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Gender and stress: is gender role stress? A re-examination of the relationship between feminine gender role stress and eating disorders

Marrie H. J. Bekker* and Kirsten A. H. M. Boselie

Tilburg University, The Netherlands

Summary

The present study was, first, aimed at examining the relationship between eating disorders, feminine gender role stress and other types of stress. In addition, we investigated whether eating disordered women compared to non-clinical controls use depressogenic coping more often. We hypothesized that women with eating disorders would, compared to controls, suffer from more stress, irrespective of the type of stress, and that they would use depressogenic coping more frequently. Participants were 36 women suffering from eating disorders (mean age 25.8 years) and 53 controls (mean age 21.2 years). Questionnaires were administered reflecting the presence (or absence) of anorexia nervosa and/or bulimia nervosa, feminine gender role stress, perceived life stress, and coping styles. Compared with controls, eating disordered women reported higher levels of feminine gender role stress, but also higher levels of masculine gender role stress as well as recently experienced stress. In addition, women suffering from eating disorders used emotional coping more often than the control group. We tend to conclude that not their relatively high stress levels are constitutive for eating disorders, but rather a specific way of coping with negative emotions, emotion-focused coping by means of emotional eating. Copyright © 2002 John Wiley & Sons, Ltd.

Key Words

eating disorders; gender role; stress; coping; bulimia nervosa; anorexia nervosa

Introduction

The much higher prevalence of eating disorders amongst women compared with men (APA, 2000)

[†]E-mail: m.h.j.bekker@kub.nl

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is a well-known fact that has been a starting point for numerous studies. Many authors consider the Western cultural ideal of slenderness, that has predominantly been impinged upon women's bodies, to be a major determinant. Theories vary in their assumptions concerning the types of factors that moderate the relationship between the female beauty ideal of slenderness and eating disorders. Due to the existence of an almost impossible ideal of a slim body, the majority of Western women perceive a discrepancy between ideal and actual body weight and shape. The perception that one's own body weight and shape does not meet the cultural ideal, can result in body size distortion or a

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^{*} Correspondence to: Marrie H. J. Bekker, Tilburg University, Department of Clinical Health Psychology, Room P501, P.O. Box 90153, 5000 LE Tilburg, The Netherlands.

disturbed body image (e.g. Montheath & McCabe, 1997), and in body (dis)satisfaction or negative body esteem (e.g., Boskind-White & White, 1983; Cash & Brown, 1989; Garner, Rockert, Olmsted, Johnson & Coscina, 1985; Hawkins & Clement, 1984: Huon & Brown, 1989; Orbach, 1978; Stice, 1994; Thompson & Psaltis, 1988; R. Striegel-Moore, L. R. Silberstein & J. Rodin, presentation at the Annual Meeting of the APA, Los Angeles, CA, 1985). Body size distortion is a predominantly cognitive factor while body dissatisfaction primarily refers to an affective condition. Recent research indicates that body dissatisfaction is the best predictor of dieting behaviour (Stice, Mazotti, Krebs, & Martin, 1998) and that body dissatisfaction is exclusively related to eating disorders compared to other psychological disorders (Fairburn, Welch, Doll, Davies, & O'Connor, 1997). A related moderating factor is self-esteem. Self-esteem can be seriously threatened by body dissatisfaction, and has also been identified as a predictor of eating disorders (e.g., Silberstein, Striegel-Moore & Rodin, 1987).

The higher prevalence of eating disorders in women compared with men, together with the importance of existing cultural norms regarding women's body shape has prompted several studies about the relationship between eating disorders and gender role attitudes. A presumption in these studies is that particularly women with high scores on traditional femininity may be at risk for developing eating disorders. Due to the inverse relationship between femininity and self-esteem highly feminine women would be low in selfesteem, and thus more susceptible to cultural pressures toward thinness. In addition, bulimic as well as anorectic women have repeatedly been described in terms of personality characteristics that are congruent with traditional femininity, e.g. unassertiveness and dependence. Murnen and Smolak (1997) concluded from their meta-analysis of studies examining the relationship between gender role adherence and eating problems that, despite construct validity problems with the use of the most frequently applied measures in this realm, gender role is related to eating disorders. In their review of studies regarding the role of gender role orientation and eating disorders, Martz, Handley and Eisler (1995) concluded that the results are mixed. In their opinion, some studies indeed found higher traditional femininity in women with, compared to women without eating disorders, while other studies failed to find such differences. Additionally, both reviews

agree, that in studies that did yield correlations between eating disorders and traditional femininity, these correlations were positive and rather low. According to Martz et al. (1995), this might be due to the fact that the measures that were used in these studies, such as Bem's Sex Role Inventory (BSRI; Bem, 1974), refer to the more positive characteristics of the feminine role rather than the potentially stressful ones. However, in their view, the more stressful aspects in particular might be relevant for the development of psychopathology. Martz et al. (1995) found empirical support for their point of view. They compared the scores on the Feminine Gender Role Stress scale (FGRS; Gillespie & Eisler, 1992) of women with eating disorders, those of women with other psychiatric disorders, and those of 'normal' women, and found the highest scores on the various FGRS subscales among the first group. Feminine gender role stress is considered to be imposed upon those women who have a rigid commitment to the feminine gender role, e.g. find themselves confronted with the fear of being physically unattractive and display a dysfunctional way of coping with the resulting stress (Gillespie & Eisler, 1992). The concept as well as the Feminine Gender Role Scale (FGRS) have been developed by extrapolating the Masculine Gender Role Stress (Eisler & Skidmore, 1987) to femininity and relevant stressors for women. Martz et al. (1995) claimed that feminine gender role stress, with its emphasis on the more stressful side of the feminine gender role, instead of expressing more neutral aspects, might be the missing link between cultural values of femininity and vulnerability for eating disorders.

Although we agree that the relatively high scores of the eating disordered women on the FGRS seem to be rather convincing, we consider it a weak point that in neither the study described, nor in other published studies, have the effects of gender role stress been distinguished from effects of other potential sources of stress. How can we then be sure whether the FGRS scores can be attributed to 'pure' (feminine) gender role stress effects rather than to high general stress levels? The lack of data concerning the relationship with other, antecedent or consequent, eating disorder-related types of stress is all the more remarkable, given the fact that the relationship between eating disorders and 'stress' in general has repeatedly been shown. For example, in a study by Strober (1984), women suffering from eating disorders reported that they had been exposed to excessive stress in their past.

Additionally, Soukup, Beiler and Terrell (1990) showed that women with, compared to women without an eating disorder reported more daily stress in their lives. Of course, one could argue that these types of stress are also 'gendered'. However, Strober (1984) measured 'life stress'—to which men in general may also have been exposed—and Soukup *et al.* (1990) used the Derogatis Stress Profile (Derogatis, 1987), an instrument that is sensitive to 'stress phenomena across a broad spectrum' and predominantly seems to reflect daily stress.

The present study was aimed at examining the relationship between eating disorders, feminine gender role stress, and other types of stress, in particular at unravelling the relative importance of these different types of stress in eating disorders. Its main hypothesis was that women with an eating disorder compared to normal women would experience more stress in general, irrespective of the type of stress, in other words, not necessarily more *feminine* gender role stress only. We therefore measured not only feminine gender role stress, but also other, sources/types of stress including masculine gender role stress.

Our second hypothesis concerned coping. Various studies showed differences in the use of coping styles between people suffering from eating disorders and others (e.g. Neckowitz & Morrison, 1991; Troop, Holbrey, Trowler, & Treasure, 1994; Troop & Treasure, 1997). Soukup et al. (1990) found women with eating disorders to be more inclined to avoid their problems than 'normal' controls. Some researchers argued that eating disorders reflect an incapacity to deal with stress, in other words, the use of less or less adequate coping strategies (e.g. Cafferey, 1987; Hawkins & Clement, 1984). In addition to our first hypothesis, we therefore expected that high stress levels together with a less frequent use of certain coping styles such as active problem solving, rather than a specific source of stress, would distinguish women with eating disorders from controls. Following Nolen-Hoeksema (1987), who showed that coping by passivity, self-disparagement, rumination, and emotion-focusing is characteristic of depressive symptomatology, we labelled these coping styles 'depressogenic' coping. Our second hypothesis was that eating disordered women compared with nonclinical controls would use depressogenic coping more frequently.

Method

Respondents and procedure

Respondents were 36 women who suffered from bulimia nervosa (as determined by Axis I diagnosis by an intake team, and, subsequently, by their scores on the EDI, see Measures). They all took part in a therapeutic programme at an ambulatory institute for mental health care in the Southern part of the Netherlands. They were all were requested to participate in the study by their psychotherapists, who clearly told them that the study was externally conducted by a group of university researchers. Anonymously, the women completed the questionnaires during one of the group sessions. A control group was composed consisting of 53 'normal', female university students, who had never suffered from any eating disorder. The control group completed the questionnaires anonymously during a group session.

Both groups participated voluntarily. In order to check the presence of eating disorders for each individual belonging to the first group and their absence for each in the latter, the scores on the various subscales of the Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983; see Measures) were used. This resulted in the removal of the data of one student of the control group from the statistical analyses.

Mean ages of the women suffering from an eating disorder and those of the controls were, respectively, M = 25.75 years (SD = 7.78 years) and M = 21.23 years (SD = 3.70 years), the difference being statistically significant (t = -3.25, p < 0.01). In addition, the control group had a higher educational level (t = 7.50, p < 0.001). Both groups consisted of white, Dutch women.

Measures

Measures were selected which aimed to reflect the presence (or absence) of anorexia nervosa and/or bulimia nervosa, feminine gender role stress, perceived life stress, and coping styles.

Eating Disorder Inventory. (EDI; Garner *et al.*, 1983; translated into Dutch by W. Vandereycken). This 64-item scale measures psychological characteristics related to anorexia nervosa and bulimia. The EDI was used in order to differentiate between women with and women without an eating disorder. The EDI has six subscales, namely Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust,

Interoceptive Awareness, and Maturity fears. An example of an item from the subscale Perfectionism is: 'Only outstanding performance is good enough in my family'. Respondents are asked to rate how often they are confronted with the attitudes, feelings and behaviours that are formulated in the items, on a 6-point scale. Answering categories vary from 0 ('never') to 5 ('always'). Garner *et al.* (1983) reported that, in a group of anorectic women, Cronbach's alpha was, for all subscales, higher than 0.80. In the present study, Cronbach's alpha of the EDI was 0.96. Garner *et al.* (1983) reported good validity.

Gender Role Stress Scale. (GRS; Eisler & Skidmore, 1987; Gillespie & Eisler, 1992[†]). The GRS was used in order to measure vulnerability to gender-specific stressors. The Feminine Gender Role subscale (FGRS), measuring vulnerability to stressors associated with the feminine gender role, contains 39 items. An example of an item belonging to the FGRS is 'Being judged by others as too fat'. The FGRS has five subscales, namely Fear of nonemotional relationships, Fear of physical unattractiveness, Fear of victimization, Fear of behaving assertively, and Fear of not being nurturant. The other subscale, the Masculine Gender Role subscale (MGRS; 40 items) measures vulnerability to stressors that are associated with the masculine gender role. One of the MGRS items is: 'Having a female boss'. The MGRS also contains five subscales: Physical inadequacy, Emotional expressiveness, Subordination to women, Intellectual inferiority, and Performance failure. Respondents have to indicate how stressful each situation is for them by choosing one of six alternatives ranging from 'not stressful' to 'extremely stressful'. Validity and reliability of the scales of the GRS are reported to be satisfactory (Eisler & Skidmore, 1987; Gillespie & Eisler, 1992). In the present study, we found Cronbach's alpha to be 0.91 for both the FGRS and the MGRS.

The Perceived Stress Scale. (PSS; Cohen, Kamarck, & Mermelstein, 1983). This 14item questionnaire measures self-perceived stress during the last month, i.e. recently experienced stress. Respondents are asked to rate which one of four answering categories most adequately reflects how often they suffered from certain feelings or thoughts: 'Always/all the time', 'often', 'sometimes', or 'never'. An example of an item is: 'Have you been upset because something unexpected happened?' Validity and reliability of the PSS are both reported to be good (Cohen *et al.*, 1983). Cronbach's alpha of the PSS was 0.86 in the present study.

Coping Inventory for Stressful Situations. (CISS; Endler & Parker, 1994; translated into Dutch by de Ridder & van Heck, in press). The CISS was administered in order to measure the respondents' basic coping styles. This questionnaire contains 48 items referring to three coping dimensions namely Task-focused, Emotion-focused, and Avoidance-focused. In the present study, we labelled emotion- as well as avoidance-focused coping, depressogenic coping (cf. Nolen-Hoeksema, 1987).

Respondents are asked to rate on a 5-point scale varying from 0 ('never') to 4 ('very often') how often they engage in various activities when confronted with difficult or stressful situations. The factor structure of the CISS has repeatedly been shown to be stable (Endler & Parker, 1990, 1994; Endler, Parker, & Butcher, 1993). Its internal reliability, test-retest reliability and construct validity appeared to be good (Endler & Parker, 1990, 1993). In the present study, we found Cronbach's alpha to be 0.86.

Statistical analyses

In order to examine between-group differences between the women with an eating disorder and the controls regarding the stress measures as well as the use of coping styles, subscale and total scores on the FGRS, MGRS, PSS and CISS were subjected to t-tests for two independent samples. Because (see Results) a statistically significant difference in feminine gender role stress appeared between both groups, the FGRS subscale scores were subjected to a multivariate analysis of covariance (MANCOVA) including recently experienced stress (PSS) as a covariate. Furthermore, both groups were different in age and educational level (see Respondents and Procedure). Therefore, subsequent multivariate analyses of covariance with age and educational level as covariates were carried out. Finally, the relationships between the subscales of the FGRS, PSS and CISS on the one hand and those of the EDI on the other were examined in multiple regression analyses; the EDI subscale scores were the dependent variables that were predicted on the basis of the other scales. The same analyses were

[†] Translated into Dutch by Arrindell, Kolk, Pickersgill, & Hageman, 1993.

conducted using the subscale scores on the EAT, CISS and FGRS as independent variables and the PSS scores as dependent variable.

Results

In this section, the results will be presented in the following sequence: Between-group differences in gender role stress, recently experienced stress, and coping; Predicting eating disordered behaviour, recently experienced stress, and feminine gender role stress.

Between-group differences in gender role stress, recently experienced stress, and coping

For each group, means and standard deviations on (the subscales of) the FGRS, MGRS, PSS and CISS are presented in Table I. The scores on all these (sub)scales were subjected to *t*-tests. The *t*-values are also displayed in Table I.

The results were that, compared with the controls, the women with an eating disorder scored significantly higher on feminine gender role stress (total scale) (t = -2.19, p < 0.05), masculine gender role stress (total subscale) (t = -3.50, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95, p < 0.01), recently experienced stress (t = -5.95), recently experienced stress (t = -5.95). 0.001), and emotion-focused coping (t = -4.57, p < 0.001). More specifically, the women with an eating disorder scored significantly higher on two subscales of the FGRS, namely Fear of unemotional relationships (t = -2.45, p < 0.02) and Fear of physical unattractiveness (t = -5.46, p < 0.001), and on four subscales of the MGRS, namely Physical inadequacy (t = -2.78, p = < 0.01), Emotional expressiveness (t = -3.68, p = < 0.01), Intellectual inferiority (t = -3.09, p = < 0.01), and Performance failure (t = -2.67, p = < 0.05).

When we controlled for educational level and age by means of respective MANCOVAs (see Statistical Analyses), there were no differences between either group of women in feminine gender role stress (total scale) as well as in Fear of unemotional relationships, and in the MGRS subscales Physical inadequacy, Intellectual inferiority, and Performance failure. The differences in masculine gender role stress (total scale) however were then maintained, and also those regarding Fear of physical unattractiveness and Emotional expressiveness subsisted.

A MANCOVA in which recently experienced stress was included as a covariate, revealed that the differences in feminine gender role stress as well as masculine gender role stress no longer reached statistical significance.

	Women with an eating disorder <i>MD</i> (SD)	Women without an eating disorder <i>MD</i> (SD)	t	Sig. (two-tailed)
Feminine gender role stress Fear of nonemotional relationships Fear of physical unattractiveness Fear of victimization Fear of behaving assertively Fear of not being nurturant	129.82 (27.76) 36.42 (8.59) 28.31 (6.62) 18.81 (6.15) 21.31 (5.59) 25.17 (7.96)	118.15 (21.80) 32.38 (6.99) 20.45 (6.69) 19.47 (4.59) 20.25 (5.87) 25.60 (5.44)	$\begin{array}{r} -2.187 \\ -2.438 \\ -5.455 \\ 0.585 \\ -0.852 \\ 0.303 \end{array}$	0.031* 0.017** 0.000*** 0.560 0.397 0.763
Masculine gender role stress Physical inadequacy Emotional inexpressiveness Subordination to women Intellectual inferiority Performance failure	88.47 (23.04) 20.11 (7.39) 16.47 (5.55) 9.252 (5.80) 15.42 (4.97) 27.22 (5.37)	72.33 (19.93) 16.21 (5.75) 12.08 (5.52) 7.42 (5.08) 12.32 (4.41) 24.08 (5.54)	$\begin{array}{r} -3.504 \\ -2.781 \\ -3.681 \\ -1.579 \\ -3.085 \\ -2.664 \end{array}$	0.001** 0.007** 0.000*** 0.118 0.003** 0.009**
Recently experienced stress	39.11 (5.83)	31.90 (5.34)	-5.951	0.000***
Depressogenic coping styles Task-focused coping Emotion-focused coping Avoidance-focused coping	56.08 (11.29) 57.22 (10.56) 49.06 (11.15)	59.38 (9.34) 46.60 (10.88) 49.09 (9.38)	$1.499 \\ -4.572 \\ 0.018$	0.137 0.000*** 0.986

Table I. Comparison of feminine gender role stress (FGRS), masculine gender role stress (MGRS), recently experienced stress (PSS), and coping styles (CISS) in women with and without an eating disorder.

* p < 0.05; ** p < 0.01; *** p < 0.001.

Predicting eating disordered behaviour, recently experienced stress and feminine gender role stress

A multiple regression analysis using the EDI subscale scores as dependent variables and the (sub)scale scores of the FGRS, PSS and CISS, together with the control variables age and education as independent variables, showed that recently experienced stress ($\beta = 0.47, p < 0.001$), avoidance-oriented coping ($\beta = 0.14$, p < 0.05), fear of physical unattractiveness ($\beta = 0.35$, p < 0.350.001) and education ($\beta = -0.31$, p < 0.01) all contributed to eating disordered behaviour (see Table II). After applying stepwise multiple regression analyses it became clear that education explained 49.4% of variance, education and recently experiences stress together contributed to 63.3% of variance, 70.5% was explained when fear of physical unattractiveness was added; and 71.9% of variance was explained by education, recently experiences stress, fear of physical unattractiveness and fear of not being nurturant.

Stepwise regression analyses showed that eating disordered behaviour explained most of the variance of recently experienced stress ($R^2 = 0.47$) (Table III). However, in subsequent regression analyses the EDI scores were excluded, because we were more interested in the relative contributions of the other variables in the prediction of recently experienced stress. Emotion-oriented coping ($\beta = 0.26$, p < 0.05), and the subscales of the EDI Interpersonal Distrust ($\beta = 0.30$, p < 0.01), and Ineffectiveness ($\beta = 0.31$, p < 0.05) were significant predictors of recently experienced stress.

The third multiple regression analyses addressed feminine gender role stress. No significant coefficient was observed for eating disordered behaviour as reflected by the total EDI score. However, significant contributions were found for the EDI subscales Bulimia ($\beta = -0.42$, p < 0.01), and Body Dissatisfaction ($\beta = 0.64$, p < 0.001).

Discussion

The most important aim of the present study was to disentangle the relationship between eating disorders, feminine gender role stress, and other types of stress. Confirming our expectations, we found that, compared to the controls, women with an eating disorder (bulimia nervosa) not only experienced more feminine gender role stress, but also more masculine gender role stress in addition to recently experienced stress. Thus, women with an eating disorder reported a higher general stress level than those without. Apparently, bulimic women experience difficult situations as more troublesome than non-clinical controls, and/or they have to deal with more or more intense, stressful situations.

Table II. Multiple regression analysis: predicting eating disordered behaviour from feminine gender role stress, the use of depressogenic coping styles, recently experienced stress, and the demographic variables 'age' and 'education'.

В	SE B	eta
†	†	†
0.245	0.332	0.060
1.449	0.390	0.347***
-0.744	0.464	-0.123
-2.959E-02	0.475	-0.005
-0.5399	0.395	-0.108
-0.242	0.212	-0.076
1.993E-02	0.240	0.007
0.456	0.216	0.139*
1.863	0.421	0.370***
0.390	0.385	0.075
-0.6,922	1.911	-0.305**
	$\begin{array}{c} - & & \\ - & & \\ 0.245 \\ 1.449 \\ - & 0.744 \\ - & 2.959E-02 \\ - & 0.5399 \\ \hline \\ - & 0.242 \\ 1.993E-02 \\ 0.456 \\ 1.863 \\ 0.390 \\ \end{array}$	$\begin{array}{c ccccc} - & - & - & + \\ \hline 0.245 & 0.332 \\ 1.449 & 0.390 \\ - & 0.744 & 0.464 \\ - & 2.959E - & 0.475 \\ - & 0.5399 & 0.395 \\ \hline - & 0.242 & 0.212 \\ 1.993E - & 0.240 \\ 0.456 & 0.216 \\ 1.863 & 0.421 \\ 0.390 & 0.385 \\ \end{array}$

 $R^2 = 0.722.$

p < 0.05; p < 0.01; p < 0.01; p < 0.001.

[†] Excluded variable. p < 0.01, p

Table III. Multiple regression analysis: predicting recently experienced stress from eating disordered behaviour, the use of depressogenic coping styles, feminine gender role stress, and the demographic variables 'age' and 'education'.

Predictor	В	SE B	В
Eating disordered behaviour	†	†	†
Drive for Thinness	6.343E-02	0.145	0.070
Bulimia	-4.111E-02	0.147	-0.037
Body Dissatisfaction	5.122E-02	0.101	0.067
Ineffectiveness	0.355	0.159	0.331*
Perfectionism	0.186	0.164	0.113
Interpersonal Distrust	0.512	0.186	0.291**
Interoceptive Awareness	4.147E-02	0.151	0.037
Maturity Fears	-2.867E-02	0.145	0.000
Depressogenic coping styles			
Task-focused coping	-4.662E-02	0.061	-0.074
Emotion-focused coping	0.142	0.056	0.255*
Avoidance-focused coping	1.740E-02	0.060	0.027
Feminine gender role stress	†	†	†
Fear of nonemotional relationships	1.054E-02	0.082	0.013
Fear of physical unattractiveness	-8.171E-02	0.112	-0.098
Fear of victimization	0.155	0.119	0.129
Fear of behaving assertively	-1.906E-02	0.120	-0.017
Fear of not being nurturant	7.384E-02	0.104	0.075
Age	-3.608E-02	0.108	-0.035
Education	0.134	0.592	0.030

 $R^2 = 0.594.$

 $p^* < 0.05; p^* < 0.01.$

[†] Excluded variable.

Our results suggest that feminine gender role stress does play some role in the eating disorder bulimia nervosa, especially Fear of physical unattractiveness. However, its importance is relatively limited. First, the relevance of all five subscales that appeared in the study by Martz et al. (1995), was not confirmed in our study. Secondly, stress associated with masculinity emerged as a relevant stress for women with an eating disorder as well. Thirdly, the higher levels of recently experienced stress reported by the bulimic women compared to the controls were robust against controlling for feminine gender role stress, while the opposite was not true. Additionally, the contribution of recently experienced stress to the prediction of eating disordered behaviour was clearly more prominent. Our results are in agreement with those of Soukup et al. (1990) who also found that women with an eating disorder compared to controls reported more daily stress in their lives. Finally, the fact that the significant between-group difference in feminine gender role stress disappeared after controlling for education while the difference in recently experiences stress remained after controlling for feminine gender role stress, further points to the conclusion that stress in general, rather than stress that is exclusively related to femininity, is associated with eating disorders. The exception here is, again, the predominantly feminine Fear of physical unattractiveness, which is definitely related to body dissatisfaction (notice here that body dissatisfaction is outward appearance dissatisfaction), the concept that has repeatedly been found to predict eating disorders (e.g. Stice *et al.*, 1998).

One of the limitations of the present study concerns our samples consisting of bulimics and non-clinical students. Of course, we controlled in our main statistical analyses for several, possibly relevant variables in which both groups differed. Nevertheless, it would be interesting to investigate the meanings and impact of the diverse types of stress that we measured for anorectic women or women and men suffering from obesity, and for women and men with other (mental) health problems.

Another issue that deserves further examination concerns the temporal and causal relationships

between stress and eating disorders. An additional limitation of our study is the correlational nature of the data, together with the fact that retrospective (recall through questionnaires) data were used. Despite this limitation, however, our results indicate the existence of a vicious circle. First of all, following the results of other studies, we would propose that antecedent stress plays a role, that is, exposure to relatively high stress in periods of life before the onset of the eating disorder (cf. Strober, 1984). Antecedent stress can include here also recent stress such as work-related stress that has been demonstrated to be associated with food intake (Wardle, Steptoe, Olliver, & Lipsey, 1999). Secondly, we definitely acknowledge the stressful experience of having to live with an eating disorder, thus the stress experience as a consequence. Notice here that we not only found recently experienced stress contributing to the prediction of eating disordered behaviour, but also the reverse: eating disordered behaviour appeared as a significant predictor of recently experienced stress. This finding might also indicate the relevance of stress as a concomitant feature of eating disorders.

Our second expectation was that women with an eating disorder compared to controls would show a higher frequency of use of depressogenic coping styles. Depressogenic coping was operationalized as emotion- as well as avoidance-focused coping. Confirming our expectations, women with an eating disorder used emotion-oriented coping more frequently than those women without an eating disorder. However, regarding the use of avoidance-focused coping we failed to find any statistically significant difference between both groups in the expected direction. Apparently, particularly experiencing and focusing upon negative emotions is a relevant aspect of eating disorders. Notice here, that the experience of negative emotions is part of having high stress levels (e.g. Lazarus & Folkman, 1984, 1987).

From our study, it became clear that women with eating disorders cope with relatively high stress levels which are, except fear of physical unattractiveness, irrespective of the type and gender-specificity of stress. High stress levels are not an exclusive feature of eating disorders; instead, they are related to many other psychological and somatic disorders as well. We also found that women with eating disorders had a higher use of emotion-focused coping. Although—as we have already mentioned—we must take into account here that both groups differed in more aspects than in disordered eating only—this finding is fully in agreement with other empirical evidence for the importance of emotional eating in eating disorders (e.g. van Strien, Schippers, & Cox, 1997). Taking these findings together, we suggest that eating disorders do not reflect the existence of stressors related to general femininity, except fear of physical unattractiveness; they rather reflect a specific way of coping with negative emotions, emotional eating (e.g. van Strien *et al.*, 1996) and dieting behaviour. Both of these *may* be ways of coping with body dissatisfaction but could also be aimed at dealing with other (feminine, masculine and gender-neutral) types of stress.

For therapy and training, it therefore could be worthwhile, in addition to encouraging the acceptance of one's own body, to stimulate the use of more problem-focused coping, social-support seeking and other emotion-focused strategies instead of emotional eating. For women with eating disorders, a resulting change in coping behaviour might result in a decrease in stress, and, thus, in relief of their symptoms.

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