Thompson, 1994; Oliver and Thelen, 1996) influences on children's eating and body image concerns. This study found support for peer and parental influences for girls and to a lesser extent, for boys. Most of the research on peer influences has been conducted with adolescent populations of girls (Levine *et al*., 1994). In this study, similar patterns emerged for boys and girls when body dissatisfaction (as opposed to bulimic tendencies) were evaluated. It may be that preadolescent boys are struggling with body dissatisfaction, but in such a manner that is not captured by the measurement of bulimic tendencies.

The measurement of parental teasing from the POTS measure was particularly useful in helping to understand boys' experiences. A number of previous studies have documented the connections between negative verbal commentary and body image concerns in girls (Cattarin and Thompson, 1994; Schwartz *et al*., 1999). In the current study, boys' perceptions of parental teasing were related to higher levels of body dissatisfaction, bulimic tendencies, drive for thinness, family history of eating concerns, and depression and lower levels of global self-worth. Thus, further exploration of perceptions of parental teasing in both boys and girls may be fruitful.

On the basis of the results of this study, the implications for prevention and intervention are numerous. Given the wealth of support for the existence of body image concerns in preadolescent children (Collins, 1991; Shapiro *et al*., 1997; Thelen *et al*., 1992; Wood *et al*., 1996), it is imperative to address weight and body image concerns with children prior to adolescence. Psychoeducational programs could be helpful to inform children of the parental, peer, and sociocultural influences on their attitudes and beliefs concerning weight and physical appearance. Several universal psychoeducational programs have been instituted and evaluated for school-aged children (reviewed in Levine and Smolak, 2001). Although this study found some gender differences in preadolescent children's experiences of body image disturbance, the common pattern of associations among variables for both boys and girls would suggest that preventive efforts could be targeted to girls and boys together.

Intervention programs are also necessary given the connections between familial influences and body image concerns in young children and the resultant connections between body image concerns and eating disorders (Cattarin and Thompson, 1994; Steinhausen and Vollrath, 1993; Thompson *et al*., 1999). Parents need to be educated about the negative consequences of their own weight and body image issues on the development of related problems in their children (Archibald *et al*., 1999). Treatment programs should take family functioning into account and should address the strong connections between body image concerns and poor psychological functioning (Steinberg and Phares, 2001).

There are several limitations to the study indicating that these results should be interpreted with caution. First, the cross-sectional nature of the study precludes interpretations related to causality. For example, it could be that higher levels of depression lead to higher rates of body dissatisfaction in both boys and girls. A prospective study of girls and boys from early childhood to adolescence and even adulthood could help answer the direction of causality. In addition, because there was a significant difference in family history of eating concerns (FHE-C) between children with and without completed parental data, the preliminary analyses of parental reports have to be viewed cautiously. Although other studies have found relatively few differences between participating and nonparticipating mothers and fathers (Phares, 1995), the differences in this sample suggest that the parental data may not be representative of the larger population. This study attempted to limit common method variance by including parents rather than just relying on children's self-reports. This inclusion of parents, however, led to other difficulties. Future studies in this area could benefit from more intense efforts to recruit and maintain parents for participation in research.

Even with these limitations, this study provided support for parental and peer influences on the development of body image disturbance in preadolescent girls and boys. It is likely that both peers and family members contribute to the development of body image disturbance and weight concerns of young children. Although girls appear to be at greater risk for these concerns, this study suggests that attention to both boys' and girls' development of body image concerns is warranted.

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