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The Clinical Features of Bulimia Nervosa

CHRISTOPHER G. FAIRBURN and PETER J. COOPER

Summary: The clinical features of 35 patients with bulimia nervosa are described. All the patients came from the Oxford area and each fulfilled conservative operational diagnostic criteria. Standardised assessment procedures were used including a structured interview designed to assess the psychopathology characteristic of patients with eating disorders. It was confirmed that these patients have grossly disturbed eating habits accompanied by morbid beliefs and values concerning their shape and weight. Although the majority had a weight within the normal range, a history of weight disturbance was common. There was a high degree of psychiatric morbidity with depressive symptoms being particularly prominent. A quarter of the sample had previously fulfilled diagnostic criteria for anorexia nervosa, and this group closely resembled those patients with no such history.

In 1979 Russell described 'an ominous variant of anorexia nervosa' which he termed bulimia nervosa. He proposed three necessary diagnostic criteria:

1. The patients suffer from powerful and intractable urges to overeat;
2. They seek to avoid the 'fattening' effects of food by inducing vomiting or abusing purgatives or both;
3. They have a morbid fear of becoming fat (Russell, 1979).

Since then two British studies have shown that this disorder is likely to constitute a significant source of undetected psychiatric morbidity (Fairburn and Cooper, 1982, 1984); and a survey of young adult women has obtained an estimated prevalence of between one and two per cent (Cooper and Fairburn, 1983).

In the United States a syndrome similar to bulimia nervosa is included in DSM III (American Psychiatric Association, 1980). This disorder is termed 'bulimia'. Its diagnostic criteria are somewhat broader than those of bulimia nervosa: thus, virtually all patients who meet diagnostic criteria for bulimia nervosa also fulfil the criteria for the syndrome bulimia (Fairburn, 1983). Like bulimia nervosa, the syndrome bulimia has been shown to be a significant source of psychiatric morbidity with an equivalent prevalence rate (Pyle *et al*, 1983).

There have been no systematic studies of the clinical features of bulimia nervosa. Russell's original series of 30 patients remains the only detailed description of the syndrome (Russell, 1979). However, whilst the clinical characteristics of his patients were described in great detail, standardised assessment procedures were not used. Moreover, his series may have been somewhat atypical since patients with a history of anorexia nervosa appear to have been over-represented: in Russell's series over half had a definite history of anorexia nervosa and a further quarter had a 'cryptic' form of the condition, whereas the findings of the two community studies suggest that only a minority of those with bulimia nervosa have had anorexia nervosa in the past (Fairburn and Cooper, 1982, 1984). There have also been no systematic studies of the clinical features of the syndrome bulimia. Pyle and colleagues (1981) described 34 cases, but no standardised measures were used other than the Minnesota Multiphasic Personality Inventory. Interestingly, fewer than half their patients had a history even suggestive of anorexia nervosa.

The aim of the present study was to obtain a detailed description of the clinical features of bulimia nervosa using standardised assessment procedures. It was hoped to obtain a patient population representative of those seen by general psychiatrists in Britain. By using, whenever possible, well-established reputable assessment instruments, the study was intended to provide a sufficiently detailed description of the phenomenology of bulimia nervosa to enable comparisons to be made with other groups of patients, for example, those with depressive disorders. It was also hoped to examine one major issue relating to the diagnosis of bulimia nervosa; namely, whether those patients who have a history of anorexia nervosa differ in terms of their clinical features from those who have no such history.

Method

A letter was sent to all general practitioners in the Oxford area requesting the referral of patients for possible inclusion in a study of the treatment of bulimia nervosa. These doctors were asked to refer patients aged over 17 years who complained of having lost control over eating, and who used self-induced vomiting as a means of compensating for bouts of overeating. Local psychiatrists also agreed to refer all such patients.

Patients who were referred were asked to attend for a two hour assessment interview. The first part of this interview was conducted by the first author. It was designed to elicit basic biographical data together with sufficient information for a clinical diagnosis to be made. The second part consisted of a standardised assessment of the mental state of the patient and was conducted by an experienced research assistant who had been thoroughly trained in the use of the various measures. Each interview was tape-recorded. At the end of the second part of the interview treatment arrangements were discussed with the patient who was then asked to complete certain self-report questionnaires.

Measures

Specific psychopathology A semi-structured pre-coded interview was used to assess the psychopathology characteristic of patients with eating disorders. For each item a standard initial probe question was asked and followed by further questioning to clarify the answer. Replies were coded during the interview. The major items were as follow: fear of fatness, pursuit of weight loss, sensitivity to weight gain, body image disparagement, binge-eating, self-induced vomiting, use of purgatives or exercise for weight control, frequency of weighing, desired weight, anxiety in eating-related situations and the avoidance of such situations. The definitions of four key items are shown in the Appendix. Two practices were followed to minimise the possibility of false positive ratings: first, the interviewer was trained to rate conservatively; second, specific psychopathological features were only rated as positive if they were unequivocably present *and* severe. To assess reliability, a third of the interviews were rated by an independent assessor. In terms of the presence or absence of the specific psychopathological features, there was perfect agreement.

In addition to the interview, two self-report questionnaires were used to assess the specific psychopathology.

i. the Eating Attitudes Test or EAT (Garner and Garfinkel, 1979), a measure of abnormal eating habits, and abnormal attitudes to food, eating, body weight and shape (Button and Whitehouse, 1981; Garner *et al*, 1982).

ii. the Eating Inventory of Stunkard (1981). Where appropriate, the original wording of this questionnaire was changed to make it more familiar and easily understandable to people in the United Kingdom. In addition, the modified scoring system was used in which items 16, 19 and 47 were deleted, item 1 was re-allocated to factor 2, and item 4 was re-allocated to factor 3 (A. J. Stunkard — personal communication). The score on factor 1 ('cognitive restraint') was used to measure the patient's tendency to diet.

Non-specific psychopathology The following measures were used:

i. the Present State Examination or PSE (Wing *et al*, 1974), a standardised interview for assessing the presence or absence of symptoms within the general area of the neuroses and functional psychoses.

ii. the Montgomery and Asberg Depression Rating Scale or MADRS (Montgomery and Asberg, 1979), a sensitive measure of depression. In view of the difficulty assessing the appetite of these patients, the MADRS item on 'reduced appetite' was omitted. For comparative purposes, the MADRS total score was correspondingly adjusted by pro-rating.

iii. the Eysenck Personality Inventory or EPI (Eysenck and Eysenck, 1964), a measure of neuroticism and extroversion.

Standardised assessments of social adjustment, assertiveness, self-esteem and food avoidance were also made. The results of these tests will not be reported in this paper since they were primarily intended as measures of treatment-induced change.

The diagnosis of bulimia nervosa

A strict operational definition of bulimia nervosa was used based upon the diagnostic criteria of Russell (1979). The definition was as follows:

1. The patient had to deny having control over her eating. In addition, she had to report having experienced at least four episodes of 'binge-eating' over the previous four weeks, and an average of at least one binge a week over the previous six months. The patient was provided with the following definition of a binge: 'We use the term binge to refer to episodes of uncontrolled eating in which a huge amount of food is consumed, often rapidly and in secret. These episodes usually end because of stomach pain, interruption by others, running out of food supplies, or vomiting. Although the actual eating may be enjoyable, afterwards one invariably feels disgusted, guilty and depressed'.

2. The patient had to report having made herself sick on at least four occasions over the past four weeks and,

on average at least once a week over the previous six months. On each occasion the vomiting had to be induced rather than spontaneous, and had to be performed either as a method of weight control or as means of compensating for having overeaten or both. Patients who did not practise self-induced vomiting were excluded. Thus, this definition of bulimia nervosa is somewhat narrower than that proposed by Russell since it did not include people who used purgatives rather than vomiting as a means of weight control.

3. The patient had to exhibit a psychopathology suggestive of a morbid fear of fatness (as defined in the Appendix).

4. The patient had to weigh at least 80 per cent of the matched population mean weight or MPMW (Geigy, 1962).

Results

Between February 1982 and June 1983, 46 patients from the Oxford area were referred for treatment. Each patient was sent an appointment and all but three attended. The patients were assessed in the manner described. Thirty-five patients fulfilled the diagnostic criteria for bulimia nervosa. This paper is concerned with their clinical characteristics. All 35 patients fulfilled DSM III criteria for the syndrome bulimia (American Psychiatric Association, 1980). Twenty-two of the patients were referred by general practitioners, 11 by local psychiatrists, and two by university counsellors.

Demographic characteristics

The mean age of the sample was 23.5 years (SD = 4.4) and the age range was 18 to 35 years. Twenty per cent were married, 8.6 per cent were divorced or separated, and the remainder (71.4 per cent) were single. Social class was determined according to the occupation of the patient's father. It was found that three-quarters (77.1 per cent) came from social classes I and II, 17.1 per cent from social class III, 5.7 per cent from social class IV, and none from social class V. More than half the patients were students (57.1 per cent) and a quarter (28.6 per cent) were in paid employment.

Eating Habits

Onset of binge-eating and self-induced vomiting. The mean age at onset of binge-eating was 19.7 years (SD = 4.2), and the mean duration was 3.8 years (SD = 3.4). The onset of self-induced vomiting was on average slightly later at 20.0 years (SD = 3.7), and the mean duration of vomiting was correspondingly less at 3.4 years (SD = 3.3). The mean weight at onset of binge-eating and self-induced vomiting was 96.8 per cent MPMW (SD = 13.6) and 103.7 per cent MPMW (SD = 16.4) respectively. The most commonly reported precipitant of binge-eating was having adopted a rigid diet (60 per cent), and the most frequently cited reason for beginning vomiting was as a response to a gross bout of overeating (68.6 per cent).

Frequency of binge-eating and self-induced vomiting. Over the four weeks prior to assessment, half the patients (48.6 per cent) had been binge-eating at least daily. 17.1 per cent reported binge-eating at least twice a day. The frequency of vomiting was considerably greater: three-quarters (74.3 per cent) reported vomiting at least once a day, and 40.0 per cent reported vomiting at least twice a day.

Other methods of weight control. A third of the patients (31.4 per cent) used purgatives as well as vomiting as a means of weight control. On average these patients took purgatives on 28.1 occasions per month (SD = 36.6), and the mean number of purgatives taken on each occasion was 17.4 (range = 2 to 65, SD = 21.8). 28.6 per cent used exercise as another means of weight control.

Unusual eating habits. Some patients reported certain unusual eating habits. A third (37.1 per cent) had at some stage regularly spat out food to avoid absorbing calories, and 20.0 per cent were currently doing so. The same percentage reported having regurgitated and ruminated food, and 14.3 per cent currently did so.

Childhood eating and weight problems. Most patients reported that they had not had any eating or weight-related problems during their childhood. However, 20 per cent described a period of extreme food faddiness, and about the same number had been markedly overweight.

Weight history

Table I shows the present weight and weight histories of the patients, together with equivalent data from a community sample of young adult women (Cooper and Fairburn, 1983). It can be seen that at presentation the great majority of patients weighed within the normal range. However, compared with the community sample, the bulimia nervosa patients were prone to have been overweight in the past, 42.9 per cent reporting a highest weight over 120 per cent MPMW (not shown in the table). The patients were also prone to have been significantly underweight in the past, 20.0 per cent having weighed under 75 per cent MPMW. Very few patients had been both significantly overweight and significantly underweight.

Menstruation

Almost half the patients (45.7 per cent) were taking oral contraceptives. Of the remainder, 21.1 per cent reported amenorrhoea, 36.8 per cent reported highly

TABLE I

*Present weight, desired weight and weight history: present sample and comparison sample of young adult women** (n = 369)

	Present weight		Highest weight since menarche		Lowest weight since menarche		Desired weight	
%MPMW	Present sample %	Community sample %	Present sample %	Community sample %	Present sample %	Community sample %	Present sample %	Community sample %
<75	0	0	0	0.	20.0	4.4	0	0
75–85	5.7	7.4	0	2.1	25.7	23.8	22.9	17.9
86–100	65.7	52.3	8.6	23.0	42.9	56.2	71.4	71.5
101–115	22.9	33.7	37.1	50.4	11.4	14.3	5.7	10.5
>115	5.7	6.6	54.3	24.5	0	1.3	0	0
mean	97.3	98.0	115.8	108.3	84.3	90.3	89.4	91.5
SD	10.3	10.3	15.3	14.0	12.4	9.8	6.5	6.3
t	0.04		3.00		3.37		1.88	
p	(NS)		<0.001		<0.001		(NS)	

*Cooper and Fairburn, 1983

irregular menstruation, and only one patient (5.3 per cent) reported regular menstruation. The mean age of menarche was 13.0 years (SD = 1.4).

History of anorexia nervosa

One quarter of the sample (25.7 per cent) had previously fulfilled diagnostic criteria for anorexia nervosa based on those of Russell (1970): that is, self-induced weight loss to below 75 per cent MPMW; at least six months' amenorrhoea; and an accompanying morbid fear of fatness. Four of these nine patients had failed to come to medical attention. A further three patients (8.6 per cent) had weighed between 75 per cent and 85 per cent MPMW and had satisfied Russell's other two criteria.

Previous psychiatric treatment

Forty per cent of the sample had previously received psychiatric treatment for an eating disorder. Of these, two-thirds (64.3 per cent) had been treated for anorexia nervosa and the remainder for obesity or 'compulsive eating'. Only four patients (11.4 per cent) had received inpatient psychiatric treatment, in each case for anorexia nervosa.

Seventeen point one per cent of the patients had received psychiatric treatment for problems other than an eating disorder, and a further 28.6 per cent had received such treatment from their general practitioner. In most cases the patient had been prescribed antidepressant medication.

Family history

Twenty-nine point four per cent reported that a first degree relative had received treatment from a psychiatrist. In most cases the diagnosis had been that of a depressive disorder. More than half the patients (58.8 per cent) had a first degree relative who had been advised by their doctor to lose weight, and 44.1 per cent had at least two such relatives.

Other relevant data

None of these patients gave a history suggestive of dependence on alcohol or drugs. A third were regular smokers. The same proportion had shoplifted in the past, but only two patients currently did so. In every case the object stolen was food, and the act of stealing was a source of guilt and self-condemnation.

Specific psychopathology

The principal assessment of specific psychopathology was by clinical interview (see Method and Appendix). The most prominent psychopathological feature was a morbid fear of fatness which was judged to be present in 85.7 per cent of the sample. The remaining patients showed evidence of this feature, but not of sufficient severity to be rated positively. Over half (55.2 per cent) exhibited extreme sensitivity to weight gain. However, less than a quarter (22.9 per cent) showed a pathological pursuit of weight loss. The mean desired weight was 89.4 per cent MPMW, no different from that of the community sample of young adult women (see Table I). Body image disparagement was present in 28.6 per cent. Weighing practices varied greatly: for example, 17.1 per cent actively avoided weighing, whereas another 20.0 per cent weighed themselves at least twice a day. Concern over eating was prominent. Over two-thirds (68.6 per cent) described marked anxiety on having to eat with others; and 17.1 per cent purposefully avoided such situations.

The mean score on the EAT was 48.7 (SD = 16.1). This figure is similar to those obtained in the two

community studies of bulimia nervosa (i.e. 49.8 (SD = 16.3) and 50.7 (SD = 16.6); Fairburn and Cooper, 1982, 1984); and to that of a sample of 160 patients with anorexia nervosa (i.e. 52.9 (SD = 23.0); Garner *et al*, 1982). These figures are considerably higher than the mean score of the community sample of young adult women (i.e. 11.4 (SD = 11.2); Cooper and Fairburn, 1983).

The mean score on the 'cognitive restraint' factor of Stunkard's Eating Inventory was 12.2 (SD = 4.2). This figure is markedly higher than that of a sample of healthy female Oxford students (mean score 7.0 (SD = 4.7); t = 5.8, P <0.001: B. J. Rolls—personal communication).

Non-specific psychopathology

Table II contains a frequency distribution of PSE symptoms presented in descending order of frequency. It can be seen that these patients exhibited a wide range of neurotic symptoms. Of particular prominence were depressive features. Table III shows these patients' distribution on the PSE Index of Definition (Wing *et al*, 1978).

Using level 5 as a cut-off for identifying significant psychiatric disturbance, 80.0 per cent were psychiatric cases with the great majority having an Index of Definition of 6 or more. The mean total PSE score was 22.4 (SD = 10.1). Further details of PSE syndromes and CATEGO classes will be given in a separate publication.

The severity of depressive symptoms was assessed using the MADRS. The mean total MADRS score was 26.4 (SD = 8.5) which is very similar to that of patients with major depressive disorder (Teasdale *et al*, 1984).

On the EPI the bulimia nervosa patients' mean neuroticism score was 16.9 (SD = 4.7), which is significantly higher than the scores obtained by both untreated patients with anorexia nervosa (P <0.05; Stonehill and Crisp, 1977) and a sample of young student teachers (P <0.001; Eysenck and Eysenck, 1964). The mean extroversion score was 10.6 (SD = 4.5) which is significantly lower than that of student teachers (P <0.05: Eysenck and Eysenck, 1964), but higher than that of patients with anorexia nervosa (P <0.01; Stonehill and Crisp, 1977). The mean score on the lie scale was 2.1 (SD = 1.8), which is no different from that of normal subjects (Eysenck and

TABLE II

*Frequency of PSE symptoms in rank order**

Symptom	%
Pathological guilt	94.3
Worrying	94.3
Poor concentration	80.0
Obsessional ideas and rumination	80.0
Nervous tension	80.0
Tiredness	77.1
Self-depreciation	74.3
Irritability	74.3
Situational autonomic anxiety	71.4
Subjective anergia and retardation	71.4
Lack of self-confidence with people	65.7
Depressed mood	62.9
Social withdrawal	62.9
Hopelessness	60.0
Inefficient thinking	60.0
Restlessness and fidgeting	54.3
Muscular tension	48.6
Neglect due to brooding	48.6
Autonomic anxiety on meeting people	45.7
Recent loss of interest	42.9
Avoidance of autonomic anxiety	42.9
Simple ideas of reference	40.0
Premenstrual exacerbation	40.0
Free-floating autonomic anxiety	37.1
Guilty ideas of reference	34.3
Delayed sleep	34.3
Early waking	34.3
Panic attacks	31.4
Loss of libido	31.4
Specific phobias	28.6
Expansive mood	28.6
Tension pains	28.6
Subjective ideomotor pressure	25.7
Suicidal plans or acts	17.1
Derealization	11.4
Grandiose ideas and actions	8.6
Anxious foreboding with autonomic accompaniments	5.7
Depersonalization	5.7
Morning depression	5.7
Obsessional checking and repeating	5.7
Hypochondriasis	0
Obsessional cleanliness and rituals	0

*'Loss of weight' was not rated in view of these patients' grossly disturbed eating habits

TABLE III

Distribution of PSE Index of Definition

PSE Index of Definition	1	2	3	4	5	6	7	8
Proportion of patients (%)	0	2.9	2.9	14.3	20.0	51.4	8.6	0

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Eysenck, 1964), but significantly lower than that of patients with anorexia nervosa ($P < 0.01$; Stonehill and Crisp, 1977).

Patients with a history of anorexia nervosa

Patients with a definite history of anorexia nervosa were compared with the remainder. There were few differences. Compared with the others, those with a history of anorexia nervosa had a significantly lower mean current weight (90.6 per cent MPMW (SD = 6.9) compared with 99.6 per cent MPMW (SD = 10.3); $t = 2.4$, $P < 0.05$), and a lower mean minimum weight since menarche (68.1 per cent MPMW (SD = 6.2) versus 89.5 per cent MPMW (SD = 9.3); $t = 6.1$, $P < 0.001$). They also had a higher mean frequency of vomiting (105.6 times per month (SD = 76.7) compared with 51.6 times per month (SD = 43.1); $t = 2.6$, $P < 0.01$). In terms of their history, they were significantly younger when they began binge-eating and vomiting (mean age at onset of binge-eating 17.4 years (SD = 2.4) compared with 20.6 years (SD = 4.4); $t = 2.3$, $P < 0.05$; mean age at onset of self-induced vomiting 17.8 years (SD = 3.5) compared with 20.8 years (SD = 3.5); $t = 2.2$, $P < 0.05$). In addition, on average they were lighter when they began binge-eating (88.7 per cent MPMW (SD = 13.8) compared with 99.7 per cent MPMW (SD = 12.6); $t = 2.2$, $P < 0.05$), although this was not true of their weight at onset of self-induced vomiting (97.6 per cent MPMW (SD = 16.7) compared with 105.9 per cent MPMW (SD = 16.0), $t = 1.4$, NS). In all other respects there were no clinical differences between the two groups: in particular, their specific psychopathology was very similar.

Comparison of patients with bulimia nervosa with those with anorexia nervosa

The present sample of patients with bulimia nervosa was compared with the series of patients with anorexia nervosa described by Crisp and colleagues (1980). The patients with bulimia nervosa were older (mean age 23.5 years (SD = 4.4) compared with 20.8 years (SD = 6.2)) and were more likely to have been married. By definition, the bulimia nervosa patients had a higher weight at presentation, and a greater proportion ate in binges and practised self-induced vomiting. However, fewer bulimia nervosa patients reported using laxatives as a means of weight control (31.4 per cent compared with 58 per cent). The two groups' weight histories were markedly different: the bulimia nervosa patients had a higher mean maximum weight (115.8 per cent MPMW (SD = 15.3) compared with 109 per cent MPMW (SD = 14.4)) and a higher mean minimum weight since menarche (84.3 per cent MPMW (SD = 12.4) compared with 68.1 per cent MPMW (SD = 8.2)). Nearly twice as many of the bulimia nervosa patients had at some time weighed over 115 per cent MPMW (54.3 per cent compared with 28 per cent). There were no differences in terms of social class distribution, mean weight at onset of the eating disorder, and the use of exercise for weight control. It was not possible to compare the specific psychopathology of the two patient groups since there were no equivalent data on the anorexia nervosa patients.

Discussion

This paper provides the first description of the clinical features of bulimia nervosa in which standardised assessment procedures were used. Whenever possible existing measures of established validity and reliability were employed. In addition, structured interview schedules were used with pre-coded rating scales and operational definitions of key terms. Following the assessment interview almost all the patients received intensive psychological treatment and in most cases relatives were interviewed. In no instance did information subsequently emerge to cast doubt on the findings of the initial assessment.

Most previous reports on the clinical features of patients with eating disorders have come from specialist treatment centres. Such centres are likely to receive atypical patients; for example, those who have failed to respond to treatment elsewhere. The present series is unusual in this respect in that it comprises a consecutive series of patients from the same geographical area who were referred to a psychiatrist for the treatment of bulimia nervosa. This series is therefore likely to be representative of patients with bulimia nervosa seen by general psychiatrists in Britain. In this context it is worth noting that these patients closely resemble the bulimia nervosa cases identified by self-report in two large community studies (Fairburn and Cooper, 1982, 1984). This supports the use of such measures in studying the epidemiology of bulimia nervosa. It also increases confidence in the findings of these community studies.

The clinical characteristics of the present patient sample are similar to those of the series of Pyle and colleagues (1981); and, with one notable exception, they also resemble Russell's patients with bulimia nervosa (Russell, 1979). The exception concerns the proportion with a history of anorexia nervosa. The present study, the report of Pyle and colleagues (1981), and the two community studies of bulimia nervosa (Fairburn and Cooper, 1982, 1984), have all found that less than half those with bulimia nervosa could ever have fulfilled diagnostic criteria for anorexia nervosa. In contrast, Russell (1979) found that 57 per cent of his sample had 'unequivocal' anorexia nervosa and a further 27 per cent had a 'cryptic' form of the condition.

One possible explanation for this discrepancy is that Russell, a well known authority on anorexia nervosa, may have been referred a disproportionate number of patients with a history of this condition. Another explanation is that, prior to the recognition of bulimia nervosa as a significant source of psychiatric morbidity, cases who had previously had anorexia nervosa were more likely to come to medical attention since their family and doctor were aware of their vulnerability to eating problems. Irrespective of the explanation for the discrepancy, it now seems clear that most cases of bulimia nervosa have no history of anorexia nervosa. Therefore bulimia nervosa should not simply be regarded as a chronic complication of anorexia nervosa.

Fundamental to any consideration of the relationship between bulimia nervosa and anorexia nervosa is the debate concerning the two conditions' diagnostic criteria. As originally defined by Russell (1979), bulimia nervosa and anorexia nervosa are not mutually exclusive categories. However, the diagnostic criteria of the DSM-III syndrome, bulimia (American Psychiatric Association, 1980), stipulate that bulimia cannot be diagnosed if the diagnostic criteria for anorexia nervosa are fulfulled (i.e. anorexia nervosa 'trumps' bulimia nervosa). This practice has been widely adopted. However, Lacey (1982) has extended the principle further by excluding patients who have had anorexia nervosa *in the past*. In the present study, and in an analysis of the characteristics of over 1000 women with probable bulimia nervosa (Fairburn and Cooper, 1984), subjects who had almost certainly fulfilled diagnostic criteria for anorexia nervosa were compared with those who were likely never to have had the condition. In both studies very few clinical differences were found. The two groups had similarly disturbed eating habits and equivalent specific and non-specific psychopathology. Therefore, unless subsequent research indicates that the two groups have different natural histories or different responses to treatment, there is no justification for excluding patients with a history of anorexia nervosa from the diagnostic categories of bulimia and bulimia nervosa.

Certain specific clinical findings merit comment. These patients had profoundly disturbed eating habits which, in most cases, had been present for many years with few, if any, periods of remission. On a global index of disturbed eating habits and attitudes, the Eating Attitudes Test, their mean score was similar to that of patients with anorexia nervosa. The bulimia nervosa patients compensated for their bouts of gross overeating by extreme dieting (as shown by the high cognitive restraint score), self-induced vomiting, purgative abuse and excessive exercising. Some patients were at risk of serious physical complications since they were not only vomiting many times a day but were also taking large numbers of purgatives. The overall effect on body weight was marginal: most patients weighed within the normal range for their age and height, their weight reflecting a balance between their overeating and their compensatory behaviour.

Two unusual eating habits are of interest. The spitting out of food appeared to be a relatively harmless practice which could be attributed to the combined influence of these patients' overwhelming urge to eat and their extreme fear of weight gain. The rumination is less easy to explain. None of the patients who ruminated could give any form of explanation for the phenomenon. Generally they did not regard it as a problem: indeed, often it was only detected by direct questioning. Two patients reported that some foods tasted better when they were partially digested and that this discovery governed their choice of what to eat.

With regard to non-specific psychopathology, the present study confirms that these patients have a significant degree of psychological morbidity: 80 per cent were psychiatric cases on the PSE. The most prominent features were depressive in character and, on a sensitive measure of depression, the patients had the same mean score as patients with major depressive disorder (Teasdale *et al*, 1984). At the time of assessment, only one patient was thought to be at risk of suicide, although two had been referred after having taken an overdose of drugs. In all but two patients the depressive symptoms were judged to be secondary to the eating disorder. In these two patients there was thought to be a co-existing affective disorder and this was confirmed by their subsequent response to treatment.

Certain other clinical findings are of note. As in anorexia nervosa, social classes I and II were over-represented. The bulimia nervosa patients were older than those with anorexia nervosa and they were more likely to have been married. Contrary to the findings of Pyle and colleagues (1981), there was no evidence of vulnerability to dependence on alcohol or drugs, either in the patient or in her family. Menstrual disturbance was very common, the basis of which remains uncertain.

Apart from a history of anorexia nervosa, two other factors emerged from the present study as probable predisposing factors. The first was a family history of depression. This finding corroborates the rigorous family history study of Hudson and colleagues (1984). The second predisposing factor was a family and personal history of obesity. A history of obesity was also found to be common in the two community studies of bulimia nervosa (Fairburn and Cooper, 1982, 1984).

Lastly, consideration must be given to the specific psychopathology of these patients. Most had a severe

morbid fear of fatness. Extreme sensitivity to weight gain was also common. However, pathological pursuit of weight loss was present in only a quarter of the sample, and the desired weight of the patients was no different to that of a community sample of young adult women. Unfortunately, it was not possible to compare this psychopathology with that of anorexia nervosa since there have been no equivalent descriptions of anorexia nervosa patients.

There is a definite need for systematic research into the specific psychopathology of anorexia nervosa and bulimia nervosa since most of the clinical features may be regarded as secondary to these patients' morbid beliefs and values concerning their shape and weight. There is an especially urgent need for a sensitive standardised interview capable of assessing such psychopathological features, given the recent development of treatments designed explicitly to effect their change (Fairburn, 1983).

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Appendix

The definition of four specific psychopathological features

1. A morbid fear of fatness. The patient should be asked whether she is afraid of becoming 'fat' (or, where appropriate, 'remaining overweight'). To be rated as present, the patient should acknowledge that:

i. she is actually 'terrified' of becoming fat (or remaining fat); and

ii. this fear is present most days.

2. Extreme sensitivity to weight gain. The patient should be asked how she would react if she discovered on weighing herself that she had gained two pounds in weight. The nature of her reaction should be ascertained as well as its duration. To rate this feature as present, the present should describe:

i. a pronounced adverse emotional reaction which interferes with her functioning; and
ii. the persistence of this reaction for more than one hour.

3. Pathological pursuit of weight loss. The patient should acknowledge that losing weight is of pre-eminent importance in her life. To rate this feature positively she should describe:
i. doing her utmost to lose weight; and
ii. attempting to lose weight on most days.

4. Body image disparagement. The patient should be asked her opinion of her figure, and in particular of her stomach, hips, bottom and thighs. She should be asked to describe her reaction to seeing these parts of her body. (Patients who avoid looking at their body should be asked for their reaction to imagining what these areas might look like). To be rated as present, the patient should regard her figure as 'loathsome' and 'repulsive'.

[N.B. A strict definition of binge-eating was used—see Method].

Christopher G. Fairburn, M.A., M.Phil., M.R.C.Psych., *Research Psychiatrist*

*Peter J. Cooper, D.Phil., Dip.Psych., *Research Fellow in Clinical Psychology*

Department of Psychiatry, University of Oxford, Warneford Hospital, Oxford OX3 7JX

*Present appointment: Lecturer in Psychopathology, University Department of Psychiatry, Addenbrookes Hospital, Hills Road, Cambridge CB2 2QQ

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