Chapter

The Physiological Effect of Excessive Indulgence: Its Diagnosis, Treatment, and Prognosis

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Abstract

Too much of anything is bad for health. In recent years we have been familiar with "Binge". It may be in the case of eating, drinking, or watching movies. Generation Z is very much affected by this way of living. This habit comes from indulgence. These indulgences come mainly from heredity factors, psychological conditions, dieting, peer pressure, etc. Studies show that some important features can be shared, including personality and emotional features such as neuroticism and urgency. Excessive indulgence can lead to physical and mental breakdowns. Interpersonal psychotherapy (IPT) is an effective specialty treatment for different disorders that leads to a healthy life. A continuous effort to identify the consequences of binge behaviours will also aid the development of the research field. We have to build a society free from excessive indulgence.

Keywords: binge, epidemiology, neuropsychological, risk factor, health promotion

1. Introduction

Self-pity and addiction are excessive indulgences. That is binge-eating, binge-drinking, and binge-watching. It's a tendency to a lot of food consumption in a short period. Drinking and watching are part of excessive indulgences when happening too fast for a long time, such as movies, web series, etc. Too much pleasure just like drugs. which makes people physically and mentally upset. As a result, bulimia, obesity, anxiety disorder, and stress at work are seen. These indulgences come from our genetics, family history other physiological conditions, dieting, body image issues, etc.

Binge drinking is consuming consecutive alcoholic beverages for a limited period on one or more occasions within the past six months [1]. We know that Alcohols are made from different ingredients and the main ingredient is grape juice. This grape juice is very useful for us when we drink it directly. Again, if we filter this grape juice and mix it with different chemical ingredients again and again then the liquid solution we create is known as alcohol. such as wine and whiskey. Wine and whiskey have no taste no matter what you call them. this is like s poison, when we drink it, it goes straight to the stomach. After entering the stomach, large amounts of Hydrochloric acid (HCL) are secreted from the inner membrane of the stomach which destroys the inner membrane and causes ulcers. These alcohol molecules repeatedly irritate the cell as

they travel from the stomach to the duodenum, causing the cells to become tumours or cancerous. After digestion, these molecules are absorbed and passed through the liver which has to do extra work for metabolizing. This extra work destroys the cells in the liver and disrupts other functions of the liver. On the one hand, as its cells are formed, on the other hand, its metabolism is disrupted and leads to cholesterol levels increased in the liver, causing the liver to become fatty. It damages the liver cells and causes liver cirrhosis which results in death. After metabolism in the liver, some molecules are carried directly to the heart by the hepatic vein into the brain and stimulate the nerves in the brain. this nerve becomes irritated and creates a kind of resonance that compels a person to drink alcohol, resulting in the person becoming intoxicated. in this condition, the nerves become weak and depression occurs.

Binge eating is a tendency of eating more food than usual in a short period (within any two hours) and loss of control over eating during this time [1]. Many people are food lovers again, whether they are at home or the wedding house, from a restaurant to street food, they are busy consuming food and they eat more food in less time. As a result, they suffer from gas and heartburn which is increasing day by day. Foodborne illness affects at least 9% of the world's population. 9% of the US population, or 28.8 million Americans suffers from an eating disorder. Less than 6% of people with eating disorders are medically diagnosed as "underweight".

The digestive system starts working only when we smell or see food so we can feel the urge to eat during the intake of food, we eat through the mouth which passes through the esophagus to the stomach, and from the stomach to the small intestine to the large intestine then the stomach and liver secrete useful enzymes. When we eat large amounts of food together, the stomach becomes bloated, and the chances of gas are more likely because the secretion of HCL increases. As a result, the symptoms of heartburn begin. When there is more pressure than necessary on different parts of the body, various problems arise in the physiological process. Excessive intake of food increases the secretion of serotonin and melanin hormones, leading to fatigue and drowsiness, and disruption of daily activities. Nausea occurs because of overeating and disregard for the hormone leptin. This hormone sends a message to the brain about whether the stomach is full or not and also tells you how much to eat. Failure to follow these instructions can lead to overeating and other problems. So, it is important to take an adequate amount of food and keep yourself healthy.

"Binge-watching" is on the rise in India. More than one lakh people fall victim to it every year. Binge-watching India ranks first in the global index. It is a habit where people tend to watch entertaining or informative content for a long period called binge-watching [2]. It could be a television show. Entertainment consumes people as they feel energetic as they watch more episodes together. People who stay up late at night binge-watching have sleep problems of circadian rhythm that result in brain chemical imbalances and negative programming in the subconscious mind. So, binge-watching should be avoided at night.

One of the things that are floating in front of our eyes is the world-famous web series "money heist" which is observed on Netflix. In this web series, people are entertained a lot and wait for the next part or next session so people enjoy entertainment for a long time at once and become a continuous factor program. Now it has been seen that instead of binge-watching, it has become purge watching. This desire to see does not come from within the individual's mind but is manifested in him to see by those around him then it is called purge watching. If a person watches the binge day by day as a result people feel anxious and lonely. Some research has shown that watching this binge causes heart problems in humans.

So, we don't understand when our entertainment becomes an addiction, so we fall prey to bingeing. So, we don't understand when our entertainment becomes an addiction, so we fall prey to bingeing.

2. Background

The eating problems of adolescents range from mild to severe eating disorders. Incidence rates of anorexia nervosa have increased seen from 1955 to 1984 among 10–19 years old, but not among adults, and the reported prevalence rate for anorexia nervosa of 0.48% among girls 15–19 years old in the United States. This disorder is the third most common chronic condition among adolescent girls after obesity and asthma. Binge eating was first recognized in a 1959 article by psychiatrist Albert Stunkard. He described this disorder as eating behaviour with excessive eating at irregular times. He associated a meal episode with a late-night meal. Over time, the term "bulimia" came to be used regardless of whether binge eating was day or night. Before the 1950s, bulimia would not have been easy for the average person to engage in, even if they had a tendency or desire to do so. Eating large amounts of food at one time meant getting the money or means for multiple meals at once. As the standard of living in Western societies has improved and the availability of cheaply produced large quantities of food has increased, so has the incidence of bulimia nervosa. Cognitive Behavioural Therapy (CBT) In the 1960s, Dr. Aaron T. was started by Beck. Dr. Beck realizes that his patients have inner dialogue or thoughts that affect their emotions. CBT has since become a type of therapy used to treat a variety of conditions, including eating disorders. CBT is still considered one of the main treatments for binge eating disorders. Although binge eating is not officially classified at this time, many doctors have begun prescribing stimulants to help obese people. In the 1970s and early 80s, the culture focused more and more on thinness and the rise of the supermodel phenomenon. The ideal body image of women is getting thinner. As a result, anorexia nervosa continues to grow. Until 1986, the American Psychiatric Association (APA) did not mention BAD in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Even then, this disorder was considered a sign of bulimia. Attitudes towards eating disorders began to change in the 1980s. Celebrities like Princess Diana started talking about their eating disorder. Many college campuses have begun to offer counselling services to students with various eating disorders. In the 1990s Dialectical behaviour therapy was introduced by Dr. Marsha Linehan. it was a greatly advanced therapy treatment for binge eating disorder. In 1993 a Cognitive Behavioural Therapy manual was conducted by Fairburn, Marcus, and Wilson. They have also been shown to be effective in treating obsessive-compulsive disorder (OCD) as well as other types of impulsive behaviour. A variety of serotonin inhibitors have been used since the 1990s to treat depression and anxiety. These are Paxil [3], Zoloft (1992 for depression and 1996 for OCD), Luvox [3], and Celexa (Cipramil was first released in Denmark in 1989 and then became available in the United States in 1998). In 1994, BED was included in DSM-4. The American Psychiatric Association specifically mentions bulimia. The National Association of Eating Disorders was founded in 2001. This is the largest non-profit organization that supports families and individuals with various eating disorders. During this time, there were various excellent eating disorder resources and organizations formed to provide education and support to people suffering from eating disorders. The Binge Eating Disorder Association (BEDA) was founded in 2008. The association is a national organization focused on

the diagnosis, prevention, and treatment of bulimia nervosa. This was an important step in helping people get the help they needed. In 2008, the National Institutes of Health showed that milnacipran is effective in treating bulimia. This particular drug showed personal improvement after 8 weeks of use. In 2013, BED was officially approved by DSM-5. This is the first time that bulimia has been recognized as a separate disorder from other types of eating disorders. This was an important step in helping people get the help they needed. In 2015, the Food and Drug Administration (FDA) approved a new drug to treat bulimia. The drug Lisdexamfetamine dimesylate was marketed under the name Vyvanse. This particular drug was prescribed to treat moderate to severe bulimia. Previously used to treat ADHD. The drug is rapidly absorbed from the intestinal tract and converted to dextroamphetamine. One way an individual can help control bulimia is to maintain a constant supply of the neurotransmitter dopamine in the brain. Binge eating and binge eating may be associated with reward centers in the brain. In 2019, researchers and healthcare professionals are still learning how BED affects different people and which treatment options are best for each individual [3].

The 1940s and 1950s were periods of heavy drinking. In the 1945 film The Lost Weekend, in which Don Berman is described as a periodic alcoholic. But in the current discussion, heavy drinking at the event is considered bilateral drinking. In the 1990s, it was often associated with public disorder and the relationship between alcohol consumption among young people and fear. This change originated in 1970 with scientific and policy. Over the last 50 years, the general context of alcohol treatment has been written in the UK. The post-war history of alcohol policy in the United States has been explored through recent research, which has led to an overall change in the prevailing notion of alcohol use and abuse. This proves the use and abuse of alcohol in the 1950s. At first, it was far from an ethical model of alcoholism as the problem was a lack of will towards a disease model or a distinct lack of moral origin which considered the problem a medical condition requiring treatment. Second, away from the disease model, the approach to public health and epidemiology has seen a reunion of the problem, which stems from overall alcohol consumption. Aiming at the 1990s, with the reduction of damages and the change in the way community is protected, the concept of light convergence within a criminal justice framework has been envisioned [4].

The word "Binge" first appeared in the mid-eighteenth century, meaning "wet". The word "binge" was used for eating or drinking during the First World War. But while the term "binge-watching" was coined in 2013, it gained popularity in 2012 [5]. Netflix had thirteen episodes of the first season of "House of Cards" in 2013. These episodes were released simultaneously, resulting in multiple episodes instead of one episode per week for which 2013 was marked as the Vision Streaming Era. 2015's "binge-watching" was first announced by Collins's English Dictionary as the best word of the year. 73% of Americans admit to "seeing the dilemma" which lasts 3 hours and 5 minutes. 90% of millennials and 87% of gen-z people are hesitant. 40% of people are of those ages who, on average, watch six episodes of television together once they sit down. Another hand the coronavirus epidemic is responsible for increasing division. HBO, for example, increased by 65% on March 14, 2000. Sykes's survey in 2021 found that 38% of respondents directed three hours or more of the "hours" of content by video, and 48% of it was done on holidays. Nielsen's study found that adults spent 3–4 hours or more watching live or streaming TV, which led them to underestimate the use of TV [6].

3. Binge eating

In most cases, a person suffering from a binge-eating disorder will consume large amounts of food. They will then feel unable to stop eating.

Although most people tend to overeat on occasion, some individuals have a hard time controlling their excessive consumption. This condition can lead to a binge-eating disorder.

Although most people suffering from binge-eating disorder are obese or overweight, they may also be at a normal weight.

3.1 Symptom

Some of the symptoms of this disorder include

- Large food consumption that occurs in a short period, such as over a couple of hours, can trigger feelings of being out of control.

- Some of the triggers that can trigger these feelings include overeating when you're not hungry, eating rapidly during a binge, or eating until you're full.

- Most people feel disgusted, ashamed, depressed, and anxious about their eating habits. They may also frequently diet without gaining weight.

After a binge, you don't compensate for the extra calories that you eat by exercising excessively, vomiting, or laxatives. This condition is similar to bulimia and restricting one's diet can lead to more binge eating.

The frequent episode of binging in one week defines the acute disorder.

If you or someone you know has a binge-eating disorder, please seek medical help immediately. Binge-eating problems can last for a long time, or they can be short-lived.

Binge-eating disorder can make it hard for others to detect its symptoms. Individuals with this condition tend to hide their behaviour, which can make it hard for others to identify them. If you think that a loved one may have the disorder, talk to them about it openly.

Support and encouragement can be provided to a loved one struggling with a binge-eating disorder. You can help them find a mental health professional and arrange an appointment.

3.2 Causes

Although it is not known why people with this disorder develop this condition, it is widely believed that various factors such as genetics, psychological issues, and long-term dieting can increase their risk of developing it. Binge-eating disorder can start in the late teens or early 20s.

Factors that may increase your risk of developing a binge eating disorder include:

Genetics: Individuals suffering from BED may have developed a heightened sensitivity to a chemical in the brain that's involved in feelings of pleasure and reward. It's also believed that the disorder is inherited [7–9].

A study conducted by Michigan State University revealed that there are genetic factors that can increase a person's risk of developing eating disorders. It looked at 500 female twins and found that environmental factors such as exposure to chemicals and alcohol before puberty were linked to the development of these disorders, but after puberty, the genetic factors were more prevalent [10].

The results of the study revealed that there could be a link between the presence of certain genes and eating disorders such as bulimia and anorexia. Further studies have also revealed that these disorders could be caused by a variety of genes [10].

Gender. In the US, 3.6% of women experience some form of bed at some point in their lives, which is higher than 2% of men. This is due to the biological factors that affect the development and maintenance of this condition [7, 11].

Compared to African-Americans, females were more prone to experiencing binge eating disorder (BED) and perceived discrimination. The link between perceived discrimination and the development of this condition was also stronger for males. The role of stressful life events and interpersonal issues in the development of this disorder has been known to affect the response of individuals with this condition [12].

Changes in the brain. There's a link between having a heightened response to food and having less self-control in people with BED [7].

The effects of aviation on the functioning of the neurotransmitters in the brain and the region of the brain that controls the movement of objects are known to be associated with the reduction in 5-hydroxytryptamine levels in individuals with an anxious temperament [13, 14].

Binge eating disorders and bulimia Nervosa are both characterized by episodes of binge eating. Various personality elements are related to these disorders, and the most common is impulsivity [15].

The negative urgency dimension exhibited by individuals with bulimia Nervosa and binge eating disorders is the strongest indication of their condition. This is because it triggers the activation of certain brain circuits that regulate reward and inhibitory control [16].

Body size. About 50% of people with Bedford have obesity, and 25% to 50% of those who seek weight loss surgery meet the disorder's criteria [8, 11, 17, 18].

Studies have shown that prolonged electroencephalographic (EEG) readings are associated with symptoms of eating disorders in individuals with higher BMI. These findings support the idea that neurocognitive reasoning plays a role in the development of effective interventions for individuals with eating disorders [19, 20].

Understanding the various mechanisms by which weight loss and gain occur can be influenced by studies on individuals with different weight disorders and populations. For instance, according to Feigel, athletes with spinal cord injuries are at risk of developing malnutrition and poor nutrition due to their sedentary lifestyle [21].

Body image. People with BED are prone to having a negative body image. This condition is caused by various factors such as overeating, dieting, and body dissatisfaction [22–24].

Binge eating. Most people with BED have a history of binge eating, which is regarded as the disorder's first symptom. This behaviour occurred during the teenage years and childhood [7].

One of the most common eating disorders that are co-occurring is Binge eating disorder (BED), which is characterized by significant physical and mental comorbidity, life impairment, and psychopathology. There are various treatment options for this condition, such as cognitive-behavioural therapy and pharmacotherapy [25].

Emotional trauma. Events such as the death of a loved one, abuse, or separation from a family member are considered risk factors for people with BED [26–28].

The trauma experienced during the past can be a contributing factor to the development of eating disorders, especially those that are characterized by binge eating and bulimia nervosa. It can also lead to other psychological conditions such as borderline personality disorder [29].

Other psychological conditions. Almost 80% of people with BED have at least one psychological disorder. Some of these include depression, anxiety, bipolar disorder, and substance abuse [17].

Binge eating is a type of psychological condition that occurs when one consumes a large amount of food. It can be triggered by various factors such as stress, dieting, and negative feelings about one's body shape.

3.3 Diagnosis

Although some people may have occasional overeating at Thanksgiving or other events, it does not necessarily mean they have BED. It can start in the teens to early twenties, though it can also occur at any age. People with this condition need support to overcome it, and it can last for a long time [30].

To be diagnosed, a person must have binge-eating episodes for at least three months. The severity of the condition ranges from mild to extreme, with the latter having up to 14 episodes a week.

One of the most important characteristics of binge-eating disorder is not taking action to stop it. Unlike bulimia, people with this condition do not resort to laxatives or exercise to suppress their binges.

Binge-eating disorder is more common in women than men. It is also more common among men than other eating disorders [31].

You should also talk to a mental health professional or medical provider about your symptoms and feelings. If you're not ready to seek treatment, ask someone you trust to talk about what you're going through. Having a friend, a faith leader, or a teacher can help you get the help you need to successfully treat binge-eating disorder.

3.4 The health risks

Binge-eating disorder (BED) is associated with various health conditions. It can also lead to obesity and other related issues. The increase in calories that people consume during these episodes is known to be a contributing factor to this issue [17].

Obese people are more prone to developing various health conditions such as heart disease, stroke, diabetes, and cancer. However, it has also been known that those who have a binge-eating disorder are more prone to experiencing these conditions than those who do not have this condition [30, 32, 33].

Among the other conditions that can be associated with binge-eating disorder include sleep problems, irritable bowel syndrome, and asthma. In women, it can lead to issues such as pregnancy complications and fertility problems [30, 31, 34].

Studies have shown that individuals with a binge-eating disorder are more prone to experiencing difficulties in social interactions [35].

Individuals with a binge-eating disorder are also more prone to experiencing hospitalizations and emergency department visits. Compared to those without this condition, those with a binge-eating disorder are more likely to have outpatient care and hospitalizations [36].

3.5 The treatment options

The treatment plan for individuals with a binge-eating disorder can vary depending on the severity of the condition and the goals. It can also focus on various aspects of one's body image and mental health.

Various forms of therapy can be used for individuals with a binge-eating disorder, such as medication, cognitive behavioural therapy, and interpersonal psychotherapy. These can be done on a one-to-one basis or in a group setting.

Although some individuals require only one type of therapy, others may need to try various combinations to find the right treatment plan. A mental health professional can help individuals determine which type of therapy is right for them.

3.5.1 Cognitive behavioural therapy

One of the most common forms of therapy for individuals with a binge-eating disorder is cognitive behavioural therapy. This type of therapy focuses on the relationship between negative thoughts and feelings about food and body shape [37, 38].

After identifying the triggers that contribute to the development of negative emotions, strategies can then be developed to help individuals change their behaviour [37].

These strategies can help individuals set goals, develop healthy eating habits, and monitor their food intake. They can also encourage them to change their thoughts about weight and body image [38].

One of the most effective treatment methods for individuals with a binge-eating disorder is CBT. According to a study, after 20 sessions, almost 80% of the participants were no longer binge-eating. 59% of them were still able to complete one year [38].

Another type of treatment is self-help CBT, which is typically delivered through a manual. This type of therapy allows participants to work on their own, and it also provides additional support [38].

Self-help therapy is more accessible and cheaper than traditional therapy. It can also be done through apps and websites. It's also proven to be more effective than traditional CBT [39, 40].

3.5.2 Interpersonal psychotherapy

Interpersonal psychotherapy is a type of therapy that focuses on the idea that binge eating can help individuals cope with various issues, such as relationship conflicts and grief [38].

This type of therapy aims to identify the specific problem that contributes to the development of negative eating behaviour. It then makes constructive changes to help the affected individual improve their behaviour [37, 41].

This type of therapy can be done in a group setting or on a one-on-one basis with a trained therapist. It's also sometimes combined with CBT. There's strong evidence supporting the positive effects of this type of therapy on reducing the behaviour of binge-eaters [38].

3.5.3 Dialectical behaviour therapy

The goal of a DBT session is to help individuals develop a plan to manage their emotions and cope with negative experiences. This method teaches them how to regulate their responses so they can manage their anger and manage their daily life

without overeating. The four key areas of this therapy are interpersonal effectiveness, emotion regulation, mindfulness, and distress tolerance [38].

A study conducted on 44 women with binge-eating disorders revealed that after completing therapy, almost 90% of them were able to stop their binge eating. However, after six months, only 56% of them were able to maintain their recovery [42].

There's still a lot of research to be done on the long-term effects of DBT and how it can be compared to other treatment methods such as IPT and CBT.

3.5.4 Weight loss therapy

DBT is a behavioural weight loss therapy that aims to help individuals lose weight and improve their body image. It involves gradually making healthy lifestyle changes and monitoring their food intake. It's also expected that participants lose around a pound per week [38].

Although weight loss therapy can help individuals improve their body image and reduce their risks of developing obesity, it's not as effective as other treatment methods such as IPT and CBT when it comes to stopping binge eating [38, 40, 43, 44].

Although it's not as effective as regular weight loss, behavioural weight loss therapy can still help individuals achieve short-term, moderate weight loss. This type of therapy can be beneficial for people who have not been able to successfully use other treatment methods [38, 40].

3.5.5 Medications

Although these drugs are commonly used to treat binge eating disorders, they are not as effective as traditional therapy.

Other drugs that can treat binge eating disorders include antiepileptics and antidepressants. Also, some of these are used for treating hyperactive disorders [37].

According to studies, drugs are more effective than placebos when it comes to treating binge eating disorders. These drugs are 48 percent effective compared to 28.5 percent for the placebo [45].

These drugs can also help individuals with binge eating disorders by reducing their symptoms of depression and their appetite. However, more studies are needed to confirm the long-term effects of these drugs [37, 45].

Side effects of these drugs can also include stomach problems, sleep disorders, headaches, and increased blood pressure [31].

Individuals with binge eating disorders might also be able to benefit from additional medications to treat other mental health conditions.

3.6 Overcome

Getting the help of a medical professional is the first step in treating a binge eating disorder. This individual can help determine the severity of the condition and recommend the appropriate treatment. Although CBT is the most common treatment for this disorder, other methods such as combination therapy or individual therapy can also be effective. In addition to making healthy lifestyle choices, it's important to maintain a balanced diet and exercise program.

- *Keep a food and mood diary.* Keeping a diary of these individuals to deduce a diet and mood that identifies personal triggers is portrayed as an important step in controlling a dilemma.

- *Practice mindfulness.* It helps to increase self-control and maintain self-acceptance. Which can help to increase awareness of the trigger [46–48].

- *Find someone to talk to*. It is extremely important to get support whether it is through a partner, family, a friend, a binge intake support group, or online. 2 Choose healthy foods. A high-protein healthy diet, a diet consisting of regular meals and whole foods will provide an essential nutrient to satisfy hunger [49].

- *Start the exercise.* Regular exercise is a brilliant method to reduce weight and improve body image which helps to control anxiety and mood [50, 51].

- *Enough sleep.* Sleep is an underlying therapy that is closely associated with the causes of high-calorie intake and irregular eating. People make it a habit to sleep 7–8 hours out of 24 hours [52, 53].

4. Binge drinking

Binge drinking is a preventable serious public health problem.

Binge drinking is one of the most common and costly problems in the United States. If a man drinks 5 or more drinks at a party, while a woman drinks 4 or more drinks at a party [54], then this work is considered binge drinking. The proportion of "alcoholic youth" drinking is higher than that of "alcoholic adults", increasing from 50% between the ages of 12 and 14 to 72% between the ages of 18 and 20 [55].

Some people only drink, and they will not have the disease of alcohol use.

Again, some people who consume alcohol, are associated with an increased risk of various diseases from alcohol.

But binge drinking is a harmful risk behavior related to serious injury or many diseases.

4.1 Binge drinking is common

In the United States, one in six adults consumes at least 25 percent of alcohol each week.

Binge drinking is an approach where excess alcohol is blamed and more than ninety percent of adults in the United States are responsible for excessive drinking. From 1993 to 2001, the number of binge drinking episodes among U.S. adults increased from about 1.2 billion to 1.5 billion [56].

Binge drinking is mainly seen in young people who are between 18 and 34 years old. In general, men drink twice as much as women.

Excessive drinking is more common in adults with higher family incomes.

There are some groups or states for whom binge drinking is not common, but they drink frequently, i.e., consume alcohol frequently and in large quantities.

4.2 The stages of alcohol use disorder

Alcohol use that turns into a use disorder develops in stages [57].

At-risk stage: When you are suffering from stress and depression and you think about how to get rid of it, then you choose alcohol as the only way to get rid of it and start drinking socially. As a result, you become addicted to alcohol by concentrating on alcohol consumption.

Early alcohol use disorder: In this session, you will secretly start thinking about alcohol because of your drinking mentality and you will move towards the blackout.

Mid-stage alcohol use disorder: At this stage, the level of your alcohol consumption goes out of your range. As a result, he got involved in various problems in his daily life. You can find out about the damage to your various organs through lab and scan tests.

End-stage alcohol use disorder: At this point, you give up all your happiness and comfort and focus only on drinking. Which is why you are slowly moving towards death with organ damage.

4.3 How many binge drinks are consumed?

One out of every four adults in the United States drinks alcohol and they drink at least eight drinks on the occasion of a binge.

In total,17.5 billion adults drink bean sprouts a year. Adults drink 467 binge drinks each year. Four out of every five drinks are drunk by men [58].

Most people 21 years of age or younger drink alcohol and they consume large amounts of alcohol. Forty-four percent of high school students drink eight or more drinks in a row [59, 60].

4.4 Binge drinking is associated with many health problems, including

Binge drinking is associated with many health problems such as Unintentional injuries were motor vehicle collisions, burns, alcohol, poisoning, homicide, suicide, intimate partner violence, sexually transmitted diseases, unintended pregnancy, poor pregnancy resulting in miscarriage, stillbirth Diseases, sudden infant death, chronic diseases such as hypertension, stroke, liver disease, breast cancer seen in women, liver, colon, rectum, mouth, pharynx, and esophagus, including memory and learning problems, etc.

4.5 Effects of binge drinking on the developing brain ailments

Binge drinking is a pattern of alcohol drinking those results in a .08% alcohol concentration in a person's blood. The amount of alcohol consumed is five alcoholic drinks for men and four alcoholic drinks for women in about 120 minutes. This binge drinking occurs mainly in adolescents and young adults because they are taking heavy drinking with high frequency (i.e., 5 or more days in the past 30 days).

Neuron maturation occurs during the development of puberty that young adults are passing through. Magnetic resonance imaging has reported linear and nonlinear changes in Gray-matter and white-matter volume and thickness during development [54].

Both Gray matter and cortical Gray matter volumes decrease during adolescence when they are affected by binge drinking [61, 62]. Because of the low amount of Gray matter in the brain, which is related to Alzheimer's disease, depression, and post-traumatic stress disorder [63]. Although some studies have shown an increase in Gray-matter volume or thickness in binge drinks in adolescents, by the concomitant marijuana effect [64, 65]. If Gray matter increases the density it helps to higher processing and also increases mental development [66].

Other hands the development increase of white matter volume many times perceive in adolescence who binge drink. The microstructure of white matter has mixed results showing increased and decreased fractional anisotropy. Binge drinkers

could lead to low task performance because of the risk of phenotype and inhibition of memory response during decision-making and reward response.

So, bring drinking effected on functional and anatomical changes in the brain. These are given below.

Adolescents and young adults' replication of binge drinking.		
Different parts of the brain	**Decreased/smaller**	**Increased/greater**
Frontal lobe	Gray-matter volume. Cortical thickness. Fractional anisotropy. Task activation: risk-taking/ reward response. Task activation: inhibition.	Task activation: working memory. Task activation: inhibition.
Striatum	Fractional anisotropy. Task activation: inhibition.	Task activation: cue reactivity.
Temporal lobe	Gray-matter volume. Fractional anisotropy. Task activation: verbal encoding.	Task activation: working memory and cue reactivity.
Cerebellum	Gray-matter volume. White-matter volume. Fractional anisotropy.	Task activation: working memory.
Occipital lobe	Fractional anisotropy.	Gray-matter volume.
Parietal lobe	Fractional anisotropy. Task activation: verbal encoding and inhibition.	Task activation: working memory. Task activation: verbal encoding and inhibition
Cingulate	Cortical thickness.	Nil

In the United States in 2014, 1.5 million adolescents (ages 12 to 17) and 13.2 million young adults (ages 18 to 25) were addicted to alcohol, with a percentage of 6.1% and 37.7%. 257,000 adolescents and 3.8 million young adults reported that they drank large amounts of alcohol and their percentage of 1 % and 10.8%. in the National Survey on Drug Use and Health.

4.6 Prevention of binge drinking

Binge drinking can be deadly in itself and may lead to an Alcohol Use Disorder (AUD). Take steps to cut down or abstain from alcohol before it seriously impacts your life. Here are five ways how to stop binge drinking.

4.6.1 Make a plan and put it in writing

Make a specific plan and write it down in a little notebook. Write down the causes of alcohol consumption and focus on gradual withdrawal. Record and look at the possible consequences of the various dangerous problems caused by the chemical poisoning of alcohol in the brain. If you feel like drinking, be aware of how much you are drinking or your condition. As a result, you can better diagnose your triggers and avoid the risk of foolish drinking.

4.6.2 Change your environment

Control the triggers of your drinking habits by eliminating the people, places, and events that lead to binge drinking. Games like "Beer Pong" or "Quarters" force you to drink too fast, so you don't realize how much you're drinking. Limit yourself to certain rules and drink non-alcoholic beverages.

4.6.3 Rely on family and friends for support

Create the mentality of staying away from or reducing alcohol consumption. There are some "accountability buddies" in your standardized support system who drink very little or no alcohol to help stop binge drinking. This helps prevent your trigger or depression. Even before planning an event where alcohol will be present. But with you comes a faithful aid as well as alcohol.

4.6.4 Abstinence may be your best approach

This is a simple and appropriate method were trying to abstain from alcohol or reduce its use. Alcohol use disorder AUD. It has symptoms and educates yourself about it. Join local alcoholic anonymous meetings and other alcohol support groups for valuable information. Which can prevent excessive drinking.

4.6.5 Ask yourself why you drink excessively

A therapist is needed to help you reduce stress, anxiety, loneliness, or other negative feelings, or to help you choose healthy ways to deal with feelings of being socially more comfortable. Make life easier by applying positive lifestyle changes, such as regular physical activity, eating nutritious food, participating in exciting sports or hobbies, and engaging yourself in alcohol-free events. Studies have shown that limiting yoga, mindfulness, inspirational reading, positive self-talk, negative news or TV shows, and spending time with positive thinkers improve self-esteem, mood, and long-term restraint. If it seems that AUG has an effect, take the medicine with the advice of a doctor who can prevent the disease.

5. Binge watching

The rise of binge-watching is becoming more common due to the COVID-19 pandemic. It can affect the body's energy balance and cause stress [67]. Binge-watching is a type of entertainment that occurs when people spend a lot of time watching TV. Although it's usually related to the show, there are concerns about its negative effects [68].

According to a study conducted by Sung et al., about 3 out of 4 of the respondents admitted to being binge viewers. In addition, research revealed that about 70% of TV viewers between the age of 13 and 49 consume at least one episode of a show at a time [69]. The term binge viewing refers to an excessive amount of television viewing. It has been known that media consumption can lead to various health conditions, such as depression and anxiety. In addition, viewers who binged on TV were more prone to experiencing loneliness and depression [70].

Today, most households in the US use a streaming service, and the amount of time they spend watching TV has drastically changed. Also, the rise of the Internet has increased the amount of time that college students spend watching TV [71].

Binge-watching is a type of entertainment that occurs when people spend a lot of time watching TV. It can be described as consuming at least two episodes of a particular series in one sitting. The length and number of these episodes are both referred to [72].

5.1 Binge-watching is like a drug

It's widely known that binge-watching TV shows can produce a high. Dopamine is a chemical that helps us feel good, and it's produced by our brain when we're engaged in an enjoyable activity. The release of this chemical helps us feel good, and it's similar to the effects of drugs and other substances that are addictive. As long as you continue to watch TV shows, your brain will continue to produce this chemical [73].

According to a survey conducted by Netflix, 73% of the people who binge-watched said they felt positive about their experience. According to psychiatrist Danesh A. Ali, a psychiatrist at North-western Medicine, repeated exposure to certain behaviours and thoughts can create neural patterns that are hard to break [74].

The effects of marathon viewing can have detrimental effects on your relationships and goals. It can make you feel irritable, defensive, and unreasonable if you're asked to stop, and it can even lead to you lying to cover up your binge. You may also find yourself constantly increasing the amount of time that you spend watching TV.

5.2 Health concerns

5.2.1 Binge-watching leads to mental health issues

Binge-watchers are more prone to experiencing depression and anxiety. They also reportedly have less self-control. One of the researchers, Yoon Hi Sung, said that viewers might start to neglect their relationships with others as a result of the increasing number of binge-watching [68, 75].

The same pathways that lead to sex addiction and heroin addiction are the same ones that trigger addiction to binge-watching. The body can become addicted to substances or activities that produce dopamine, which is a chemical that's involved in pleasure [73].

Excessive TV watching is linked to feelings of guilt, regret, and failure. After a binge-watching session, the viewers are more likely to feel depressed and anxious once the show has already ended. People might think that they will feel better if they're watching TV or some type of entertainment. They will feel more stressed out if they're binge-watching.

5.2.2 Binge-watching makes the show less fulfilling

Binge-watching revealed that people who watched several episodes of a show in one sitting were less likely to enjoy it. According to Damon Lindelöf, the co-creator of the show Lost, the concept of anticipation does not exist in binge culture.

Due to the popularity of binge-watching, it has become difficult for people who have not finished a new season to avoid spoilers on social media. Also, the lack of agreement regarding when the embargo should be lifted can cause conflicts among fans.

5.2.3 Binge-watching can cause serious physical health problems

It has been known that prolonged sitting can lead to various health conditions such as heart disease, cancer, and blood clots. People who are prone to binge-watching are also more likely to eat unhealthy food and gain weight.

People who binge-watch TV shows are more prone to experiencing fatigue and poor sleep quality. They also reportedly have higher chances of dying early.

Heavy users reported poor health-related characteristics and the unhealthiest dietary habits. Binge-watching was also associated with a higher likelihood of consuming fast food and having family meals in front of a TV.

5.2.4 Binge-watching leads to back problems

One of the most important factors that contribute to a healthy life is the spine. Unfortunately, many people who watch TV while sitting on their knees are prone to developing poor posture and experiencing back pain [76]. When people watch TV for a long time, their posture becomes curved, which makes them feel more comfortable. However, if it lingers too long, the smooth and balanced limbs become compressed, which can cause pain.

5.2.5 Binge-watching leads to respiratory function issues

The position of the body can affect the function and strength of respiratory muscles in both healthy individuals and those with cardiopulmonary dysfunction. For instance, young adults have less respiratory pressure and dyspnoea in the semi recumbent or supine position. On the other hand, the strength of their respiratory muscles is decreased in the supine position [77–81].

The length of a muscle fibres relationship with its surrounding tissues is biomechanically related to its ability to develop tension. It is believed that rib changes can affect the length-tension relationship of certain respiratory muscles, such as those in the diaphragm. This could cause these muscles to develop less tension and reduce respiratory rate [77, 82].

5.2.6 Lack of physical activity

If you spend your life lying on a cot without physical activity, you will be more likely to move towards heart disease with stroke [83].

The more often you watch TV, the softer you become, and the less likely you are to exercise for less than an hour. Six years of research show that more than 40% of adults over 15,000 are less likely to exercise.

5.2.7 Effect on brain

Researchers at Brigham and Women's Hospital recently discovered that falling asleep in front of a fluorescent light (about four hours) before going to bed results in less sleep, less REM sleep, and grogginess the next day, even after eight hours. The TV emits blue light that inhibits the release of melatonin, a hormone that helps you knock off [84].

5.2.8 Effect on the cardiovascular system

A type of disease that affects the blood vessels, cardiovascular disease (CVD) is a group of conditions that include heart failure, stroke, high blood pressure, atherosclerosis, and coronary artery disease [85]. People with CVD also have other conditions such as obesity, high glucose, smoking, and lack of exercise.

Worldwide, around 17.9 million people died due to CVD in 2015. In China, it has been reported that cardiovascular disease is the leading cause of death among the over-60 population [86]. Some of the risk factors that can contribute to this condition include being overweight, having diabetes, high blood pressure, and metabolic syndrome.

5.3 Managing binge-watching

- Limit yourself to a certain short episode beforehand, such as two or three episodes at a time then postpone watching TV and focus on some other work.
- Limits TV viewing levels by setting a low-timed episode
- Engage with other activities and balance them out, such as physical exercises, meeting and chatting with friends and reading, spending time with family, and indulging in social activities.
- Set a plan to watch only one show, but if you sit and watch the whole season at once, then this disorder will take time to re-evaluate.

5.4 Binge-watching is closely associated with sleep

Aside from affecting melatonin production, screen exposure can also affect sleep by interfering with the arousal response [87]. In studies, it has been shown that playing video games can increase activity in the autonomic nervous system, which can lead to prolonged sleep onset [88–90]. Another study revealed that social media use can affect the latency of sleep [91].

Studies on binge-watching have suggested that arousal could be a mediator of sleep. These shows, which are usually very complex and intense, tend to have a strong narrative structure and develop complex characters. As a result, viewers who watched these types of shows were more likely to become immersed in the story. Because of the complexity of the stories and the high emotional involvement, it has been theorized that binge-watching can affect sleep by interfering with the arousal response.

6. Conclusion

Any habit has a great impact on our lives, whether that habit is good or bad for our health. These habits are first triggered psychologically in our brain and simultaneously found an effect in the body. Bad habits have not acceptable for our health, but we should pay more attention to good habits because of anything in excessive amounts. is not good for our health such as Binge eating, binge drinking, and binge watching are the things that make our brain happy but harm our body. Any habit that

behaves like a drug, which sometimes causes scars. We do not cure it in any other way. So, there is a defined way to cure every habit and identify it to make our life healthy and normal.

> *"A habit cannot be tossed out the window; it must be coaxed down the stairs a step at a time."*
>
> *—Mark Twain*

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