Toward an Understanding of Risk Factors for Bulimia

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ABSTRACT: The purpose of this article is to integrate diverse research efforts in an attempt to move toward an understanding of risk factors for bulimia. For this task, three questions in particular require attention. Because 90% of bulimics are women, a first question to address is, Why women? Second, despite the high prevalence of dieting and weight concerns among women in general, it is still a minority who evidence the clinical syndrome of bulimia, leading to the question, Which women in particular? These questions are considered from a range of perspectives—sociocultural, developmental, psychological, and biological. Third, the rapidly increasing prevalence of bulimia in recent years raises yet another question, Why now? Our analysis points to research questions that must be examined before we can expand our understanding of the etiology of bulimia.

In its end-of-the-year review, Newsweek referred to 1981 as "the year of the binge purge syndrome" (Adler, 1982, p. 29). This designation reflected the public's growing awareness of a significant sociocultural phenomenon, namely, the seemingly sudden and dramatic rise of bulimia. One year earlier, bulimia had become recognized as a psychiatric disorder in its own right in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980); this development has facilitated standardized assessment. In the last few years there has been a proliferation of literature on bulimia, as researchers and clinicians have attempted to describe the clinical picture of the disorder, to outline treatment approaches, and to identify factors associated with it.

Even though the investigative forays into bulimia have really just begun, it now seems both possible and useful to draw together the current and sometimes disparate existing pieces of knowledge about the disorder and to propose working hypotheses about its etiology. A few efforts have already been made in this direction (Garner, Rockert, Olmsted, Johnson, & Coscina, 1985; Hawkins & Clement, 1984; Johnson, Lewis, & Hagman, 1984; Russell, 1979; Slade, 1982). Our own conceptualization of this disorder both permits better understanding of the risk factors already proposed and implicates additional variables in the etiology of bulimia. We hope that as we delineate possible risk factors of bulimia, it will become clearer where our current knowledge is most lacking and therefore where research is needed. An understanding of etiology will, we hope, also facilitate the clinical treatment of bulimia.

As we think about bulimia and its recent rise, three questions in particular demand attention. First, bulimia is primarily a woman's problem, with research consistently indicating that approximately 90% of bulimic individuals are female (Halmi, Falk, & Schwartz, 1981; Katzman, Wolchik, & Braver, 1984; Leon, Carroll, Cherny, & Finn, 1985; Pope, Hudson, Yurgelun-Todd, & Hudson, 1984; Pyle et al., 1983; Wilson, 1984). Hence, a key factor that places someone at risk for developing bulimia is being a woman. One major question that demands an answer then is, simply, Why women?

Second, it appears that weight concerns and dieting are so pervasive among females today that they have become normative (Rodin, Silberstein, & Striegel-Moore, 1985). An overwhelming number of women currently feel too fat (regardless of their actual weight) and engage in repeated dieting efforts (Drewnowski, Risk, & Desor, 1982; Garner, Olmsted, & Polivy, 1983; Herman & Polivy, 1975; Huon & Brown, 1984; Mann et al., 1983; Moss, Jennings, McFarland, & Carter, 1984; Nielsen, 1979; Nylander, 1971; Polivy & Herman, 1985; Pyle et al., 1983; Wooley & Wooley, 1984). Despite the prevalence of dieting and weight concerns among women in general, it is still a minority who develop the clinical syndrome of bulimia, thus prompting another essential question: Which women in particular? In our discussion, we will be conceptualizing a continuum ranging from unconcern with weight and normal eating, to "normative discontent" with weight and moderately disregulated/restrained eating, to bulimia (Rodin, Silberstein, & Striegel-Moore, 1985). The question of "which women in particular" can be seen, therefore, as a question of which women will move along this continuum from normative concerns to bulimia.

Third, it is not women in all times and places but

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1 At present, there are insufficient data to discuss the etiology of the disorder in the 10% of bulimics who are men. Some of the risk factors specified for women may relate to men as well. Some speculation on what groups of men are most vulnerable will be considered briefly in the last section of the article.

2 Many investigators suggest that eating disorders should be conceptualized as a spectrum spanning anorexia nervosa, bulimia, and compulsive overeating (Andersen, 1983; Szmutler, 1982; Yager, Landsverk, Lee-Benner, & Johnson, 1983). In this relatively early stage of conceptualization, it seems useful to limit our scope to bulimia. However, we will sometimes draw on the existing literature about other eating disorders when relevant. A task for the future is clearly to delineate more precisely the commonalities and differences among the eating disorders and to develop a conceptual framework that integrates them.

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rather women of this era in Western society who are developing bulimia. Therefore, a third question is, Why now? This question has received very little empirical attention. However, the seemingly sudden and dramatic rise of bulimia over the past few years suggests that we need to consider the possible role of sociohistorical factors.

One critical aspect to the challenge of developing an etiological model of bulimia is the heterogeneity of the women who develop the disorder. Bulimic women differ with regard to their eating behavior and body weight, with some women exhibiting anorexia nervosa as well as bulimia either in the past or at present, others maintaining weight within the normal range, and others currently or in the past being obese (Beumont, George, & Smart, 1976; Garfinkel & Garner, 1982; Garner, Garfinkel, & O'Shaughnessy, 1985; Gormally, 1984; Loro & Orleans, 1981). Bulimic women can be divided into those who purge (by means of vomiting or abuse of cathartics) and those who do not resort to purging as a way of controlling their weight (Casper, Eckert, Halmi, Goldberg, & Davis, 1980; Garfinkel, Moldofsky, & Garner, 1980; Grace, Jacobson, & Fullager, 1985; Halmi et al., 1981). Furthermore, bulimic women vary greatly regarding the nature and extent of associated psychopathology. Some bulimic women do not exhibit any other psychiatric symptoms aside from those subsumed under the diagnosis of bulimia (Johnson, Stuckey, Lewis, & Schwartz, 1982), whereas others show multiple types of psychopathology (Garner & Garfinkel, 1985; Garner, Garfinkel, & O'Shaughnessy, 1985; Hudson, Lafler, & Pope, 1982; Hudson, Pope, & Jonas, 1984; Lacey, 1982; Wallach & Lowenkopf, 1984). The implications of this heterogeneity for identifying risk factors are crucial. A particular risk factor that may be central to the etiology of the disorder in some women may be minor or even irrelevant in the development of bulimia in other women. Furthermore, this heterogeneity argues against unidimensional models of bulimia. Any model of bulimia (e.g., biochemical or addiction models) still must consider the three questions that we are now posing.

The questions—Why women? Which women in particular? Why now?—compose the starting point for our discussion of factors placing individuals at risk for bulimia. These questions compel us to consider bulimia from a range of perspectives—sociocultural, developmental, psychological, and biological. Examining each of these perspectives in turn, we will consider the first two questions in tandem. From each perspective, we must try first to identify factors that might place women at greater risk than men for bulimia and second to understand which women in particular might be at greatest risk. Subsequently, we will consider our third question, Why now?

**Sociocultural Variables**

Central to an etiological analysis are the sociocultural factors that place women at greater risk than men for bulimia. We and others have reviewed data suggesting that risk increases because our society values attractiveness and thinness in particular, therefore making obesity a highly stigmatized condition (Boskind-White & White, 1983; Garner, Rockert, Olmsted, Johnson, & Coscina, 1985; Hawkins & Clement, 1984; Johnson et al., 1984; Rodin, Silberstein, & Striegel-Moore, 1985; Russell, 1979). Numerous studies suggest that this attitude affects people of all ages and that these social norms are applied more strongly to women than to men (see Rodin, Silberstein, & Striegel-Moore, 1985, for review). We begin the present analysis by asking which women in particular are affected by these sociocultural attitudes regarding attractiveness and weight, and then we suggest other significant social norms, not previously discussed, that may enhance the risk for bulimia in women.

**Which Women in Particular?**

How might the high value placed on thinness and the stigmatization of obesity in women have a greater impact on some women than on others, thus placing them at greater risk for bulimia? At a basic level, women at greatest risk for bulimia should be those who have accepted and internalized most deeply the sociocultural mores about thinness and attractiveness. In other words, the more a woman believes that "what is fat is bad, what is thin is beautiful, and what is beautiful is good," the more she will work toward thinness and be distressed about fatness. To explore this hypothesis, we developed a series of attitude statements based on these sociocultural values (e.g., "attractiveness increases the likelihood of professional success"). As predicted, bulimic women expressed substantially greater acceptance of these attitudes than nonbulimic women (Striegel-Moore, Silberstein, & Rodin, 1985a). Another study found that bulimic women aspired to a thinner ideal body size than did normal controls (Williamson, Kelley, Davis, Ruggiero, & Blouin, 1985).

But how do women come to internalize these attitudes differently? One source of influence is the subculture within which they live. Although attitudes about thinness and obesity pervade our entire society, they also are intensified within certain strata. Women of higher socioeconomic status are most likely to emulate closely the trendsetters of beauty and fashion (Bann), and therefore not surprisingly, they exhibit greater weight preoccupation (Dornbusch et al., 1984). Obesity traditionally has been least punished (and of greatest prevalence) in the lower socioeconomic classes (Goldblatt, Moore, & Stunkard, 1965). Although as yet there are no epidemiological studies drawing representative samples across social classes, we would expect that a differential emphasis on weight and appearance constitutes an important mediating variable in a relationship between social class and bulimia.

Certain environments also appear to increase risk. For example, boarding schools and colleges have been thought to "breed" eating disorders such as bulimia (Squire, 1983). Consistent with this hypothesis, one study found a dramatically higher weight gain in freshmen women during their first year in college than in women of similar socioeconomic background who did not go to college (Hovell, Mewborn, Randle, & Fowler-Johnson, 1986).
that athletic involvement enhances self-image, sociability, and eating behaviors, as well as the ways in which weight concerns influence exercise patterns, are issues worthy of further study.

The Central Role of Beauty in the Female Sex Role Stereotype

Beauty ideals have varied considerably in Western cultures over the course of past centuries (Banner, 1983; Beller, 1977; Brownmiller, 1984; Rudofsky, 1971), and women have been willing to alter their bodies to conform to each historical era's ideal of beauty (Ehrenreich & English, 1978). It has been proposed that being concerned with one's appearance and making efforts to enhance and preserve one's beauty are central features of the female sex role stereotype (Brownmiller, 1984). Our language reflects the intimate connection between femininity and beauty: The word beauty, a derivative of the Latin word bellus, was originally used only in reference to women and children (Banner, 1983). This female connotation of the word beauty still exists today: The most recent revision of Webster's dictionary (Guralnik, 1982) lists as one of its definitions of beauty "a very good-looking woman." Several studies have documented that physically attractive women are perceived as more feminine (Cash, Gillen, & Burns, 1977; Gillen, 1981; Gillen & Sherman, 1980; Unger, 1985) and unattractive women as more masculine (Heilman & Saruwatari, 1979). It has also been shown that the mesomorphic male silhouette is associated with perceived masculinity, whereas the ectomorphic female silhouette is associated with perceived femininity (Guy, Rankin, & Norvell, 1980). Hence, thinness and femininity appear to be linked.

Interestingly, there also appears to be a relationship between certain types of eating behavior and femininity. In one study, women who were described as eating small meals were rated significantly more feminine, less masculine, and more attractive than women who ate large meals, whereas descriptions of meal size had no effect on ratings of male targets (Chaiken & Pliner, 1984). Hence, thinness and femininity appear to be linked.

Comparative studies of athletes would help to shed light on the role of culturally mandated weight and appearance specifications as a risk factor. Our model predicts that a higher incidence of bulimia would be found in sports emphasizing a svelte body—such as gymnastics or figure skating—or attaining a certain weight class—such as wrestling—than in sports where thinness is less clearly mandated, such as tennis or volleyball. The sparse literature on the effects of athletic participation in general on body image is potentially contradictory. On the one hand, research examining self-esteem variables suggests that athletic involvement enhances self-image, sociability, and feelings of self-worth (e.g., Vanfrachem & Vanfrastructure, 1978). On the other hand, studies examining weight and dieting behavior suggest that athletic activity is associated with dissatisfaction with body weight and body image, repeated dieting attempts, and dysphoric episodes (e.g., Smith, 1980). The ways in which a focus on physical strength and skills might affect body image and eating behaviors, as well as the ways in which weight concerns influence exercise patterns, are issues worthy of further study.

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Do dieting behavior and the pursuit of the svelte body thus constitute a pursuit of femininity? For women who endorse the traditional female sex role stereotype, we would conjecture that being attractive and thin are important because, by definition, these attributes figure prominently in the traditional roles and values of womanhood. However, women who have achieved occupational success and have abandoned many traditional dictums for female behavior and roles also, it appears, worry about their weight and pursue thinness (Lakoff & Scherr, 1984). One possible reason is that thinness represents the antithesis of the ample female body associated with woman as wife and mother (Beck, Ward-Hull, & McLear, 1976). A second reason may be found in the women's orientation to success. These women set high standards for themselves, and thinness represents a personal ac-
complishment. At the same time, thinness may serve an instrumental and somewhat paradoxical end of furthering a woman's success in a man's world, because femininity gives a woman a "competitive edge" (Brownmiller, 1984). It also may be difficult for women to abandon femininity wholesale—and looking feminine, even while displaying "unfeminine" ambition and power, may serve an important function in a woman's sense of self as well as in how she appears, literally, to others.

**Which Women in Particular?**

Given the central role of beauty in the female sex role stereotype and the association of thinness with femininity and beauty, for which women might these dimensions increase the risk of bulimia? It might be expected that those women endorsing the female sex role most strongly would most value and pursue thinness. Clinical impressions of bulimic clients do suggest that these women show stereotypically "feminine" behavior characteristics (e.g., being dependent, unassertive, eager to please, and concerned with social approval); this suggestion leads to the hypothesis that bulimia is the result of a struggle to live up to an ideal of femininity (Boskind-Lodahl, 1976; Boskind-Lodahl & Sirlin, 1977; Boskind-White & White, 1983; Hawkins & Clement, 1984; Johnson et al., 1984). However, studies considering the relationship between bulimia and femininity, at least as measured by current masculinity-femininity scales (Bem, 1974; Spence & Helmreich, 1978), have yielded inconsistent results (Dunn & Ondercin, 1981; Hataxumi, Mitchell, & Eckert, 1981; Katzman & Wolchik, 1984; Norman & Herzog, 1983; Rost, Neuhaus, & Florin, 1982; Williamson, Kelly, Davis, Ruggiero, & Blouin, 1985). Some of these studies show a relationship, and some show no relationship between bulimia and feminine values and behaviors.

Our data suggest one way to understand the conflicting findings on the association between femininity and bulimia. We found that whereas femininity scores on the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978) did not relate to measures of body image and eating pathology, masculinity scores were inversely related to measures of body dissatisfaction and eating pathology (Striegel-Moore, Silverstein, & Rodin, 1985b). Masculinity as measured on the PAQ reflects such traits as being decisive, self-confident, active, and independent; in short, this construct represents a sense of competence and self-confidence. As we will explore later, self-confidence does seem to be inversely related to bulimia, although the causal direction is unclear. Femininity on the PAQ is represented by such traits as being gentle, emotional, and aware of others' feelings; it is interesting but not surprising that the presence of such traits is not consistently predictive of eating pathology.

In a recent article, Spence (1985) argued that the constructs of masculinity and femininity guiding research during the past decade have been inadequately defined. She pointed out that the terms masculinity and femininity appear to have two distinct and different meanings. First, they have an empirical meaning and are used as labels for specific qualities or events that are perceived as being more closely associated with males or females. Second, they represent theoretical constructs that refer to a person's phenomenological sense of maleness or femaleness. To date, Spence (1985) argued, no valid measure has been developed that captures these constructs. One suggestion for future measures of femininity/masculinity is to include items relevant to physical appearance.

**Developmental Processes**

A developmental perspective clarifies many issues relevant to our inquiry about the factors placing women at risk for bulimia. In this section we ask what aspects of female development might make women more vulnerable than men, and some women more vulnerable than others, to developing bulimia.

**Childhood**

Following from our discussion of sociocultural attitudes, it is not surprising that from early childhood girls learn from diverse agents of socialization that appearance is especially important to them as girls and that they should be concerned with it. From their families, little girls learn that one of their functions is to "pretty up" the environment, to serve as aesthetic adornment (Barnett & Baruch, 1980). Young girls learn that being attractive is intricately interwoven with pleasing and serving others and, in turn, will secure their love. Beyond the family environment, schools also teach the societal message. Significantly more of the positive feedback that boys receive from their teachers is addressed specifically to the intellectual aspects of their performance than is true for girls, whereas girls are more often praised for activities related to intellectually irrelevant aspects, such as neatness (i.e., taking care of appearances; Dweck, Davidson, Nelson, & Enna, 1978).

The mass media and children's books also teach girls about the importance of appearance. From their survey of children's readers, Women on Words and Images (1972) revealed that girls in these primers were constantly concerned about how they look, whereas boys never were. Indeed, attending to one's appearance was a major activity for the girl characters, whereas the boys were more likely to solve problems and play hard. Television teaches girls a singular feminine ideal of thinness, beauty, and youth, set against a world in which men are more competent and also more diverse in appearance (Federal Trade Commission, 1978; Lewis & Lewis, 1974; Schwartz & Markham, 1985).

Girls appear to internalize readily these societal messages on the importance of pursuing attractiveness. Developmental studies have documented that girls are more concerned than boys about looking attractive (Coleman, 1961; Douvan & Adelson, 1966). Parents, teachers, and peers all describe girls as more focused than boys on their looks, and children's fantasies and choice of toys also reflect this interest (Ambert, 1976; Nelsen & Rosenbaum, 1970; Oakley, 1972; Wagman, 1967). Whereas boys tend to choose toys involving physical and...
mechanical activity, girls select toys related to aesthetic adornment and nurturance (Ambert, 1976; Oakley, 1972).

In the mid-1980s bulimia does not appear to be emerging during childhood. However, it is striking how much of the groundwork seems to be laid during these early years. Two kinds of sex differences in self-concept, which will be especially pertinent to our discussion of adolescence, are already evident in grade-school children. First, when asked to describe themselves, girls as young as seven refer more to the views of other people in their self-depictions than do boys (McGuire & McGuire, 1982). For girls more than for boys it seems that self-concept is an interpersonal construct. The implications of this will be considered soon.

Second, although the role of body image in children's self-concepts has not been studied extensively, body build and self-esteem measures have been found to be correlated for girls but not boys in the fourth, fifth, and sixth grades (Guyot, Fairchild, & Hill, 1981). Furthermore, even among these grade-school children, weight was found to be critical in the relationship between body image and self-concept: The thinner the girl, the more likely she was to report feeling attractive, popular, and successful academically. In addition, studies have found that even as children, females are more dissatisfied with their bodies than are males. Although nonobese girls have a more positive attitude than obese toward their bodies, they still express more concerns about their appearance than both nonobese and obese boys (Hammar, Campbell, Moores, Sareen, Gareis, & Lucas, 1972; Tobin-Richards, Boxer, & Petersen, 1983). Indeed Tobin-Richards, Boxer, and Petersen (1983) found that perceived weight and body satisfaction were negatively correlated with weight for girls, whereas boys valued being of normal weight and expressed equal dissatisfaction with being underweight or overweight.

Adolescence

Although girls learn from early childhood to be attentive to their appearance and even to worry about their weight, the major developmental challenge that amplifies a variety of risk factors for bulimia is adolescence. We will consider first the physical changes ushered in at puberty, because the extensive biological changes associated with this period render perceptions of the body highly salient in the adolescent's overall self-perceptions. Coming to terms with the vital adolescent question "Who am I?" involves forming a new body image and integrating the new physical self into one's self-concept.

In the context of the current sociocultural norms already described, pubertal development may create a particular problem for girls. Before puberty, girls have 10% to 15% more fat than boys, but after puberty girls have almost twice as much fat as boys (Marino & King, 1980). The reason is that girls gain their weight at puberty primarily in the form of fat tissue. In contrast, boys' weight spurt is predominantly due to an increase in muscle and lean tissue (Beller, 1977; Tanner, 1978). Given our cultural beauty ideal of the "thin, prepubertal look" for women (Faust, 1983), and the tall, muscular look for men, it is not surprising that adolescent girls express lower body esteem than adolescent boys (Simmons & Rosenberg, 1975) and greater dissatisfaction with their weight (Dornbusch et al., 1984). Whereas physical maturation brings boys closer to the masculine ideal, for most girls it means a development away from what is currently considered beautiful. Consistent with this tenet is the finding that when boys report dissatisfaction with their weight, their discontent is due to a desire to be heavier, whereas girls want to be thinner (George & Krondl, 1983; Simmons & Rosenberg, 1975; Tobin-Richards, Boxer, & Petersen, 1983).

Crisp and Kalucy (1974) and Rosenbaum (1979) found that adolescent girls were highly concerned about their looks and expressed awareness of the great value society places on physical attractiveness in women. These adolescents had a very differentiated view of their own bodies and appraised critically its various components. Interestingly, girls in the Rosenbaum (1979) study judged themselves more harshly than they thought their peers would. And consistent with our review thus far, these girls listed weight as their leading concern about their appearance. In a survey of 195 female high school juniors and seniors, 125 girls reported that they made conscious efforts to restrict their food intake in order to maintain or lose weight (Jakobovits, Halstead, Kelley, Roe, & Young, 1977).

In addition to the concrete physical changes that adolescents undergo, adolescence is clearly an era replete with challenges of both an intrapersonal and an interpersonal nature. The literature of adolescent psychology describes three primary tasks that both male and female adolescents have to master: achieving a new sense of self (involving the integration of accelerating physical growth, impending reproductive maturity, and qualitatively advanced cognitive skills); establishing peer relationships, in particular heterosexual relationships; and developing independence (Aldous, 1978; Blyth & Traeger, 1983; Douvan & Adelson, 1966; Erikson, 1968; Havighurst, 1972; Simmons, Blyth, & McKinney, 1983; Steele, 1980; Tobin-Richards et al., 1983; Wittig, 1983). Our consideration of sex differences in the ways adolescents negotiate these tasks is informed by work on the psychology of gender. Several authors have argued that women define themselves primarily in relation and connection to others, whereas for men, individuation and a sense of agency are more central in forming a sense of self (Chodorow, 1978; Gilligan, 1982; Miller, 1976).

Turning to the first task, it is consistent with Chodorow's (1978) theory that the self-images of adolescent girls seem to be more interpersonally oriented than are those of boys (Carlson, 1965; Dusek & Flaherty, 1981; Hill, Thiel, & Blyth, 1981; McGuire & McGuire, 1982). Girls also appear to be more self-conscious and insecure than boys (Bush, Simmons, Hutchinson, & Blyth, 1978; Hill & Lynch, 1983). Compared to boys, girls seem to worry more about what other people think of them, care
then, that the adolescent girl becomes concerned with heightened sensitivity to sociocultural mandates as the importance of beauty and thinness (as evidenced, for example, in the teen fashion magazines) thus intersects with heightened sensitivity to sociocultural mandates as well as to personal opinions of others. It is not surprising, then, that the adolescent girl becomes concerned with and unhappy about her pubertal increase in fat.

Following from this, we would expect that the second task of adolescence—forming peer relationships, and heterosexual relationships in particular—would also be relatively more problematic for girls than for boys. Studies support this hypothesis (Douvan & Adelson, 1966; Rosenberg & Simmons, 1975). For example, Simmons and Rosenberg (1975) found that girls were more likely than boys to rank popularity as more important than being independent or competent, and these authors found that this emphasis on popularity is correlated with a less stable self-image and a greater susceptibility to others’ evaluations. Given that attractive (i.e., thin) females are rewarded in the interpersonal and especially the heterosexual domain, the wish to be popular and the pursuit of thinness may become synonymous in the mind of the teenage girl.

The third task of adolescence, establishing independence, also seems to pose a different challenge to girls than to boys. According to Gilligan (1982), females’ relational orientation becomes particularly problematic for them at adolescence, when tasks of separation and individuation emerge. Gilligan reported that adolescent girls conceptualize dependence as a positive attribute, with isolation its polar opposite; however, in a world that views dependence as problematic, the girls often begin to feel confused, insecure, and inadequate.

We can speculate about ways in which the adolescent girl’s increasing preoccupation with weight and dieting behavior is tied to the issue of independence. When other aspects of life seem out of control, weight may appear to be one of the few areas that, allegedly, can be self-controlled (Hood, Moore, & Garner, 1982). Because our society views weight loss efforts as a sign of maturity (Steele, 1980), dieting attempts may reflect a girl’s desire to show others, as well as herself, that she is growing up. Hence, dieting may be a part of, a metaphor for, or a displacement of movements toward independence. Alternatively, the attempts to lose weight may be a refuge from the developmental challenges regarding independence that are posed to the adolescent. Losing weight may represent an effort to defy the bodily changes signaling maturity and adulthood. A successful diet will indeed preserve the prepubertal look, perhaps reflecting a desire to remain in childhood (Bruch, 1973; Crisp, 1980; Leon, Lucas, Colligan, Ferdinande, & Kamp, 1985; Selvini-Palazzoli, 1978).

Adulthood

The themes of adolescence—self-concept, interpersonal relationships, and dependence/independence—clearly continue into the adult years. We will now follow these issues as women enter late adolescence and adulthood and again delineate how these tasks continue to be different for men and women.

First, let us consider the body image of adult women and men. Given a persistent indoctrination into the sociocultural emphasis on female appearance, it is not surprising that women come to use very exact barometers for measuring their own bodies. In a sample of college students, Kurtz (1969) found that women possessed a more clearly differentiated body concept—that is, they discriminated more finely among various features of the body—than men. Similarly, females have clearly defined “templates” of the ideal, extremely thin female figure (Fallon & Rozin, 1985; Fisher, 1964; Jourard & Secord, 1955) and show much less variability than males in their view of acceptable size and weight (Harris, 1983).

With these two images in mind—their own body image and the ideal body image—women measure themselves against the ideal, and most emerge from such comparisons with discrepancies that are viewed as flaws and causes for self-criticism. Fallon and Rozin (1985) asked a sample of men and women to locate their actual figure as well as their ideal figure on a display of different-sized body shapes. For females, there was a significant discrepancy between their current and their ideal figures, with a thinner figure viewed as ideal. For males, there was no significant difference between self and ideal. These sex differences have been found repeatedly in other studies as well (Leon, Carroll, et al., 1985; Striegel-Moore, McAvay, & Rodin, in press; Rodin, Striegel-Moore, & Silberstein, 1985).

There is evidence suggesting that this self-ideal discrepancy may be exaggerated for women, not only because the beauty ideal for women has become increasingly thin, but also because women tend to overestimate their body size. Many studies document women’s consistent exaggeration of body size, both of the figure as a whole and of specific body parts—typically the fat-bearing areas such as waist and hips. Importantly, these estimation differences appear specific to female subjects’ own bodies, because they accurately judge the size of other people’s bodies and of physical objects (Button, Fransella, & Slade, 1977; Casper, Halmi, Goldberg, Eckert, & Davis, 1979; Crisp & Kalucy, 1974; Fries, 1975; Garner, Garfinkel, Stancer, & Moldofsky, 1976; Halmi, Goldberg, & Cunningham, 1977). In a study comparing the estimation errors of men and women, men were significantly more accurate than women in estimates of their own body size (Shontz, 1963).

An issue integrally related to self-concept that has been implicit in our discussion thus far is the association between body image and self-esteem. Many self-concept theories (for an overview, see Harter, 1985) have proposed that dissatisfaction with a particular domain of

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One's self will result in overall lower self-esteem. In particular, it is argued that the effect of shortcomings in one domain on an individual's general level of self-esteem is determined by the relative importance of that domain in the person's self-definition. Hence, failure to succeed in an area of relatively minor importance to an individual will prove far less damaging to self-worth than inadequacy in a domain of central importance.

Surprisingly few studies have investigated the influence of body image on self-esteem. In studies that have examined this relationship, moderate, significant correlations have been found (Franzoi & Shields, 1984; Lerner, Karabenick, & Stuart, 1973; Lerner, Orlos, & Knapp, 1976; Mahoney, 1974; Secord & Jourard, 1953). Given the greater societal emphasis on attractiveness in women than in men, we would expect physical appearance to have relatively more influence on a woman's general sense of self-esteem than on a man's. Empirical studies, however, have produced conflicting results.

Some studies have supported the tenet that women's body image satisfaction is more highly correlated with self-esteem than is men's (Lerner et al., 1973; Martin & Walter, 1982; Secord & Jourard, 1953), whereas other studies have found the reverse to be true (Mahoney, 1974; Franzoi & Shields, 1984). Perhaps these contradictory findings are due to the fact that body image satisfaction has a different meaning for men and women (Franzoi & Shields, 1984). Several studies have suggested that whereas men tend to see their bodies as primarily functional and active, women seem to view their bodies along aesthetic and evaluative dimensions (Kurtz, 1969; Lerner et al., 1976; Story, 1979).

The relationship between weight, as a particular component of body image, and self-esteem in women deserves further investigation. We conjecture that dissatisfaction with weight relates to chronic low self-esteem and that, in addition, weight plays a role in more short-term and volatile fluctuations of self-esteem. In a large-scale Glamour magazine survey, 63% of the respondents reported that weight often affected how they felt about themselves, and another 33% reported that weight sometimes affected how they felt about themselves (Wooley & Wooley, 1984).

Thus far, we have been considering adulthood as a single entity. As theory and research on adult development have increased, earlier views of adulthood as a sustained, stable period have been replaced by conceptualizations of the entire life span as part of an ongoing developmental process (Erikson, 1968; Levinson, Darrow, Klein, Levinson, & McKee, 1978; Neugarten, 1969, 1970). Our knowledge of weight concerns, dieting, and bulimia is limited by the relatively restricted range of samples that have been studied: The majority of research has focused on the narrow band between 10th grade in high school and senior year of college. However, some initial observations about later adulthood can be made.

First, puberty is clearly not the only period in a woman's life when her biology will potentiate fat increase. During pregnancy, a healthy woman may gain 5 to 11 pounds in fat alone (National Research Council, 1970; Hytten & Leitch, 1971; Pitkin, 1976), and it is often the case that many women have difficulty losing adipose tissue after the baby is born (Beller, 1980; Cederlof & Kay, 1970; Helliovaara & Aromaa, 1981). There is some evidence from cross-sectional studies that menopause may be another event in a woman's life that promotes weight gain (e.g., McKinlay & Jeffreys, 1974), although longitudinal studies are needed to confirm this assumption. Although the precise role of sex hormones in weight regulation is still not fully understood, levels of estrogen and progesterone have been related to hunger and food intake (Dalvit-MacPhillips, 1983; Dippel & Elias, 1980).

Women also have a lower resting metabolic rate than men and thus require fewer calories for their life-sustaining functions. This sex difference is due in part to size differences between men and women, but it is also due to the higher ratio of fat to lean tissue in women. Adipose tissue is more metabolically inert than lean tissue and thus contributes to women's lower resting metabolic rate. With aging, sex differences in metabolic rate may actually increase, along with a relatively larger decrease in lean body mass and concomitant increase in fat tissue in women compared to men (Bray, 1976; Forbes & Reina, 1970; Parizkowa, 1973; Wessel, Ufer, Van Huss, & Cederquist, 1963; Young et al., 1961; Young, Blondin, Ten-suan, & Fryer, 1963).

Second, it appears that middle age does not free women from assuming that their attractiveness is a key factor in their happiness. In a large-scale study of American couples, Blumstein and Schwartz (1983) observed that looks continued to be critical well beyond the early years of relationships. In particular, wives were keenly aware of the importance of their appearance to their husbands. Although the authors did not explicitly separate weight from other aspects of appearance, their case reports suggest that weight gain is a central way in which physical appearance changes over time and is a primary cause of concern.

What happens in later life? In a current longitudinal study of people over age 62, we found that the second greatest personal concern expressed by women in the sample, following memory loss, was change in body weight. Weight concerns were rarely expressed by men in the sample (Rodin, 1985). As just described, women tend to become fatter as they age, as a result of biological changes. In addition, some evidence suggests that the process of aging diminishes a woman's perceived attractiveness more than it does a man's (Hatfield & Sprecher, in press), a phenomenon dubbed by Sontag (1972) as the double standard of aging in our society.

In sum, although the data on the topic are sparse, it seems that women's battle with weight, both psychological and physical, lasts a lifetime. Clinically, we find that bulimia can have its onset well after the adolescent and young adult years. From both a clinical and a theoretical viewpoint, the study of women's concerns with weight and eating problems should examine women across the life span.
Which Women in Particular?

Having looked at the developmental trajectory followed by women in general in our society, we now consider which women during their developmental course will be pushed beyond a normative discontent into the disordered eating range.

Timing of development. One developmental factor that may affect risk for bulimia is the timing of biological development. Life-span theory suggests that being “out-of-phase” (Neugarten, 1972) with one’s cohorts presents a particular stressor and increases the likelihood of a developmental crisis. Research on puberty has suggested sex differences in the impact of early versus late maturation, which may be important in identifying risk factors for bulimia. Male early developers have been found to be more relaxed, less dependent, and more self-confident. They also enjoy a more positive body image and a greater sense of attractiveness than do late-developing boys (Claussen, 1975; Jones, 1965; Tobin-Richards et al., 1983).

For girls, results on the outcomes of early maturation are less clear. Although early-maturing girls have been found to enjoy greater popularity among male peers (Simmons, Blyth, & McKinney, 1983) and greater self-confidence (Claussen, 1975) than girls who develop on time or later, early-developing girls also have been reported to be less popular among female peers, to experience greater emotional distress, to perceive themselves as less attractive, and to hold a lower self-concept than their peers (Peskin, 1973; Simmons et al., 1983). Furthermore, pubertal growth may carry more explicit sexualized meanings for girls than for boys, and parents may respond to their daughters’ signs of early sexual maturation with more fear and subsequent greater protective ness than to their sons’ sexual maturation (Hamburg, 1974; Seiden, 1976).

In terms of body dissatisfaction, early-developing girls seem to be particularly unhappy with their weight (Simmons et al., 1983; Tobin-Richards et al., 1983). This finding is not surprising, given that early-developing girls tend to be fatter than their peers (and tend to remain so once they have completed their pubertal growth). In Simmons et al.’s (1983) sample, weight and body image satisfaction were inversely correlated for all girls, regardless of maturational status. In fact, when weight was corrected for, the differences in body image satisfaction of early-, middle-, and late-developing girls disappeared. Bruch (1981) suggested that early development may be a risk factor in anorexia nervosa. Although there are no empirical data on this issue, we conjecture that maturing faster than her peers may place a girl at risk for bulimia as well.

Personality. From our depiction of female development, it becomes clear that women have a primarily relational orientation. We conjecture that if a woman’s orientation toward others’ needs and opinions eclipses a sense of her own needs and opinions, she will be at risk for mental health problems in general. Whereas psychiatry has long noted women’s vulnerability to hysteria, agoraphobia, or depression, in our current society, women also will be at risk for bulimia. Indeed, clinicians depict bulimic women as exhibiting a strong need for social approval and avoiding conflict, and as experiencing difficulty in identifying and asserting needs (Arenson, 1984; Boskind-Lodahl, 1976; Boskind-White & White, 1983). Initial research has found that bulimic women have higher need for approval than control women (Dunn & Ondercin, 1981; Katzman & Wolchik, 1984) and also score higher on a measure of interpersonal sensitivity (Striegel-Moore, McAvay, & Rodin, 1984).

One question that arises, then, is whether there is a personality profile that places some women at greater risk for bulimia. Although the methodology of assessing personality traits in individuals who already exhibit the clinical syndrome does not permit causal inferences, let us briefly examine the major findings of this line of research. Group profiles of the Minnesota Multiphasic Personality Inventory (MMPI) obtained for bulimic women were found to show significant elevations on the clinical scales Depression, Psychopathic Deviate, Psychasthenia, and Schizophrenia (Hatsukami, Owen, Pyle, & Mitchell, 1982; Leon, Lucas et al., 1985; Orleans & Barnett, 1984; Wallach & Lowenkopf, 1984).

Presenting MMPI data in the form of group profiles ignores the heterogeneity of profiles within a sample. Hatsukami et al. (1982) reported that the two most common code types (which together accounted for only 25% of their sample) may represent two subgroups of bulimics, one with more obsessive-compulsive problems and the other with addictive behaviors. Importantly, for 20% of the bulimic subjects, none of the clinical scales were significantly elevated; it is possible that this represents another subgroup of bulimics who do not show psychopathology in areas other than their eating disorder.

Many researchers have identified one substantial subgroup of bulimic women to be those who also report problems with alcohol or drug abuse (Leon, Carroll, et al., 1985; Mitchell, Hatsukami, Eckert, & Pyle, 1985; Pyle et al., 1983; Walsh, Roose, Glassman, Gladis, & Sadik, 1985). These observations have led some experts to conclude that bulimia is basically a substance-abuse disorder (Brisman & Siegel, 1984; Wooley & Wooley, 1981), with food either one of many substances or the only substance that is abused. A view of bulimia as a substance-abuse disorder is supported by the high incidence of substance abuse found among the members of bulimic women’s immediate families (Leon, Carroll, et al., 1985; Strober, Salkin, Burroughs, & Morrell, 1982). We conjecture that the constellation of personality factors that predispose a woman to substance abuse would place her at risk also for bulimia, including an inability to regulate negative feelings, a need for immediate need gratification, poor impulse control, and a fragile sense of self (Brisman & Siegel, 1984; Goodiss, 1983).

Another characteristic of bulimic women that has attracted considerable attention has been the high prevalence of depressive symptoms (Fairburn & Cooper, 1982; Hatsukami, Eckert, Mitchell, & Pyle, 1984; Johnson &
Larson, 1982; Johnson et al., 1982; Katzman & Wolchik, 1984; Mitchell et al., 1985; Norman & Herzog, 1983; Pyle, Mitchell, & Eckert, 1981; Russell, 1979; Wallach & Lowenkopf, 1984; Walsh et al., 1985; Williamson et al., 1985; Wolf & Crowther, 1983). Between 35% and 78% of bulimic patients have been reported to satisfy the DSM-III criteria for a diagnosis of affective disorder during the acute stage of illness (Gwirtsman, Roy-Byrne, Yager, & Gerner, 1983; Hatsuakami et al., 1984; Herzog, 1982; Hudson et al., 1982; Hudson et al., 1984; Pope, Hudson & Jonas, 1983). This high incidence of depressive symptoms in bulimia has led to the hypothesis that bulimia is a variant of an affective disorder. However, these studies were conducted with patients, and such individuals generally report a high incidence of depressive symptoms regardless of the presenting problem (e.g., Kashani & Priesmeyer, 1983; Rabkin, Charles, & Kass, 1983). Furthermore, the symptoms of a major depressive episode or dysthymic disorder and bulimia overlap considerably, a point that has been made with respect to anorexia (Altschuler & Weiner, 1985).

Whether or not bulimia is a type of affective disorder, several possible links between bulimic and depressive symptoms may obtain. There is some evidence that depressive symptoms increase during or after binge eating and purging episodes (Johnson et al., 1982; Johnson & Larson, 1982; Russell, 1979). For some bulimic women, the binge/purge cycle serves a self-punishing purpose (Johnson et al., 1984), which is consonant with the depressive constellation. Alternatively, eating may be an antidote to depression, used as self-medication and self-nurturance. There also may be an association between depression and the onset of the binge/purge cycle. Perhaps when weight-conscious women become depressed, their customary restraint of eating weakens, thus increasing the likelihood of binging. We have described earlier the apparent association between body dissatisfaction and low self-esteem, which is a common marker of depression. At present, the question remains unanswered whether depression is a symptom secondary to bulimia, or whether a depressive syndrome places a woman at greater risk for bulimia.

Behaviorally oriented researchers have begun to examine the possibility that inadequate coping skills constitute a risk factor for bulimia (Hawkins & Clement, 1984). Several clinicians and researchers have argued that a deficit of coping skills renders a bulimic woman less able to deal effectively with stress, and binging is an expression of her inability to cope (Boskind-White & White, 1983; Hawkins & Clement, 1984; Katzman & Wolchik, 1984; Loro, 1984; Loro & Orleans, 1981).

In addition, researchers have found that women who experience more stress are at greater risk for binge eating (Abraham & Beaumont, 1982; Fremouw & Heyneman, 1984; Pyle et al., 1981; Strober, 1984; Wolf & Crowther, 1983). We postulate that stress is not a specific risk factor but rather, in concert with the other risk factors we have discussed, may play a role in a woman's likelihood of developing bulimia. Research is needed to determine whether bulimic women, compared with other women, encounter a higher level of life stress, subjectively experience stressors as more stressful, or are less skilled in coping with stress.

### Biological Factors

#### Genetic Determinants of Weight

In attempts to understand bulimia, it is crucial to examine biological and genetic factors. As discussed in the section on development, women are genetically programmed to have a proportionately higher body fat composition than men—a sex difference that appears to hold across all races and cultures (Bennett, 1984; Tanner, 1978), and the differences between the sexes in fatness increases dramatically, on the average, across the life span.

Substantial individual differences in body build and weight are genetically determined. Identical twins, even when reared apart, are significantly more similar in weight than are fraternal twins or siblings (Borjeson, 1976; Bray, 1981; Brook, Huntley, & Slack, 1975; Fabsitz, Feinleib, & Hrubec, 1978; Feinleib et al., 1977; Medlund, Cederlof, Floderus-Myrhed, Friberg, & Sorensen, 1976; Stunkard, Foch, & Hrubec, 1985). Adopted children resemble their biological parents in weight far more than they resemble their adoptive parents (Stunkard, Sorensen, et al., 1985).

One path by which heredity may influence weight is by determining the ways in which food is metabolized. Individual differences in metabolic rate seem to be of great significance in determining the efficiency of caloric expenditure (Rimm & White, 1979). Indeed, even individuals matched for age, sex, weight, and activity level can differ dramatically from each other in the amount of calories they eat while maintaining identical levels of body weight (Rose & Williams, 1961).

### Which Women in Particular?

We conjecture that those women who are genetically programmed to be heavier than the svelte ideal will be at higher risk for bulimia than those women who are naturally thin. Clinical and empirical evidence suggests that a woman who is heavier than her peers may be more likely to develop bulimia (Boskind-White & White, 1983; Fairburn & Cooper, 1983; Johnson et al., 1982; Yager, Landsverk, Lee-Benner, & Johnson, 1985).

It has been suggested that in addition to the genetic predisposition to a specific body weight, a predisposition to an eating disorder may be genetically transmitted. Research on this issue is in an early stage, but initial findings suggest familial clustering of eating disorders. Studies have documented a significantly higher incidence of both anorexia nervosa and bulimia among the first-degree female relatives of anorexic patients than in the immediate families of control subjects (Gershon et al., 1983; Strober, Morrell, Burroughs, Salkin, & Jacobs, 1985). Monozygotic twins have a considerably higher concordance rate than dizygotic twins for anorexia (Crisp, Hall, & Holland, 1985; Garfinkel & Garner, 1982; Holland, Hall, Murray, Russell, & Crisp, 1984; Nowlin, 1983; Vandereyken &
Following from this line of research with anorexic women, the question of the inheritability of bulimia now needs to be examined with bulimic patients.

The Disregulation of Body Weight and Eating Through Dieting

A significant number of women, then, face a frustrating paradox: Although society prescribes a thin beauty ideal, their own genes predispose them to have a considerably heavier body weight. Current society promotes dieting as the pathway to thinness, and as we would expect, significantly more women than men report dieting at any time (e.g., Nielsen, 1979; Nylander, 1971). Before age 13, 80% of girls report that they have already been on a weight-loss diet, as compared to 10% of boys (Hawkins, Turell, & Jackson, 1983).

On the basis of studies investigating the physiological changes that occur as a result of dieting, many researchers now believe that dieting is not only an ineffective way to attain long-term weight loss but that it may in fact contribute to subsequent weight gain and binge eating (Polivy & Herman, 1985; Rodin, 1981; Rodin, Silberstein, & Striegel-Moore, 1985; Wardle, 1980; Wooley & Wooley, 1981). A substantial decrease in daily caloric intake will result in a reduced metabolic rate, which thus impedes weight loss (Apfelbaum, 1975; Boyle, Storlien, Harper, & Keesey, 1981; Garrow, 1978; Westerterp, 1977). The suppression of metabolic rate caused by dieting is most pronounced when basal metabolic rate is low from the outset (Wooley, Wooley, & Dyrenforth, 1979). Because women have lower metabolic rates than men, women are particularly likely to find that, despite their efforts, they cannot lose as much weight as they would like. Upon resuming normal caloric intake, a person's metabolic rate does not immediately rebound to its original pace, and in fact, a longer period of dieting will prolong the time it takes for the metabolic rate to regain its original level (Even, Nicoldais, & Meile, 1981). Thus, even normal eating after dieting may promote weight gain.

Numerous other physiological changes due to food restriction have been reported (Bjornorp & Yang, 1982; Faust, Johnson, Stern, & Hirsch, 1978; Fried, Hill, Nickel, & DiGirolamo, 1983; Gruen & Greenwood, 1981; Miller, Faust, Goldberger, & Hirsch, 1983; Walks, Lavan, Presta, Yang, & Bjornorp, 1983). All of these alterations contribute to increased efficiency in food utilization and an increased proportion of fat in body composition. Hence, dieting ultimately produces effects opposite to those intended. In addition to these biological ramifications, dieting also produces psychological results that are self-defeating. Typically, a dieter feels deprived of favorite foods, and when "off" the diet, she is likely to overeat (Herman & Mack, 1975; Polivy & Herman, 1985).

Which Women in Particular?

We propose that a prolonged history of repeated dieting attempts constitutes yet another risk factor for bulimia. Animal research suggests that regaining weight occurs significantly more rapidly after a second dieting cycle than after a first (Brownell, Stellar, Stunkard, Rodin, & Wilson, 1984). We conjecture that those women who have engaged in repeated dieting attempts will be the least successful at achieving their target weights by dieting. These women may be most vulnerable, then, to attempting other weight loss strategies, including purging.

The literature on the physiological and psychological effects of dieting suggests a seemingly paradoxical picture: The more restrictively a person diets, the more likely she or he will be to crave foods (particularly foods not allowed as part of the diet) and to give in to these cravings eventually. Indeed, several studies have found a high correlation between restraint and binge eating (Hawkins & Clement, 1980, 1984; Leon, Carroll, et al., 1985; Striegel-Moore et al., 1985b). From their review of this research, Polivy and Herman (1985) concluded that food restriction may be an important causal antecedent to binging. In support of this view, the clinical literature suggests that in many cases bulimia was preceded by a period of restrictive dieting (Boskind-Lodahl & Sirlin, 1977; Dally & Gomez, 1979; Johnson et al., 1982; Mitchell et al., 1985; Russell, 1979; Wooley & Wooley, 1985).

Affective Instability

Affective instability has been proposed as another biogenetic risk factor of bulimia (Hawkins & Clement, 1984; Johnson, Lewis, & Hagman, 1984; Strober, 1981). It is widely recognized that women have a higher incidence of affective disorders than men. If a predisposition to affective instability increases an individual's risk of bulimia, then it would represent another answer to the questions of both why women rather than men become bulimic and which women in particular.

Several family studies have revealed a high incidence rate of affective disorders among first-degree relatives of bulimic patients (Gwirtsman et al., 1983; Herzog, 1982; Hudson et al., 1982; Hudson et al., 1983; Pyle et al., 1983; Slater & Cowie, 1971; Strober et al., 1982, 1985), with one exception (Stern et al., 1984). Studies considering the incidence of bulimia in first-degree relatives of patients with an affective disorder would constitute another test of the hypothesized familial association between affective disorders and bulimia (Altshuler & Weiner, 1985). Two studies addressing this question, however, did not find increased incidence of eating disorders among the first-degree relatives of patients with an affective disorder, a result that argues against a simple hypothesis that affective disorders and eating disorders are merely alternate expressions of the same dis- position (Gershon et al., 1983; Hatsuokami et al., 1984; Strober, 1983; Yager & Strober, 1985). In the absence of twin studies, adoption studies, and sophisticated family aggregation studies, at present no conclusions regarding genetic transmission of bulimia via an affective disorder link can be made.

Family Variables

With a few exceptions (e.g., Boskind-White & White, 1983; Schwartz, 1982; Schwartz, Barrett, & Saba, 1985;
Yager, 1982), the bulimia literature has largely ignored the potential role of family characteristics that might predispose some women to bulimia. Prospective studies are completely missing, and there is no comprehensive theoretical framework that would allow delineation of the relevant variables to be included in a prospective investigation of families.

In light of our review, we conjecture that certain family characteristics may amplify the sociocultural imperatives described earlier. For example, we hypothesize that a daughter’s risk for bulimia is relatively increased if the family places heavy emphasis on appearance and thinness; if the family believes and promotes the myth that weight is under volitional control and thus holds the daughter responsible for regulating it; if family members, particularly females (mother, sisters, aunts), model weight preoccupation and dieting; if the daughter is evaluated critically by members of the family with regard to her weight; if the daughter is reinforced for her efforts to lose weight; and if family members compete regarding the achievement of the ideal of thinness.

Furthermore, a risk to develop bulimia may derive from how the family system operates. Clinicians have described families with a bulimic member as sharing similarities with “psychosomatic families” (Minuchin, Rosman, & Baker, 1978), including enmeshment, overprotectiveness, rigidity, and lack of conflict resolution. In addition, bulimic patients’ families are reported to exhibit isolation and heightened consciousness of appearance, and they attach special meaning to food and eating (Schwartz et al., 1985). Research evaluating these assumptions is still in its infancy (Johnson & Flach, 1985; Kagan & Squires, 1985; Kog, Vandereycken, & Vertommen, in press; Kog, Vertommen, & DeGroote, in press; Sights & Richards, 1984; Strober, 1981).

Why Now?

In the final section, we attempt to speculate on what makes bulimia so likely at this particular time. We recognize that ease of diagnosis per se, after inclusion of the disorder in the DSM-III (American Psychiatric Association, 1980), may have contributed to the apparent increase, but we wish to focus on other sociocultural and psychological mediators that contribute to the increased risk of bulimia in this era.

Shift Toward Increasingly Thin Standard

In recent years, the beauty ideal for women has moved toward an increasingly thin standard, which has become more uniform and has been more widely distributed due to the advent of mass media. Changes in measurements over time toward increasing thinness have been documented in Miss America contestants, Playboy centerfolds, and female models in magazine advertisements (Garner, Garfinkel, Schwartz, & Thompson, 1980; Snow & Harris, 1985). During the same time period, however, the average body weight of women under 30 years of age has actually increased (Metropolitan Life Foundation, 1983; Society of Actuaries, 1959, 1979).

Lakoff and Scherr (1984) suggested that models on television and in magazines are seen as realistic representations of what people look like, as compared with painted figures who are more readily acknowledged to be artistic creations. Even though the magazine model or television actress has undergone hours of makeup preparation as well as time-consuming and rigorous workout regimens to achieve the “look,” her audience thinks that the model’s public persona is what she really looks like. Her “look” is then rapidly and widely disseminated, so that the public receives a uniform picture of beauty.

Effects of Media Attention on Dieting and Bulimia

We hypothesize that current sociocultural influences teach women not only what the ideal body looks like but also how to try to attain it, including how to diet, purge, and engage in other disregulating behaviors. The mass-market weight control industry almost prescribes these rituals. For example, the bestseller Beverly Hills Diet Book (Mazel, 1981) advocated a form of bulimia in which binges are “compensated” by eating massive quantities of raw fruit to induce diarrhea (Wooley & Wooley, 1982). In addition to the mass media making available what one might call manuals for “how to develop an eating disorder,” females more directly teach each other how to diet and how to binge, purge, and starve. Schwartz, Thompson, and Johnson (1981) found that a college woman who purges almost always knows another female student who purges, whereas a woman who does not purge rarely knows someone who does.

A positive feedback loop is thus established: The more women there are with disordered eating, the more likely there are to be even more women who develop disordered eating. We certainly do not mean to imply that psychopathology is merely learned behavior—but we suggest that the public’s heightened awareness of eating disorders and a young woman’s likelihood of personal exposure to the behaviors may be a significant factor in the increased emergence of eating disorders in the last several years.

We have already noted how family members may model for other members both attitudes and behaviors concerning weight and eating. Interestingly, as Boskind-White and White (1983) described, the women now presenting with bulimia are the daughters of the first Weight Watchers’ generation. A question for future study is, What will the daughters of the generation of bulimic women be like?

Fitness

In the past decade, along with the fitness movement, there has been a redefinition of the ideal female body, which is characterized now not merely by thinness but by firm, shapely muscles (while avoiding too much muscularity) as well. Although the possible health benefits from increased exercise are very real, the current emphasis on fitness may itself be contributing to the increased incidence of bulimia. The strong implication is that anyone
who “works out” can achieve the lean, healthy-looking ideal and that such attainment is a direct consequence of personal effort and therefore worthy of pride and admiration. Conversely, the inability to achieve the “aerobics instructor look” may leave women feeling defeated, ashamed, and desperate. The pursuit of fitness becomes another preoccupation, compulsion, even obsession for many. Again, we note that women’s bodies are predisposed to have a fairly high proportion of fat; indeed, female hormones are disregulated when the percentage of body fat drops below a certain level. The no-fat ideal reflects an “unnatural” standard for many women.

If the pursuit of fitness represents a step even beyond pursuit of thinness, so too does the upsurge of cosmetic surgery. From suction removal of fat to face-lifts, women in increasing numbers are seeking to match the template of beauty with ever more complicated (and expensive) procedures. The message, again, seems to be that beauty is a matter of effort and that failure to attain the beauty ideal makes one personally culpable.

Shifting Sex Roles

Perhaps, ironically, in this era when women feel capable and empowered to pursue success in professional arenas, they have a heightened sense that their efforts should attain success in the domain of beauty as well. It seems that being occupationally successful does not relieve a woman of the need to be beautiful. Indeed, the pursuit of beauty and thinness may sometimes compromise women’s success in other domains, for it takes time, attention, and money and is a drain on self-esteem.

In this transitional time of rapidly shifting sex roles, it seems likely that girls more than boys are experiencing the stresses of changing roles, perhaps placing girls at greater risk for psychological distress in general. These changing roles may intersect with all of the risk factors for bulimia we have been discussing and therefore may be an important part of the answer to Why now? The messages communicated to girls are complex and quite often confusing: Work hard at school, but be sure to be conscious, we would expect them to diet more. Already, men do exist and, we hypothesize, will increase in number in the near future. Indeed, bulimic men are an important group to study in the context of our risk factor model, because although men and women may share certain sociocultural, psychological, and biological risk factors, there clearly are gender differences in the variables placing an individual at risk.

Surely our society’s fitness consciousness applies to men as much as, and perhaps even more than, to women. It is possible that the sexes pursue fitness for different reasons, with women focusing more on the effects exercise has on physical appearance, whereas men pursue strength and masculinity (Garner, Rockert, Olmsted, Johnson, & Coscina, 1985). However, the workout body type for men has become, it seems, a more widely aspired-to ideal, and similarly to women, more and more men today are fighting to ward off the effects of aging on their appearance. As men become more fashion conscious and more weight conscious, we would expect them to diet more. Already, diet soft drinks, light beers, and other diet products are being marketed for a male as well as a female audience. Because men rarely have the long history of dieting efforts that women do, men typically are more successful in their weight-loss efforts. However, if they succumb to repeated cycles of gaining and losing, we hypothesize that these patterns will lead to the same effects in men as they have in women and could therefore potentiate bulimia.

Beyond the general pressure on men to be conscious of physical fitness and appearance that may result in an increased risk for men to develop bulimia, certain male subcultures (similar to female subcultures) emphasize weight standards and thus place certain men at greater risk for bulimia. If our hypothesis is correct that envi-
environments that emphasize weight standards foster the development of bulimia, then we would expect to find a higher incidence of bulimia in men who participate in such environments than in men who do not. In fact, initial research does show that athletes such as wrestlers and jockeys evidence higher incidence of bulimia (Rodin, Striegel-Moore, & Silberstein, 1985) than athletes in sports that do not prescribe a certain body weight. Clinical evidence suggests that homosexual men, whose subculture promotes a thin body ideal and a heightened attentiveness to appearance and fashion (Kleinberg, 1980; Lakoff & Scherr, 1984; Mishkind, Rodin, Silberstein, & Striegel-Moore, in press), may also be at increased risk for bulimia (Herzog, Norman, Gordon, & Pepose, 1984).

The present analysis has underscored questions that remain to be investigated. As we conclude, let us briefly outline some of these agendas for future study. Initial research suggests that a description of bulimia as a single entity does not reflect adequately the heterogeneity of the population. In particular, we need diagnostic categories that allow differentiation among subgroups, which would then permit an investigation of the differential relationships among those subgroups and the various risk factors. An additional step involves clarifying the relationships among bulimia, anorexia, and obesity, and the risk factors involved in each of those syndromes. Another question deserving further attention is the place of bulimia in the spectrum of psychiatric disorders in general and in the affective disorders in particular. In addition, we need to understand the risk factors that bulimia may share with other psychiatric syndromes that have been disproportionately represented by women, such as depression and agoraphobia.

Having emphasized the importance of female socialization as a major contributing factor in bulimia, we also need to examine how changes in the female sex role stereotype may affect the incidence of bulimia. Furthermore, reaching an understanding of the risk factors for bulimia in men could help expand and refine our understanding of risk factors in women as well as in men. Finally, although we have focused our attention on identifying factors that place women at risk for bulimia, it will be equally important to delineate variables that serve a protective function.

Another important task is to develop strategies for the prevention of bulimia. Numerous risk factors have been described that do not lend themselves easily to modification. Many have to do with social values and mores. Unfortunately, large-scale social changes are slow and difficult to effect. Other risk factors involve genetic determinants. Even if some factors that lead to bulimia are genetically determined or transmitted, however, the fact that they are expressed as an eating disorder rather than in some other clinical manifestation can be understood only by referring to the present sociocultural milieu and to female sex role socialization practices. As strategies for change in these areas are developed, shifts in the incidence and prevalence of bulimia may be expected to follow.

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