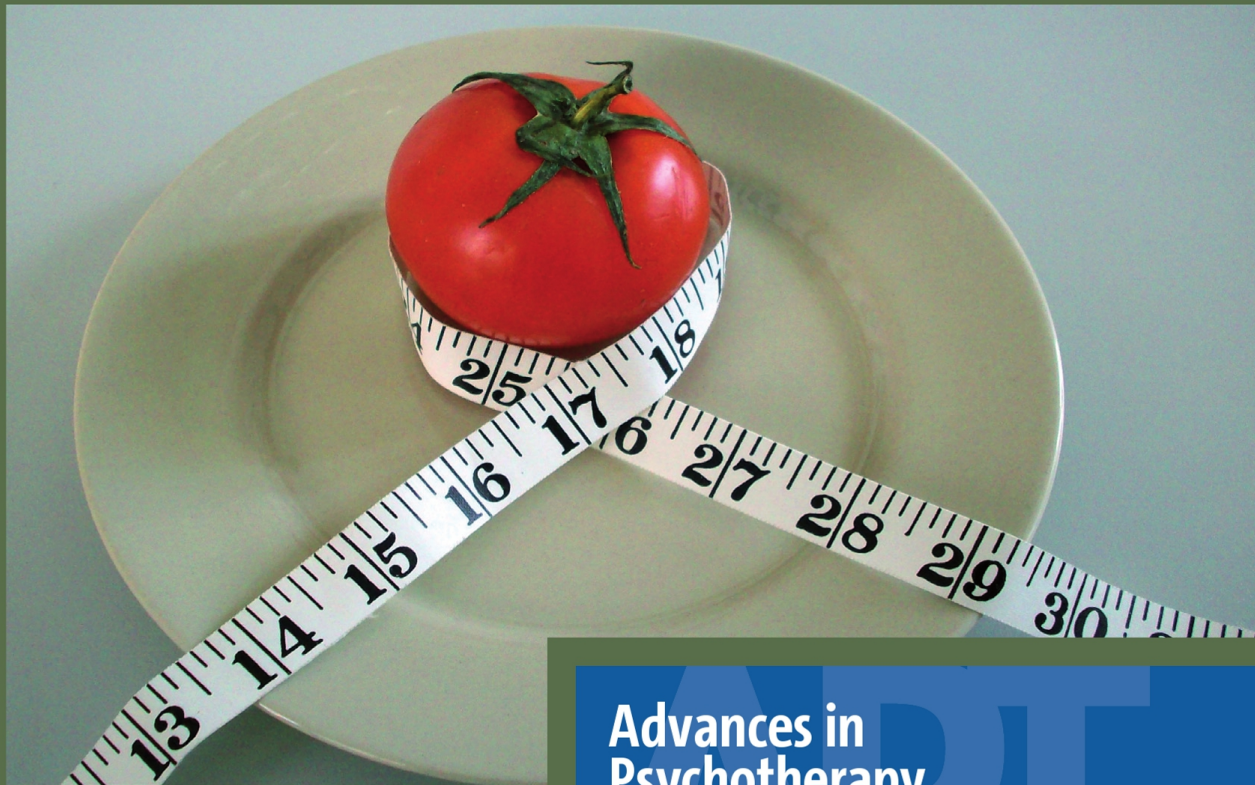


Stephen W. Touyz · Janet Polivy · Phillipa Hay

Eating Disorders



Advances in
Psychotherapy

Evidence-Based Practice

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Eating Disorders

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Advances in Psychotherapy – Evidence-Based Practice

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The basic objective of this series is to provide therapists with practical, evidence-based treatment guidance for the most common disorders seen in clinical practice – and to do so in a “reader-friendly” manner. Each book in the series is both a compact “how-to-do” reference on a particular disorder for use by professional clinicians in their daily work, as well as an ideal educational resource for students and for practice-oriented continuing education.

The most important feature of the books is that they are practical and “reader-friendly.” All are structured similarly and all provide a compact and easy-to-follow guide to all aspects that are relevant in real-life practice. Tables, boxed clinical “pearls”, marginal notes, and summary boxes assist orientation, while checklists provide tools for use in daily practice.

Eating Disorders

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HOGREFE



Library of Congress Cataloging in Publication

is available via the Library of Congress Marc Database under the
LC Control Number 2008921333

Library and Archives Canada Cataloguing in Publication

Touyz, S. W. (Stephen W.)

Eating disorders / Stephen W. Touyz, Janet Polivy, Phillipa Hay.

(Advances in psychotherapy--evidence-based practice)

Includes bibliographical references.

ISBN 978-0-88937-318-1

1. Eating disorders. 2. Eating disorders--Treatment.

I. Polivy, Janet II. Hay, Phillipa III. Title. IV. Series.

RC552.E18T69 2008

616.85'26

C2008-900543-0

© 2008 by Hogrefe & Huber Publishers

PUBLISHING OFFICES

USA: Hogrefe & Huber Publishers, 875 Massachusetts Avenue, 7th Floor,
Cambridge, MA 02139
Phone (866) 823-4726, Fax (617) 354-6875; E-mail info@hhpub.com

EUROPE: Hogrefe & Huber Publishers, Rohnsweg 25, 37085 Göttingen, Germany
Phone +49 551 49609-0, Fax +49 551 49609-88, E-mail hh@hhpub.com

SALES & DISTRIBUTION

USA: Hogrefe & Huber Publishers, Customer Services Department,
30 Amberwood Parkway, Ashland, OH 44805
Phone (800) 228-3749, Fax (419) 281-6883, E-mail custserv@hhpub.com

EUROPE: Hogrefe & Huber Publishers, Rohnsweg 25, 37085 Göttingen, Germany
Phone +49 551 49609-0, Fax +49 551 49609-88, E-mail hh@hhpub.com

OTHER OFFICES

CANADA: Hogrefe & Huber Publishers, 1543 Bayview Avenue, Toronto, Ontario M4G 3B5
SWITZERLAND: Hogrefe & Huber Publishers, Länggass-Strasse 76, CH-3000 Bern 9

Hogrefe & Huber Publishers

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Printed and bound in the USA

ISBN 978-0-88937-318-1

Preface

This book describes the well-known eating disorders comprising anorexia nervosa (AN), bulimia nervosa (BN), eating disorders not otherwise specified (EDNOS), and binge eating disorder (BED). Despite the serious nature of eating disorders, and AN in particular (which has the highest mortality rate of all psychiatric disorders), the development of clinically effective treatments that would prove to be successful in the majority of our patients remains elusive. Yet each day, in consulting rooms in hospitals, clinics, and private practice, patients afflicted with an eating disorder turn to therapists to provide them with treatment to alleviate their suffering. And despite the ego-syntonic nature of AN, patients suffer an ever decreasing quality of life. Even those clinicians who have a special expertise in the treatment of eating disorders find themselves in despair trying to persuade a seriously ill patient to accept treatment with absolutely no success.

This is where this book can help. It builds on existing knowledge as well as the enormous wealth of clinical experience that the authors have developed over the past three decades. It assumes a basic understanding of therapeutic intervention and some clinical training. This book will be of interest, not only to those clinicians who have developed a special expertise in eating disorders, but to psychologists, psychiatrists, general practitioners, dietitians, social workers, nurses, and other allied mental health practitioners as well.

The book is divided into five chapters. The first chapter describes the different eating disorders (AN, BN, EDNOS, and BED) and then sets out to show how they are defined and diagnosed. Empirically supported diagnostic and assessment techniques are then reviewed. Chapter 2 explores the theoretical models which underpinning the development and maintenance of eating disorders and their implications for treatment. In Chapter 3, practical strategies are provided to facilitate undertaking the initial interviews and to ensure that the appropriate medical assessment and laboratory investigations have been done. Chapter 4 provides a detailed practical account using in-session dialogs and didactic pearls to illustrate as clearly as possible the psychological techniques and interventions available to the clinician. Potential obstacles to treatment, especially with the poorly motivated and uncooperative patients are given special attention. Finally, Chapter 5 includes a series of case examples which illustrate the complexities of these disorders and the obstacles to successful treatment. The appendices provide handouts and additional information to use in treatment sessions.

Eating disorders remain an interesting challenge for clinicians. Because these disorders are heterogeneous in nature, one treatment does not fit all. As a result, this book has not been written as a “cookbook” or manual but rather as a practical guide so that the clinician can better tailor the treatment to the needs of each particular patient. It also provides helpful strategies and clinical pearls to assist the clinician especially at those difficult moments when confronted by a recalcitrant patient. There is much didactic material that can be shared with patients and when all else seems lost, some humor to keep the ship afloat.

Acknowledgments

We are indebted to a large number of people who have contributed in their own special way to the success of this book. These include editors Danny Wedding and Linda Carter Sobell, and Robert Dimpleby of Hogrefe and Huber Publishers, whose guidance and support was invaluable and very much appreciated. We are also indebted to the late Peter Beumont, not only for his innovation in clinical practice, but for his determination to leave no stone unturned in the quest to alleviate the suffering for those with an eating disorder.

This book is dedicated to all our patients, both past and present from whom we have learnt so much. They have challenged us and, unfortunately, at times found us wanting, but this has inspired us to continue our search to better understand and to find new ways to treat these debilitating disorders.

We are very grateful to our wonderful colleague and friend, Peter Herman, for his invaluable encouragement and support throughout this endeavor and for his special brand of humor which got us through the difficult times.

The objective of this new series is to provide clinicians with practical evidence-based treatments for the most common disorders in clinical practice but written in a reader friendly and practical manner. To this end, we would like to thank Jonathan S. Abramowitz for setting the benchmark in this series and for future books such as ours. We would also like to thank Christopher Fairburn for the up to date information regarding the publication of his EDE-Q6. To Cindy Li, who despite her onerous workload, found the time to type drafts and format figures, our much appreciated gratitude. A special word of thanks to Ethel Harris, Eva Naumann, and Alex Blaszczyński for their contribution to formatting the diagrams and to Belinda Ingram for her assistance with the final draft.

Finally to our families, for their enduring love, patience, encouragement, and affection.

Dedication

To Wren and our children, Justin and Lauren, for their enduring love and affection and to my mentor, colleague, and friend, the late Peter Beumont for his inspiration and wisdom.

SWT

To Peter, Lisa/Leah, Eric, and Saretta for all they are to me and to Dick Bootzin and Ken Howard for all they did to help me to become a psychologist and therapist.

JP

To Anne Hall who provided inspiration and superb mentoring in my “salad days,” and to Kevin and Beatrix for their enduring love and patience.

PH

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Because the greater majority of patients who have eating disorders are female, we have used feminine nouns and pronouns throughout this book.

1

Description

1.1 Terminology

The first documented eating disorder (ED) was anorexia nervosa (AN), which was described in the medical literature in 1874. In the 1970s AN was subtyped into those who simply restricted and exercised (anorexia nervosa – restricting type) and those who purged, some of whom also binge ate (anorexia nervosa – purging type). This latter type of AN was identified as a separate disorder in normal weight women in 1979 and named bulimia nervosa (BN). It later became apparent that not all patients met the full criteria for either AN or BN, but seemed nonetheless to have more than simply a subthreshold version of the disorder. These patients were grouped together into the category of eating disorder not otherwise specified (EDNOS) in DSM-III-R in 1987 (American Psychiatric Association, 1987). A subtype of EDNOS that has received a lot of attention because it is more common, especially among obese individuals, is binge eating disorder (BED) wherein individuals binge eat but do not purge the excess food.

1.2 Definitions

Fairburn and Walsh (2002) defined an eating disorder as “a persistent disturbance of eating behavior or behavior intended to control weight, which significantly impairs physical health or psychosocial functioning. This disturbance should not be secondary to any recognized general medical disorder...or any

Clinical Vignette

Different Eating Disorders

What do a 12-year-old girl who refuses to eat more than a minute amount of vegetables each day, and who weighs less than 85% of what her peers weigh, and a 21-year-old woman who gorges herself with cake, cookies, and junk food three nights a week and then forces herself to vomit have in common? Both would be diagnosed as having an eating disorder. Eating disorders have become increasingly prevalent recently in Westernized societies, possibly due, at least in part, to periods of relative affluence and enhanced social opportunities for women (Bemporad, 1997). In fact, however, the sorts of voluntary self-starvation and episodes of binge eating and purging that characterize eating disorders have been reported throughout history.

other psychiatric disorder” (page 171). In this book, we will discuss the major recognized eating disorders, using the *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000a) and the *International Statistical Classification of Diseases and Related Health Problems*, 10th Edition (ICD-10; World Health Organization, 1992) to describe the primary features of anorexia nervosa (AN), bulimia nervosa (BN), and atypical eating disorders, or eating disorder not otherwise specified (EDNOS), a somewhat controversial category described by some as a catchall or residual group of subthreshold disorders, whose sufferers do not quite meet the criteria for AN or BN (Williamson et al., 2002), or by others as a set of distinct, long-lasting, and debilitating disorders rather than as simply subthreshold versions of AN or BN (Fairburn & Bohn 2005, Fairburn & Harrison, 2003). The DSM-IV-TR reflects the North American standard criteria for defining eating disorders, and in Europe the criteria detailed in the ICD-10 predominate. It should be noted, that the questions of whether to divide the eating disorders into separate diagnoses and exactly how to separate them are both still controversial (Fairburn, Cooper, & Shafran, 2003; Polivy & Herman, 2002), but we will maintain the usual diagnostic conventions for the purposes of this book.

Diagnostic criteria for eating disorders

To establish the DSM-IV-TR criteria for eating disorders, empirically validated symptoms were compiled by a panel of experts, and refined further by others in the field. The ICD-10 operationalizes the eating disorders in a similar manner to the DSM-IV-TR. Not all criteria for the disorders are easy to define (e.g., exactly what behaviors constitute binge eating? How much food comprises a binge?), and there is a lack of consensus on some symptoms (such as the requirement of amenorrhea for AN); the criteria as listed thus have some ambiguities. The categorical nature of these classificatory systems has been questioned (e.g., Williamson, Gleaves, & Stewart 2005), given the shifts in both criteria and the categories themselves over time. Moreover, the two sets of criteria are only moderately concordant in some areas because of different symptom criteria and thresholds for diagnoses (Ottosson, Ekselius, Grann, & Kullgren, 2002). Despite these ambiguities in the criteria, the two diagnostic systems help to point to symptoms that need to be treated, methods of treating them, and also allow for assessment of successful change, and thus they remain the standard for diagnosing the disorders.

Finally, the use of these diagnostic criteria is not encouraged for children younger than age 10 (who do not usually present with traditional eating disorders), as they have not been found to be reliable for diagnosing the eating problems of younger children (Nichols, Chater, & Lask, 2000), despite the fact that children as young as 8 are now presenting with eating disorders (Watkins & Lask, 2002).

1.2.1 Anorexia Nervosa (AN)

The key criteria for the diagnosis of AN are: (a) Weight loss and/or maintenance of a weight at least 15% below what is normal for height (and age); (b) Intense fear of becoming fat (DSM-IV-TR) or self-infliction of reduced weight by avoidance of “fattening foods” (ICD-10); (c) Disturbed or distorted

Table 1
DSM IV-TR Diagnostic Criteria for 307.1 Anorexia Nervosa

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).
- B. Intense fear of gaining weight or becoming fat, even though underweight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D. In postmenarcheal females, amenorrhea, the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.)

Specify type:

Restricting Type:

During the current episode of anorexia nervosa, the person has not regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Binge-Eating/Purging Type:

During the current episode of anorexia nervosa, the person has regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

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Table 2
ICD-10 Diagnostic Criteria for Anorexia Nervosa

- A. There is weight loss or, in children, a lack of weight gain, leading to a body weight at least 15% below the normal or expected weight for age and height.
- B. The weight loss is self-induced by avoidance of "fattening foods."
- C. There is self-perception of being too fat, with an intrusive dread of fatness, which leads to a self-imposed low weight threshold.
- D. A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifested in women as amenorrhea and in men as a loss of sexual interest and potency. (An apparent exception is the persistence of vaginal bleeds in anorexic women who are on replacement hormonal therapy, most commonly taken as a contraceptive pill).
- E. The disorder does not meet the criteria A and B for bulimia nervosa (F50.2)

World Health Organization (1992). *International statistical classification of diseases and related problems* (10th rev.). Geneva: Author.

perception of one's body, which is seen as too fat despite the emaciation; (d) Amenorrhea in postmenarcheal females (DSM-IV-TR) or hypothalamic-pituitary-gonadal endocrine disorder leading to amenorrhea in females and loss of sexual interest or potency in males (ICD-10). In addition, the DSM-IV-TR specifies either *restricting type* (no regular incidents of binge eating or purging) or *binge-eating/purging type* (regular episodes of binge eating and/or purging behavior occur during the current anorexic episode), while ICD-10 requires that the disorder not meet the first two criteria for BN.

Two types of AN: those who do and those who do not binge/purge

Two subtypes are generally distinguished in AN (as in the DSM-IV-TR diagnostic criteria): those who do and those who do not engage in binge eating and/or purging behaviors. Those who binge and purge seem to differ on a variety of dimensions from those who merely restrict, ranging from premorbid differences, such as higher childhood weight and more familial obesity, to personality differences such as borderline, narcissistic, or antisocial personality traits, to behavioral differences including impulsive behaviors such as stealing (food, in many cases), alcohol or drug abuse, and self-mutilating behavior (e.g., Garfinkel, 2002). The purging form of AN seems to be associated with a worse prognosis (Beumont, 2002).

Associated features include affective and behavioral problems

Associated features described in the DSM-IV-TR include depressed mood, social withdrawal, insomnia, and decreased sex drive; all of these appear to be secondary to the severe caloric restriction resulting in semistarvation. In addition, obsessive-compulsive behaviors (not necessarily food-related) are also common, though these, too, may reflect malnutrition. Feelings of ineffectiveness and a need for control over aspects of one's environment are psychological issues that seem to be unique to AN (APA, 2000b), and perfectionism is widely recognized as a feature in these patients (Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). Patients with the binge/purge subtype of AN also display more impulsive behaviors, such as drug or alcohol abuse, sexual acting out, and unstable moods.

Physically, in addition to the extreme thinness or emaciation characterizing the disorder, endocrine (estrogen) disturbances as manifested in amenorrhea (as in the DSM-IV-TR criteria), as well as a variety of blood, chemical, cardiac, EEG, and physical symptoms of starvation may be present (APA, 2000b). A hypothalamic-gonadal-pituitary endocrine disorder (as in the ICD-10 criteria) also may appear, often before any significant weight loss has occurred.

Where is the border between disordered eating and eating disorder?

The exaggerated desire for thinness, described by Bruch decades ago as "relentless" (e.g., Bruch, 1973), has long been recognized as a primary psychological feature of AN, but it is often difficult to distinguish this "phobic" avoidance of fatness from the "normal" pursuit of thinness by young female dieters (Polivy & Herman, 1987). Thus, it is generally not possible to diagnose AN until it is so severe that weight has declined markedly, and has progressed well beyond normal to a seriously pathological level. Once the disorder becomes established, and weight loss progresses in this manner, AN becomes self-perpetuating, as the effects of semistarvation begin to influence affect and cognition (Beumont & Touyz, 2003). Psychologically, this is manifested as both fear of fatness and a tendency to base one's self-worth on body shape and weight (McFarlane, McCabe, Jarry, Olmsted, & Polivy, 2001).

Patients often exercise compulsively

While it is not part of the diagnostic criteria, it is well known that these patients often exercise excessively, in a compulsive manner, insisting on exercising even

Clinical Pearl
Early Warning Signs

An early clue to the possible development of AN occurs when the patient's dieting becomes so rigid and inflexible that she won't eat or attend a special family function (e.g., a birthday) or go on a holiday because she may not find any suitable food to eat. At this point the patient has crossed the boundary from strict dieting to a possible pathological eating disorder.

when hospitalized and on bed rest (Beumont, Arthur, Russell, & Touyz 1994). Anxiety and food restriction have been found to contribute to this compulsive exercising (Holtkamp, Hedebrand, & Herpertz-Dahlman, 2004). Moreover, the deliberate exercising done to produce weight loss is only one form of hyperactivity observed in these patients. Late in the illness, many develop a persistent restlessness and sleep disturbance that is beyond their conscious control (Beumont, 2002). This appears to resemble the sort of overactivity observed in food-deprived laboratory animals, and may reflect decreased core body temperature.

Similarly, no mention is made in either the DSM-IV-TR or the ICD-10 of bizarre eating behaviors that seem to characterize AN. For example, patients often cut their food into tiny pieces, which they then move around the plate as they eat painfully slowly; in addition, they secretly dispose of food (into napkins, pockets, or other receptacles), and avoid many foods that they consider to be "dangerous" (read "fattening").

As mentioned earlier, there is some controversy around some of the criteria required for a diagnosis of AN. Women with all the symptoms except amenorrhea seem to be as pathologic on every other dimension as are those with amenorrhea, so it is not clear that amenorrhea should be included as a requisite symptom for AN (Garfinkel, 2002). The weight threshold for the diagnosis is also subject to debate.

Bizarre eating behaviors characterize AN

1.2.2 Bulimia Nervosa (BN)

As for AN, there is a reasonable degree of overlap between the two main classificatory systems for the diagnosis of BN. The diagnostic criteria are: (a) Both the DSM-IV-TR and the ICD-10 begin with the presence of recurrent episodes of overeating or eating binges that occur at least twice weekly and have persisted for at least 3 months; (b) Both systems also require the occurrence of compensatory behavior to prevent weight gain from the calories ingested in the binge eating (by one or more of self-induced vomiting, use of laxatives, diuretics, enemas, or other purgatives or medications, periods of fasting or starvation); and (c) Self-evaluation is based excessively on weight and shape (DSM-IV-TR) or one feels too fat or fears fatness (ICD-10).

The DSM-IV-TR goes on to attempt to define binge eating, indicating that the amount eaten must be greater than what most people would eat in a similar period of time, and that there must be a feeling of loss of control over eating associated with the episode, whereas the ICD-10 merely requires that the overeating involve large amounts of food eaten in short periods of time. The DSM-

Defining binge eating

Table 3
DSM-IV-TR Diagnostic Criteria for 307.51 Bulimia Nervosa

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
 1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
 2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
- B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

Specify type:

Purging Type:

During the current episode of bulimia nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

Nonpurging Type:

During the current episode of bulimia nervosa, the person has used other inappropriate compensatory behaviors, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas.

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Table 4
ICD-10 Diagnostic Criteria for Bulimia Nervosa

- A. There are recurrent episodes of overeating (at least twice a week over a period of 3 months) in which large amounts of food are consumed in short periods of time.
- B. There is a persistent preoccupation with eating, and a strong desire or a sense of compulsion to eat (craving).
- C. The patient attempts to counteract the “fattening” effects of food by one or more of the following:
 1. Self-induced vomiting.
 2. Self-induced purging.
 3. Alternative periods of starvation.
 4. Use of drugs such as appetite suppressants, thyroid preparations, or diuretics; when bulimia occurs in diabetic patients they may choose to neglect their insulin treatment.
- D. There is self-perception of being too fat, with an intrusive dread of fatness (usually leading to underweight).

World Health Organization (1992). *International statistical classification of diseases and related problems* (10th rev.). Geneva: Author.

IV-TR mentions that the binge eating is generally done in secrecy, and may be triggered by stress or dysphoria. In addition, the DSM-IV-TR divides BN into purging and nonpurging types, depending on how the person compensates for the eating binges, and specifies that the binge/purge behaviors do not occur during episodes of AN (APA, 2000b). The ICD-10 criteria add the presence of craving or feelings of compulsion to eat as an additional factor.

The purging patients exhibit more psychopathology than do the nonpurgers, including increased disturbance in body image and weight concerns, anxiety about eating/gaining weight, self-injury, and comorbidity with other disorders (Garfinkel, 2002). Mood disturbances are common in both subtypes of BN, though depression and anxiety may be results of bingeing and purging rather than preceding factors. BN patients tend to be normal weight, though there is some indication that premorbid overweight or obesity is common.

Physically, repeated purging may cause electrolyte imbalances, metabolic problems, dental problems, enlarged parotid glands, and even cardiac disorders (from repeated use of ipecac to induce vomiting).

There are two types of BN: purging and nonpurging

Clinical Pearl **Medical Complications**

The clinician should never underestimate the risk of medical complications of BN, despite apparent normal weight. Potential medical problems, such as electrolyte imbalance from repeated purging, to actual damage to heart muscle and other organs should be investigated by a full medical evaluation/examination and appropriate laboratory investigations.

Psychologically, BN patients tend to be impulsive, acting out sexually, stealing, and intentionally injuring themselves (Polivy & Herman, 2002). Binges tend to be planned in advance: specific “binge” foods are purchased (often foods that are both easy to swallow and fattening, or foods that the patient normally avoids eating when not bingeing). In addition, BN patients who are bingeing generally eat very quickly, stuffing the food into their mouths without even tasting it. Some patients chew the food and spit it out, but most regurgitate (often drinking large quantities of water with the food to facilitate this), or abuse laxatives or diuretics to induce diarrhea or lose fluids. Binge eating is generally done in secret when the patient is alone, although groups of girls have been known to binge together and emulate each other’s binge eating behavior (Crandall, 1988).

There are questions about the appropriateness of the criteria for BN, in particular the arbitrary cut-off of two binges per week. There is little or no evidence demonstrating that bingeing twice a week is more pathological than bingeing once a week (Garfinkel, 2002). Excessive exercising is mentioned in the DSM-IV-TR criteria as a possible compensatory behavior in BN, but recent research indicates that it may be more the compulsive nature of the exercising that is pathological than its mere quantity (Adkins & Peel, 2005). Finally, the definition of what constitutes a binge is particularly vexed, as there are both objective (amount of food in a particular period of time) and subjective elements (feeling out of control of one’s eating). If only one of these is present (e.g., eating an apple, but feeling out of control, and thus calling it a binge), this is not strictly a binge, but it is still problematic. In particular, such “subjec-

BN patients tend to be impulsive

tive bingeing” is often seen in AN where there is a distorted perception of food size. (Polivy & Herman, 2002; see also Section 1.7.3).

1.2.3 Eating Disorder Not Otherwise Specified (EDNOS) or Atypical Eating Disorder

AN and BN are what most people think of as eating disorders. In fact, as many as 30–60% of eating disorder patients do not meet the criteria for either AN or BN, but fall into a category of “atypical” eating disorders known as eating disorders not otherwise specified, or EDNOS (Fairburn & Walsh, 2002).

The DSM-IV-TR criteria for EDNOS and the ICD-10 criteria for atypical eating disorders both specify that these are eating disorders that do not quite meet the criteria for AN or BN, but have features of one or both. DSM-IV-TR gives examples such as meeting all the criteria for AN except for amenorrhea or weight below 85% of normal, or meeting the BN criteria except for frequency or duration of binge/purge episodes, or inappropriate eating (e.g., binge eating disorder (BED), consisting of recurrent binge episodes, but no compensatory behavior) or inappropriate compensatory behavior (e.g., vomiting after small amounts of food, chewing food but spitting it out without swallowing) (APA, 2000b). The ICD-10 actually utilizes specific codes for each of six atypical eating disorder diagnoses (atypical AN, wherein all but one or two key features of AN are present; atypical BN, wherein all but one or two key features of BN are present; overeating associated with other psychological disturbances, including psychogenic overeating; vomiting associated with other psychological disturbances, wherein repeated vomiting occurs for psychological reasons; other eating disorders, including pica; and eating disorder, unspecified (WHO, 1992).

Atypical eating disorders do not meet the criteria for AN or BN, but have features of one or both disorders

Table 5
307.50 DSM-IV-TR Eating Disorder Not Otherwise Specified

The eating disorder not otherwise specified category is for disorders of eating that do not meet the criteria for any specific eating disorder. Examples include:

1. For females, all of the criteria for anorexia nervosa are met except that the individual has regular menses.
2. All of the criteria for anorexia nervosa are met except that, despite significant weight loss, the individual’s current weight is in the normal range.
3. All of the criteria for bulimia nervosa are met except that the binge eating and inappropriate compensatory mechanisms occur at a frequency of less than twice a week or for a duration of less than 3 months.
4. The regular use of inappropriate compensatory behavior by an individual of normal body weight after eating small amounts of food (e.g., self-induced vomiting after the consumption of two cookies).
5. Repeatedly chewing and spitting out, but not swallowing, large amounts of food.
6. Binge-eating disorder: Recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviors characteristic of bulimia nervosa.

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Table 6
DSM-IV-TR Research Criteria for Binge-Eating Disorder

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
 - 1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
 - 2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).
- B. The binge-eating episodes are associated with three (or more) of the following:
 - 1. Eating much more rapidly than normal.
 - 2. Eating until feeling uncomfortably full.
 - 3. Eating large amounts of food when not feeling physically hungry.
 - 4. Eating alone because of being embarrassed by how much one is eating.
 - 5. Feeling disgusted with oneself, depressed, or very guilty after overeating.
- C. Marked distress regarding binge eating is present.
- D. The binge eating occurs, on average, at least 2 days a week for 6 months.

Note: The method of determining frequency differs from that used for bulimia nervosa; future research should address whether the preferred method of setting a frequency threshold is counting the number of days on which binges occur or counting the number of episodes of binge eating.

- E. The binge eating is not associated with the regular use of inappropriate compensatory behaviors (e.g., purging, fasting, excessive exercise) and does not occur exclusively during the course of anorexia nervosa or bulimia nervosa.

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In both sets of criteria, there appear to be disorders similar to AN and BN, but not quite meeting one or more of the diagnostic criteria, plus disorders such as BED and pica that differ more markedly from AN and BN. Statistical attempts to subclassify the disorders lumped together into the EDNOS category have not succeeded, and problems have frequently been noted between the boundaries for the two subtypes of BN and BED (Fairburn & Walsh, 2002).

There have been objections to the use of EDNOS as a diagnostic category, and more specifically to the subheading of BED in the DSM-IV-TR. For example, Cooper and Fairburn (2003) point out that many patients categorized as BED actually have BN, and many others have no real disorder, but are obese individuals who sometimes overeat. Moreover, Beumont and Touyz (2003) point out that, other than for BED, the lack of consistency in pathology and psychopathology for EDNOS patients argues against EDNOS as a clinical entity.

1.3 Epidemiology

Eating disorders occur most often in adolescent females and young women living in industrialized countries. Community and clinical epidemiological

ED predominantly occurs in young females in industrialized countries

studies consistently find a sex ratio of one male patient to 10–15 females (except in preadolescents, where the sex ratio is closer to equal). AN occurs most often in pubertal girls, whereas BN develops slightly later, in somewhat older teenaged girls or young women in their twenties (Polivy, Herman, Mills, & Wheeler, 2003). The distribution of EDNOS is less well-studied, despite its greater prevalence. For example, at an eating disorders clinic in the UK, of 200 participants, 190 exhibited a clinical eating disorder, and among these, 11 patients met criteria for AN, 45 for BN, and the remaining 134 were diagnosed with EDNOS (Turner & Bryant-Waugh, 2004). Other estimates indicate that approximately half of patients seeking treatment for eating disorders have atypical variants or EDNOS (Fairburn & Walsh, 2002).

Looking at prevalence (number of cases in a population at a given time) and incidence rates (number of new cases in a population in a given year), it appears that the prevalence of AN and BN combined in the population at risk (young females) is somewhere between 1.5–10%, with at least a 2:1 ratio of BN to AN patients (Polivy & Herman, 2002), though more rigorous recent studies suggest the lower number is more accurate (Hoek, 2002). Moreover, the prevalence of atypical disorders or EDNOS is as much as twice that of AN and BN (Polivy & Herman, 2002).

Incidence rates of such rare disorders cannot really be based on general population studies, but instead are based on cases reported to health care systems (which are thus underestimates of the true incidence, as eating disorder patients often do not seek medical attention). Such incidence data as do exist, however, seem to indicate that the rate of AN is around 5–8 per 100,000 people per year, and for BN is closer to 11–13.5 per 100,000 (Hoek, 2002).

1.4 Course and Prognosis

Initially eating disorders may look like normal dieting

Eating disorders generally begin with what may look like normal dieting. For AN patients, eating is restricted more and more, in the “relentless” pursuit of thinness (which is never quite felt to have been achieved, no matter how emaciated the AN patient becomes). The initial desire to lose weight and become slimmer is soon replaced by more bizarre cognitions about being unworthy of food, needing to punish oneself with unremitting exercise, and needing to be thinner and eat less than anyone else. Being emaciated becomes the ultimate goal, rather than being a means for becoming happier, and the AN patient is filled with self-loathing and guilt if she gives in to her hunger and eats.

Similarly, in BN, dieting generally comes first, only later to be followed by eating binges and compensatory behaviors to get rid of the food. There is a small subgroup of patients who do not begin by dieting, but just start bingeing (fewer than 20%), but they do not differ greatly from other bulimic patients (Bulik, Sullivan, Carter, & Joyce, 1997). The attempts to restrict caloric intake eventually give way to episodes of binge eating and the development of compensatory behaviors such as vomiting or laxative abuse to eliminate the unwanted food. Patients often feel pleased with themselves in the early stages of the disorder, believing that they have found the secret to eating all they want without gaining weight. However, this initial elation is soon replaced by

distress about the binge/purge behaviors, and a realization that one is not in control of them.

Over time, the relationship between typical and atypical eating disorders seems to change frequently, with both AN and BN often subsiding into a “subthreshold” phase of continued disordered eating that does not meet criteria for either AN or BN, but may still qualify as EDNOS or atypical eating disorder (Fairburn & Walsh, 2002). Approximately one third of patients continue to exhibit full clinical syndromes for 5 years or more after initial diagnosis (even with treatment), but more than 50% do show major signs of improvement in this time period (Polivy & Herman 2002). AN in particular has an exceptionally high mortality rate, though, and is possibly the most lethal of the psychological disorders (Beumont & Touyz, 2003). In addition to the dangers from complications due to malnutrition, there is a significant risk of suicide in AN, comparable to the level of risk in depression or conduct disorder (Latzer & Hochdorf, 2005). Purging behaviors are especially dangerous in malnourished patients, more so than in the less emaciated BN population. In general, the natural course of BN does not seem to be as severe as is the course of AN. Although some AN patients do go on to develop BN, this seems to be more the exception than the rule. EDNOS appears to be the least severe, and often remits spontaneously (Beumont & Touyz, 2003), though as there are very few treatment outcome studies of EDNOS patients at this time, it may be premature to draw conclusions such as this (Fairburn & Harrison, 2003).

The course of BN appears to be worse than is that of EDNOS, in that remission is less likely, and takes longer to occur (Fairburn & Walsh, 2002; Grilo et al., 2003). A prospective study of BN and BED patients over 5 years indicated that after marked initial improvement for both groups of patients, 50–66% of the BN patients continued to meet diagnostic criteria for at least EDNOS, if not BN, over the course of yearly assessments, but only 18% of the BED patients continued to have any sort of eating disorder after 5 years, despite the fact that few of these patients even sought treatment for their eating problems (Fairburn, Cooper, Doll, Norman, & O’Connor, 2000). Earlier longitudinal studies suggested that the progression went from less to more severe eating disorders over time, with almost half of those with subthreshold forms of AN or BN going on to develop the full disorder within 3–4 years, but it now seems that, at least for BED, there is a high remission rate and often little or no tendency for the disorder to evolve into a more serious eating disorder (Fairburn & Walsh, 2002). Unfortunately, there has still been little research on self-cure, or untreated, natural recovery or remission of eating disorders of any kind, and it remains possible that our current picture of the disorder reflects only the more serious cases that find their way into treatment (Polivy & Herman, 2002). The literature that does examine the course of the disorders suggests that the different eating disorders have different courses, with AN having the highest mortality and being least likely to remit or be cured. BN seems to be somewhat less refractory than AN, but more so than EDNOS or BED (Polivy, in press). Treated patients appear to be more likely to recover fully from an ED than patients who do not receive therapy, although this may reflect greater motivation to change on the part of those who sought treatment.

AN is the most lethal psychological disorder

Table 7
Prognostic Indicators for Eating Disorder Outcome

AN pretreatment factors predicting negative outcome:

- Low BMI
- Severely medically compromised
- Bulimic subtype
- Premorbid personality difficulties
- Interpersonal distrust/problems
- Previous treatment failure
- Family dysfunction
- Body image disturbance or dissatisfaction/low desired weight
- Older age at presentation

AN posttreatment factors predicting negative outcome:

- Inadequate weight gain in treatment
- General psychopathology
- Low desired weight/high drive for thinness, dieting
- Poor social adjustment

BN pretreatment factors predicting negative outcome:

- Borderline personality disorder
- Substance misuse
- Lack of readiness to change (stage of change)
- History of obesity
- High levels of bingeing and/or purging

BN posttreatment factors predicting negative outcome:

- Interpersonal/relationship problems, distrust
- Depression
- Body dissatisfaction/drive for thinness/ED cognitions
- Failure to achieve abstinence from bingeing
- Low social class/income
- Persistence of purging
- Comorbidity/general psychiatric disturbance

Based on the NICE Guidelines (www.nice.org.uk).

1.5 Differential Diagnosis

It has been hotly debated as to whether the various eating disorders are really different disorders, or different manifestations of a single disorder (e.g., Joiner, Vohs, & Heatherton, 2000). The core symptoms of preoccupation with body shape and weight, preoccupation with food, disturbed perceptions of one's body are present to at least some degree in all of the disorders, along with personality deficits such as feelings of ineffectiveness or low self-esteem. In fact, the "spectrum hypothesis" posits that all eating disorders are different manifestations of a single disorder or syndrome (Van der Ham, Meulman, Van Strien, & Van Engeland, 1997). Even bingeing and purging are characteristics of one major type of AN, which then leads to confusion between AN and BN¹

¹ In fact, Gleaves et al. (2000) concluded that restricting AN is more distinct from bulimic AN than bulimic AN is from BN.