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Subtyping female adolescent psychiatric inpatients with features of eating disorders along dietary restraint and negative affect dimensions

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Abstract

Cluster-analytic studies of eating disorders in adult patients have yielded two subtypes (pure dietary and mixed dietary-negative affect). This study aimed to replicate the subtyping in female adolescent psychiatric inpatients with features of eating disorders. Cluster analyses of 137 patients with eating-disordered features revealed a dietary-negative affect subtype (43%) and a pure dietary subtype (57%). The dietary-negative affect subtype was characterized by greater likelihood of binge eating, greater eating-related psychopathology, and greater body image dissatisfaction. The two subtypes did not differ significantly in scores reflective of clinical syndromes (other than the significantly higher depressive affect in the negative affect subtype), but the dietary-negative affect subtype was characterized by greater personality disturbance and higher reported concerns in clinical areas, including suicidality and childhood abuse. The cluster analysis produced different results from an alternative approach to subtyping by vomiting. These findings provide further support for the reliability and validity of this subtyping scheme for eating pathology. Clinically, the findings suggest that the combination of dieting and negative affect signals a more disturbed variant of eating-disorder related psychopathology in female adolescent psychiatric inpatients.

Keywords: Eating disorders; Adolescents; Subtyping; Dietary restriction; Negative affect

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1. Introduction

Risk factor models and studies of the development and maintenance eating disorders (Fairburn et al., 2003; Fairburn, Welch, Doll, Davies, & O'Connor, 1997; Stice, 2002) have emphasized the potential roles of dietary restraint (Polivy & Herman, 1993) and affect regulation (Heatherton & Baumeister, 1991). Dietary restraint models posit that excessive dieting or dietary restraint increases the likelihood of binge eating (Lowe, 1993). Affect regulation models posit that emotional disturbances coupled with deficits in coping increase the likelihood of binge eating (Grilo & Shiffman, 1994; Leon, Fulkerson, Perry, & Early-Zald, 1995). The dual-pathway model (Stice, 1994, 2001) posits that problems with either—or both—dietary restraint or affective regulation may trigger binge eating.

Research has found that heightened dietary restraint and negative affect predict the onset of disordered eating (Stice, 2001) and that binge eating frequently occurs during negative mood states (Agras & Telch, 1998; Davis, Freeman, & Garner, 1988; Grilo, Shiffman, & Carter-Campbell, 1994). The literature is not unequivocal (Stice, 2002). In one study (Fairburn et al., 2003), negative affect emerged as a weak predictor and dietary restraint was not significantly predictive of the maintenance or persistence of bulimia nervosa (BN). In contrast, a different study (Stice & Agras, 1998) found that dietary restraint—but not negative affect—significantly predicted bulimic symptomatology (subthreshold for diagnosis).

Stice and colleagues (Stice & Agras, 1999; Stice, Agras, Halmi, Mitchell, & Wilson, 2001) posited that some eating-disordered individuals conform better to the dietary restraint model whereas others conform better to the negative affect model. Stice and Agras (1999) 'subtyped' 265 females with BN using measures of dietary restraint and negative (depressive) affect. Cluster analyses revealed a 'pure dietary' subtype (62% of patients) and a 'dietary-depressive' subtype (38% of patients). While the two subtypes were similar in their frequency of binge eating and purging, the dietary-depressive subtype was characterized by significantly higher levels of other features of eating disorders (weight- and shape-concerns) and higher levels of psychosocial maladjustment. In a second study, Stice et al. (2001) subtyped 159 females with binge eating disorder (BED) using the same approach. Cluster analyses revealed a 'pure dietary' subtype (64% of cases) and a 'dietary-negative affect' subtype (36% of cases). Unlike the Stice and Agras findings for BN (Stice & Agras, 1999), the dietary-negative affect subtype was characterized by a higher frequency of binge eating; consistent with the findings for BN, however, the BED dietary-negative affect subtype had significantly levels of the features of eating disorders and associated psychiatric and social maladjustment. Two recent studies provided further support for the subtyping findings in adults with BN (Grilo, Masheb, & Berman, 2001) and with BED (Grilo, Masheb, & Wilson, 2001a).

Since eating and body image disturbances most frequently begin during adolescence, continued investigation of subtypes should target this developmental era. In addition, it has been suggested (Grilo, Devlin, Cachelin, & Yanovski, 1997) that such research efforts consider these problems broadly rather than solely focusing on samples selected based on formal diagnoses (e.g. anorexia nervosa or BN) or being above threshold for formal diagnoses (Fairburn, Cooper, & Shafran, 2003; Garfinkel, Kennedy, & Kaplan, 1995). The relevance of studying adolescents with *features* of eating and body image disturbances is suggested by several convergent findings. Studies have found that adolescents more often report onset of a single symptom rather than multiple symptoms