

# ***Current Situation Analysis of Alcohol Use Disorder within College students***

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**Abstract:** Because the ratio of college patients with alcohol use disorders increased in recent years and college students' alcohol abuse becomes a serious problem affecting their daily life, the essay tries to explore the causes and consequences of college students' heavy drinking. Based on a bunch of previous research and experiments, the paper focuses on the current situation of alcohol abuse among college students and tries to analyze potential environmental and personal factors that lead to college students' alcohol use disorder. The transition period to college, peer influence and selection, perceived norms, and parental influence can influence college students' attitudes toward alcohol use differently. Students' internal drinking motives and previous alcohol use also affect their drinking behaviors after college. After analyzing external and internal inducing factors related to heavy drinking among college students, the paper summarizes some general and specific short-term and long-term effects associated with college students' binge drinking and provides some effective treatments for alcohol use disorder.

**Keywords:** Alcohol use disorder, Environmental factors, Personal factors, Treatments, College students

## **1. Introduction**

Alcohol use disorder is a kind of substance use disorder. American Psychiatric Association (APA) summarized the diagnostic criteria of alcohol use disorder in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR). In DSM-5-TR, the disorder is defined as excessive use of alcohol with severe impairment or distress which could be measured by specific diagnostic criteria [1]. Alcohol use is common among Americans, and the results from the data collection conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) suppose that 28.3 million people in the United States who are aged 12 or older had alcohol use disorder in 2020—the prevalence reached 10.2% of the population who are 12 or older [2]. Especially, people aged from 18 to 25, who are supposed to be college students, had the highest prevalence of alcohol use disorder in all age ranges—15.2% [2]. Also, the percentage of people who were current alcohol users (i.e., use alcohol in the past month) was highest among young adults and college students aged from 18 to 25 (31.4%) compared with adults aged 26 or older (22.9%) and adolescents aged from 12 to 17 (4.1%) [3]. The negative effects brought by alcohol use disorder make a big difference to the daily life of college alcohol-binging drinkers. Moreover, there are

many external and internal factors inducing college students to become binge drinkers, and preventions and treatments that are sometimes insufficient do not always have a significant effect on every young adult.

APA listed 11 potential symptoms of alcohol use disorder. Among them, symptoms of withdrawal, tolerance, and craving are similar to the symptoms of other substance use disorders. Tolerance prompts the substance user to increase the doses of the desired substance to achieve the same effects or the effects of using the same doses of the substance which tend to be significantly reduced [4]. Withdrawal indicates the negative physical or mental effects that occur when the substance user stopped using or reduced the amount of the substance [4]. Withdrawal is likely to occur among half of the persons with alcohol use disorders; among these persons, 3%-5% of them would have the symptoms of delirium tremens, and delirium tremens has taken 1%-4% of patients' lives [5]. Alcohol craving refers to the intense urge to drink alcohol, and these people's attention would not be emancipated from the urge until they satisfied their desires [1]. Overall, the problem caused by the daily heavy use of alcohol should be taken seriously.

## **2. Environmental and Personal Factors Associated with College Students' Alcohol Use Disorder**

### **2.1. Environmental Factors**

#### **2.1.1. The Transition Period to College**

The transition period from high school to college is a particular period for college students to be adapted to the new environment and set up their new social networks. Students exert this precious period to explore the environment, form new cognitions about the unfamiliar world, and improve their self and social identities. When students shape their cognitions and identities, they are also influenced by the environment. Except for some students who had pre-college alcohol use, other students who develop drinking habits after entering college may begin to use alcohol during this period. They may choose to develop it because of their peers' behavioral patterns, self-motivations, social needs, or sensation seeking. Whatever reason they choose to heavy drink, their newly formed cognitions might not be mature enough to support the accuracy of their decisions, and their thinking is easy to be shaped during the transition period because they receive much information that is difficult to distinguish right from wrong from the external world. Besides, adopting the habit of heavy drinking in the first-year transition period has a great influence on students' following lives because it might have a long-term effect on their whole college life and young adulthood [6].

#### **2.1.2. Peer Influence and Peer Selection**

To feel involved among friends who are drinking, some students begin to try alcohol use to keep friendships. This phenomenon is caused by peer influence and peer selection. Peer influence is the external influence flowing from peers to the individual, while peer selection is the internal influence originating within the individual [7]. Peer influence would let students who didn't try to use alcohol before become curious about alcohol because their peers encourage them to attempt it. After several attempts, some of them gradually become heavy drinkers. Peer selection is another inducer of alcohol use disorder. Peer selection is a mechanism in that peers compare their behaviors and perspectives with the individual and then make sure the behavioral patterns or perspectives are similar among them [7,8]. To keep similarity with their peers, college students have to accept the pressure from peer selection: they need to change their previous habit of non-alcohol use and force themselves to use alcohol to have similar behavioral patterns on alcohol use. As a result, alcoholics

sometimes show up in groups, and peer influence and peer selection are essential factors for college students' heavy drinking.

### **2.1.3. Perceived Norms**

Both descriptive and injunctive norms play an essential role in college students' alcohol use. In the alcohol use context, descriptive norms are the perceptions of the individuals received from others' drinking patterns, while injunctive norms are the attitudes of others toward drinking received by the individual [6]. A study showed that injunctive norms can alter the extent of the individuals' perspective related to the acceptability of behaviors; in other words, if the individuals received positive judgments toward the behavioral patterns from others, they are more likely to increase the acceptability of this behavior [6,9]. Moreover, some college students have the trend to overestimate the descriptive norms and injunctive norms they received from the environment [6]. They may suppose that their peers and families usually drink alcohol more than they do and that their peers and families have more positive attitudes toward alcohol than the actual situation seems to. With unclear cognitions about the fact and an exaggerated environment of tolerance for alcohol imagined by them, these college students are more likely to be heavy drinkers because of the potential pressure of social norms.

### **2.1.4. Parental Influence**

Parents can influence college students' drinking patterns. Before students enter college, their parents can influence and shape their drinking habits through "overt modeling, advising against experimentation, instituting clear consequences for alcohol use, modifying substance abuse beliefs, and affecting peer selection" [6]. Improper parental teaching style regardless of parental approval or disapproval of alcohol use would increase the negative effects on their children. If parents show a positive attitude toward drinking, their children are more likely to be heavy drinkers; if parents show disapproval of alcohol use with parental monitoring, their action also has a negative correlation with their children's alcohol use [6]. However, if parents intend to show approval of alcohol use by setting up an upper limit, their children would be less likely to become heavy drinkers with their permissiveness [6,10]. Also, proper parental style can help parents shape and correct children's cognitions of both alcohol-related consequences and peer selection, so successful parents can weaken the negative influence of their children's peers to reduce their children's possibility of becoming heavy drinkers [10].

## **2.2. Personal Factors**

### **2.2.1. Sensation Seeking**

Except for basic personal factors like race and gender, sensation seeking is an interesting point to discuss. Sensation seeking is a personality trait to seek various, sophisticated, adventurous, or novel experiences with intense feelings. People with high sensation seeking have an uncontrollable preference or physical arousal to seek such kinds of experiences and chances [6]. A study found that sensation seeking had a statistically significant effect on personal alcohol use among college students, and peer influence is the mediator between sensation seeking and personal alcohol use [11]. With misperception about the drinking norms taught by peers who use alcohol, college students' sensation seeking can be aroused, and they might increase their frequencies and amounts of using alcohol. Overall, the intensity of sensation seeking can affect alcohol use among college students directly or indirectly.

### **2.2.2. Pre-college Alcohol Use**

Pre-college alcohol use should be considered a personal factor for college students' alcohol heavy use. Students with established drinking patterns are likely to maintain or increase after matriculation. A study indicated that about 25% of students who had pre-college alcohol use without heavy episodic drinking developed heavy drinking within a short period after matriculation [6,12]. Also, students with pre-college alcohol use can influence each other to increase alcohol use and even bring improper norms to campus to affect other college students negatively.

### **2.2.3. Drinking Motives**

Drinking motives are those reasons identified by students to use alcohol; social facilitation, a sense of belonging, and "fitting in" are the three main motives for drinking [6]. Drinking games are a popular social approach in colleges. To facilitate socialization, alcohol use would be steeply increased because of socialization. To find a sense of belonging, college students may participate in many parties or social occasions with drinking games, which would result in a large amount of alcohol use. "Fitting in" is another reason why some college students actively participate in social occasions which might be accompanied by drinking games. Also, stress release could be a drinking motive. College students are facing stressors or negative emotions every day, especially when they are experiencing pressure from their final and future careers. Alcohol use is an efficient way to cope with stress. A study indicated that there is a positive correlation between coping with stress and alcohol use among college students, and the association is stronger between first-year college students and alcohol use [13]. Needs for social facilitation, supportive social interaction, and stress coping approach would enhance these drinking motives, and strong drinking motives will lead to heavy drinking.

## **3. Effects of Alcohol**

### **3.1. Positive Effects**

Admittedly, alcohol use sometimes can help college students in positive ways. A study indicated that alcohol use positively affects coping with stress [13]. Another study also pointed out that alcohol use can help people to feel more relaxed and have a better and more stable mood, and people with positive expectancies to use alcohol can enjoy more positive effects taken by alcohol, like reducing stress or being relaxed [14]. Besides, alcohol use can interact with several neurotransmitters. Light to moderate drinking can stimulate gamma-aminobutyric acid (GABA) receptors and benzodiazepines like Xanax to reduce tension and activate neurotransmitters related to serotonin and dopamine to produce pleasures, while it can also help to lower the risk of coronary heart disease [4].

### **3.2. Negative Effects**

#### **3.2.1. Short-Term Effects**

A low dose of alcohol use (0.04 blood alcohol content) can cause a slightly impaired problem in movement; however, a large dose of alcohol use can lead to significant motor impairment [4]. That's why people cannot drive after a large amount of alcohol intake. Also, because alcohol can affect the anterior cingulate cortex and orbitofrontal cortex in the brain, it would be difficult for people to make decisions and correct their mistakes. With a poor ability to make decisions and fluctuating emotions, people are likely to experience accidents with low inhibitions and show aggression toward others. Moreover, vomits which can cause stomach damage sometimes occur

after a large amount of alcohol intake. For college students, discomforts in their bodies caused by a large dose of alcohol use can lead to the disability of living and studying normally the day after drinking.

### **3.2.2. Long-Term Effects**

Prolonged assumptions of alcohol can damage people's bodies seriously. Long-term alcohol use can impair the function of digesting food and absorbing vitamins; people with a deficiency of B-complex vitamins may have a severe loss of memory [4]. Also, the uninterrupted reduction of gray matter density in the hippocampus can predict the poor function of memory in the brains of heavy drinkers [4]. Moreover, long-term assumptions about alcohol are correlated with cancer, self-harm, and accidents that can collaborate with delirium tremens, which is one of the withdrawal symptoms, to take many lives [4]. Other withdrawal symptoms, like experiencing depression or unstable emotions and being sick, sweating, or vomiting after drinking, can also affect people's daily life [15]. Last but not least, some students' drinking habits may transfer to their futures, so they might have the possibility to fail to complete their education or get a low-income job. In a ten-year-long following up study, 25% of males and 38% of females with alcohol dependence failed to gain their degrees, and 44% of male dropouts and 17% of female dropouts got less prestigious jobs [15].

## **4. Treatments**

### **4.1. Alcoholics Anonymous Program**

Alcoholics Anonymous (AA) program is one of the most commonly used treatments for alcohol use disorder. The AA program is a group-based and self-help treatment to persuade alcoholics that abstaining from alcohol should be the first thing they do to keep their life pace normal and achieve success. However, some uncontrolled studies supported that the AA program is a useful treatment, while random experiments with controlling didn't approve that [4]. Also, because AA focuses on a group-based treatment and is based on religious operations, patients who join the program are likely to develop group dependence and lose autonomy and individualism [16]. For college students, the loss of autonomy and individualism can influence their critical thinking and analytical ability which are highly encouraged in higher education.

### **4.2. Rational Recovery Program**

The rational recovery (RR) program utilizes cognitive strategies to change patients' perceptions about alcohol use disorder. They think alcoholism should not be regarded as a disease caused by external factors; instead, people should notice that their impulsive and irrational thinking causes their alcohol abuse. By accepting their responsibility for developing alcoholism, people can avoid alcohol use by changing their thoughts. RR is more suitable for many college students because RR emphasizes the importance of individualism, self-development, and self-growth without any religious element [16].

### **4.3. Medications**

Disulfiram, acamprosate, oral naltrexone, and injectable naltrexone are four medications currently approved by the Food and Drug Administration (FDA) [17]. Disulfiram, it is also called Antabuse, is a medication to reduce the strong desire for alcohol intake by causing violent vomits after drinking alcohol [4]. However, the medication only uses in extreme or urgent cases because it would damage the patients' body systems by numerous times of vomits. Also, it is different to hold



on because of violent body reactions caused by vomits, and the benefits didn't show sufficient, so the dropout rate was high in a study [4]. Acamprosate and naltrexone can be used for avoiding relapse and maintaining abstinence [17]. Naltrexone is the most commonly used medication for treating alcohol use disorder. However, Naltrexone has to be used daily and injectable naltrexone has an unaffordable monthly price of \$1100-\$1200 [17].

#### 4.4. Couples Therapy

Couples therapy could be an effective treatment for some people. This treatment is based on Cognitive Behavior Therapy (CBT), and it mainly focuses on the relationship between the couples. The couples can work together to solve alcohol dependence. Some results are indicating that couples therapy could be effective for different sex-oriented couples and be more efficient than individual CBT [4]. However, this treatment is limited when used among college students because most of them do not have stable partners to help them fight with alcohol use disorder.

#### 4.5. Motivation Interventions

Some cases of alcohol use disorders are caused by drinking motives. By finding some alternatives to solve college students' social needs and stress releases, some college students would be willing to quit heavy alcohol use. Also, by proffering education about the negative consequences of alcohol and counseling services, the drinking motives could be reduced. A study confirmed that the combination of the Timeline Follow Back (TLFB) to backtrack the amount of alcohol use in the past three months and the motivational intervention had a long-lasting influence to reduce alcohol assumption [4].

### 5. Conclusion

Overall, taking care of college students' alcohol abuse becomes an urgent problem that all people should take seriously because alcohol dependence would have a negative influence on students' body health, daily life, academic career, and future occupations. Social norms, university atmosphere, parental and peer influences, and students' drinking motives and cognitions shaped by these external factors are variables that could be controlled or prevented, especially when students are experiencing the period from high school to college. By both paying attention to these variables and utilizing suitable treatments to avoid worse results, students can prevent themselves from struggling with alcohol use disorder.

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