

An analytical study of eating disorders in the indian households

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ABSTRACT

Eating disorders (ED), formerly thought to be an uncommon condition, are increasingly widespread. Studies on ED in the Indian population are still incredibly hard to find, though. Research has shown that people with eating disorders also experience mood difficulties. The most recent survey, the National Mental Health Survey of India, does not include mental health issues despite the fact that they are becoming more prevalent as society changes quickly. Adolescents who have depression also have co-occurring conditions such behaviour disorders, personality disorders, substance abuse, or anxiety disorders. In light of this, the goals of this study were to investigate the incidence of eating disorders in India, as well as to learn about potential comorbidities and investigate the numerous risk factors that can lead to eating disorders. A systematic review was carried out for the current research project, and secondary databases like Research Gate, Google Scholar, ERIC, Frontiers, and PubMed were investigated. The study went into great detail on the chosen studies and their results. To organise the data, an exploratory and descriptive research design were used. This study aided in understanding the incidence of eating disorders in India as well as risk factors that are more suitable to the Indian culture. As a result, effective parenting and therapy strategies were suggested.

Keywords: *Eating Disorders, Adolescents, Systematic Review, Comorbidities*

1. Introduction

All mental illnesses that involve irregular or disordered eating patterns are referred to as eating disorders (ED). They exhibit either an excessive or insufficient food intake (National Institute of Mental Health, 2015). When an adolescent is exposed to oversold fitness body ideals on television or other mass media networks, it typically starts to take hold in their minds (Moriarty CM, Harrison K., 2008). These are then followed by the overuse of laxatives, self-induced vomiting, hunger, excessive exercise, and other factors that eventually result in a full-blown ED. The Diagnostic and Statistical Manual of Mental Disorders-5 categorises eating disorders (ED) as anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), and many more conditions that are outside the purview of this study (American Psychiatric Association, 2013). Numerous prevalence studies on both individual ED and ED as a whole have been carried out. The majority of these research were carried out when ED were still emerging as serious social issues.

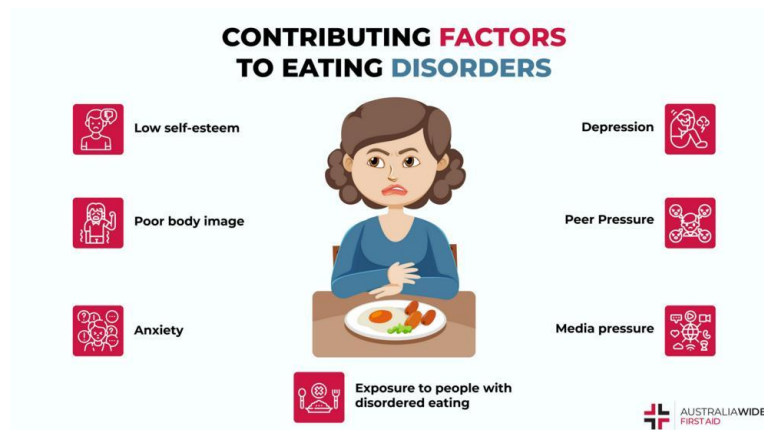


Figure : Contributing Factors to Eating-Disorders

Source: <https://www.australiawidefirstaid.com.au/resources/mental-health-first-aid-for-people-with-eating-disorders>

Eating Disorders Development Factors

It is unclear what specifically causes eating problems. But it is believed that a combination of biological, psychological, and social variables is to blame (Figure 1.01):

- Genetic predispositions or medical conditions that affect eating are examples of biological factors.
- Low self-esteem, a negative body image, anxiety, and depression are examples of psychological variables.
- Pressure to be thin from the media, friends, or family members is one example of a social factor.

Symptoms and Long-term Consequences

Depending on the kind and degree of the eating problem, different symptoms and complications may arise (Strumia R, 2005):

- Weakness, weariness, susceptibility to cold, slowed beard growth in men, fewer waking erections, decreased libido, weight loss, and growth failure are some of the physical signs of eating disorders (Treasure J, Claudino AM, and Zucker N, 2010).
- Unexpected hoarseness may result from frequent vomiting, which can produce acid reflux or the passage of acidic stomach content into the laryngoesophageal tract. As a result, those with eating disorders like anorexia nervosa, binge eating-purging type, or purging-type bulimia nervosa who intentionally induce vomiting are at risk for acid reflux.
- The most prevalent endocrine condition that affects women is polycystic ovary syndrome (PCOS). Despite frequently being linked to obesity, it can also affect people of normal weight. Binge eating and bulimic tendencies have been linked to PCOS (Hirschberg AL, Naessén S, Stridsberg M, Byström B, Holtet J, 2004).

Possible Complications of Eating Disorder

acne	xerosis	amenorrhoea	tooth loss, cavities
constipation	diarrhea	water retention and/or edema	lanugo
telogen effluvium	cardiac arrest	hypokalemia	death
osteoporosis	electrolyte imbalance	hyponatremia	brain atrophy
pellagra	scurvy	kidney failure	suicide

Source: https://en.wikipedia.org/wiki/Eating_disorder#Symptoms_and_long-term_effects

2. Literature Review

Eating disorders are behavioural problems characterized by severe and persistent disturbances in eating behaviours and related disturbing thoughts and emotions, according to the American Psychiatric Association (APA, 2023). Eating disorders (ED) include all those disorders that involve irregular or disordered eating behaviours, according to NIMH (2015). They are characterized by either an excessive or insufficient food consumption. Eating disorders were recognized as psychogenic illnesses in the late 1800s. The first eating disorder classified in the Diagnostic and Statistical Manual of Mental Disorders (DSM) in its first edition (DSM-I) (APA, 1952) was anorexia nervosa, which was thought to be a psychophysiological reaction. Bulimia nervosa was first recognized by the British psychiatrist Gerald Russell in 1979, despite the fact that weight phobia—an important element of eating disorders—was first studied in the 1930s (Castillo M, Weiselberg E, 2017).

Anorexia nervosa, in which a person greatly fears gaining weight and restricts their food intake or engages in excessive exercise as a coping mechanism, when a patient has a binge eating disorder, they consume a lot of food quickly. bulimia nervosa, in which people binge eat and then purge the food, avoidant/restrictive food intake disorder (ARFID), in which people limit or avoid eating because of psychological issues, pica, in which the patient eats non-food items, rumination syndrome, in which people regurgitate partially or incompletely digested food, and a number of other specific feeding or eating disorders (APA, 2013).

Estimates of the incidence of eating disorders show a wide variety of gender, age, and cultural disparities, as well as variations in the methodology used for diagnosis and measurement (Sweeting H, et al., 2016). In wealthy nations, bulimia affects 1.3% and anorexia 0.4% of young girls in a given year, respectively (APA, 2013). According to the APA (2013), 1.6% of women and 0.8% of males experience binge eating disorder each year. Up to 4% of women may have anorexia at some point in their lives, and up to 2% will experience bulimia and binge eating disorders, according to a 2013 study by Smink FR, et al. According to Pike KM, et al. (2014), less developed countries appear to have lower incidence of eating disorders. Anorexia and bulimia are around 10 times as common in women than in men (APA, 2013). Early adulthood or late childhood are the typical first years of onset for eating problems.

According to a study on BN in Ontario, prevalence rates for men were 0.1% and 1.1% for women (Garfinkel PE et al., 1995). According to research conducted in Zurich, the prevalence rates for AN and BN were 0.7% and 0.5%, respectively (Steinhausen HC et al., 1997).

According to research conducted in South Africa (Szabo CP et al., 1997), there are abnormal eating attitudes present there, although in a community of South Australians, 0.3% of BN and 1% of BED were evidently present (Hay P., 1998). According to a study conducted in six European nations, the prevalence rates for AN, BN, and BED are 0.48%, 0.51%, and 1.12%, respectively (Preti A et al., 2009).

In addition to being present in western society, the psychopathology typical of ED is also present in Asian cultures (Jennings PS, 2006). An earlier study in Bradford (Mumford DB et al., 1991) showed a higher frequency of BN among Asian girls (3.4%) than among Caucasian girls (0.6%) as evidence for this. Another Lahore-based investigation revealed that BN was present in Pakistan (0.27%) (Mumford DB et al., 1992). Furthermore, 7.4% of Singaporeans were shown to be at risk of acquiring an ED (Ho TF et al., 2006). In recent research done in Jordan, there was no sign of AN at all. However, according to Mousa TY et al. (2010), EDNOS was present at a staggering 31%, BED at 1.8%, and BN at 0.6%.

As evidenced by the stagnating rates of clinically diagnosed eating disorders, the prior findings did not imply that unhealthy weight loss techniques and eating disordered behaviours were widespread in India (Mammen P, Russell S, Russell PS, 2007). According to surveys of psychiatrists who were asked whether they believed eating disorders to be a "serious clinical issue" in India, it appears that incidence of eating disorders in urban regions of that country are rising (Pike KM, Dunne PE, 2015). According to renowned Indian psychiatrist and expert on eating disorders Dr. Udipi Gauthamadas, between 20 and 25 percent of adolescent boys and girls experience disturbed eating attitudes and practices. While eating disorders are becoming more widely recognised in the nation, there is also a lingering misconception that they are not common in India. Many patients are discouraged from obtaining professional assistance as a result (Chaudhuri, Zinnia Ray, 2018).

Research Gap:

There have been a few research done in India, compared to other countries, on the prevalence and other aspects of ED. India's contemporary household population is subject to a variety of pressures, as well as the allures of being physically attractive. Therefore, there is a pressing need to learn about ED in the context of India. Furthermore, the research for the aforementioned literature took place over a sizable amount of time. They have many limitations, especially when applied to India, where it is important to more thoroughly investigate the influence of psychosocial factors and changing cultural norms. Furthermore, there is a need to raise awareness of eating disorders. We made an effort to look into the prevalence of ED in India because there were only few studies in this area.

3. Objectives

The study's objectives are as follows:

1. To investigate the occurrence of eating disorders both internationally and in India
2. To comprehend the comorbidities that eating disorders can cause in Indian households
3. To examine the many risk factors for eating disorders in Indian households

4. Methodology

This study aimed at studying eating disorder in India. The present chapter describes the methodology adopted for the study under the following headings:

Research approaches

The Qualitative and Analytic Research Approaches will be more successful for the proposed research given the nature of the research data, which will mostly focus around the data which is already existing. Qualitative research involves acquiring and analysing non-numerical data in order to better understand views, ideas or experiences. Analytical research is a particular kind of research that calls for the use of critical thinking abilities and the assessment of data and information pertinent to the project at hand.

Research methods

The research method or design is the foundational plan that directs the project's data collecting and analysis phases. It is the framework that specifies the sort of data to be collected, as well as the data sources and data gathering technique. To organise the data, an exploratory and descriptive research design were used. Descriptive research's main goal is to describe the state of the world as it is. Exploratory research looks at research questions that haven't been thoroughly examined before. Exploratory method was used because although some facts are known, more information is required to provide a sound theoretical framework and in-depth investigation is required.

Tools for data collection

The selection of the sources of data is must for evaluation so far as to arrive at specific conclusion. The type of the study, the investigator's position, the accessibility of funding, the amount of time available, and the degree of desired findings accuracy are just a few of the variables that influenced the selection of the data sources that enhanced the study's usefulness. During the study secondary sources of data were utilised. Secondary data include material which has previously been obtained by certain researchers and is either published or not. Here, using already existing sources, a comprehensive study on the sustainable construction waste management, is conducted. The following are sources for secondary data collection:

- Some part of information was gathered from related websites, books, journals, magazines, periodicals, newspapers, etc.
- By researching reports and documents pertaining to the eating disorder.

Statistical techniques

Simple statistical approaches such as tables and diagrams were used to display and analyse the data. The most persuasive and appealing ways to present facts are tables, charts, figures and pictures which also aids in the understanding of information quickly.

Limitations

Some of the study's limitations are as follows:

1. Due to a lack of a flexible budget, time period, and other resources, the research had to be limited to solely covering eating disorder in India.

2. The breadth and depth of the concepts in this study are weakened on many different levels when compared to the works of more seasoned scholars.
3. The study relies heavily on previously collected self-reported data, which is rarely subject to independent verification. Bias in reporting was occasionally unavoidable.
4. Previous research projects that are relevant to our investigation were constrained by the subject's scope.

5. Data Analysis

Analysis of data is carried out in view of the objectives given below:

1. Investigating the Occurrence of Eating Disorders both Internationally and in India Occurrence of eating disorders globally

- Between 2000 and 2018, the prevalence of eating disorders increased globally, rising from 3.4% to 7.8% (The American Journal of Clinical Nutrition, 2019).
- Around the world, 70 million people struggle with eating disorders (National Eating Disorders Association).
- In Asia, eating disorders are most common in Japan, followed by Hong Kong, Singapore, Taiwan, and South Korea (The International Journal of Eating Disorders, 2015).
- As of 2012, Austria had the highest prevalence rate in Europe, at 1.55%. (Psychology Today, 2013).
- The majority of Americans are familiar with someone who has an eating disorder (South Carolina Department of Mental Health).

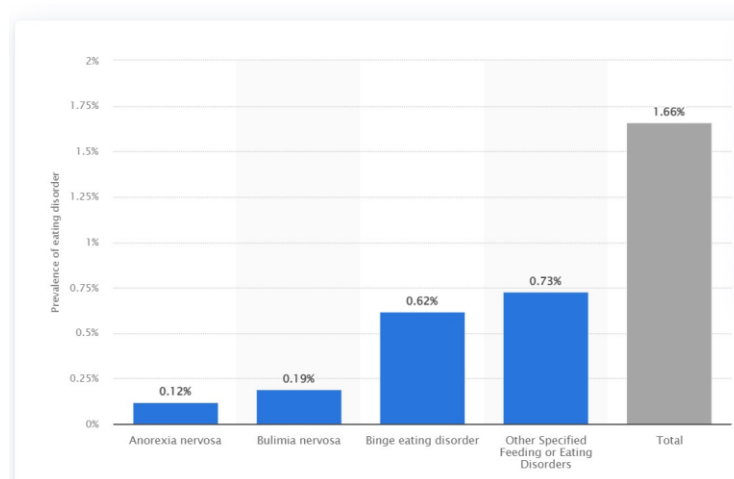


Figure : Prevalence of Eating Disorders in the U.S. from 2018 to 2019, by Condition

Source: John Elflein (Feb 15, 2022). Prevalence of eating disorders in the U.S. from 2018 to 2019, by condition <https://www.statista.com/statistics/1230106/eating-disorder-prevalence-in-the-united-states-by-condition/>

From 2018 to 2019, around 0.6 percent of the United States population had binge eating disorder, and around 0.7 percent had other specified feeding and eating disorders (figure 5.01). This statistic illustrates the prevalence of eating disorders in the United States from 2018 to 2019, by condition.



Figure : Global Eating Disorder Market (Forecast Period 2022-2029)

Source: <https://www.databridgemarketresearch.com/request-a-sample/?dbmr=global-eating-disorders-eds-market&AM>

In the projection period of 2022 to 2029, the market for eating disorders is anticipated to develop at a pace of 5.8% (Figure 5.02). The eating disorder market report from Data Bridge Market Research offers analysis and insights into the many aspects that are anticipated to be important throughout the course of the forecast period as well as their effects on market growth. The market for eating disorders is expanding because to the expansion of the healthcare industry worldwide.

Anorexia nervosa, bulimia nervosa, and binge eating disorder (BED) are all reported by 1-4%, 1-2%, and 1-4% of women in Europe, respectively; eating disorders are reported by 0.3-0.7% of European men (Keski-Rahkonen A et al., 2016). However, it is important to keep in mind that, as is the case with most diseases, due to their large populations, China and India, which together have over 1.38 billion people and over 1.32 billion, respectively, lead the world in terms of the total number of DALYs caused by eating disorders among women aged 15 to 49 (Thomas JJ et al., 2016). Despite evidence that eating disorders are prevalent throughout the world and are linked to rising health burdens in Asia, epidemiological data are still lacking in these regions, according to Thomas et al. (Thomas JJ et al., 2016). Epidemiological data are also lacking in Latin America (Kolar DR et al., 2016), and they are even more scarce in Africa (Van Hoeken D et al., 2016).

Table 5.01 lists the prevalence rates of eating disorders in two significant Asian nations (China and Japan), in Africa, in Latin America, and in the United States' Hispanic/Latino population. Because of the ambiguous validity of diagnostic assessment, epidemiological research of eating disorders in Asia presents a significant difficulty, according to Thomas et al. (Thomas JJ et al., 2016). For instance, South Asia's average BMI is among the lowest in the world, and about a quarter of both men and women are considered underweight (i.e., BMI 18.5 kg/m²) (Perez M et al., 2016). The East Asian region, which includes China, the nation with the largest population in the world, is where the most reliable epidemiological statistics on eating disorders in Asia are found. According to recent research, young Chinese girls may have even higher rates of fat worry and other maladaptive eating attitudes than some of their Western counterparts (Thomas JJ et al., 2016).

Prevalence of Anorexia Nervosa, Bulimia Nervosa, And Binge Eating Disorder (BED) Among Young Females

Country or continent	Anorexia nervosa (%)	Bulimia nervosa (%)	BED (%)
China	1.05	2.98	3.58
Japan	0.43	2.32	3.32
Africa	<0.01	0.87	4.45
Latin America	0.1	1.16	3.53
Hispanics/Latinas USA	0.08	1.61	1.92

Source: Hans Wijbrand Hoek (2016). Review of the worldwide epidemiology of eating disorders, Current Opinion in Psychiatry <https://www.researchgate.net/publication/307950075>

Anorexia nervosa prevalence increased from 0.11 to 0.43%, bulimia nervosa prevalence increased from 0.0 to 2.32%, and eating disorder not otherwise specified (EDNOS) prevalence increased from 0.89 to 3.32% between 1982 and 2002 in a large-scale multicohort study of female students in Japan (Nakai Y et al., 2014). According to the DSM-V criteria, which are more culturally sensitive and do not call for the amenorrhea requirement as stipulated in the DSM-IV, some of the women in the African studies would have met the criteria for anorexia nervosa (Van Hoeken D et al., 2016). Anorexia nervosa is likewise a rare disorder in Latin America, according to a comprehensive review and meta-analysis by Kolar et al. (Kolar DR et al., 2016), although bulimia nervosa and particularly BED are frequent mental disorders.

Occurrence of eating disorders in India

India has a considerably lower frequency of eating disorders than the West because of the cultural contrasts between the east and the west. But as westernization proceeds quickly, more cases are being recorded in the Indian context, which emphasizes the necessity of collecting statistics there. In 2015, the National Institute of Mental Health and Neurosciences (NIMHANS) carried out a survey, which revealed that about 2% of Indians struggle with eating disorders. Another study done in 2018 discovered that 6.5% of adolescent girls in India had eating problems.

Investigations conducted by licensed therapists across the nation reveal that eating disorders are thought to afflict between 2 and 3% of Indians, with a higher incidence among women. The three eating disorders that are most frequently diagnosed in India are binge eating disorder, bulimia nervosa, and anorexia nervosa. However, the actual frequency of eating disorders in India may be significantly greater due to a serious lack of awareness and stigma surrounding these conditions. According to some estimates, up to 25% of girls in adolescence may have some form of eating disorder (Parry, 2019). According to single-setting retrospective studies, eating disorders are 1.5% more common in rural areas (Ramaiah, 2015). Furthermore, it is quite problematic since there are currently no tools available for screening people for eating disorders that are culturally sensitive (Vaidyanathan, 2019). Ten per 100,000 Indian males and 37.2 per 100,000 Indian girls are estimated to have anorexia nervosa, one of the most well-known eating disorders in which a person is often severely underweight (Parul Gupta, 2022).

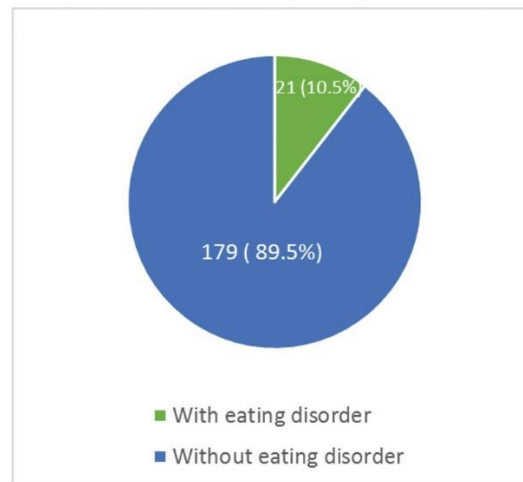


Figure : Eating-Disorder in Children in India

Source: Parul Gupta (2022). How to Identify Eating Disorders in Kids <https://kidsstoppress.com/how-to-identify-eating-disorders-in-kids/>

10.5% of the population's children had eating disorders, as shown in Figure 5.03. 85.5%, however, were eating disorder-free.



Figure : Effect of Eating Disorder

Source: Vivek Jain (March 2, 2020). #4 Women Health: How do eating disorders affect a woman's health? <https://www.linkedin.com/pulse/4-women-health-how-do-eating-disorders-affect-womans-vivek-jain/>

Suicide is thought to account for 1 in 5 anorexia deaths. One out of every ten bulimics also suffer from a substance use disorder. Males make up almost 40% of those who suffer from binge eating disorder (Figure 5.04). In Bangalore, respondents reported that the prevalence of eating disorders was rising in 23.5% of cases, staying the same in 26% of cases, and expressing doubt in 42% of cases. Urbanisation and socioeconomic status are associated with a higher incidence of body weight dissatisfaction, according certain study (Pike KM, Dunne PE, 2015). However, due to India's size and diversity, trends may vary from one location to the next (Pike KM, Dunne PE, 2015).

A study conducted in India utilising the EAT and BITE self-report questionnaires on 210 medical students from Chennai revealed that 14.8% of the sample group exhibited the

syndrome of eating distress (Srinivasan TN et al., 1995). In a different study conducted on a North Indian population, the frequency of BN was likewise discovered to be 0.4% (Bhugra D et al., 2000). The most recent information currently available from a study conducted in India compares the prevalence of eating distress across numerous zonal female basketball players in India. The east zone of India has the highest incidence, closely followed by the north zone, the researchers found. In the west or south zones, eating distress was not very common. The lowest rating was given to the southern zone (Silawat N, Rami AC, 2009).

In order to determine the prevalence of eating disorders and perceptions of body shape among medical students and to assess any correlations between those two variables, Ramaiah R. (2015) conducted a study. Overall, it was projected that 6.4% of people were obese and 17.4% were overweight. The study found a statistically significant association between age, body shape dissatisfaction, and distorted eating attitudes. The prevalence of eating disorder symptoms, as well as disordered eating attitudes and behaviours, was 16.9%. There isn't much research from India in this area, though, and subjects like eating habits and body dissatisfaction aren't looked at there.

2. Comprehending the Comorbidities that Eating-Disorders can cause in Indian Households

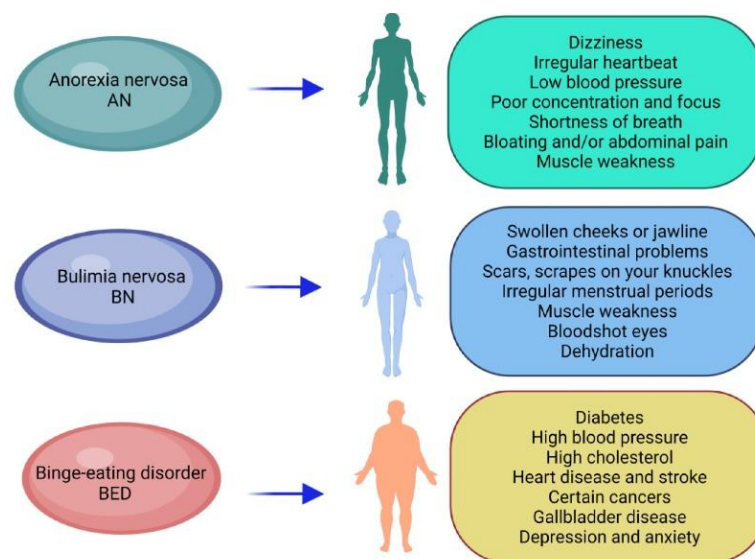


Figure: : Comorbidities associated with Different Types of Eating Disorders

Source: Feng B et al. (2023). Current Discoveries and Future Implications of Eating Disorders. International Journal of Environmental Research and Public Health. 20(14):6325.

According to the American Psychological Association (APA), there are four main categories of eating disorders: anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), and eating disorder not otherwise specified (EDNOS). Among all psychiatric diseases, eating disorders have the greatest rates of morbidity and mortality. Mortality ranges from 7 to 10%, and the three leading causes of death are suicide, gastrointestinal bleeding, and cardiovascular abnormalities brought on by malnutrition (Brown JM et al., 2000). Figure 5.05 displays a number of comorbidities connected to various eating disorders.

Most common eating disorders and related comorbidities in Indian households

Anorexia: The majority of people who suffer from this eating disorder are young ladies and teenage girls, who are particularly prone to it due to their vulnerability and high levels of self-consciousness. In addition to having severely poor self-esteem, anorexic women are terrified of gaining weight (Nikita Toshi, 2023). They develop a fixation on their weight and attractiveness. Untreated anorexia can result in malnutrition and organ failure (Table 5.02).

Bulimia: Phases of binge eating occur in those with bulimia nervosa. They frequently overeat, primarily junk food, and then purge. They either use laxatives improperly or vomit all of the food that their bodies have just absorbed. Another instance of a mistaken self-image is this. They fear gaining any weight because they view themselves as being overweight. Bulimia's long-term repercussions can include irregular heartbeat, oesophageal haemorrhage brought on by excessive stomach acid reflux, kidney failure, and dental issues as well (Nikita Toshi, 2023).

Binge Eating: Similar to Bulimiacs, patients with Binge Eating Disorder frequently go through stages of binge eating. However, binge eaters tend to be overweight since they don't exercise or purge after meals. Due to their high levels of self-image sensitivity, they experience more stress, which causes them to consume more. Therefore, binge eating spirals into a loop of overeating, feeling bad, then overeating again to feel better. Getting out of this pattern can be quite difficult. Obesity and depression frequently coexist. The long-term health repercussions of binge eating include heart conditions, joint pain brought on by extra weight, poor blood circulation, and other issues like impaired liver and kidney function that accompany obesity (Nikita Toshi, 2023).

There is no research on the prevalence or co-morbidity of eating disorders in India, according to Mammen P, et al. (2007). Identification and study of 41 cases with eating disorder diagnoses according to ICD-10. The prevalence of psychogenic vomiting was the greatest, at 1.25%, whereas anorexia nervosa was the eating disorder on the rise. The most frequent co-morbidities were depression, intellectual impairment, and dissociative disorder. Craba A, et al. conducted research on bipolar disorder and eating disorders in 2021. Bipolar disorders (BDs) and eating disorders (EDs), two serious and widespread mental illnesses, have a number of symptomatologic features. The most common eating disorder is binge eating disorder (BED), which has a prevalence that varies from 8.8% to 28.8% in BDs. In contrast, BN and AN have prevalence that vary from 4.8% to 10% and 1% to 7.4%, respectively. Instead, between 11.5% and 68.1% of ED patients had bipolar disorders. The relationship between EDs and BDs is still not fully understood due to a dearth of studies. The presence of EDs has been considered a predictor of clinical severity in people with bipolar disorders, even though bipolar illness does not appear to have a significant effect on the age of beginning of ED symptoms and their intensity in patients with EDs (APA, 1987).

3. Examining the Many Risk Factors for Eating Disorders in Indian Households

Eating disorders' contributing factors

Rome et al. (2003) identified the risk factors for the emergence of an eating disorder which include ballet, gymnastics, modelling, and visual sports; dissatisfaction with one's body image; a family history of an eating disorder or obesity; a history of compulsive exercise, excessive dieting, and frequent meal skipping; low self-esteem; parental eating habits and weight; personality traits (such as perfectionism); and physical or sexual abuse.

Schmidt (2003) noted a number of causes for the emergence of eating disorders. These include cultural forces, life experiences, and genetic and environmental influences (Figure 5.06).

- There is evidence that some genes associated with serotonin, dopamine, weight regulation, food, and energy expenditure may increase the chance of having an eating disorder. Additionally, behavioural and attitude signs such as binge eating, dietary limitation, and self-induced vomiting are heritable.
- Environmental factors also have an impact; among the risk factors include early adversity, abuse, mistreatment, and maladaptive maternal behaviour. The risk model also takes into account attachment patterns, such as insecure or unresolved attachment status, and perinatal hazards, such as birth complications.
- Events in life, such as sudden or ongoing stressors, as well as crises viewed as embarrassing or repugnant, can potentially hasten the onset of an eating problem. Another difficult time when physical and emotional challenges must be overcome is puberty.
- Social pressures, especially in the Western world where there is a stark contrast between the availability of calorie-dense, inexpensive, and highly appetising foods and the excessive value placed on dietary restraint and slimness, can contribute to the emergence of eating disorders. Young women may develop the norm of being thin after being exposed to photos of skeletal supermodels and other slim role models on a daily basis.

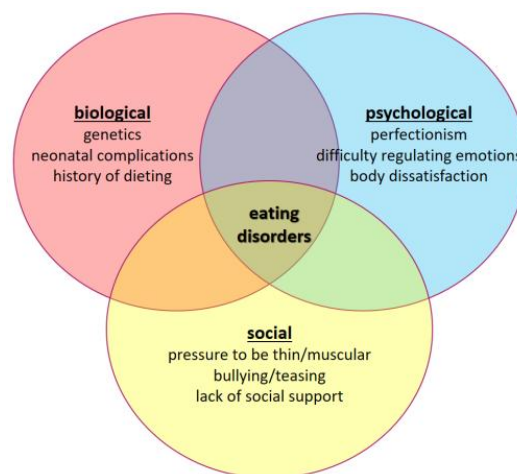


Figure : Factors that Contribute to the Development of Eating Disorders

Source: Kathryn H. (February 28, 2019). Gordon A Short Guide to Everything You Need to Know About Eating Disorders <https://kathrynhgordon.com/2019/02/28/a-short-guide-to-everything-you-need-to-know-about-eating-disorders/>

Zeeck et al. (2011) looked into the relationship between binge eating, the desire to eat, and 24 different emotions, including anger, boredom, contempt, disgust, enjoyment, exhaustion, fear, guilt, helplessness, hope, hurt, interest, jealousy, loneliness, longing, power, powerlessness, relaxation, sadness, satisfaction, shame, surprise, and tenseness. The strong impact that social networking sites have on outcomes related to disordered eating and body image was underlined by Holland & Tiggemann (2016). Seeking negative feedback through status updates, photo uploads, and photo viewing is the main factor behind this influence. Social

comparison that is based on appearance is extremely important in influencing these consequences. Lacoste (2017) claims that the development of anorexia in female adolescents is caused by familial problems and prior sexual abuse.

Marzilli, Cerniglia, and Cimino carried out a thorough investigation of the elements influencing the emergence of binge eating disorder in 2018. Their investigation uncovered a number of significant risk variables, such as biological, environmental, and psychological elements. Binge eating disorder is largely influenced by biological risk factors, including familial genetic susceptibility and epigenetic processes. These elements may make a person more susceptible to the condition and make managing it more challenging. The onset of binge eating disorder can also be influenced by environmental risk factors, such as early bad experiences, parental impacts on children's eating habits, parental psychopathology, and traumatic experiences in the parents. These elements may contribute to a stressful and unsteady atmosphere that could result in disordered eating patterns. The likelihood that someone would acquire binge eating disorder can also be increased by psychological risk factors including impulsivity and perfectionism, as well as by depressive symptoms and negative affect. These elements may result in a poor sense of oneself and an obsession with food and weight, both of which may support the emergence of disordered eating pattern.

6. Conclusions

Many significant discoveries have been made on eating disorders in recent years, including their causes, risk factors, and successful treatments. For instance, eating disorders can be caused by a variety of variables, including biological ones like heredity and brain chemistry, psychological ones like body image and self-esteem, and social ones like societal pressure to reduce weight and cultural messages about ideal body types. Better results and a lower chance of relapse can be obtained by early detection and treatment of eating disorders. For the treatment of eating disorders, appropriate drugs (such as antidepressants, antipsychotics, and mood stabilisers) may be beneficial. More people are being diagnosed with eating disorders each year, both globally and in India. The three main categories of eating disorders are: Binge Eating Disorder (BED), Bulimia Nervosa (BN), and Anorexia Nervosa in Indian homes, comorbidities related with ED include irregular heartbeat, dental issues, joint pain, poor liver function, kidney issues, etc. It is crucial that persons who suffer from eating disorders get professional assistance, and society must continue to educate itself about these illnesses and support those who are impacted by them.

To sum up, eating disorders are severe mental illnesses that can negatively affect a person's physical and mental health. The most recent research on eating disorders leads one to believe that these problems are complex psychological health issues affected by a variety of hereditary, environmental, and psychosocial factors. According to published references, eating disorders can afflict persons of any age, gender, or culture. While the precise origin of these problems is not fully understood, it is believed that a combination of genetic, environmental, and psychological factors is involved. There are a number of efficient eating disorder therapies, including as psychotherapy, medication, and nutrition counselling, but not everyone responds to these interventions in the same way. Early intervention is essential in the treatment of eating

disorders since full recovery from an eating disorder might be more challenging the longer a person goes without treatment.

7. Recommendations

Following are the recommendations for the study:

- 1) **Individualized care and treatment:** Each patient should receive care and treatment that is specifically adapted to meet their needs.
- 2) **The multidisciplinary model of care:** The comprehensive model of care should be the foundation for the treatment of people with eating problems.
- 3) **Management of the physical effects of an eating disorder:**
 - Patients who abuse laxatives should be instructed to progressively cut back on their use and reminded that doing so has little effect on how many calories they absorb.
 - Diabetes patients must receive treatment for both subthreshold and clinical eating disorder situations due to the elevated physical risk in this population.
 - Due to their increased risk of developing retinopathy and other problems, people with type 1 diabetes and eating disorders should have comprehensive, ongoing physical monitoring.
 - Women with eating disorders who are pregnant need to be closely watched both during the pregnancy and after delivery.
 - Patients with eating disorders who are throwing up should have routine dental examinations.
 - Giving patients with eating disorders who are vomiting the proper dental hygiene recommendations should include telling them to avoid brushing after vomiting, rinse with nonacid mouthwash after vomiting, and lessen the amount of acid in their mouths (for instance, by restricting acidic foods).
 - Patients with eating disorders, osteoporosis, or other linked bone problems should be advised by healthcare providers to avoid engaging in physical activities that greatly raise the risk of falling.
 - To guarantee that patients with eating disorders have access to suitable dental services, eating disorders teams should maintain constant communication with community dental services. Children and teenagers
 - Children and adolescents who appear with an eating disorder should have their weight and height assessed periodically throughout time, with the results noted on growth charts.
 - People working in school health should receive training on eating disorders and be connected to specialized teams through communication networks.
- 4) **Transition between services:** In order to ensure that treatment is not interrupted and to maintain touch with patients who have eating disorders, reciprocal arrangements between specialized services in various geographic locations should be made. Adolescent and adult services should work closely together to ensure transfers occur at the proper time rather than at an arbitrary age cut-off.
- 5) **Information:** All medical practitioners should have access to reliable information and be able to caution patients and their families about potentially harmful information.

6) The primary care team's and the doctor's roles:

- Patients with severe chronic eating disorders should be listed on primary care teams' registers of people with severe and persisting mental illnesses. A proactive intervention
 - It is important to detect and evaluate young people with type 1 diabetes who do not comply to their treatment regimens for eating disorders.
 - In primary care, opportunistic questioning should begin with benign inquiries and progress with the use of a validated eating disorders questionnaire.
 - In patients with eating disorders, routine physical examinations should be done, customised to the degree of the illness.
 - Frequent physical monitoring is required in cases of extremely low weight (BMI 15), fast weight loss (more than 0.5 kg in a week), frequent vomiting (more than once daily), and severe laxative misuse.
 - All patients with anorexia nervosa should have baseline DXA scans.
- 7) **Psychiatric interventions:** Adults with bulimia nervosa should be provided with cognitive behaviour therapy for bulimia nervosa (CBT-BN), a specially tailored type of CBT. The recommended treatment schedule is 16–20 sessions spread out over 4–5 months.
- 8) **Prescription drug management:** Adults with bulimia nervosa may be given the option of using an antidepressant medication as an alternative to or in addition to adopting an evidence-based self-help programme as a first step.

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