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# Diagnosis of Bulimia Nervosa Based on Dsm V

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**ABSTRACT:** The purpose of this study was to analyze the diagnosis of bulimia nervosa based on DSM V. The method used in this study was qualitative with a library research approach. This study concludes that bulimia nervosa is a form of an intense fear of gaining weight or refusing to maintain body weight at or above average body weight, at least according to age and height, and experiencing disturbances in how to view one's own weight or body shape. So, it causes various severe complications and can even cause death. Therefore, people with bulimia nervosa need comprehensive medical and psychological treatment, namely hospitalization if necessary and individual and family therapy.

KEYWORDS: DSM, Bulimia Nervosa, Health, Society.

### INTRODUCTION

Eating disorders are psychiatric conditions with severe psychological and medical consequences. Eating disorders, such as anorexia nervosa (AN) and bulimia nervosa (BN), are chronic illnesses defined as disturbed eating behaviour or behaviours in controlling body weight. The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V) classifies three types of eating disorders: anorexia nervosa (AN), bulimia nervosa (BN), and binge-eating disorder (BED). AN is characterized by a reluctance to maintain average body weight, a distorted view of body image, an extreme fear of becoming fat, and severely disturbed eating behaviours. Frequent and repeated eating behaviours characterize BN, then attempts to vomit, use of laxatives, fasting or excessive exercise (Ashby & Ogden, 2024; Fan et al., 2023).

The number of patients with eating disorders is known to have increased globally since 50 years ago. In the United States, it is reported that one to two million women meet diagnostic criteria for BN, and 500,000 women meet diagnostic criteria for AN (Crone et al., 2023). This increase is related to extreme awareness of body weight and physical appearance, especially among the younger generation. Studies on eating disorders indicate that 1% of adolescent females in the United States suffer from AN, while 4% suffer from BN. As many as 1.2% of schoolchildren in Cairo and 3.2% of schoolchildren in Iran suffer from BN (Tse et al., 2022). In Norway, as many as 2.6% of female college students and 1.3% of Italian college students suffer from AN (Mohajan et al., 2023). When comparing the prevalence in Western and non-Western countries, the prevalence in non-Western countries is lower than in Western countries but shows an increase. The prevalence in the country for AN is 0.1-5.7% in female subjects, while for BN, it is 0-2-1% in men and 0.3-7.3% in women. The prevalence in non-Western countries for BN is 0.46-3.2% in women (Chew & Temples, 2022).

According to Sim et al., (2010), since the 1980s, there has been an increase in the prevalence of eating disorders in Asian populations. Recently, there has been an increase in this phenomenon among young women in Singapore. In Singapore, the prevalence of young women who are at risk of developing eating disorders is 7.4% (Klein et al., 2021). A media outlet in Singapore in 2007 reported that the number of teenagers with eating disorders had increased sixfold since 2002. The Singapore General Hospital stated that 140 cases of eating disorders were reported each year, but only 10 to 20% came for treatment (Klein & Walsh, 2004). Morris & Anderson (2021) reported that 0.05% of psychiatric patient samples in Malaysia had been diagnosed with AN, and this figure had not increased for 15 years. In Indonesia, 12-22% of women aged 15-29 years suffer from chronic energy deficiency (BMI <18.5) in some areas (Hilbert et al., 2017). Whether this deficiency is caused by eating disorders or something else is not explained in detail. However, there is still a lack of research on eating disorders in Indonesia, so the prevalence is not known for sure as a result of prolonged eating disorders, chronic hypotension, bradycardia, hypothermia, salivary gland swelling, anaemia, dehydration, alkalosis and hypochloremia can be seen. Gastric rupture can also occur. More than 90% of AN sufferers experience secondary amenorrhea due to chronic malnutrition. Reduced bone density is a serious problem because it is difficult to treat, and this condition increases the risk of bone fractures. Eating disorders can also cause heart problems. The highest risk in patients with eating disorders is heart failure (Crone et al., 2023).

Bulimia nervosa is an eating disorder characterized by repeated attempts to vomit what has been eaten previously. Bulimia nervosa is an eating disorder characterized by repeated excessive eating habits, often occurring in women. This disorder is usually a form of self-torture. The most common practice of more than 75% of people with bulimia nervosa is to make themselves vomit, sometimes called purging; fasting, as well as the use of laxatives, enemas, diuretics, the use of laxatives so that they can stimulate a person living with bulimia to vomit the food they have eaten and excessive exercise are also standard features. It is known that the number of patients with eating disorders has increased globally since 50 years ago (Casper, 1986).

This increase is related to extreme awareness of body weight and physical appearance, mainly among the younger generation. BN affects 6 out of 200 women. BN is known to be more common in women than men, but the incidence in men is increasing. As many as 80% of BN patients achieve remission with treatment. However, the recurrence rate of BN is as high as 20%. For this reason, this article was written to increase the understanding of writers and readers regarding bulimia nervosa.

#### **RESEARCH METHOD**

This article was compiled using literature and document reviews, namely literature in the form of books, papers, or other types of writings and a study of various documents related to the topic of bulimia nervosa diagnosis based on DSM V, which is raised in this article.

### **RESULTS AND DISCUSSION**

Eating disorders are psychiatric conditions with severe psychological and medical consequences. The Diagnostic and Statistical Manual of Mental Disorders – V (DSM-V) classifies three types of eating disorders: anorexia nervosa (AN), BN (BN), and binge-eating disorder (BED). BN is defined as a condition of an uncontrollable urge to consume excessive amounts of high-calorie foods in a short period, then triggering feelings of guilt, followed by compensation in the form of extreme fasting episodes, self-induced vomiting, and use of laxatives or diuretics (Górski et al., 2022).

As many as 8% of women and 2% of men experience eating disorders. In the United States, it is reported that two million women meet the diagnostic criteria for BN, and 500,000 women meet the diagnostic criteria for AN. This increase is related to extreme awareness of body weight and physical appearance, mainly among adolescents and young adults. BN is known to occur more often in women than men, but the incidence in men is increasing (Crone et al., 2023).

The aetiology of eating disorders is hypothesized to be multifactorial, including genetic, biological, and sociocultural factors that interact with each other. Environmental influences that may contribute to the aetiology of eating disorders include societal idealization of ideal body weight and shape (Lister, 2005). Parenting styles, household stress, and parental discord can contribute to anxiety and personality traits that are risk factors for eating disorders. Children may be focused on seeking external validation, thus achieving something by controlling eating and maintaining appearance. Sexual assault or abuse is a potential risk factor for BN.

Research suggests that BN has a vital genetic component. The incidence of all eating disorders, including BN, is increased in family studies and twin studies, with 22.9% of monozygotic twins and 8.7% of dizygotic twins diagnosed with the same eating disorder. Patients with BN are also more likely to have a first-degree relative with a diagnosis of another eating disorder, substance abuse problem, anxiety disorder, or mood disorder, suggesting that these disorders may share a common developmental pathway. Risk factors for BN include the presence of mood disorders and impulse control disorders. BN also often occurs in conjunction with substance use disorders, especially alcohol. Patients with BN are also at increased risk for anxiety disorders, bipolar I disorder, dissociative disorders, and a history of sexual abuse (Herpertz et al., 2011).

BN is caused by the interaction of various risk factors, including biological, environmental, psychosocial and neurobiological risk factors. Biological risk factors include gender (female>male), genetics (excessive ghrelin production), and hormonal maturation in early adolescence. Environmental risk factors include societal understanding of the ideal body. Psychological risk factors include a history of childhood trauma, physical abuse, dysfunctional families, obese family members or childhood obesity. All of these factors interact and cause cognitive, personality and emotional dysfunction. Emotional dysfunction causes an individual's inability to deal with negative emotions and causes emotional dysregulation (unstable mood). Cognitive dysfunction causes over-evaluation of appearance, bias when processing information related to food, weight, and body shape, and rigid and obsessive thinking related to eating patterns. The personality that emerges from the interaction of all these factors is obsession, impulsiveness, perfectionism and neuroticism (easily worried and anxious). Repeated vomiting can cause tooth enamel and gum erosion due to exposure to acids and digestive enzymes on the teeth. In addition, exposure to acids and enzymes can cause enlargement of the parotid glands due to inflammation. Electrolyte imbalances can cause oedema, especially when combined with laxative use. The use of the fingers to induce vomiting can cause sores or calluses (Russell's sign). Episodes of binging and purging can cause weight fluctuations, but not to the point of underweight.

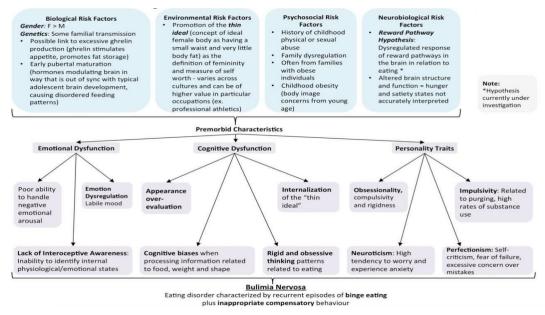


Figure 1 Pathogenesis of Bulimia Nervosa

Currently, there are three diagnostic criteria for BN: 1) The presence of binge eating, 2) The presence of induced vomiting or laxative abuse, and 3) An excessive fear of becoming fat. Patients with BN typically describe binge-purge behaviour. Binges involve rapid food consumption, with amounts more significant than an average person would eat in a similar period under similar circumstances, accompanied by a feeling of loss of control. During the binge, patients tend to consume sugary and high-fat foods (e.g., ice cream, cookies). The amount of food consumed varies, sometimes to thousands of calories. Binges tend to be episodic, often triggered by psychosocial stress, with a frequency ranging from every few days to once a week and are usually carried out in secret.

The bingeing is followed by compensatory behaviours such as self-induced vomiting, use of laxatives or diuretics, excessive exercise, or extreme fasting. Vomiting is often induced to relieve the uncomfortable sensation of fullness in the stomach after overeating and to prevent absorption of calories from food. Vomiting is often induced by stimulating the gag reflex in the back of the throat with a finger or toothbrush, but a small percentage of patients use syrup of ipecac to induce vomiting. BN is classified as purging (with vomiting or laxatives) and non-purging. Vomiting is induced by 80%-90% of patients diagnosed with BN. About one-third of people with BN use laxatives after binge eating to empty their digestive tract, and a more minor percentage use diuretics or enemas.

A small percentage of people exercise excessively (heavy exercise, meaning exercising for more than an hour to keep from gaining weight after binge eating) or fast after binge eating. Until more data are available, experts have classified bulimia into two subtypes: purging and non-purging. BN patients are usually of average weight; a small percentage are overweight or obese. However, patients are overly concerned about their weight or body shape; they are often dissatisfied with their bodies and think they need to lose weight. Patients with BN tend to be more aware and remorseful or guilty about their behaviour than those with anorexia nervosa and are more likely to admit their concerns when asked. They are also less socially isolated and more prone to impulsive behaviour, drug and alcohol abuse, and overt depression. Depression, anxiety (e.g., about weight or social situations), and anxiety disorders are common among patients with BN.

A key point in the evaluation of patients with eating disorders is to identify emergency medical conditions that require hospitalization and stabilization. Before the patient is weighed, a urine sample should be obtained to assess specific gravity for hydration status, pH, ketones, and signs of kidney damage. Weight, height, body mass index, and body temperature should be recorded. Because patients may wear extra clothing or hide heavy items to exaggerate their weight, they should be weighed, wearing only their underwear and a hospital gown. A caregiver or parent should be present while they change. The physician may consider having the patient face away from the scale so they are unaware of their weight. Blood pressure should be recorded with orthostatic vital signs. Electrocardiography and laboratory tests should be performed promptly, such as urinalysis with specific gravity, complete blood count, complete metabolic panel, amylase and lipase measurements, phosphorus and magnesium measurements, and thyroid function tests..

The diagnostic criteria for BN are defined by DSM V, namely:

1. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following: a) 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; b) 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);

- 2. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise;
- 3. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months;
- 4. Self-evaluation is unduly influenced by body shape and weight;
- 5. The disturbance does not occur exclusively during episodes of anorexia nervosa (Crone et al., 2023).

Specify if: a) In partial remission: After full criteria for BN were previously met, some, but not all, of the criteria have been met for a sustained period of time; b) In full remission: After full criteria for BN were previously met, none of the criteria have been met for a sustained period of time; c) Specify current severity: The minimum level of severity is based on the frequency of inappropriate compensatory behaviors (see below). The level of severity may be increased to reflect other symptoms and the degree of functional disability: 1) Mild: An average of 1-3 episodes of inappropriate compensatory behaviors per week; 2) Moderate: An average of 4-7 episodes of inappropriate compensatory behaviors per week; 4) Extreme: An average of 14 or more episodes of inappropriate compensatory behaviors per week; 4) Extreme: An average of 14 or more episodes of inappropriate compensatory behaviors per week (Crone et al., 2023).

BN can be assessed using self-reporting questionnaires and semi-structured interviews. Clinical decisions about the diagnosis cannot be made based solely on self-reported screening instruments, and patients should be followed up in a more detailed second-stage assessment by a trained interviewer. Some of these instruments are EAT-40 (Eating Attitudes Test), EDI (Eating Disorder Inventory), BITE (Bulimic Investigatory Test Edinburgh), BULIT-R (Bulimia Test-Revised).

Binge-eating disorder and BN share the same core characteristic of recurrent binge eating. What distinguishes binge-eating disorder from BN is the absence of compensatory behaviours such as vomiting, laxative abuse, or excessive dieting. AN differs from BN without binging in AN but with extreme food restrictions. Other psychiatric differential diagnoses include a) Depression, loss of interest in food or delusions of worthlessness; b) Conversion disorder, some patients present with weight loss and vomiting due to disgust for food without a desire to be thin; c) Psychogenic vomiting, binge eating in Borderline Personality Disorder (BPD); d) absence of compensatory behaviours or excessive concern with body shape and weight, in the presence of other features of BPD (Ashby & Ogden, 2024).

Organic disorders that may be in the differential diagnosis of BN include: a) Vomiting or diarrhoea associated with a general medical condition or substance abuse - caused by the direct physiological effects of a general medical condition or substance abuse; b) Diseases that cause chronic wasting - e.g., malignancy, tuberculosis; c) Endocrine disorders - Addison's disease, hyperthyroidism, anterior pituitary insufficiency; d) Kleine-Levin syndrome - characterized by compulsive hyperphagia, hypersomnolence, and uncontrollable sexual urges; e) Pancreatitis: life-threatening, may be challenging to diagnose in patients with eating disorders because symptoms may be similar. Certain medications and alcohol consumption increase the risk of pancreatitis. Because of its severity, acute pancreatitis should be considered in patients with eating disorders who exhibit suggestive symptoms, especially if one or more known predisposing factors are present. Patients with either an eating disorder or acute pancreatitis may complain of abdominal pain, nausea, or vomiting. Measurement of serum amylase levels can aid in the diagnosis. However, elevated amylase levels may occur in subjects with BN without pancreatitis. Serum levels of enzymes specific to the pancreas, including serum lipase, trypsinogen, and pancreatic isoenzymes of amylase, can be measured to determine whether the elevated serum amylase levels are due to pancreatitis. CT scan of the abdomen can help confirm or exclude the diagnosis. Most patients with AN. In some cases, when binging is uncontrolled, outpatient treatment is ineffective, or the patient exhibits additional psychiatric symptoms such as suicidal ideation and substance abuse, hospitalization may be necessary.

Therapy that can be given to BN includes psychotherapy and pharmacotherapy. Psychotherapy that is often given is cognitive behavioural therapy (CBT). CBT is determined as the first line of BN therapy. CBT is given intensively and with strict adherence, covering 18-20 sessions over 5-6 months. The purpose of implementing CBT is (1) to disrupt the cycle of restriction-binge-purge - and (2) to change the individual's dysfunctional cognitions, beliefs about food, weight, body image, and overall self-concept. Pharmacotherapy that can be given to BN is antidepressant drugs, especially fluoxetine SSRI. Indications for pharmacotherapy are when CBT cannot be done or as additional therapy. Fluoxetine can reduce binge eating and purging, regardless of the presence of mood disorders. The effective dose of fluoxetine may be higher (60 - 80 mg daily) than that used for other depressive disorders. Other antidepressants that may help include other SSRIs, but be aware of the side effects of prolonging the QT interval at higher doses. TCAs (especially amitriptyline and desipramine), trazodone, and monoamine oxidase inhibitors (MAOIs) may be used. Evidence suggests that CBT and medication (especially fluoxetine) are the most effective.

As many as 80% of BN patients achieve remission with treatment. However, the relapse rate of BN is as high as 20%. BN is associated with an increased all-cause standardized mortality ratio of 1.6–1.9. The course of BN is milder than AN. Medical severe morbidities, such as gastric rupture or oesophagal tear, are rare. Patients with BN, overall, tend to be more amenable to treatment than patients with AN. Despite the efficacy of therapy, relapse is common. Within 5–10 years, approximately 50% of patients have

complete remission, 20% have no remission, and 30% have a relapse. Factors that can predict a poor prognosis are the need for hospitalization, greater frequency of vomiting, impaired social and occupational functioning, lack of patient motivation to recover, presence of medical complications, high impulsivity, longer duration of illness, delayed treatment, and a history of obesity and premorbid substance abuse.

## CONCLUSION

BN is defined as a condition of uncontrollable urges to consume high-calorie foods frequently. Uncontrolled episodes of excessive eating alternate with episodes of extreme fasting, self-induced vomiting, and use of laxatives or diuretics. The aetiology of eating disorders is currently unknown and is hypothesized to be multifactorial. Risk factors for BN include mood disorders and impulse control disorders. BN also often occurs in conjunction with substance use disorders, especially alcohol. Patients with BN usually describe binge-purge behaviour. An essential point in the evaluation of patients with eating disorders is to identify medical emergencies that require hospitalization and stabilization. Therapies that can be given to BN include CBT psychotherapy and fluoxetine pharmacotherapy. Within 5-10 years, approximately 50% of patients experience complete remission, 20% do not experience remission, and 30% experience relapse.

### REFERENCES

- Ashby, C., & Ogden, J. (2024). Managing patients with eating disorders: a qualitative study in primary care. BJGP Open, 1–12. https://doi.org/10.3399/bjgpo.2024.0014
- 2) Casper, R. C. (1986). The Pathophysiology of Anorexia Nervosa and Bulimia Nervosa. Annual Review of Nutrition, 6(1), 299–316. https://doi.org/10.1146/annurev.nu.06.070186.001503
- 3) Chew, K. K., & Temples, H. S. (2022). Adolescent Eating Disorders: Early Identification and Management in Primary Care. Journal of Pediatric Health Care, 36(6), 618–627. https://doi.org/10.1016/j.pedhc.2022.06.004
- 4) Crone, C., Fochtmann, L. J., Vice-Chair, M., Attia, E., Boland, R., Escobar, J., Fornari, V., Golden, N., Guarda, A., Jackson-Triche, M., Manzo, L., Mascolo, M., Pierce, K., Riddle, M., Seritan, A., Uniacke, B., Zucker, N., Review, S., Yager, J., ... Medicus, J. (2023). The American Psychiatric Association Practice Guideline for the Treatment of Patients With Eating Disorders. American Journal of Psychiatry, 180(2), 167–171.
- 5) Fan, Y., Støving, R. K., Berreira Ibraim, S., Hyötyläinen, T., Thirion, F., Arora, T., Lyu, L., Stankevic, E., Hansen, T. H., Déchelotte, P., Sinioja, T., Ragnarsdottir, O., Pons, N., Galleron, N., Quinquis, B., Levenez, F., Roume, H., Falony, G., Vieira-Silva, S., ... Pedersen, O. (2023). The gut microbiota contributes to the pathogenesis of anorexia nervosa in humans and mice. Nature Microbiology, 8(5), 787–802. https://doi.org/10.1038/s41564-023-01355-5
- 6) Górski, M., Całyniuk, B., Garbicz, J., Buczkowska, M., Siudmak, K., Górska, K., & Polaniak, R. (2022). Specific eating disorders selected aspects of pathogenesis and risk factors. Psychiatria i Psychologia Kliniczna, 22(1), 45–54. https://doi.org/10.15557/PiPK.2022.0006
- 7) Herpertz, S., Hagenah, U., Vocks, S., Von Wietersheim, J., Cuntz, U., & Zeeck, A. (2011). Diagnostik und therapie der essstörungen. Deutsches Arzteblatt, 108(40), 678–685. https://doi.org/10.3238/arztebl.2011.0678
- 8) Hilbert, A., Hoek, H. W., & Schmidt, R. (2017). Evidence-based clinical guidelines for eating disorders: International comparison. Current Opinion in Psychiatry, 30(6), 423–437. https://doi.org/10.1097/YCO.00000000000360
- 9) Klein, D. A., Sylvester, J. E., & Schvey, N. A. (2021). Eating Disorders in Primary Care: Diagnosis and Management.
- Klein, D. A., & Walsh, B. T. (2004). Eating disorders: Clinical features and pathophysiology. Physiology and Behavior, 81(2), 359–374. https://doi.org/10.1016/j.physbeh.2004.02.009
- 11) Lister, R. (2005). The Etiology of Anorexia Nervosa and Bulimia Nervosa.
- 12) Mohajan, H., Mohajan, D., & Mohajan, H. K. (2023). Bulimia Nervosa: A Psychiatric Problem of Disorder Bulimia Nervosa: A Psychiatric Problem of Disorder.
- 13) Morris, J., & Anderson, S. (2021). An update on eating disorders. BJPsych Advances, 27(1), 9–19. https://doi.org/10.1192/bja.2020.24
- 14) Sim, L. A., McAlpine, D. E., Grothe, K. B., Himes, S. M., Cockerill, R. G., & Clark, M. M. (2010). Identification and treatment of eating disorders in the primary care setting. Mayo Clinic Proceedings, 85(8), 746–751. https://doi.org/10.4065/mcp.2010.0070
- 15) Tse, A., Xavier, S., Trollope-Kumar, K., Agarwal, G., & Lokker, C. (2022). Challenges in eating disorder diagnosis and management among family physicians and trainees: a qualitative study. Journal of Eating Disorders, 10(1). https://doi.org/10.1186/s40337-022-00570-5



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