

# Understanding the impact of different factors in the treatment of drug related substance abuse disorders

## Abstract

This study explores different factors that impact the treatment of drug related substance abuse disorders. These disorders are prevalent across all age groups, ethnicities and cultures. Factors such as age and gender in particular have an impact on the treatment that is offered and also the relapse rate. The review focuses on how women tend to get have easier access to aid, while men due to lack of treatment access are more prone to relapse. Treatments have different strategies and impacts for different age groups too. While senior citizens do not get recognised as people who need aid, adolescents seem to have quite a few different ways of treatments available. Different strategies such as religion, family and structured therapy have also been discussed to see how various approaches impact treatment of drug related disorders. In conclusion, it has been discussed how this information about different factors and strategies can be combined to develop universal, yet personalised intervention and treatment programs.

**Keywords:** substance abuse, treatment, drug, strategies, factors

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## Introduction

Substance use disorder, more commonly known as “drug addiction”, is a condition that affects the person’s brain and behaviour, due to excessive and regular intake of substances like Antianxiety and sedative drugs, caffeine, cannabis, including marijuana and synthetic cannabinoids, hallucinogens, which include LSD, phencyclidine, and psilocybin, Inhalants such as paint thinner and certain glues, opioids that include fentanyl, morphine, and oxycodone and stimulants such as amphetamines and cocaine. Research and reality both prove that once an individual is addicted to these substances, they do not stop the intake, even when it causes personal harm (mental and physical) or harm to people around them.

Drug addiction is a gradual process that can start with experimental use of a recreational drug in social situations, and, for some people, the drug use becomes more frequent. In some cases, particularly with opioids, drug addiction begins with exposure to prescribed medications, or even getting them via a friend or relative who has been prescribed the medication. The risk and rate of addiction and varies by the drug and usage. Some drugs, such as opioid painkillers, have a higher risk and cause addiction more quickly than others. Gradually, the person needs higher doses to get high and feel good, as these drugs directly activate the brain’s reward system and yield feelings of pleasure.<sup>1</sup> The activation of these pathways may be so strong that people experience intense cravings for the substance. They may often neglect normal activities to obtain and use the drug. The individuals also face withdrawal symptoms that include dizziness, sweating shaking, bouts of anger and hostility and disconnect from reality.

The terms “addiction,” “abuse,” and “dependence” have traditionally been used in regard to people with substance use disorders. However, those terms are all too loosely and variably defined to be very useful and also are often used judgmentally. Thus, doctors and practitioners now prefer to use the more comprehensive

and less negative term “substance use disorder.” Different factors influence how people get addicted to drugs. These factors include physical or genetic characteristics, which discusses a person’s genetic predisposition to getting addicted, personal characteristics such as low levels of self-control or impulsivity or high tendency for performing risk taking behaviours.<sup>2</sup> However, strong empirical support has not been found for the personality based causes yet. And finally environmental and circumstantial factors such people who are depressed or have seen friends abuse the drug, or live with family members who are addicted or get the drugs as prescribed medication and so on. While all these factors exist, it is usually a mix of the causes that leads to addiction.

Treatment for substance abuse disorders is another major area of research. It is specifically because, there are so many different links and causes as to why an individual develops addiction to a substance and the interplay between genetic and environmental factors creates individual differences that impact the development of a treatment plan. While rehabilitation and treatment centres usually have set plans for people based on the type of drug and intensity of addiction, these plans are quite often modified to suit the patient’s situation based on the diagnosis of a clinician or a doctor. Scientific research has been conducted since the 1970’s to understand the principles of an effective treatment program, because while drug addiction can be treated it is an extremely slow and difficult process, impacted by several variables.

These principles highlight points such as how no single treatment is right for everyone and for the treatment to be effective; patients must stay in long enough. Treatment plans also need to be reviewed regularly and modified according to the patient’s needs. Counselling and group or family therapy is universally adopted as ways to treat addiction. Medication is also used for treatment along with behaviour therapies. Treatment programs must also target other comorbid diseases or disorders that are often present with drug addiction such as HIV/AIDS or depression. This review aims to understand

the different treatment approaches used to treat substance abuse disorders due to drug use with different populations and cultural and medical contexts, to identify the underlying commonalities between successful treatment interventions.

### Factor of age and its impact on treatment

Research by Koechl, et al.,<sup>3</sup> focuses on the age related aspects of treatment for drug addiction. The study highlights how the prevalence of illicit drug abuse or dependence in people aged 50 years and older is very low (only 0.33% for any abuse or dependence, 0.12% for marijuana abuse or dependence and 0.18% for cocaine abuse or dependence). The results, however, also show that the prevalence rate for drug abuse increases to 4% in people aged 65 years and above, especially men. One of the major conclusions of the study was the fact that senior drug users are often an unnoticed marginal group. However, based on the socio-demographic development, older individuals with addiction problems are becoming a very important group, especially considering the expected increase in numbers over the next decade. Effective treatment options for this age population could be explored via further research to cater to the increasing prevalence of the disorder.

Another study done by Hulvershorn et al.,<sup>4</sup> discusses the psychopharmacologic treatment of children prenatally exposed to drugs. The study compared the treatment and clinical outcomes of patients with psychiatric disorders, who were exposed to drugs abuse while in utero and compared with an age and gender matched population, with no in utero exposure to drugs and no psychiatric problems. The study found out that the experimental group (n = 30) exposed to drugs in utero had a higher total number of lifetime medication trials as compared to the non-drug-exposed group (n = 28) and were taking significantly more total medications, at their final assessment. Unlike the non-drug-exposed group, the drug-exposed group demonstrated a lack of clinical improvement. The study emphasises how participants with psychiatric disorders usually have been exposed to drugs during the pre-natal stage and the study gives important information regarding the impact of this drug abuse later in their lifetime. Even with extra medication trials, this group does not show a lot of clinical improvement, which is detrimental to everyday life. This emphasizes the fact that even with increased medical treatment, there are often times no or very little clinical improvements, which points out a potential research area for supplementary treatment interventions to be explored.

Palmer et al.,<sup>5</sup> explored the drug use patterns for college students and their outcomes. The research found out that the frequency of marijuana use and medication misuse in the past month was related to increased negative consequences and personal concerns even when controlling for the frequency of past month alcohol use. There were relatively few differences as a function of gender or year in college. The students also conveyed as a majority, little to no interest in the outcomes or implications of drug abuse. Despite this overall low concern about their drug use or medication misuse, 55% reported moderate or greater interest in at least one type of substance use intervention. The top two commonly endorsed interventions were "brief feedback and counselling" and "talk to a trusted teacher, administrator or coach". This provides further implications as to what kind of treatment intervention would be preferred by a certain age group

### Gender as a factor and its impact on treatment

Gender is another important factor that often differentiates between how people enter treatment, continue with it or even

dropout. It is therefore, important to explore what are the different implications that a person's gender has on their use of drugs and the following treatment. Abadi et al.,<sup>6</sup> conducted a study specifically on the population of Afghanistan to understand how gender differences impact drug abuse treatment. With a sample of 504 women and men in seven drug abuse treatment or DAT centers in Afghanistan, the analyses examined whether gender differences exist for patients (1) at treatment entry, (2) at treatment dropout, and (3) for treatment outcomes. The results explained how differences tend to be found based on entry time, crime rates and impact of social functioning. Women tend to remain in treatment centres longer than men and also benefit more from social functioning, whereas men tend to dropout more frequently and are involved in crime more than the female counterparts. Another study done by Marsh, et al.,<sup>7</sup> examines the impact of comprehensive services on treatment outcomes for women and men. Data was collected over five years and consists of 3,142 clients (1,123 women and 2,019 men) from 59 treatment facilities. The results found out that substance abuse treatment aids both women and men. Further, both women and men profit from comprehensive services provided as part of substance abuse treatment: specifically, the receipt of educational, housing and income support services is related to reduced post-treatment substance abuse for both women and men. Gender differences were found in terms of amount of services availed; more women than men had access to such services and when all other factors were controlled, women also showed less relapse back to drug use after treatment. These findings, highlight a similar trend showing that women receive more aid and benefit more from socio-cultural support. Due to the fact that men do not receive as much treatment and often drop out early, they face higher chances of relapse and also exhibit criminal activities.

While gender differences are usually studied with adults who are substance abusers and seek treatment, they also exist with adolescent drug abusers. A study by Kloos, et al.,<sup>8</sup> reviews gender differences in adolescent substance abuse. The study found that females often have more factors that complicate their care when they begin substance abuse treatment, including family, social, and employment problems. Female substance abusers progressed through the stages of substance abuse more quickly than males and experienced a more rapid onset of physical and social consequences. These results are interesting to note because further research also shows that male and female adolescents begin to drink at the same age.

When discussing gender, one can also see research gaps in exploring the relationship between drug use and the gay, lesbian and transgender populations. While not much research is done in this area, this gap is being covered in recent times. Hughes et al.,<sup>9</sup> conducted a study to substance use among participants of different sexual and gender orientations. The participants reported how they do not have access to proper health care, let alone specialised treatment for drug use. As treatment centers in general do not understand their gender differences, their needs often go unmet, which leads to relapse and further drug abuse. Trans individuals reported various problems with discrimination that may limit their ability to recover. Overall, there were significant barriers to recovery expressed by the study participants. Treatment and self-help programs need to make their programs more inclusive to trans men and women as the negative experiences experienced by them will likely affect their recovery.<sup>10</sup>

### Analysing different treatment methods

Varied treatment methods are developed over the years to target the needs to different populations. These methods include medication, rehabilitation centres, family therapy, counselling, social functioning

based interventions and much more. Prevention based programs have also been developed by schools and government organizations over the globe to stop the increasing amount of substance abusers. This section of the review tries to understand the impact of different methods of treatments available for substance abuse disorders. A study done by Kaye<sup>11</sup> specifically looks at the treatment and rehabilitation offered to substance abusers who are criminal offenders. The qualitative study sheds light on the lived experience of drug offenders in harsh rehabilitation centres, where the constant yelling and frequent maltreatment which must be counterproductive, somehow produces effects. The goal for these offenders is to somehow integrate themselves into the society, even if it is with a low paying menial job rather than going back to the illegal activities and drug use. While this approach is accepted by the participants, considering they have no choice, the applications of the study can be used to develop better systems for rehabilitation that cater to the goal of social and financial security but in more humane and considerate ways.

Religion is another factor that is often used as a motivator during treatment. Since many religions and minorities in the world consider drug use as a taboo, it is an interesting topic to explore and Al-Omari, et al.,<sup>12</sup> conducted a study to understand religious factors role during recovery period among Jordanian receiving treatment for alcohol. Through open ended questionnaire's and qualitative interviews, the theme that emerged from the study was that religion does play a role during the recovery and treatment process and is also seen as a protector from relapse, after rehabilitation. Increased involvement in religious practises and involvement with religious men, was found to reduce intake of alcohol and drug related substances. This finding has several implication, as it can be used as a part of other prevalent rehabilitation programs. Since religion is also seen as something ones does in a community setting, social support can be offered which has been linked to progress during rehabilitative treatment.

Another important method of treatment comes in the form of counselling and family or social support. These are important means of treatment, as drug dependence is not only a physical or biological issue, it has social and psychological dimensions too. Gossop, et al.,<sup>13</sup> carried out a study that investigates the relationship between the type and severity of drug and alcohol use problems, and the provision of drug- and alcohol-counselling in methadone programmes. The sample consisted of 276 participants receiving outpatient treatment and follow-ups were done six months later via face-to-face interviews. The results show that drug-focused counselling was associated with less frequent heroin and cocaine use at follow-up, but was not related to pre-treatment drug use. The implications of the study indicate that there are complex interactions between presenting substance use problems, provision of counselling and treatment outcomes. These interactions differ by substance type. Thus counselling can be explored as much more favoured treatment option as it caters to the needs of the abuser without any external medication and also helps build a strong psychological framework to prevent future relapse. While discussing social support based treatment methods, family based structured interventions also come into the picture. Szapocznik et al.,<sup>14</sup> conducted a research to provide evidence for the effectiveness of a strategy for engaging adolescent drug users and their families in therapy. The participants of the study were 108 Hispanic families, where an adolescent was suspected of or was caught using drugs. The study used the intervention method based on strategic, structural, and systems concepts. 77% of subjects who very engaged in the structural approach with their families during treatment completed the treatment as compared to 25% of subjects in the control condition of engagement as usual. This study highlights the impact of structural

approach to therapeutic treatment with the client's family as a support structure. Successful completion of this program by the experimental participants provides evidence for the value of family interventions and their capability to reduce dropout rates.<sup>15,16</sup>

## Conclusion

In conclusion, it is evident that factors of age and gender significantly impact treatment for drug related disorders. While more research needs to be done for populations like senior citizens over the age of 65 and young children between five to ten years old, we know that the age of the abuser does have an impact on what kind of treatment would be effective and also how long it will take and the possibilities of relapse. Further, gender also plays a crucial role in determining treatment and its outcomes. While women have more access to aid, they take longer to get treated. On the other hand men do not have easy access to aid, but get better quickly and yet face higher chances of relapse.

The type of treatment offered also impacts the outcomes. Family based structured therapy is proven to be effective with many age groups. Religion is also another factor that can be used for interventions and has positive effect on the outcomes and reduced relapse rates. After understanding how positive therapy, counselling and humane conditions promote the wellbeing and welfare of people with substance abuse disorders and improve the treatment outcomes, further research can be conducted as to understand how these different effective approaches could be combined to present a treatment or intervention plan that has applicability across age groups, populations and contexts and how such an intervention could be carried out to see the outcomes.

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## Conflicts of interest

The author declares there are no conflicts of interest.

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