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Are Type A Tendencies in Women Associated with Eating Disorder Pathology?

Patti Lou Watkins,[1,3] Mark C. Cartiglia,[2] and Jamie Champion[2]

This study explored the hypothesis that, for women, eating disorder pathology represents a gender-specific way in which some aspects of the Type A response style manifest themselves. Participants were 555 college women who completed measures of Type A beliefs and behavior, along with two eating disorder questionnaires. Women scoring in the clinical range on both eating disorder measures had significantly higher scores on the Type A measures than women falling below clinical cutoff scores. Furthermore, women with eating disorder pathology reported significantly greater distress over discrepancies between current and ideal weight as well as current and ideal grade point average. These findings support the hypothesis that women with eating disorder pathology display Type A characteristics, especially perfectionism and achievement-striving, which extend to the realm of physical attractiveness. These data have implications for preventing and treating eating disorders among college women with multiple aspirations for success.

KEY WORDS: Type A; eating disorders; women; achievement; perfectionism.

Four decades have passed since the Type A behavior pattern (TABP), a constellation of characteristics led by a drive to achieve, was proposed as a risk factor for coronary heart disease (CHD). Subsequent research, however, provided conflicting evidence (Booth-Kewley & Friedman, 1987). As a result, the literature has shifted from exclusive study of this broad, overt pattern of behavior to study of specific behavioral components and cognitive underpinnings. Price (1988) focused on the latter, proposing that certain core beliefs are responsible for the expression of overt Type A be-

[1]Department of Psychology, Oregon State University, Corvallis, Oregon 97331-5303.
[2]Department of Psychology, Washington State University, Pullman, Washington 99163.
[3]To whom correspondence should be addressed at Department of Psychology, 102 Moreland Hall, Oregon State University, Corvallis, Oregon 97331-5303.

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haviors. She states that such beliefs might confer an even greater health risk than the TABP. Central to her model is the belief that one must constantly prove oneself to others through achievements. Thus, self-worth is based upon one's present level of accomplishment. Price suggests that a behavioral consequence of this belief is the setting of excessively difficult goals, followed by a continual struggle to achieve them. In sum, the Type A cognitive style is a world-view marked by a fluctuating sense of self-worth, defined by personal achievement predicated upon unusually high standards. As individuals experience doubts about their ability to achieve their lofty goals, they experience psychosocial distress.

Watkins *et al.* (1987) developed the Type A Cognitive Questionnaire (TACQ) to test Price's model by generating items based on the core Type A beliefs which she delineated. Upon initial administration, items with the poorest item-total correlations were eliminated, resulting in the current, internally consistent version of the TACQ. The TACQ is moderately correlated with a measure of the TABP, the Jenkins Activity Survey (JAS; Krantz *et al.*, 1974), and highly correlated with Structured Interview (SI) ratings of the TABP. This finding is noteworthy in that the SI has been related more consistently to deleterious health outcomes than has the JAS. Paralleling results from studies focusing on the TABP and its components, Watkins and colleagues (Watkins *et al.*, 1989, 1992) found that Type A beliefs were associated with more stressors, emotional distress, and poor social support. Perhaps most germane to this study, they observed that college students with elevated TACQ scores set higher goals on an intellectual performance task than low-scoring students. While actual performance was equivalent, the discrepancy between ideal and actual performance was greater for those characterized by Type A beliefs.

Similarly, women with eating disorders set difficult, often unattainable, goals of weight loss and physical appearance. The adverse impact on self-worth of failing to achieve such goals defines these disorders. The eating disorder literature (e.g. Sohlberg & Strober, 1994) is filled with descriptions of afflicted women having a strong achievement orientation, perfectionistic tendencies, and a propensity for "highly driven and repetitive reward-seeking behavior even when frustrated or disappointed" (p. 11), all characteristics long associated with Type A individuals. Just as Price (1988, p. 285) asserted that a "poor private self-image" is the "most important single factor" underlying the TABP, Sohlberg and Strober remarked that "a defective self-concept is at the heart of anorexia nervosa." Vitousek and Hollon (1990) proposed that organized cognitive structures help eating-disordered women to stabilize their experience of themselves and the external environment. While these structures associate weight and shape with personal value, like Price's model, they relate self-worth to

achievement in a broader sense. That is, women with eating disorders count "their daily accomplishments (along with calories)" (Vitousek & Hollon, 1990, p. 209). As with Type A persons, falling short of their high standards results in considerable emotional distress.

The purpose of the current study was to empirically evaluate the hypothesized relationship between eating disorder pathology and Type A characteristics. While anorexia and bulimia nervosa represent psychological rather than medical disorders such as CHD, they are nonetheless legitimate variables for study. Stanton and Gallant (1995, p. 569) assert that "biological status need not be the gold standard with regard to health endpoints," with psychosocial variables deserving equal attention. In this study, we predicted that women experiencing eating disorder pathology would score higher on standardized Type A measures than women without such symptoms. We also predicted that women in the eating-disordered (ED) groups would set higher performance standards regarding both weight control and academic achievement compared to women in the noneating disordered (non-ED) groups. Specifically, we predicted that current performance in both areas would be equivalent, but that ED participants would set higher performance standards, experience a greater discrepancy between actual and ideal performance, and experience greater emotional distress about this discrepancy than non-ED participants.

METHOD

Participants

Participants were 555 female undergraduates at a large, Northwestern state university. They received extra credit in an introductory psychology course in exchange for voluntary completion of the following measures.

Measures

Self-Report Measures

All participants completed the TACQ (Watkins *et al.*, 1987) the JAS (Krantz *et al.*, 1974), the Bulimia Test-Revised (BULIT-R; Thelen *et al.*, 1991), and the Eating Disorder Inventory (EDI; Garner & Olmstead, 1984). The Type A measures, previously described, were chosen for administration to reflect both the traditional conceptualization of the TABP and Price's (1988) more contemporary construct of Type A beliefs.

Table I. BULIT-R and EDI Correlations with the TACQ and JAS

Eating Disorder Questionnaires	Type A Questionnaires	
	TACQ	JAS
BULIT-R	.40**	.17**
EDI Subscales		
Drive for thinness	.35**	.11*
Bulimia	.33**	.12*
Body dissatisfaction	.27**	.05
Ineffectiveness	.37**	.07
Perfectionism	.36**	.43**
Interpersonal distrust	.25**	.02
Interoceptive awareness	.33**	.18**
Maturity fears	.23**	.05

*$p < .01$.
**$p < .0001$.

The eating disorder measures were chosen for their empirically documented ability to screen for individuals with diagnoses of bulimia or anorexia nervosa. The BULIT-R is a self-report measure based on diagnostic criteria for bulimia nervosa. Using a cutoff of 104, it has high predictive validity, including a false positive rate below .05 (Thelen *et al.*, 1991). The EDI is a self-report measure designed to assess psychological and behavioral traits common in both anorexia and bulimia nervosa. It contains eight subscales, each reflecting a psychopathological feature of eating disorders (see Table 1). In nonclinical populations, those scoring above the normative means on all subscales are at high risk of developing clinically significant pathology. The Bulimia subscale was excluded from the current screening because anorectic restricters often score in the normal range on these items. In this study, the EDI was used primarily to identify women exhibiting anorectic behavior, many of whom would not be identified by the BULIT-R as experiencing pathology.

Behavioral measures

Participants set goals in two areas of achievement, body weight and grade point average (GPA). First, they estimated their current weight in pounds. Then, they indicated a figure which they considered to be their ideal weight. Finally, they rated, along an ascending seven-point Likert-scale, their level of distress regarding the discrepancy between current and ideal weights. Similarly, participants listed their current GPA as well as the

GPA to which they aspired. Using the same scale, they rated their distress level regarding the discrepancy between current and ideal GPAs.

RESULTS

Correlational Analyses

TACQ scores were significantly associated with scores on the BULIT-R as well as scores on each EDI subscale. All correlation coefficients were in the moderate range, with Perfectionism, Ineffectiveness, and Drive for Thinness representing the strongest relationships. Associations between JAS scores and scores on both eating disorder measures were generally weaker, with only five statistically significant comparisons. The strongest relationship was with the EDI Perfectionism subscale (see Table I).

Group Analyses

Women scoring above the clinical cutoffs on the BULIT-R and the EDI formed two ED groups, while those scoring below formed two non-ED groups. On the BULIT-R, 30 women scored in the clinical range. On the EDI, 22 women scored above the norm on the seven designated EDI subscales. Relatively little overlap existed between the two ED groups. Only 6 women identified by the BULIT-R were identified by the EDI, and only 7 women identified by the EDI were identified by the BULIT-R.

Type A Self-Report Measures

Independent *t*-tests examined the association between eating disorder designation and Type A tendencies, with the TACQ and JAS serving as dependent variables (see Fig. 1). As predicted, TACQ scores were significantly greater ($p < .0001$)for the ED (BULIT-R) group ($M = 196$) compared to the non-ED group ($M = 154$). Similarly, JAS scores were significantly greater ($p < .001$) for the ED (BULIT-R) group ($M = 4.6$) compared to the non-ED group($M = -1.1$). TACQ scores were also significantly greater ($p < .0001$) for the ED (EDI) group ($M = 218$) compared to the non-ED group ($M = 155$). Again, JAS scores were significantly greater ($p < .0001$) for the ED (EDI) group ($M = 7.5$) compared to the non-ED group ($M = -1.1$).

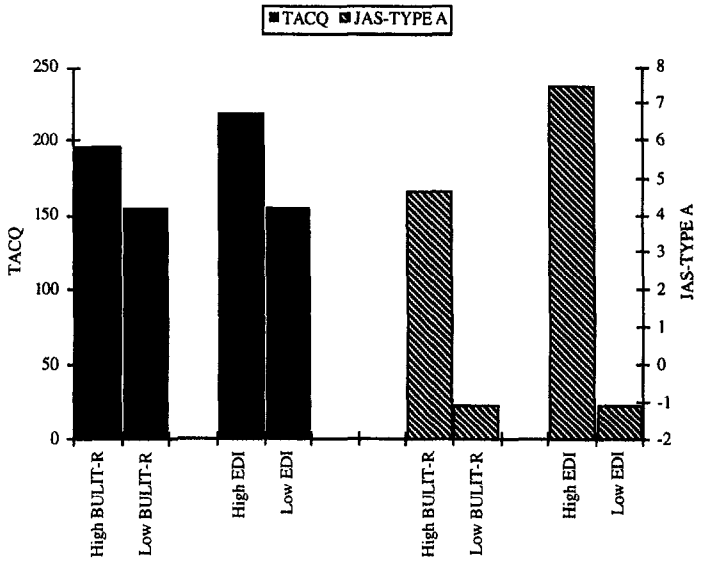

Fig. 1. Mean TACQ and JAS scores for ED and non-ED groups.

Type A Behavioral Goal Setting

Independent *t*-tests investigated the association between eating disorder designation and Type A goal-setting, with weight and GPA serving as dependent variables. As predicted, no significant difference emerged between ED and non-ED (BULIT-R) groups on report of current weight. Contrary to predictions, no significant difference emerged between these groups on report of ideal weight or the discrepancy between current and ideal weight. The latter analysis revealed a trend toward significance ($p < .10$) with the ED group ($M = 16.6$) showing a greater discrepancy between actual and ideal performance standards than the non-ED group ($M = 11.8$). Strongly in line with predictions, however, were results examining emotional distress. The ED group reported significantly greater ($p < .0001$) distress ($M = 5.6$) than the non-ED group ($M = 3.6$) about the discrepancy between actual weight and their ideal weight performance standard. The same pattern of results appeared when GPA was the dependent variable examined. No significant differences existed between ED and non-ED groups on current GPA, ideal GPA, or discrepancy between these two figures. Once again, however, the ED group ($M = 4.9$) reported significantly greater ($p < .0001$) distress about the discrepancy between actual perform-

ance and their ideal GPA performance standard than the non-ED group (M = 3.7).

As was the case when groups were defined by the BULIT-R, no significant difference on report of current weight or ideal weight emerged when ED and non-ED groups were categorized by the EDI. However, analyses based on EDI groupings revealed the predicted significant difference ($p < .01$) between ED (M = 19.9) and non-ED (M = 11.6) groups regarding discrepancy between current and ideal weight. Also as predicted, the ED group (M = 5.4) reported significantly greater distress ($p < .0001$) about the discrepancy than the non-ED group (M = 3.6). No significant differences emerged between ED and non-ED groups on current GPA, ideal GPA, or discrepancy between these two figures. However, the ED group (M = 5.0) reported significantly greater distress ($p < .01$) about the discrepancy than the non-ED group (M = 3.7).

DISCUSSION

Eating disorder pathology was associated with Type A beliefs (TACQ) more so than with the TABP (JAS), consistent with Price's (1988) contention that Type A behaviors are problematic only when they arise from maladaptive beliefs. EDI Perfectionism was most strongly related to Type A behavior and beliefs, corresponding to research relating perfectionism to these same constructs and to anorexia nervosa (Bastiani *et al.*, 1995; Flett, Hewitt, Blankstein,& Dynin, 1994). Bastiani *et al.* found that treated anorexics continued to hold perfectionistic standards, suggesting that perfectionism extends beyond specific weight concerns.

A potential criticism of this study is use of self-report measures of Type A status, but Hart (1997) suggests that such concerns may be unwarranted. Self-report measures were also used to assess eating disorder pathology. Thus, the ED groups might best be considered "subclinical" cases as diagnostic interviews were not conducted to verify questionnaire-based categorization. However, clinical and subclinical eating-disordered women display similar psychological profiles, and early symptom presentation predicts development of full-blown pathology (Hsu, 1990). Study of subclinical cases may enhance understanding of severe cases, aiding in preventive efforts.

Despite modest results, this study has theoretical and practical implications. Theoretically, the Type A construct is not exclusively associated with CHD. Stanton and Gallant (1995) state that maintaining a narrow focus on a specific disease may prove limiting to theory testing and development. Exploring psychosocial constructs that cut across health outcomes

may be more beneficial. While contemporary women are expected to achieve in career-related areas, they still experience societal expectations to meet traditional feminine standards for success, including beauty (Striegel-Moore & Marcus, 1995). Steiner-Adair (1994) views eating disorders as extensions of normative, culturally accepted behavior. She states that achieving thinness as well as success in male domains is unrealistic for most women. Continual efforts to do so may adversely affect health. Likewise, Perlick and Silverstein (1994) state that women with intellectual and professional aspirations may develop eating disorders as these conflict with the feminine ideal.

In practice, Type A treatment should not be restricted to career contexts. The imposition of perfectionistic Type A standards to social achievement might also be addressed. For women, this may mean attention to body image, as well as childrearing if children's accomplishments reflect upon mothers' self-worth. Separate interventions for Type A men and women might be devised as gender-specific treatments may be more effective (Mann, 1996). Current exposure-based treatment of eating disorders is limited in its success. Vitousek and Hollon (1990, p. 211) advise practitioners to broaden the scope of these interventions to include "higher-order cognitive processes" that go "beyond the collection of self-statements about food and weight." They might consider targeting Type A beliefs which address achievement-based self-worth across contexts, rather than achievement of specific dietary practices and weight goals.

Interventions may still fall short if environmental influences remain. Levine and Smolak (1996) implicate the media in perpetuating weight-based self-worth, asserting that treatments will be compromised until this situation changes. Perlick and Silverstein (1994) feel that eating disorders will be eliminated only when women wishing to achieve in male-dominated spheres receive equal opportunity and when traditionally feminine pursuits are accorded respect. Therein lies the challenge for researchers in this field.

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