Body image in children and adolescents: where do we go from here?

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Abstract

During the past two decades, there has been an explosion of research concerning body image in children and adolescence. This research has been fueled both by concern about the effects of poor body image in children and adolescents themselves and by the assumption that body dissatisfaction during childhood and adolescence creates risk for the development of body image and eating disturbances as well as depression in adulthood. The extant research, however, has remained largely descriptive and is marked by methodological problems. The purpose of the present paper is to identify substantial gaps in the literature concerning body image in children and adolescents. The focus is on four major issues: (1) measurement, (2) epidemiological data, (3) developmental trends, and (4) the meaning of gender. Addressing these and related questions will aid in the development of treatment and prevention programs.

Keywords: Childhood; Measurement; Development; Gender

Introduction

It is invariably instructive to interview children about their appearance. There are the children, most typically average size girls, who lower their eyes, heads, and voices as they answer the questions on the Body Esteem Scale (BES; Mendelson & White, 1993) and tell us that no, they do not like the way they look in pictures, yes, they wish they were thinner, and no, their classmates do not want to look like them—why would anyone want to look like them? There are the young children who are already modifying what they eat or doing aerobics with their moms in order to lose weight. They surprise us with their knowledge of weight loss and body sculpting techniques, specifying commercial diet programs, such as Jenny Craig, by name. Even more stunning was the first grader who told us you would need to throw up after eating or the elementary schoolers who thought plastic surgery would be necessary to achieve the body ideal portrayed by Christina Aquilera or Britney Spears (Murnen, Smolak, Mills, & Good, in press).

These experiences point to one of the reasons researchers, educators, and parents are concerned about body image in children. It is clear that some children are already worried about their ability to look “good enough” to be accepted by others. They are saddened and embarrassed by their looks. They are already trying food restriction and exercise techniques to change
their bodies. Some of these attempts may be health endangering. Thus, there seem to be children whose lives are already being negatively affected by poor body image.

These anecdotes also raise the possibility that the foundation of body dissatisfaction is laid in childhood. There is prospective, longitudinal evidence that adolescent body dissatisfaction and especially concerns about being or becoming fat is related to the development of eating problems, eating disorders, and depression (e.g., Leon, Fulkerson, Perry, & Early-Zald, 1995; McKnight Investigators, 2003; Stice, 2002; Stice & Bearman, 2001; Stice, Hayward, Cameron, Killen, & Taylor, 2000; Wichstrom, 1999). Finding the roots of this risk factor will be crucial in both the prevention and treatment of eating disorders and depression.

But experiences and anecdotes are not data. There is now a sizeable body of studies of body image in children and adolescents (for reviews, see Ricciardelli & McCabe, 2001a; Smolak & Levine, 2001), but there are even more unanswered questions. The purpose of this paper is to raise four broad questions, each with several accompanying specific issues that need to be addressed empirically. These issues focus on (1) measurement, (2) epidemiological data, (3) developmental trends, and (4) the meaning of gender. Research on these, and related, questions will expand our knowledge base about body image in children which will, in turn, provide an empirical foundation for prevention and treatment programs for body image and eating problems.

How should we define and measure body image in children?

Researchers have long argued that body image is multidimensional with at least perceptual, affective, cognitive, evaluative, and investment/behavioral components (e.g., Muth & Cash, 1997; Thompson, Heinberg, Altbe, & Tantleff-Dunn, 1999). These distinctions have been supported empirically in adolescents and adults (e.g., Muth & Cash, 1997; Thompson, Altbe, Johnson, & Stormer, 1994). These distinctions have rarely been addressed in research with children, though they occasionally surface in research with adolescents (e.g., Ricciardelli & McCabe, 2003). Indeed, several of the measures of body esteem commonly used with children, such as the BES, cover a broadly defined construct and do not allow the researcher to specify the body esteem problem.

In addition, current research does not generally have a way to identify problematic levels of body dissatisfaction. As Cash (2002a) has argued with respect to defining “negative body image,” dissatisfaction alone is an insufficient criterion; the emotional and behavioral consequences of such dissatisfaction must be considered. If body dissatisfaction is in fact a “normative discontent” (Rodin, Silberstein, & Striegel-Moore, 1985) among girls and women, it is important to distinguish the girl who is engaging in socially sanctioned “fat talk” for the sake of seeming friendly from the child who is on a path to eating disorders or depression. While a few studies have identified “cut-offs” for weight concerns among adolescents for identifying girls at risk for developing eating problems (e.g., Killen et al., 1996), such research is not available for children. Nor have similar cut-offs been established for ethnic minority girls or for boys.

Evaluative body image

Body image evaluation, which refers to how satisfied one is with one’s body (Muth & Cash, 1997), is probably the most common aspect of body image that is measured in children. This is also sometimes referred to as attitudinal body image (Gardner, 2002). Both figure drawings and questionnaires have been used to assess body dissatisfaction in children and adolescents.

Being able to evaluate one’s body requires that the child can assess her/his own body, has an ideal to which to compare her/his body, and is capable of making such a comparison. It is possible that one must be more than aware of the ideal; perhaps the ideal needs to be internalized (Thompson & Stice, 2001) before meaningful body dissatisfaction will develop. Clearly, these components are in place by adolescence. But when do they first appear?

In terms of awareness of the culturally defined ideal body, there are data indicating that 5 year olds have absorbed the cultural bias against fat people (Cramer & Steinwert, 1998; Musher-Eizenman, Holub, Edwards-Leeper, Persson, & Goldstein, 2003). Three year olds may also be aware of the anti-fat
prejudice but they are less committed to it. They are less likely to ascribe negative characteristics to fat children than 5 year olds are (Musher-Eizenman et al., 2003). However, the 5 year olds have a wider range of what constitutes an acceptable body type than do adults (Musher-Eizenman et al., 2003).

Unfortunately, these studies are marked by methodological problems. The samples tend to be small as well as white and middle-class, the designs are cross-sectional, and there are questions about the measures. For example, it is not clear that preschool and even early elementary school children can use checklists of fairly abstract personality characteristics (Musher-Eizenman et al., 2003). Indeed, they do not use these types of terms to describe other people (Ewell, Smith, Karmel, & Hart, 1996). Researchers have not looked at whether measures such as the Sociocultural Attitudes towards Appearance Questionnaire (SAQ; Heinberg, Thompson, & Stormer, 1995) that measure awareness and internalization of the thin-ideal are valid with preschool and early elementary school children, although revised forms do appear to have validity with adolescents (Smolak, Levine, & Thompson, 2001). Musher-Eizenman et al. (2003) developed a story-based measure of fat prejudice. However, they do not provide psychometric data, such as test–retest or internal consistency for the measure. There are, then, questions as to how to measure body ideal and fat prejudice in young children.

There are also questions as to how children report their "current" body types. Ideally, construct validity of a measure would be assessed by correlating the child’s actual BMI with the selected "current" figure (in figural measures) or the chosen body shape category (in questionnaires). Unfortunately, BMI standards vary by age and gender. Therefore, it is not clear that BMI in preschoolers carries the same meaning that it does in adults. Researchers have used BMI, BMI percentile (based, for example, on the Centers for Disease Control data), and ponderal index (height/√weight) to assess levels of weight for height among children. Without a valid criterion, it will be difficult to establish the construct validity of the child’s own body ratings. Research must examine the relationships of BMI, BMI percentiles, and ponderal index in young children to future weight, body dissatisfaction, and eating problems.

**Figure drawings**

Despite the problems with establishing the validity of the current and ideal body shape components, there are several versions of figure drawings that have been used in research with children and adolescents. For many of these, few or no psychometric data are available (see Gardiner, 2001, 2002, for reviews). Probably the most commonly used of child figure drawings measure was developed by Collins (1991). In her article, Collins (1991) reports an overall 3-day test–retest coefficient for current self of first to third graders of 0.71. She does not report this correlation by grade though she notes that figure selections “were stable in many instances ... but dropped sporadically in others” (Collins, 1991, p. 203) when the analyses were performed by grade and gender. The test–retest correlations for other figure selections, including ideal self, ideal other child, and ideal adult, did not reach the acceptable level of 0.70 despite an interval of only 3 days. Furthermore, criterion validity correlations, though statistically significant, were not impressive. The correlation between pictorial self-selection and weight was 0.36 while the correlation between BMI and self rating was 0.37.

There are even fewer data available for preschool age children. Not surprisingly, the news is worse. Using an adaptation of Collins’s (1991) figures, Musher-Eizenman et al. (2003) found no correlation between preschool children’s height or weight and their “current” body size rating. They did find a substantial correlation of 0.84 between the children’s mothers’ ratings of maternal current body size and maternal BMI. Thus, while heavier adult women actually select drawings depicting heavier people, children’s selections are unrelated to their actual body size.

Quite simply, we do not have the validity data to reliably use figure drawings with young children. Not surprisingly, the news is worse. Using an adaptation of Collins’s (1991) figures, Musher-Eizenman et al. (2003) found no correlation between preschool children’s height or weight and their “current” body size rating. They did find a substantial correlation of 0.84 between the children’s mothers’ ratings of maternal current body size and maternal BMI. Thus, while heavier adult women actually select drawings depicting heavier people, children’s selections are unrelated to their actual body size.

**Questionnaires**

Many researchers have simply asked adolescents a single question such as "How satisfied are you with
your appearance?" The only construct validity we have for such questions is that they often show the expected correlations with weight control strategies or eating problems. Typically, test-retest is not reported.

One of the best available scales for assessing body dissatisfaction among older children and adolescents is the Eating Disorders Inventory Body Dissatisfaction scale (EDI-BD; Garner, Olmstead, & Polivy, 1983). Adequate internal consistency has been reported with girls as young as 8 and for both boys and girls aged 11–18 years (Shore & Porter, 1990; Wood, Becker, & Thompson, 1996). It also does seem to focus on the evaluation component of body image. However, because this scale was developed to focus specifically on body areas of greatest concern to females with eating disorders, its content narrowly emphasizes feelings about one’s hips, thighs, buttocks, and stomach.

Several other measures, especially the BES (Mendelson & White, 1993) and weight concerns (Killen, 1996; Shisslak et al., 1999) have also shown good internal consistency and reasonable test-retest reliability. In the case of weight concerns, these forms of validity have been demonstrated in children as young as fourth grade (Shisslak et al., 1999). Furthermore, weight concerns has been shown to predict the development of eating disorders, at least among adolescents (Killen et al., 1996; McKnight Investigators, 2003). Unfortunately, weight concerns mixes evaluative and investment aspects of body image and so can be difficult to interpret. Furthermore, one attempt to use it with 5–9 year olds indicated poor internal consistency (α < 0.70; Davison, Markey, & Birch, 2003).

Affective body image

There are several self-esteem scales that tap feelings about body or appearance in children and adolescents. These are only occasionally used by body image researchers. However, some of them do demonstrate at least internal consistency and test-retest reliability and so should be considered more thoroughly by body image researchers. They might even serve as criterion variables for researchers trying to develop “pure” measures of body image focusing on muscles or weight. These scales include the Self-Image Questionnaire for Young Adolescents (Petersen, Schulenberg, Abramowitz, & Offer, 1984), the Offer Self Image Questionnaire (Offer, Ostruv, & Howard, 1984), and the Harter Scales (Harter, 1985). Harter’s Scales are applicable to both children and adolescents and so may be particularly useful in longitudinal research.

Body image investment

Body image investment involves both cognitive and behavioral indicators of the importance of one’s appearance to one’s sense of self. Several researchers have offered lists of weight control techniques or muscle-building techniques to boys and girls (e.g., Levine, Smolak, & Hayden, 1994; Shisslak et al., 1999; Smolak et al., 2001). Perhaps one of the better-developed measures is Ricciardelli and McCabe’s (2002) Body Change Inventory. This scale consists of three subscales: strategies to decrease body size, strategies to increase body size, and strategies to increase muscle size. As such, it is applicable to both boys’ and girls’ body concerns since boys may be as interested in gaining as in losing size (Smolak & Levine, 2001). There is also some evidence that African American girls may be interested in gaining size (Thompson, Corwin, & Sargent, 1997), so this scale may be of interest to researchers investigating ethnic differences in body image. Ricciardelli and McCabe (2002) report extensive exploratory and confirmatory factor analyses in the development of these scales as well as concurrent and discriminant validity. The scale was developed for use with adolescents, with 11 year olds being the youngest children in their samples.

Body image schema

Several authors have suggested that a body image schema guides the interpretation of sociocultural influences, such as media images (Cash, 2002b; Markus, Hamill, & Sentis, 1987; Smolak & Levine, 1994, 1996, 2001; Smolak, Levine, & Schermer, 1998; Vitousek & Hollon, 1990). The schema serves as a mediator between the sociocultural influences and poor body image. The schema is thus crucial in understanding why some people are so negatively affected by sociocultural influences while others are not. Smolak and Levine (1994, 2001) have further argued that such a schema, which they term a “thinness schema,” develops during childhood and is in place,
at least in an immature form, by early adolescence. They suggest, then, that young children will be relatively less resistant to the messages in universal prevention programs. These children will not yet have integrated beliefs about appearance—including cultural ideals, the importance of meeting such ideals, and the means to attain such an appearance—with each other into a cognitive schema. Furthermore, the children will not have fully integrated such ideas into their self-systems. It is for this reason that Smolak and Levine have argued strongly for universal prevention programs aimed at elementary school age children.

The ability to measure the development of body image schemas has theoretical and applied importance. Cash, Melnyk, and Hrabosky (in press) have developed a measure to assess body image schemas among adults. The Appearance Schemas Inventory-Revised (ASI) has two factors. One factor measures the self-evaluative salience of one’s appearance (e.g., “What I look like is an important part of who I am.” “When I meet people for the first time, I wonder what they think about how I look.”), while the other factor assesses the simpler motivational salience of appearance (e.g., “Before going out, I make sure that I look as good as I possibly can.”) (Cash et al., in press). Cash and his colleagues have presented substantial psychometric information concerning this scale using a college-age sample.

No comparable measure is available for children or even young adolescents. Given the argument that the thinness schema is gradually constructed during childhood (Smolak & Levine, 1994, 1996, 2001), it will be crucial to develop and validate a measure that might tap into the developmental process.

Summary

There are tools for measuring body image in children. As one might expect, they are not as extensively developed as those available for adults and even for adolescents. What is surprising is how very limited our assessment arsenal is. We are especially ill equipped to measure body image in children who are under 10 (third grade or younger in the United States). It is absolutely imperative that new measures be developed and that both new and existing measures be more rigorously subjected to psychometric evaluation. Such work is time consuming and can even seem tedious at times. It is often difficult to get schools to agree to participate in research whose primary aim is assessment development. Yet, the questions raised in the remainder of this chapter—and indeed all questions concerning body image in children—cannot be answered without such research.

How are body image problems distributed?

In reading the popular press, it is not unusual to see figures suggesting that as many as 60% of elementary school girls are dissatisfied with their bodies. Such numbers are usually based on a single study. In reviewing several studies, Smolak et al. (1998) concluded that it was fairly common to find that about 40% of late elementary school (typically fourth and fifth grade) girls reported body dissatisfaction.

Even this is a misleading number, however. First, the studies have fairly small samples, at least in terms of epidemiology. Second, the samples are overwhelmingly white. It is not clear that girls from ethnic minority groups, particularly black girls, share the same body image concerns as white girls do. Third, there are several different measures used in the studies, some of which focused on body in general, others on weight and shape per se.

These concerns do not even address several important limitations. First, boys are not well represented. While research is now appearing that looks at boys’ body image (e.g., Corson & Andersen, 2002; Ricciardelli & McCabe, 2003; Smolak et al., 2001), there are no epidemiological data available. Second, ethnic groups’ differences are poorly understood. Third, we have few data on children under 10.

Such limitations make it difficult to establish when body dissatisfaction becomes a problem. For example, when are ideal-current figure rating differences large enough to indicate a body image problem may exist? Without large-scale standardization studies and epidemiological data, it is difficult to know what is an unusual or pathological level of body dissatisfaction.

What are the developmental trends in body image development?

Similarly, we know little about the development of body image, particularly during the preschool and
early elementary school years. Davison et al. (2003) reported an improvement in body esteem during the early elementary school years (ages 5–9 years). During middle school, both boys and girls seem to experience a decrease in body esteem although boys’ decrease may be less dramatic and may show a faster recovery than girls’ decrease does (e.g. Abramowitz, Peterson, & Schulenberg, 1984; Rosenblum & Lewis, 1999). It is not yet clear at what point body image becomes reasonably stable. Davison et al. (2003) reported significant, but small to moderate ($r = 0.23–0.37$) correlations between body esteem at ages 5, 7, and 9. Smolak and Levine (2001) reported no significant relationships between body esteem measured in grades 1–3 and again 2 years later. Smolak and Levine (2001) also reported that body esteem measured in fourth or fifth grade was related to body esteem measured 2 years later. Cattarin and Thompson (1994) similarly found that body dissatisfaction was quite stable in a group of 10-15-year-old girls followed over a 3-year period. Both the Davison et al. (2003) and the Smolak and Levine (2001) studies had relatively small samples of white girls, leaving us a long way from establishing when stability of body image occurs.

Developmental trends must be mapped for the various components of body image. It is not necessarily the case that evaluation, affect, and investment develop in tandem. Indeed, it seems likely that evaluation precedes investment. Some studies have found, for example, substantially fewer elementary school aged girls engaging in dieting than reporting body dissatisfaction (e.g. Smolak et al., 1998). This finding is underscored by the considerably lower correlations between body dissatisfaction and measures of dieting in elementary school girls when compared to those of adults (Smolak & Levine, 2001). The value of either the individual components or their interrelationships to predict depression or eating problems or even later body image problems is also an important developmental issue.

Risk factors and protective factors for the development of body image problems may also change. Several risk factors (see Stice, 2001, 2002; for reviews) that appear to foster body image problems in adolescence and adulthood also may be operative in childhood. For example, media influences and parental comments appear to affect body image by late elementary school (e.g., Field et al., 1999; Smolak et al., 1998; Taylor et al., 1998). Sexual harassment is related to poorer body esteem, at least among girls, in elementary school (Murnen & Smolak, 2000). Many of these studies are cross-sectional and most involve only white girls. There is much work to be done on risk factors for body image problems, particularly during the preschool and early elementary school years.

BMI may be a particularly interesting example of a risk factor whose meaning may change across childhood. BMI is correlated with body dissatisfaction in both adolescent and adult men and women. Body dissatisfaction may show a curvilinear relationship for men and a linear relationship for women and concerns about being fat may be more clearly tied to being overweight for men than for women (e.g., Dornbusch et al., 1984; McCreary, 2002; Muth & Cash, 1997). In the preschool years, children’s body size is not related to their appraisal of their current body type (Musher-Eizenman et al., 2003). Davison et al. (2003) reported small but significant correlations between BMI and body dissatisfaction in 5–9 year olds. The size of the correlations increased with age ($r = 0.13–0.27$). Davison, Markey, and Birch (2000) reported a correlation of 0.17 between BMI and body dissatisfaction for 5-year-old girls while the comparable correlation for the girls’ mothers was 0.77 and for their fathers was 0.61. Weight concerns were not associated with weight status among the 5 year olds.

The lesser strength of the relationships between BMI and body esteem in younger children is consistent with the argument that fat prejudice increases with age (Cramer & Steinwert, 1998; Wardle, Volz, & Golding, 1995). It is also consistent with Levine and Smolak’s argument (Levine et al., 1994; Smolak & Levine, 2001) that the “thinness schema,” a cognitive structure integrating thin-ideal, body dissatisfaction, and weight control techniques, may be less consolidated in younger children than in adolescents. If this is so, then elementary school may be a particularly appropriate time for universal programs aimed at preventing body image and eating problems. Thus, the BMI-body dissatisfaction relationship demonstrates the importance of charting changing patterns in the development of body image.

Even among adults, there is little research concerning factors that might protect against the development
of body image and eating problems (Crago, Shisslak, & Ruble, 2000). Murnen et al. (in press) reported that elementary school girls who actively reject the sexualized thin-ideal media image of women have higher body esteem. Smolak, Murnen, and Ruble (2000) found that high school girls participating in non-elite sports had better body esteem while Geller, Zaitsoff, and Srikanthswaran (2002) reported that basing competence on academic and other activities (including sports), rather than on appearance, was associated with more positive body esteem in high school girls. In 5- and 7-year-old girls, participation in aesthetic sports (e.g., dance or gymnastics) has been correlated with higher weight concerns, a relationship that echoes that found with adults (Davison, Earnest, & Birch, 2002). However, participation in non-aesthetic sports (e.g., basketball or soccer) did not emerge as a protective factor. This may be another example of a changing relationship between a risk or protective factor and body image. It is possible that non-aesthetic sports participation means something different to younger girls than to adolescents. Currently, we do not have enough data to definitively document developmental changes in this relationship much less the basis for those changes.

While first graders are capable of social comparison, older children engage in the process much more frequently (Smolak, 1999). Social comparison may well be an important mediator in the development of body esteem (e.g., Stormer & Thompson, 1996). Similarly, self-esteem becomes more differentiated with age (Harter, 1996). Self-esteem is also more likely to suffer as social comparison becomes a more powerful source. Thus, the mediating roles of social comparison and self-esteem, as well as the relationship between them, may change as children develop.

Developmental considerations have not yet been adequately addressed in the body image literature. Indeed, in some areas we have virtually no data concerning the developmental changes in risk or protective factors. There are even relatively few data available on the nature of changes in body image itself, particularly if one wishes to examine either the components of body image or the differences in body image development by ethnicity, gender, or culture. Such information will be critical to the development of effective prevention and treatment programs.

What is the role of gender in body image development?

Body image is a strongly gendered phenomenon. In the past, a statement like this has often been interpreted as meaning that boys and men do not have body image problems. This is clearly not true. Nonetheless, it is evident that the nature, risk factors, outcomes, and probably the developmental course of body dissatisfaction differ by gender. While it is important to identify gender differences in patterns in the development of body image, it is probably more crucial to work toward understanding why gender differences exist at all.

Patterns

Until recently, virtually all research on body dissatisfaction in children and adolescents focused on concerns about being too fat and methods to prevent or reduce body fat. The findings concerning dissatisfaction about being fat are quite clear. Girls are more worried about fat than boys are (see Smolak & Levine, 2001 for a review). This gender difference is evident in elementary school and in every American ethnic group that has been studied. It is related to the onset of gender differences in depression in early adolescence (Wichstrom, 1999). It is likely that it is one of the contributing factors to the gender differences in eating disorders, anorexia nervosa (AN) and bulimia nervosa (BN). This is a critically important gender difference, then, since it is related to the development of a variety of pathological, and, in the case of AN, potentially fatal, outcomes.

One of the reasons girls are more dissatisfied in terms of body fat is they are more likely to judge themselves as fat when they are average-weight, and even under-weight (e.g., Dornbusch et al., 1984; McCreary, 2002). Boys and men are most likely to be concerned about being fat when they actually have high BMIs. This may reflect the greater societal emphasis on the appearance of women’s rather than men’s bodies (Fredrickson & Roberts, 1997).

On the other hand, boys are more likely than girls to want to increase the size of their muscles (see Corson & Andersen, 2002; McCabe & Ricciardelli, in press, for reviews). By sometime in adolescence, the desire for larger muscles becomes about equivalent to...
or greater than the interest in losing weight among boys (e.g., Furnham & Calman, 1998; Ricciardelli & McCabe, 2001b,c). If the boys who are dissatisfied with their bodies because they are too fat are combined with those who are unhappy because their muscles are too small, then the frequency of body dissatisfaction is similar among adolescent boys and girls (McCabe & Ricciardelli, in press). It is important to note, however, that this is not true of children younger than about age 11 years. Young boys are apparently not very concerned about building muscles, although the research is very sparse (e.g., Polce-Lynch, Myers, Kilmartin, Födersmät-Falck, & Kliever, 1998). This may reflect an important gender difference in the sociocultural demands concerning bodies. While prepubertal boys are not expected to meet the adult male muscular body ideal, young girls are expected to try to achieve the adult female thin body ideal. Hence, the pressure on girls to achieve a certain body type may begin earlier than the comparable pressure on boys. This, in turn, might mean that issues of body image are more fully incorporated in the self-systems of girls than of boys. This is an important issue for future research.

Boys’ concerns about muscularity also carry risk. By middle school, there is an association between concerns about muscularity and the use of muscle-building techniques (Ricciardelli & McCabe, 2003; Smolak et al., 2001). Anabolic steroid and food supplement abuse are among the techniques that boys use to gain muscle. Boys are more likely to use these techniques than girls are. Furthermore, steroid abuse may be at least as common among adolescent boys as AN is among adolescent girls (McCabe & Ricciardelli, in press). The effects of steroid use in older boys and men are well established (National Institutes of Drug Abuse, 2000); indeed, anabolic steroid abuse may even be fatal. These effects may be exacerbated during the developmental period. This may also be true of food supplements, such as ephedra, whose effects are generally poorly understood. There is a desperate need for research that more intensely examines the link between body image and steroid and food supplement abuse in boys.

At the extreme end, behavioral outcomes of body dissatisfaction may be comparably dangerous for boys and for girls. At more moderate levels, however, body image may be more problematic for girls. Some evidence suggests that girls are more likely to act on their body dissatisfaction (e.g., Hill, Draper, & Stack, 1994; Kelly, Ricciardelli, & Clarke, 1999; Smolak & Levine, 1994; Smolak et al., 2001). This might be interpreted as indicating that boys have lower body image investment, a finding consistent with the adult literature (Cash et al., in press; Muth & Cash, 1997). It is especially the case that girls are more likely to engage in calorie restrictive dieting than boys are (Smolak & Levine, 2001). Dieting has short-term effects, including fatigue, headaches, and irritability. It also has long-term health-endangering effects, including eating problems, obesity, growth stunting, and bone density loss (e.g., Davis, Apley, Fill, & Grimaldi, 1978; Stice, Cameron, Kilien, Hayward, & Taylor, 1999). These important problems may well be intensified when dieting occurs during childhood and adolescence.

Girls’ greater investment in body image may be rooted in different cultural definitions of the female versus the male body (Bordo, 1993; Fredrickson & Roberts, 1997). While the male body is viewed as agentic and active, the female body is an object to be looked at, particularly by men. The function of women’s bodies, then, is to be attractive, to be sexually pleasing to men. Girls learn this lesson early with messages coming from media, peers, and parents (Smolak & Murnen, 2001, in press). Messages to girls may be more consistent, both in terms of number of sources and the clarity of the message, than those directed at boys. This may suggest etiological differences in body image problems for girls and for boys.

**Etiology**

It is important that researchers increasingly focus on the process of the gendered development of body image. There are at least two broad questions concerning gender differences in the etiology of body image. First, there is the issue of whether boys and girls have different experiences in terms of their bodies. Second, we must address whether these experiences have the same meaning for boys and girls.

**Experiences**

Body image researchers have emphasized sociocultural factors, particularly peer, parent, and media influences, as possible contributors to the development of body dissatisfaction. While there are some
similarities in boys’ and girls’ exposure to negative influences, there are also some potentially important differences. Not surprisingly, there is more evidence available for girls than for boys, and there is more research concerning wanting to be thinner than wanting to be more muscular. Therefore, even at the basic level of describing gender differences in exposure to body-related influences, substantially more research is needed.

Parents generally like the way their young children look, though they become more dissatisfied as the children get older (Striegel-Moore & Kearney-Cooke, 1994). Parents also do not appear to direct more comments about the child’s body to their daughters than to their sons (Smolak, Levine, & Schermer, 1999; Striegel-Moore & Kearney-Cooke, 1994). By adolescence, girls may be more likely to actually discuss weight loss with their mothers than boys are although there is still no gender difference in direct parental encouragement for the child to lose weight (Vincent & McCabe, 2000). High school girls also report more maternal modeling of weight loss behavior than boys do (Vincent & McCabe, 2000).

Peer influences also vary by gender. Appearance-related teasing is the most common form of teasing among children. Boys are more likely to engage in teasing than girls are. Accordingly, adolescent boys report more negative comments about their bodies from their peers than girls do (Vincent & McCabe, 2000). However, girls are more likely than boys to discuss weight and weight loss than boys are (Oliver & Thelen, 1996; Vincent & McCabe, 2000). Indeed, girls may routinely engage in “fat talk,” disparaging their normal weight bodies for the purpose of fitting in socially (Nichter, 2000).

Media is a multi-faceted influence on body image (see Levine and Harrison, in press, for a review). Different television shows portray body image differently with soap operas showing a more rigidly thin-ideal for girls than, for example, dramas do. Girls are more likely to watch soap operas than boys are. Furthermore, the acceptable body type portrayed for women is narrower than that for men on television and fat women are the single group most likely to be the target of jokes. In addition, many more girls’ magazines focus on appearance than do boys’ magazines (Levine & Smolak, 1996). Girls begin reading these magazines on a fairly regular basis in late elementary school.

For example, Field et al. (1999) found that roughly 25% of late elementary school girls read “fashion” magazines at least twice a week, a number that rises at least through middle school (Levine et al., 1994). Little is known about boys’ use of magazines, other than that Sports Illustrated, a magazine that portrays active, although sometimes unrealistically muscular, male bodies, is the one most commonly read. Thus, this may be another indicator of the greater sociocultural pressure on young girls to achieve a particular body type.

There are data suggesting that some girls are more susceptible than others to at least peer and media influences (e.g., Levine et al., 1994; Taylor et al., 1998). Such research is not available yet for boys. Researchers looking at self-esteem and body comparison as mediators, for example, have generally treated eating disorders or weight loss or muscle-building techniques as the dependent variable with body dissatisfaction serving as a predictor variable. Much more research is needed on how children of both genders assimilate media, peer, and parental messages into their own body images.

Meaning

There is evidence that the interpretation of cultural messages varies by gender. Given the extent of behavioral and attitudinal gender differences and gender roles, this does not seem surprising. Yet, few studies have examined such differences and their implications for body image development.

Murnen and Smolak (2000) interviewed third through fifth grade boys and girls about gendered harassment, behaviors that might be considered early forms of sexual harassment. Boys and girls reported equal frequencies of being harassed. However, girls were more likely than boys to report that victims would be frightened by the harassment. This is consistent with findings with adolescents suggesting that girls are more likely than boys to change their behavior to avoid harassment (American Association of University Women, 2001). Murnen and Smolak (2000) found that girls who were thought victims would be afraid had lower body esteem than other girls. Girls who said they did not know how the victims would react were more likely than other girls to report lower body esteem. This was not true for boys.
In fact, overall, frequency of sexual harassment was negatively correlated with body esteem for girls but not for boys.

Girls seem to be more directly and extensively affected by media images than boys are (Ricciardelli & McCabe, 2003; Smolak et al., 2001). Is this because of characteristics of the media, such as the greater consistency of the thin-ideal for women than for the muscular ideal for men? Or is it because the message to girls is more salient because it is reinforced by various forms of media as well as by peers and parents? Is it because girls are often socialized to be more “cooperative” and to try to do more to maintain relationships? These and other hypotheses, which are applicable to a variety of potential risk factors, deserve much more research attention.

Ethnicity and culture

There is considerable consensus that sociocultural factors are keys in understanding the development of body image. If this is so, then one important technique for uncovering contributing variables would be to compare development across ethnic and cultural groups. Not only might researchers compare factors between groups, they might also investigate the nature of intra-group processes.

Despite the likely fruitfulness of a multiethnic, multicultural approach, the overwhelming research base for studies of body image in children has been white and American, British, or Australian. Many of the issues concerning gender also apply to ethnic and cultural groups. Indeed, examining cultural differences in gender differences and gender differences within cultures will help us to tease apart influential variables. Such information will be crucial to the development of “ethnically sensitive” prevention programs (Smolak, 1999).

Conclusions

There are a number of findings about body image in children and adolescents that have been replicated sufficiently to think of them as facts. Some children are quite concerned about their body shape, concerned enough to do something such as diet or exercise in order to change it. In elementary school, these children are more likely to be girls than boys. This is true in every American ethnic group studied to date as well as in Australian and English children. Black girls may be somewhat less dissatisfied with their bodies than other girls are. By adolescence, boys are increasingly concerned with becoming more muscular.

These trends are problematic for a variety of reasons. Girls who are concerned about being thin are at risk for dieting which in turn puts them at risk for eating disorders and obesity. Body dissatisfied girls are also at risk for depression. Boys who are invested in becoming more muscular may resort to health-endangering techniques such as anabolic steroid use. Dieting and excessive exercise may also be used to alter one’s body shape. These techniques have potential short and long-term effects ranging from fatigue to gastrointestinal distress to joint or bone injuries.

There is also some evidence as to what factors might influence the development of poor body image. Sociocultural factors such as media, peers, and parents seem to be instrumental. Anti-fat biases, which first appear in the preschool years, are also important. In general, we have more information on these factors, as well as the outcomes and the developmental trends of body image, for girls than for boys and for white children than ethnic minority children.

There are many unanswered questions. Before these can be thoroughly addressed, we need to develop better measures of body image, especially in young children. At the moment, it is difficult to argue that researchers have even measured body dissatisfaction in preschoolers. There are also severe limitations on what type of body image we know how to measure. Again, this is particularly true of young children. While researchers have begun to develop more gender sensitive measures of body image, there is still little research demonstrating the appropriateness of measures for use with various ethnic groups.

There is also little epidemiological data available. It is not yet clear how common body dissatisfaction is at various ages for different genders and ethnic groups. Given this, it is difficult to assess what levels of body dissatisfaction are unusual. Such research will need to be combined with prospective data looking at pathological outcomes in order to establish what levels of body dissatisfaction are problematic. These levels are likely to vary by age, gender, and ethnicity.
This is also true of developmental trends in body image. For example, how do the relationships between risk factors and poor (or excellent) body image change across development? When does poor body image become predictive of eating disorders or steroid abuse? Are the relationships among BMI, dieting, muscle-building techniques, and body image constant across development?

Then there is the issue of gender. Body image, as well as its risk factors and outcomes, is a gendered phenomenon. Researchers need to investigate the nature, causes, and outcomes of these gender differences. Understanding why boys and girls differ may help us to identify risk and protective factors at various stages of development. This is probably also true of ethnic group differences. If black girls are indeed more satisfied with their bodies than white girls are, for example, then explicating the roots of black girls’ body satisfaction may help in the more effective design of prevention programs.

Prevention and treatment programs will benefit from our increased knowledge of body image development. The challenges of such research are great, but the benefits are greater.

References


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