

From Giacometti to Botero: Images of Eating Disorders Under Investigation

In the past decade, a surge of investigations have tried to identify risk factors for the development of eating disorders. With few exceptions, these studies depended on retrospective information and used a variety of methods for determining risks. The clarifying definition of risk factor and risk by Kraemer et al. (1) and the recommended requirement for evaluating risks should provide a most useful guideline for intelligently designed studies of risks. These guidelines were followed by the McKnight investigators in their study of risk factors for the onset of eating disorders in adolescent girls, published in this issue of the *Journal*.

In the McKnight study, 1,103 girls from grades 6 through 9 were initially assessed and then followed for 3 years. Unfortunately, we are not given the ages of the girls at the initial assessment. During the course of the follow-up period, only 2.9% (N=32) developed a partial- or full-syndrome eating disorder, and these were classified as bulimia nervosa (N=1), partial-syndrome bulimia (N=26), and binge eating disorder (N=5). No cases of anorexia nervosa or partial-syndrome anorexia developed during that 3-year follow-up period. These facts are important for several reasons. The peak age at onset for anorexia nervosa is bimodal, occurring at ages 14½ and 18 (2). This means that most of the young women did not pass through the second peak onset age by the time the follow-up study was concluded. Thus, one might not expect a high rate of development of anorexia nervosa until after the second peak onset age. In previous studies, perfectionism has been associated as a risk factor for anorexia nervosa, particularly the restricting type (3). Thus, it is not surprising that in the McKnight study, perfectionism was not a predicting factor for the development of bulimia nervosa or partial-syndrome bulimia. It would have been more accurate for the authors of this article to have stated that thin body preoccupation and social pressure are important risk factors for the development of binge eating disorders in adolescents. Since the McKnight study was so well designed, it would have been of considerable value to extend the study at least through grade 12 to more adequately cover the time of expected peak development of eating disorders.

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The term “predictive factors” is often used interchangeably for risk factors. The study in this issue by Anderluh et al. on childhood obsessive-compulsive personality traits in eating disorders was concerned with identifying risk factors in the restricted area of obsessive-compulsive traits. The authors developed an interview based on retrospective information from the patient’s childhood concerning five traits identified to be associated with obsessive-compulsive personality disorder: perfectionism, inflexibility, being bound by rules, a drive for order and symmetry, and excessive doubt and cautiousness. Two-thirds of the patients with anorexia nervosa and one-third with bulimia nervosa reported perfectionism and at least one of the two traits reflecting rigidity in childhood. The greater prevalence of premorbid perfectionism in anorexia nervosa compared with bulimia nervosa is in accordance with previous studies (4). Those patients with eating disorders who had perfectionism and rigidity in childhood had significantly higher dimensional scores on the Anankastic Personality Disorder Assessment Scale in adulthood. The latter scale covers items that are similar to those described in the definition

of DSM-IV obsessive-compulsive personality disorder. The word anancasm as defined by a psychiatric dictionary (5) is "any form of repetitious, recurrent, orderly, stereotype behavior or thinking which if left unperformed will lead to an increase in anxiety and tension." The definition includes the following statement: "H. Richter believes that phobias are also anancasms, because they may drive the subject to seek protection through compulsions or obsessions." Anorexia nervosa has been conceptualized as a fat and eating phobia as well as a sexual maturation phobia (6, 7). The anorectic's preoccupations with body shape and food are similar to obsessions, and their rituals to prevent them from eating are similar to compulsions. By remaining thin and maintaining a "Peter Pan" shape, the anorectic adolescent can avoid sexual maturation and the responsibilities associated with it.

The components of perfectionism in various psychiatric disorders were examined in this issue by Bulik et al., who conducted a large female twin study that used the Frost Multidimensional Perfectionism Scale. Concern over mistakes had a significantly higher odds ratio for anorexia nervosa and bulimia nervosa exclusively, and doubts about action were significantly associated with both anorexia nervosa and bulimia nervosa as well as with panic disorder, generalized anxiety disorder, and phobias. Twin studies have also shown a shared genetic factor between eating and anxiety disorders (8). The question of whether the concerns over mistakes component remains the most significant aspect of perfectionism associated with eating disorders needs to be tested in a large general population of unrelated eating disorders.

Further evidence for the familial association of perfectionism with eating disorders was presented in a study by Woodside et al. (9), who showed that mothers of eating disorder patients had higher levels of perfectionism relative to comparison subjects.

In exploring several attributes, including perfectionism, thought to typify individuals with eating disorders, Devlin et al. (10) identified two variables, drive for thinness and obsessiveness, that distinguished a cluster of affected sibling pairs who had high and concordant values for the latter two traits (10). When these covariants were incorporated into a linkage analysis, several regions of suggestive linkage were found, including one on chromosome 1, another on chromosome 2, and a third on chromosome 13 (10). Additional methodologies will be needed to explore the genetic contribution of perfectionism and the components of perfectionism to eating disorders.

Binge eating disorder commonly occurs with obesity (11). It can be exceedingly difficult for these patients to comply with a cognitive behavior therapy program. The results of a placebo-controlled, double-blind randomized trial of topiramate in patients with binge eating disorder associated with obesity presented in this issue are promising in that they suggest a possible more effective treatment for these patients. The additional benefit is the associated weight loss.

Exploring the concepts underlying the range of eating disorders has been a far more difficult task than portraying its visual imagery (e.g., the works of Giacometti and Botero). Properly designed prospective longitudinal studies for risk factors are only one component of the necessary investigations of eating disorders. When sufficient knowledge of risk factors is available, prevention studies need to be conducted. More effective treatment techniques are needed for the entire range of eating disorders.

REFERENCES

1. Kraemer HC, Kazdin AE, Offord DR, Kessler RC, Jensen PS, Kupfer DJ: Coming to terms with the terms of risk. *Arch Gen Psychiatry* 1997; 54:337-343
2. Halmi KA, Casper RC, Eckert ED, Goldberg SG, Davis JM: Unique features associated with age on onset of anorexia nervosa. *Psychiatry Res* 1979; 1:209-215
3. Strober M: Personality and symptomatological features in young, nonchronic anorexia nervosa patients. *J Psychosom Res* 1980; 24:353-359
4. Braun DL, Sunday SR, Halmi KA: Psychiatric comorbidity in patients with eating disorders. *Psychol Med* 1994; 24:859-867
5. Campbell RJ: *Psychiatric dictionary*. Oxford, UK, Oxford University Press, 1998, p 41

6. Brady JB, Reiger W: Behavior treatment of anorexia nervosa, in Proceedings of the International Symposium on Behavior Modification. New York, Appleton Century Cross, 1972, pp 1–19
7. Crisp AH: Anorexia nervosa “feeding disorder,” “nervous malnutrition” or “weight phobia.” *World Rev Nutr Dietet* 1970; 12:452–504
8. Kendler KS, Walters EE, Neale MC, Kessler RC, Heath AC, Eaves LJ: The structure of the genetic and environmental risk factors for 6 major psychiatric disorders in women: phobia, generalized anxiety disorder, panic disorder, bulimia, major depression and alcoholism. *Arch Gen Psychiatry* 1995; 52:374–383
9. Woodside DB, Bulik CM, Halmi KA, Fichter MM, Kaplan A, Berrettini W, Strober M, Treasure J, Lilienfeld L, Klump K, Kaye W: Personality, perfectionism and attitudes towards eating in parents of individuals with eating disorders. *Int J Eat Disord* 2002; 31:290–299
10. Devlin B, Bacanu S, Klump KL, Bulik CM, Fichter MM, Halmi KA, Kaplan AS, Strober M, Treasure J, Woodside DB, Berrettini W, Kaye W: Linkage analysis of anorexia nervosa incorporating behavioral covariates. *Human Molec Gen* 2002; 11:689–696
11. Devlin MJ, Yanovski SZ, Wilson GT: Obesity: what mental health professionals need to know. *Am J Psychiatry* 2000; 157:854–866

KATHERINE A. HALMI, M.D.

Address reprint requests to Dr. Halmi, Weill Medical College of Cornell University—Westchester Division, New York Presbyterian Hospital, 21 Bloomingdale Rd., White Plains, NY 10605; kah29@cornell.edu (e-mail).