

## ***Chapter 1***

# **An Overview of Bulimia Nervosa**

## *Diagnosis, Complications, and Treatment*

Although isolated case reports and series have appeared in the literature for a number of decades, the syndrome of BN was first described by Russell in a 1979 paper, in which the condition was conceptualized as a variant of anorexia nervosa (AN). Over the last 35 years, BN has been recognized as a distinct and significant psychiatric disorder. It was first included in DSM III-R (American Psychiatric Association [APA], 1987). The diagnostic criteria were revised in DSM-IV (APA, 1994) and in DSM-5 (APA, 2013). Prevalence estimates indicate that 1–3.5% of females between the ages of 15 and 30 have met DSM-IV diagnostic criteria (Hoek & van Hoeken, 2003; Hudson, Hiripi, Pope, & Kessler, 2007). Among males, the prevalence is less and estimated to be about 0.5% (Hudson et al., 2007). However, epidemiological studies suggest a larger percentage of both males and females have bulimic symptoms without meeting all of the clinical diagnostic criteria (Hoek & van Hoeken, 2003). This is important due to the growing recognition that subclinical forms of BN do not differ significantly from full-syndrome BN in a variety of comparisons across social and medical criteria (Thomas, Vartanian, & Brownell, 2009). Consistent with the growing recognition of the severity of subclinical BN, the DSM-5 diagnostic criteria reduced the frequency of binge-purge behavior from twice to once per week (see Table 1.1). This relatively small change in the frequency of symptoms was intended to reduce the number of individuals who did not meet DSM-IV diagnostic criteria for BN and were classified as eating disorder not otherwise specified (EDNOS).

BN usually begins in late adolescence or young adulthood, with most studies reporting a mean age of onset around 19 to 20 years (Hudson et al., 2007). Many patients are symptomatic for several years before seeking treatment, and it is often

**TABLE 1.1. DSM-5 Diagnostic Criteria for BN**

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- 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 what most individuals would eat in a similar period of time 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 behaviors in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.
  - C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once 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.
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the consequences of the disorder, rather than the eating behaviors per se, that eventually lead them to seek treatment (e.g., medical problems, depression, or psychosocial impairment). Although the diagnostic criteria require only that patients with BN binge-eat and use compensatory behaviors at least once a week for 3 months, typical patients with BN binge-eat once or twice a day, and sometimes more frequently (Mitchell, Hatsukami, Eckert, & Pyle, 1985a; Powers, 1996). There is a great deal of variability in what constitutes binge-eating behavior, but usually large amounts of food are consumed, often in excess of 1,000 calories or more (Mitchell, Crow, Peterson, Wonderlich, & Crosby, 1998; Walsh, Kissileff, & Hadigan, 1989). Furthermore, following binge-eating episodes many patients engage in self-induced vomiting, which is the most common compensatory behavior. Most patients with BN (i.e., 88%; Mitchell et al., 1985a) begin to self-induce vomiting by using some form of mechanical manipulation, such as inserting their hand or a toothbrush into their throat, while many eventually learn to vomit reflexively over the years and do not require mechanical stimulation to vomit by the time they seek treatment. It is important to note, however, that vomiting may occur in the absence of binge eating.

Although binge eating and self-induced vomiting are the most common features of BN, a number of other problematic compensatory and associated behaviors can co-occur as summarized in Table 1.2 (Mitchell, Hatsukami, Pyle, & Eckert, 1988). These include misuse of laxatives (approximately 60% at least intermittently), over-the-counter diet pills (at least 50% intermittently), diuretics (about 15%, usually

**TABLE 1.2. Other Common Features of BN**

<u>Cognitive/emotional</u>
<ul style="list-style-type: none"> <li>• Depression</li> <li>• Irritability</li> <li>• Problems concentrating</li> <li>• Anxiety</li> </ul>
<u>Financial/social</u>
<ul style="list-style-type: none"> <li>• Financial problems, including loss of savings, borrowing from friends, and debt</li> <li>• Feeling socially isolated from family and friends, in part because of the secretive nature of bulimic symptoms</li> <li>• Work and school may be problematic with lack of advancement and poor attendance</li> <li>• Sometimes people develop legal problems for writing bad checks or shoplifting</li> </ul>
<u>Medical</u>
<ul style="list-style-type: none"> <li>• Electrolyte abnormalities</li> <li>• Menstrual irregularity</li> <li>• Salivary gland swelling</li> <li>• Tooth enamel erosion</li> <li>• Rarely gastric dilatation and esophageal rupture</li> </ul>
<u>Behavioral</u>
Often as a consequence of the disorder: <ul style="list-style-type: none"> <li>• Dishonesty</li> <li>• Stealing</li> <li>• Misuse alcohol or drugs</li> <li>• Struggle with relationships</li> </ul>

over-the-counter diuretics, but some abuse of prescription diuretics), rumination (as high as 33% of subjects in some studies), and, in the past when it was widely available, ipecac (experimentation by approximately 12% of patients with BN, with regular usage in 2–3%) (Mitchell, Hatsukami, Pyle, & Eckert, 1986). Other compensatory behaviors are seen less frequently, including misuse of saunas, enemas, thyroid medication, and insulin (among individuals with diabetes) (Mitchell, Pyle, & Eckert, 1991a; Mitchell, Pyle, & Hatsukami, 1991b). Patients with BN frequently have significant social impairment, similar to that of women undergoing treatment for substance abuse (Holderness, Brooks-Gunn, & Warren, 1994) and reporting long-term social impairment over the course of the disorder (Keel, Mitchell, Miller, Davis, & Crow, 1999).

Patients with BN frequently experience other comorbid psychiatric conditions (Wonderlich & Mitchell, 1997), and although the exact relationship between BN and these other conditions is not always clear, psychiatric comorbidity is so common that it becomes a major influence in terms of treatment planning (Fichter & Quadflieg, 2004; Milos, Spindler, Ruggiero, Klaghofer, & Schnyder, 2002). One of

the most common comorbidities is major depressive disorder. Approximately 80% of patients with BN will have a lifetime history of depression, and 50% will have active depression when seen for evaluation (Herzog, Keller, Sachs, Yeh, & Lavori, 1992). Anxiety disorders are also commonly observed, particularly social phobia and panic disorder (Hudson et al., 2007; Laessle, Wittchen, Fichter, & Pirke, 1989), as well as substance use problems involving alcohol and drugs (Herzog et al., 1992). In some studies, as many as 20–25% of individuals with BN have significant alcohol or other drug use disorders (Bulik, Sullivan, & Epstein, 1992). Personality disorders, particularly DSM-IV Cluster B and C disturbances, are also common in women with BN and are of particular relevance to treatment (Cassin & von Ranson, 2005). The presence of a Cluster B personality disorder has been shown to be a negative outcome predictor for some treatments (Rossiter, Agras, Telch, & Schneider, 1993), although this finding has been inconsistently demonstrated (Grilo et al., 2007).

The course of BN is highly variable, with some patients experiencing a nonremitting, chronic course and others experiencing waxing and waning of symptoms over time (Keel et al., 1999), or migrating to another eating disorder diagnosis (Fairburn & Harrison, 2003). Long-term follow-up studies suggest that many patients do recover eventually without treatment, but a subgroup continue a chronic course and are still symptomatic at long-term follow-up (Keel & Mitchell, 1997; Keel et al., 1999). Studies of relapse suggest that patients who are abstinent from bulimic symptoms at the end of treatment and are able to maintain their abstinence for a period of 6 months are less likely to relapse subsequently (Mitchell, Davis & Goff, 1985b). Furthermore, abstinence from bulimic symptoms at the end of treatment is an important predictor of 6-month and long-term outcome (Maddock, Kaplan, Woodside, Langdon, & Priam, 1992).

## MEDICAL COMPLICATIONS

Although medical morbidity is fairly common in BN, mortality is generally considered relatively rare in contrast to the significant mortality rate associated with AN (Berkman, Lohr, & Bulik, 2007; Hoek, 2006). However, a recent study indicates that mortality rates for BN, as well as EDNOS, which may include subclinical forms of BN, are higher than was once assumed (Crow et al., 2009). The most frequent medical complications of BN are nonspecific physical complaints including weakness, fatigue, and dizziness. Comorbid depression may confound the accurate assessment of medical complaints.

The most frequent system-related physical abnormalities in BN are fluid/electrolyte abnormalities (Mitchell & Crow, 2006) including hypochloremia (decreased serum chloride), metabolic alkalosis (increased serum bicarbonate), and hypokalemia (decreased serum potassium). These conditions develop because of the loss of

hydrogen in the vomitus and fluid contraction, with the subsequent shift of potassium into the cells and loss of potassium through the urine. Hypokalemia is particularly problematic because it raises concerns about cardiac conduction abnormalities. Patients who abuse laxatives or diuretics can have metabolic acidosis, at least transiently (decreased serum bicarbonate). Approximately 50% of patients with BN will show abnormalities on measures of serum electrolytes (Greenfeld, Mickley, Quinlan, & Roloff, 1995).

Another common medical complication of BN is loss of dental enamel associated with vomiting (Simmons, Grayden, & Mitchell, 1986). These dental changes are usually greatest on the lingual or posterior surface of the upper teeth, where the vomitus makes contact as it is projected from the throat during the act of vomiting. Typically, enamel erosion occurs around the amalgams or fillings, which are resistant to the acid and end up floating like “islands” above the surface of the tooth with the enamel washed out around them.

An extremely serious but rare complication of BN is gastric dilatation, in which the patient is unable to vomit and has continued expansion of the stomach secondary to fluid release into the lumen of the stomach following a binge-eating episode (Bravender & Story, 2007; Carney & Andersen, 1996). This condition requires surgical consultation and may require surgical decompression. Gastric rupture can lead to death. Cases of esophageal rupture (with vomiting), a condition that is also potentially fatal, have been reported (Abdu, Garritano, & Culver, 1987).

Many patients with BN will complain of irregular menses, although amenorrhea is less common than in AN (Crow, Agras, Halmi, Mitchell, & Kraemer, 2002). Neuroendocrine hypothalamic–pituitary–ovarian hormones are frequently dysregulated as part of the disorder. There is also evidence of abnormalities in the regulation of other hormonal systems, including prolactin and cortisol (Ferrari et al., 1997; Birketvedt et al., 2006), although the clinical significance of these changes is less clear.

Overall, the main sources of clinical concern in BN are fluid and electrolyte abnormalities, dental enamel erosion, and the risk of rare and dangerous complications such as gastric dilatation and esophageal rupture. For these reasons, individuals with bulimic symptoms need to be monitored to ensure medical stability.

## TREATMENTS FOR BN

Since the original description of BN in 1979 (Russell, 1979), an impressive literature has developed on the treatment of this disorder. It has mainly followed two paths: pharmacotherapy approaches that have relied primarily on antidepressant drugs and psychotherapy approaches that have focused primarily on cognitive-behavioral techniques. The available treatment studies using antidepressant medications show quite

clearly that many of the available drugs suppress binge eating and vomiting and can improve mood in patients with BN, although most patients are not free of symptoms at the end of drug treatment (Jimerson, Wolfe, Brotman, & Metzger, 1996). Tricyclic antidepressants (e.g., imipramine, desipramine) were the first antidepressants shown to be helpful in the treatment of BN. Serotonin reuptake inhibitors also work for some individuals, and now because of their safety are typically used instead of the tricyclics. The drug that has been studied most extensively is fluoxetine hydrochloride (Prozac), which remains the only drug approved by the Food and Drug Administration (FDA) for the treatment of BN in the United States. It is often given at a dose of 60 milligrams a day, in contrast to the 20-milligram dose often effective for the treatment of depression (Goldstein, Wilson, Thompson, Potvin, & Rampay, 1995). Other experimental drug treatments are often used to treat bulimic symptoms as well as the depression and anxiety that often occur with BN. Pharmacological interventions, when used alone, rarely produce enduring remissions, and many patients become more symptomatic once they are removed from the medication (Fairburn, 2008). Combinations of treatment may also be effective. Combining drug treatment (e.g., fluoxetine) with psychological therapies may be better than either treatment alone for some patients, but psychological therapy (e.g., cognitive-behavioral therapy [CBT]) without medication has been found to be as effective as psychological treatment with medication (Wilson, Grilo, & Vitousek, 2007). Although people with BN are usually treated in outpatient settings, some need to be treated in hospital-based programs.

CBT was developed by Beck (1967, 1976, 1987) for the treatment of depression and has been adapted for the treatment of BN (Fairburn, 2008; Fairburn, Marcus, & Wilson, 1993b). Administered in both individual and group formats, CBT has been shown to be the preferred manual-based psychotherapy approach to treatment of BN (Wonderlich, de Zwaan, Mitchell, Peterson, & Crow, 2003). It has been shown to work as well as, or better, than all control treatments, and clearly is superior to waiting-list controls, minimal intervention controls, or nonspecific supportive interventions (Fairburn et al., 1993b). Interpersonal therapy (IPT; Fairburn, 1997), another psychotherapy approach developed for the treatment of depression that has been adapted for BN, focuses on addressing current interpersonal relationship problems that are hypothesized to maintain the eating disorder symptoms. Several empirical comparisons have shown that IPT is comparable to CBT in terms of improvements in bulimic symptoms, although IPT appears to act more slowly than CBT (Fairburn et al., 1993a, 1995; Agras, Walsh, Fairburn, Wilson, & Kraemer, 1999).

Currently, CBT (e.g., Agras et al., 1992; Fairburn et al., 1993b; Fairburn, 2008; Mitchell et al., 1990) is the most widely tested and effective form of treatment for BN. In the National Institute for Clinical Excellence (now the National Institute for Health and Care Excellence [NICE] Guidelines (2004), CBT for BN was given an A grade as an evidence-based treatment (IPT was given a B grade for the treatment

of BN). However, many patients, even if improved, remain symptomatic after CBT; additional CBT limitations include significant dropout and relapse rates (Mitchell, Hoberman, Peterson, Mussell, & Pyle, 1996).

A recently developed version of CBT, CBT-E (Fairburn, 2008), which is intended to treat a full range of eating disorders, has received considerable clinical and scientific attention. CBT-E may be administered in either a focused or a broad clinical format. The focused approach resembles traditional CBT for BN, while the broad approach includes interventions that target a greater range of clinical constructs, such as clinical perfectionism, interpersonal problems, or core low self-esteem. In a randomized controlled trial involving 154 patients with eating disorders, many of whom had BN, over half of the participants receiving CBT-E showed what was deemed to be a clinically significant response based on the Eating Disorder Examination; furthermore, this treatment effect did not differ by eating disorder diagnosis. In a recent review, Fairburn and colleagues commented that it would appear as though CBT-E is more effective than traditional CBT (Murphy, Straebler, Cooper, & Fairburn, 2010).

Increasing evidence also suggests that self-help interventions, which involve the use of a treatment manual and often some form of supportive clinical assistance in applying the intervention, can also be useful in the treatment of BN (Wilson & Zandberg, 2012). In particular, guided self-help, which includes a limited number of supportive face-to-face sessions with a provider, has been shown to be effective in the treatment of BN. In one large trial comparing guided self-help to face-to-face CBT for BN, there were no significant differences in remission rates, and the authors concluded that guided self-help may be considered an effective first-line treatment for BN (Mitchell et al., 2011).

There is also a small amount of evidence to suggest that a modified version of dialectical behavior therapy (DBT) for eating disorders may be effective in the treatment of BN. This DBT-based treatment is generally considered appropriate for individuals with binge-eating problems and has been tested for individuals with binge-eating disorder as well as BN. In one randomized controlled trial of DBT for BN (Safer, Telch, & Agras, 2001), participants received either DBT skills training or a wait-list control condition. At the end of treatment, over one quarter of the BN participants receiving DBT reported abstinence from binge eating and purging, while none of the wait-list participants reported abstinence. These findings offer preliminary data to suggest that skill-oriented affect regulation treatment may be useful in the treatment of BN.

Finally, ICAT-BN was recently compared to CBT-E in a randomized controlled trial. Eighty participants meeting diagnostic criteria for full-syndrome or subclinical BN received either ICAT-BN or CBT-E over 21 sessions of treatment. Both treatments were associated with significant improvement in bulimic symptoms as well as all other outcome measures, and there were no significant differences observed

between the two treatment conditions at end of treatment or at 4-month follow-up. Intent-to-treat abstinence rates for ICAT-BN were 37.5% at the end of treatment, compared to 22.5% for CBT-E. In general, both treatments maintained these gains at the follow-up assessment. This study supports the efficacy of ICAT-BN as well as the possibility that it is comparable to CBT-E, an established treatment for BN.

## LIVING WITH BN: THE STORIES BEHIND THE DATA

Important as scientific data and diagnostic criteria are in understanding the phenomena of BN, they do not adequately portray the experience of people suffering from this disorder. The following case examples<sup>1</sup> illustrate the wide variety of individuals who suffer from BN, the variability of the disorder, and the human toll of bulimic symptoms.

### ***Case Example: Sydney***

Sydney is an 18-year-old college student who started binge eating and vomiting at age 15. As a child, Sydney was shy and anxious, and her family still teases her about her separation anxiety when she attended elementary school. She laughs when they tease her, but recalling that time is still very painful for her. Sydney also remembers worrying about disappointing her family and teachers and striving to be “perfect” at school, sports, and activities. A competitive tennis player, Sydney was ranked in the upper tier of players in her state starting at age 10. She reports that she was always so nervous about matches that she was unable to sleep the night before as she worried about mistakes that she might make. A straight-A student as well as an accomplished tennis player, Sydney had a few close friends but spent the majority of her time outside of school traveling to matches with her mother and coach. She remembers that her eating disorder started at age 14 when she began menstruating and her coach criticized her for gaining weight. Ashamed, and fearing that puberty and the subsequent changes in her body weight would negatively impact her skills as a tennis player, Sydney began to increase her workouts off the court and became more focused on eating “healthy.” She read books and online sources about sports nutrition and calculated calories and macronutrients in an attempt to lose weight.

At first, she was exhilarated by her weight loss, especially when she was praised by her coach for her self-discipline. As a result, she increased her workout frequency and intensity and spent less time socializing with her friends. After 6 months of this eating and exercise regimen, however, Sydney found herself more irritable and

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<sup>1</sup>Cases reflect compilations of information from different individuals with identifying information deleted.

craving the foods that she restricted herself from eating. Criticizing herself for such “weakness,” she resisted these urges until one afternoon, soon after she turned 15. In a high-profile tennis tournament, she lost to an opponent with a lower ranking. If that was not distressing enough, the loss was followed by Sydney’s coach and mother expressing deep disappointment in her performance. Sydney went home after the tournament and cried in her room. Alone without anyone else in the house, she went downstairs and began eating foods that she had not allowed herself to eat in months, including desserts and snack food. Once she started, she could not stop herself. Finally, too full to continue, she looked at the empty wrappers in the kitchen, felt a sense of panic at the imminent weight gain that would result from having eaten so much food, and ran to the bathroom to self-induce vomiting. Relieved, she consoled herself by promising to never binge-eat and purge again. Three days later, however, she had another bulimic episode after she received a B minus on a math quiz. Within a month, she was binge eating and vomiting at least 4 days a week. In addition to the bulimic episodes, Sydney noticed that she was completely preoccupied with eating: when she would eat, what she had eaten, whether she would gain weight, and where she could purge. She found herself feeling tearful, irritable, and withdrawn from her friends, whom she believed she could not confide in for fear that they would criticize her. Sydney also noticed that she felt weak and dizzy as well as suffering from frequent stomach pain. Although she continued to receive high grades, her tennis skills suffered greatly, and by the age of 16, she was no longer ranked within the state. Sydney abandoned plans to attend college on an athletic scholarship, much to her family’s disappointment. Nevertheless when she arrived at college, she looked forward to a “fresh start” with new friends, an academically rigorous curriculum, and, she hoped, freedom from her bulimic symptoms. For the first 3 weeks of school, she was able to resist binge eating and purging. However, prior to her first midterm exam, her bulimic pattern resumed, and when she sought treatment a month later, she was binge eating and purging daily.

### ***Case Example: Ethan***

Now age 25, Ethan remembers stealing boxes of sugar to eat in his room when he was only 5 years old. Secretly binge eating throughout childhood, Ethan was often teased about being overweight. He remembers that eating was soothing and comforting to him. He also remembers the intense pleasure that eating alone in his room would provide him. However, Ethan also recalls the shame that he felt when his family complained about food missing from the kitchen. The youngest of five children, he often felt lonely when the rest of his family was focused on the needs of his brothers and sisters. Nonetheless, he had a number of friends and was involved in many extracurricular activities, including theater and choir. Throughout high school and college, Ethan would alternate between month-long periods of binge eating and

times when he would exercise daily and restrict how much he ate. Ethan had heard of BN but could not imagine making himself throw up until he was 21 and offered a role as an actor in a local community theater production. Concerned about “looking fat” on stage, Ethan found that he was unable to follow any of the diets that he had tried in the past. One day, in desperation, he tried self-induced vomiting after eating a large pizza. Although he was fearful that the experience might be disgusting, he was surprised to find that he was both relieved to be free of worry about weight gain and emotionally calmed by the act of binge eating and vomiting. After that first episode, Ethan would find himself binge eating and purging every time he felt badly about himself, overwhelmed by demands at school or lonely. Somewhat reluctantly, given his reliance on his bulimic symptoms to help regulate his mood and weight, Ethan decided to seek treatment because he feared the medical and emotional consequences of his bulimic symptoms.

### ***Case Example: Cassidy***

Cassidy was in and out of mental health treatments for a variety of psychological problems during her adolescence. As a young adult Cassidy describes her adolescence as “wild” and acknowledges using a variety of drugs, engaging in promiscuous sex, and having bulimic episodes intermittently. Having experienced ongoing sexual abuse by an uncle when she was young, Cassidy was seen by a number of counselors and therapists during childhood when a neighbor discovered the abuse and reported it to the authorities. Raised by a single mother who “hated” Cassidy’s birth father (whom Cassidy has never met), Cassidy remembers moving frequently while she was growing up but finding that she could “fit in” regardless of the school she attended because she would identify “the partiers” at school, who would always welcome her. She started drinking alcohol daily at age 13 and using drugs, including daily marijuana and painkillers, at age 15. She remembers that her first purging episode occurred at age 16 because she “felt fat” and tried vomiting on a whim. She also reports having used laxatives and diuretics as well as vomiting in an attempt to control her weight. Cassidy says that since adolescence she has always been bulimic, substance dependent, or both (although more typically in an alternating pattern). She attended drug and alcohol treatment four times, starting at age 17, but never told anyone in these treatment centers that she had bulimic symptoms. In fact, she remembers binge eating and purging throughout all of her drug and alcohol treatments. Cassidy has volatile relationships with her family members and friends, as well as with her boyfriends. She describes feeling like love is a “drug” for her when she meets someone new and starts dating him; however, within a month, she becomes bored and ends the relationship. In spite of her chaotic lifestyle, Cassidy is a skilled salesperson and, other than when she was in rehab, has worked successfully in a series of sales jobs around the country. Uncertain about whether

she should get treatment for her eating disorder, Cassidy considers her main priority to be her sobriety, which she has maintained for the past 2 years. However, she has noticed that her bulimic symptoms have gotten worse in the context of her sobriety and increased work travel. She is also concerned about finances because she spends so much of her income buying food for binge-eating episodes as well as the fact that she has had to pay for expensive dental work as a result of the impact of vomiting on her teeth.

### ***Case Example: Jackie***

Jackie is now 41, but her eating disorder symptoms started in adolescence when she developed AN as a 14-year-old during the summer after her parents were divorced. She remembers dieting, exercising, weighing herself constantly, and writing down everything she ate. Focusing on her eating was a way to avoid her sadness and anger over her parents' divorce. Jackie did not binge eat or vomit because she would have seen that as "weakness" at a time when she valued self-control over everything else. She recalls feeling terrified of weight gain, even a fraction of a pound, and would weigh herself multiple times a day to make sure her weight was stable. Concerned about her weight loss, her parents had her hospitalized in a local eating disorder program where she was diagnosed with AN. Gradually, Jackie resumed her normal eating patterns, was discharged from the hospital, and saw a therapist for 6 months to ensure that she was continuing to improve, which she did. Although Jackie noticed occasional body image problems (e.g., that her "thighs looked huge"), she was free from eating disorder symptoms throughout high school and college.

After graduation, she started working as a laboratory technician in a company where she was employed for several decades. She had a number of friends at work but generally regarded herself as a shy person and rarely dated. At a professional conference 3 years ago, however, she met her current husband. After they met, she left her job and moved out of state so they could live in the same city. They were married 2 years ago, and Jackie gave birth to their son 1 year ago. Soon after giving birth, Jackie had some mild postpartum depression symptoms and decided to "get back in shape" to "look good and feel better" about herself. She began an intense workout routine and a more restrictive diet. She enjoyed taking care of her son but looked forward to his naps so that she could exercise in their basement, which she did for several hours each day. Jackie found that she became increasingly preoccupied with her weight and shape. Although she could still care for her son, she was often distracted and planning her meals and workouts. After a sleep-deprived night in which her infant son was ill, Jackie finally got him to sleep after her husband left for work one morning. Exhausted, but heading to the basement to exercise anyway, she saw a loaf of bread on the counter, noticed how hungry she was, and started to eat a piece. Unable to stop eating once she had started, she ended up eating the

entire loaf and felt so full and afraid of gaining weight that she self-induced vomiting. After this initial episode, her bulimic symptoms increased in frequency, and soon Jackie was binge eating and purging whenever she felt overwhelmed by the demands of parenting. She also weighed herself multiple times a day and spent hours trying on clothes that used to fit before the pregnancy. Concerned about how her bulimic symptoms might affect her young son, Jackie asked her ob-gyn for an eating disorder treatment referral. She expressed frustration, stating, “I thought having an eating disorder was something that I got over as a teenager. I can’t believe that I’m over 40 and completely obsessed again with my weight.”

As these examples portray, people of all ages and personality types are vulnerable to developing bulimic symptoms. The conditions that lead to the development of BN often differ from factors that maintain the disorder. Although BN is known for its behavioral features, particularly binge eating and purging, it is a condition that is associated with debilitating psychological preoccupation with food, shape, and weight, impairment in relationships as well as work and school performance, physical problems, and mood dysregulation. In addition, although individuals who struggle with BN may eventually seek treatment because of these associated problems, they are often ambivalent about change because of the function of their symptoms for mood regulation and their perception that their compensatory behaviors are essential for weight regulation.