Defence Mechanisms &Personality Factors in Substance Abuse Patients

Ankita Wadhawan*

Department of health and personality development India

*Corresponding author:
Ankita Wadhawan

✉ wadhawanankita371@gmail.com

Department of health and personality development India

Abstract

Aim and Background: Defence Mechanisms are known to be the actions of the ego that take place in times where anxiety arises due to intrapsychic conflict in an individual's mind. Personality can be defined as a set of characteristics that are relatively permanent and lifelong (Schultz & Schultz, 2005). Substance abuse is the term used when the tolerance for the substance increases, absence of the substance gives withdrawal symptoms, and its consumption causes clinically significant distress in social, occupational or recreational life (APA, 2013).The present research attempts to understand the relationship between the above three constructs.

Method: Purposive sampling was done from two de-addiction and rehabilitation centres (N=100), and the following three questionnaires were used: The CAGE- AID by Brown and Rounds (1995) was used to screen patients for substance abuse, PID V-BF by Krueger, Derringer, Markon, Watson, Skodol (2012) was used to assess personality dysfunction, the Defence Mechanisms Inventory by Mrinal and Singhal (1984) was used to assess the clusters of defenses being used by the patients.

Results: The findings suggested a significant positive correlation between substance abuse and Negative affectivity domain (.264, p= .008) and Disinhibiting domain (.225, p= .024) of personality dysfunction; and a significant positive correlation between substance abuse and Turning against object cluster (.242, p= .015) of defence mechanisms in patients. These findings were consistent with the literature review.

Findings: These findings may have implications in treatment by identifying the ego defenses that the patient uses in the course of treatment and aiming towards the eradication of any such maladaptive defenses in order to increase the acceptance of the patient towards the treatment.

Keywords: Defence mechanisms; Dysfunctional personality; Substance abuse

Citation: Wadhawan A (2022) Defence Mechanisms &Personality Factors in Substance Abuse Patients. Health Sci J. Vol. 16 No. 8: 968.

Question and Answer

What do we already know about this topic?

A wide range of research on addiction and personality disorders suggests a high co morbidity between substance abuse and cluster B personality disorders, especially anti-social personality disorder and borderline personality disorder. Further, it has been found that substance abusers use less mature and more neurotic and immature defense styles than the control group.

How does your research contribute to the field?

Although correlational studies to understand personality disorders and defense mechanisms associated with substance abuse have been conducted, there is a paucity of such research in the Indian context. The current research would contribute to alleviation of this lacuna.

What are your research's implications towards theory, practice, or policy?

The current paper not only adds to the theoretical understanding of the association between personality traits, defence mechanisms and substance abuse, but also would make significant contributions to practice. De-addiction focuses primarily on abstinence. This research broadens the understanding of substance use and abuse by highlighting the underlying personality and defence style dysfunctions. It would thus contribute to making substance abuse treatment more holistic by addressing underlying factors to prevent relapse and make the individual more susceptible towards treatment.

Introduction

The World Health Organization (WHO) defines substance abuse as "the harmful or dangerous use of psychoactive substances, like alcohol and illicit drugs. Psychoactive substance use can lead to a dependence syndrome which is a group of behavioural, cognitive, and physiological phenomenon that develop after continued substance use. It usually includesa) a strong desire to use the drug, b) problems in controlling its use, c) persisting in its use despite damaging costs, d) a higher precedence given to drug use than to other activities and obligations, e) increased tolerance, and f) sometimes a physical withdrawal state" (WHO, 2019)1. Moreover, the use and abuse of substance is ever increasing- according to the statistical reports by the World Health Organisation 2014, there has been a 15% rise in the per capita consumption of alcohol (in litres) in Indian urban area from the year 2003-2005 to 2008-2010. Having really fatal health related consequences, research with implications in substance abuse treatment is really crucial.

Substance can be defined as the range of entities, whether natural or artificial in origin, which, taken into the body in sufficient quantities, exerts a non-negligible effect on a person's perception, cognition, emotion, and/or behaviour [1, 2]. The DSM-V recognizes substance-related disorders ensuing from the use of ten separate classes of psychoactive substances: alcohol; caffeine; cannabis; hallucinogens (phencyclidine or similarly acting arylcyclohexylamines, and other hallucinogens, such as LSD); hypnotics, inhalants; opioids; sedatives, anxiolytics; stimulants, tobacco; and other or unknown substances [3].

Some or the other substance is consumed, ingested or used by most people at some or the other point in their lives. However, after it reaches a point where the tolerance for the substance increases, absence of the substance gives withdrawal symptoms, and its consumption causes clinically significant distress in social, occupational or recreational life, it is termed as substance abuse [3].

In a report by the United Nations titled World drug report 2018, it was seen that- globally, deaths directly caused by the use of drugs increased by 60 per cent from 2000 to 2015. 27 % of these deaths were those over the age of 50 in the year 2000, however, the number had risen to 39% by 2015.About three quarters of deaths from drug use disorders among those aged 50 and older are among the ageing cohort of opioid users [4].

While it is eminent that the issue of substance abuse is a growing menace, what add pain to the injury are the difficulties in its treatment. An estimated 20 million people above the age of 12 needed treatments for a substance use disorder by the year 2017. However, only 4 million people received such treatment, which surmounts to only 19% of those who needed it. Not just this, of the more than 18 million people who needed but did not receive treatment for substance use, only 1 million, or 5.7%, of those people felt they needed treatment Substance Abuse and Mental Health Services Administration [5]. Thus, it can be said that over 17 million of those who suffered from substance abuse actually denied it as even being an issue. One explanation for the same could be use of defense mechanisms by the ego to overcome the anxiety caused by the problem. Defense mechanisms work on an unconscious level [6].

The concept of defense mechanisms came into being through the conceptualisation of the idea of repression by Freud in the years 1893. This led to the concept of defenses. These defences were further worked upon by Anna Freud and other Psychologists in later times. Defence Mechanisms are known to be the actions of the ego that take place in times where anxiety arises due to intrapsychic conflict in an individual's mind. Intrapsychic conflicts are caused by incongruence between the id, ego and the superego.

Looking further into the difficulties faced in the treatment of substance abuse, statistics show that the relapse rate for substance use disorders is estimated to be between 40% and 60%. This rate is similar to rates of relapse for other chronic medical diseases such as hypertension or asthma [7].

Various researches studying personality disorders and substance abuse show that various dysfunctional personality traits are not only co-morbid but also sometimes a predictor for substance abuse [8, 9].

Personality is the unique and relatively stable ways in which people think, feel, and behave [10]. There are various theories that talk about how personality is formed and when it stops developing. But one thing these theorists more or less agree upon is that personality is formed early on in the childhood, and is shaped through an interaction of a person's genetic and/or environmental factors.

It is when these enduring aspects of a person's character start causing hindrance or disturbances in the person's behaviour in different situations that a personality dysfunction arises. Personality traits that are dysfunctional can be grouped into 5 broad headings covering a total of 25 such traits. These traits fall under the headings of negative affectivity, detachment, antagonism, disinhibits ion and psychoticism [11].

A wide range of research on addiction and personality disorders suggests high co morbidity between substance abuse and cluster B personality disorders, especially anti-social personality disorder and borderline personality disorder [12-15]. In relevance to the specific co morbidity of Cluster B PDs and SUDs, the factors of importance are disinhibited externalizing and antagonistic externalizing [16, 17].

SUDs, ASPD, and BPD are thought to share a broader externalizing symptom dimension, which helps to explain their co morbidity. Personality dysfunction is highly related to SUD onset, which builds upon the significance of taking into account such findings within the personality and symptom domains of disinhibition and negative affectivity, which would partially explain the long standing associations between SUDs and PDs [17].

Disinhibited personality traits, such as excitement seeking, impulsivity, and low harm avoidance, are thought to reflect a basic vulnerability toward alcohol use disorder [18].

Substance abuse treatment, thus, should not only focus on temporary abstinence or short-term management of withdrawal

symptoms but must also include long-term strategies for reducing relapse and improving the over-all quality of patients' medical as well as social live.

This research attempts to explore the relationship between the above mentioned three constructs of Substance Abuse, Defense Mechanisms and Dysfunctional Personality Traits with implications in the treatment and even prevention of substance abuse.

Review of past literature revealed that drug consumption is seen as a means to alleviate negative states. In relation to personality traits and drug abuse patterns, disinhibited personality traits were found to be highly related to alcohol consumption. Of these traits, impulsivity and low harm- avoidance were the most highly correlated. It was also found that personality disorder traits like borderline and antisocial personality traits were highly correlated with cannabis use as well as abuse [8] and alcohol use disorder also [9]. Another study that explored the relationship between alcoholism and self-rated personality using the multidimensional personality questionnaire and DSM criterion for alcoholism. It was found that alcoholics scored consistently higher on all indicators of negative affectivity and significantly lower on those of constraint as compared to the control group. It could be thus concluded that individuals with high negative affectivity and low behavioural inhibition are at higher risk of alcoholism. It was additionally proved that negative affectivity and difficulties with emotion regulation are widely considered relevant risk factors for the development and maintenance of substance use disorders.

Research surrounding the formation and style of defense mechanisms showed that nurturing childhood environments lead to more adaptive defense styles in early adulthood which is associated with healthier midlife functioning at work and in relationships. It was also seen that defenses of identification and projection were used more frequently than denial at all the 3 stages and the use of former 2 increased from early to late adolescence.

Researchers have shown that neurotic defenses are most prevalent in relapsing addicts. Neurotic defenses include undoing pseudo-altruism, displacement, and cancellation. Moreover, it was found that substance abusers used less mature and more neurotic and immature defense styles than the control group. Immature defense mechanisms include rationalization, projection, denial, dissociation, devaluation, acting-out, somatization, and identification with the aggressor, splitting, passive aggression, displacement, and isolation. According to the classification turning against others cluster consists of defenses like displacement and identification with the aggressor.

On the basis of the above reviews, the following hypotheses were formed:

H1- There is a significant positive correlation between substance abuse in patients and negative affect as well as disinhibition domains of dysfunctional personality traits.

H2- There is a significant positive correlation between substance abuse in patients and Turning against others cluster of defense mechanisms.

Presentation of Methods

Participants

The study involved 100 male participants who were seeking treatment from different de-addiction/rehabilitation centres in Delhi NCR region. The technique of sampling that was used was purposive sampling. The mean age of participants was 32 years. The mean years of education for this sample was 12 years, that is, till 10+2 level of schooling.

Tools

The CAGE- AID by Brown and Rounds (1995) was used to screen patients for substance abuse. It is a four item questionnaire. "CAGE" is an acronym formed from the italicized words in the questionnaire (cut-annoyed-guilty-eye). AID stands for Adjusted to Include Drugs as the original version was meant for alcohol use only. Leonardson, Kemper, Ness, Koplin and Daniels (2005) found that the reliability coefficients for CAGE-AID were above .90 and appeared to have sufficient concurrent and divergent validity indicated by moderate correlations with the General Well-being Schedule (rs=-.39 and -.36), the Family-Adaptation, Partnership, Growth, Affection, and Resolve (r =-.47 and -.36), and the Beck Depression Inventory-IT (r = .36 and .29).

The Defense Mechanisms Inventory by Mrinal and Singhal (1984) was used to see the clusters of defenses being used by the patients. It is a 200 item questionnaire which was used in its Hindi form and male version. Test retest reliability for the five range from .80 to .92 (TAO=.86, PRO = .80, PRN=.82, TAS=.87, and REV =.92). Construct Validation: 15 defenses were provided by Gleser and Ihilevich (1969) to three psychologists and seven social workers and they were asked to match each of the 240 responses of the original DMI with one defense from the list. They found satisfactory agreement.

For the measurement of personality dysfunction, PID V-BF by Krueger, Derringer, Markon, Watson and Skodol (2012) was used, which is a 25 item questionnaire with 5 domains of personality dysfunction traits and each item representing one trait. In a research by Fossati, Somma, Borroni, Markon, and Krueger, Cronbach's alpha values for the PID-V-BF scales ranged from .59 (Detachment) to .77 (Psychoticism), while that for the total score was 0.83.The 2 month test-retest reliability scores showed adequate temporal stability with r values ranging from .78 (negative affectivity) to .97 (detachment) (p.001).

Statistical Analysis

For statistical analysis, descriptive analysis was done in order to find out the Mean and Standard Deviation of the various domains of personality dysfunction trait and the clusters of defense mechanisms. This was done in order to be able to compare them with the norms. Thereafter, statistical tool of correlation was used in order to find the relationship between the variables of the research. To find the correlation between substance abuse in patients and the domains of personality dysfunction traits, Pearson's correlation was used. The correlation between substance abuse in patients and the clusters of defense mechanisms was found using the Spearman's r coefficient. The

proximal pool used for sampling was from the rehabilitation facilities for drug de-addiction in New Delhi, India; but the assumed target population are all individuals suffering from substance abuse, and seeking in-patient treatment for the same, especially in India. The tools that were used for the same have been validated and have high reliability for the same.

Analysis of Results

Personality Trait Domains

(**Table 1**)

Defense Mechanism Clusters

(**Table 2, Table 3 and Table 4**)

Table 1. Mean and Standard Deviations for PID-5-BF scores (N=100).

Domain	Mean	Standard Deviation
Negative Affect	9.93	2.61
Detachment	7.52	3.28
Antagonism	7.56	3.28
Disinhibition	9.79	2.98
Psychoticism	8.69	3.47

Table 2. Mean and standard deviation scores for D.M.I. (N=100).

Cluster	Mean	Standard Deviation
Turning Against Object (TAO)	39.09	4.66
Projection (PRO)	40.6	5.86
Principalization (PRN)	39.17	3.45
Turning Against Self (TAS)	38.14	4.69
Reversal (REV)	43.02	7.18

Table 3. Pearson's correlation between PID-V and CAGE-AID scores of substance abuse in patients (N=100).

Domains of Personality Traits	Correlation with CAGE-AID scores
Negative Affectivity	.264**
Detachment	-0.105
Antagonism	0.008
Disinhibition	.225*
Psychoticism	0.152

** p=0.008
 *p=0.024

Table 4. Spearman's Coefficient of correlation between defense mechanism clusters and CAGE-AID scores of substance abuse in patients (N=100).

Defense Mechanism Cluster	Correlation with CAGE-AID score
Turning Against Object	.242*
Projection	0.135
Principalization	-0.061
Turning Against Self	-0.115
Reversal	-0.195

*p=.015

Discussion

Hypothesis 1- There is a significant positive correlation between substance abuse in patients and negative affect domain of personality dysfunction traits.

It has already been found that the individuals extreme in both negative and behavioural disinhibition have especially high rates of alcoholism. In congruence with these researches, the hypothesis was formed. The analysis of the results showed that there was a strong positive correlation (r= .264 p= .008) between negative affect and substance abuse in patients. Other than this it was also found that there was a positive correlation (r= .225 p= .024) between disinhibition domain of personality dysfunction and substance abuse in patients. Even though correlation existed between substance abuse in patients and negative affect as well as disinhibition, the correlation between negative affect and substance abuse was stronger. No significant correlation was found between substance abuse in patients and the other domains of personality dysfunction like, detachment (r= -.105), antagonism (r= .008) and psychoticism (r= .152). Therefore, the hypothesis is verified for two domains.

Hypothesis 2- There is a significant positive correlation between substance abuse in patients and Turning against others cluster of defense mechanisms.

Researchers have shown that neurotic defenses are most prevalent in relapsing addicts (Hussain&Sabri 2012). Neurotic defenses include undoing pseudo-altruism, displacement, and cancellation (Martini et al., 2004). Moreover, it was found that substance abusers used less mature and more neurotic and immature defense styles than the control group. Immature defense mechanisms include rationalization, projection, denial, dissociation, devaluation, acting-out, somatization, and identification with the aggressor, splitting, passive aggression, displacement, and isolation. According to the classification by GIeser andIhilevich, (1969) Turning against Others cluster consists of defenses like displacement and identification with the aggressor. Spearman's r coefficient was used to find correlation between substance abuse in patients and defense mechanism clusters. Upon analysis of the results, it was found that there was a significant positive correlation (r=.242 p= .015) between substance abuse in patients and the Turning against Others cluster of defense mechanisms. The other clusters of defence mechanisms however showed no significant correlation. The correlation between substance abuse and Projection cluster of defense mechanisms was .135;Prinicipalization cluster and substance abuse was -.061; Turning Against Self cluster and substance abuse was found to be -.115; Reversal cluster and substance abusers was found to be -.195. Therefore, the hypothesis is verified for turning against others domain only.

Conclusion

The hypothesis 1 being verified goes to show the correlation between negative affectivity and substance abuse. The same being a precursor of substance intake could be further explored.

The hypothesis 2 being verified shows that substance abuse in patients are more susceptible to using defense mechanisms like displacement, identification with the aggressor or other such defenses that deal with conflict by attacking a real or supposed external frustrating object.

The implications of the study include the following

a) Further exploration in this field can help by developing preventive strategies in substance use by studying whether having these personality traits and practising these defenses makes a person more susceptible to substance intake.

 b) The findings may have implications in treatment as well by identifying the ego defenses that the patient uses in the course of treatment and aiming towards the eradication of any such maladaptive defenses in order to increase the acceptance of the patient towards the treatment.

However, the results should be seen in light of limitations of a relatively smaller sample size, and the drawn out and extensive nature of the questionnaire employed for the study.

References

1 World Health Organization (2019) International statistical classification of diseases and related health problems.

2 Durrant R, Thakker J (2003) Substance Use and Abuse: Cultural and Historical Perspectives. Thousand Oaks, CA Sage.

3 DK Anderson, C Lord (2013) American Psychiatric Association Diagnostic and statistical manual of mental disorders (5th ed.).

4 Kramer U (2010) Coping and defence mechanisms: What's the difference? Second act. Psychol Psychother. 83:207-221.

5 National Institute on drug abuse (2018) Drugs, Brains, and Behavior: The Science of Addiction: Treatment and Recovery.

6 Gillespe N A, Aggen S H, Neale M C, Knudsen G P (2018) Associations Between Personality Disorders and Cannabis Use and Cannabis Use Disorder: A Population Based Twin Study. Wiley online library.

7 Rosentrom T, Ystrom E, Torvik F A, Czajkowski N O, Gillespie N A etal. (2018) Genetic and Environmental structure of DSm-IV criteria for antisocial personality disorder: At wistful. Behaviour Genetic 47:265-277.

8 Ciccareli S K, White J N, Misra G (2018) Psychology 5thed New Delhi: Pearson.

9 Krueger RF, Derringer J, Markon K E, Watson D, Skodol A E, (2012) Initial construction of a maladaptive personality trait model and inventory for DSM-5. Psychol Med 42:1879-1890.

10 Dolan-Sewell R T, Krueger R F, Shea M T (2001) Co-occurrence with syndrome disorders. In: Livesley, J.W. (Ed.), Handbook of Personality Disorders: Theory, Research, and Treatment. Guilford: New York.

11 Fenton MC, Keyes K, Geier T, Greenstein E, Skodol A et al. (2012) Psychiatric comorbidity and the persistence of drug use disorders in the United States. Addiction 107:599-609.

12 McGlashan T H, Grilo C M, Skodol A E, Gunderson JG, Shea MT (2000) The collaborative longitudinal personality disorders study: baseline Axis I/II and II/II diagnostic co-occurrence. Acta Psychiatric Scandinavica 102:256-264.

13 Trull TJ, Freeman LK, Vebares T J, Choate A M, Helle AC et al. (2018) Borderline personality disorder and substance use disorders: an updated review. Borderline Personality Disorder and Emotional Dysregulation 5:15.

14 Kotov R, Krueger R F, Watson D, Achenbach T M, Althoff R R et al. (2017) The hierarchical taxonomy of psychopathology (HiTOP): a dimensional alternative to traditional nosologies. J Abnorm Psychol 126:454-477.

15 Koudys J W, Ruocco A C (2020) neurocognitive model of the comorbidity of substance use and personality disorders. Cognition and Addiction 79-89.

16 Finn P R, Fisher L, Mayer H, Ingram P, Howe L et al. (2020) Disinhibited personality, incentives, disincentives, and drinking related decisions. Alcohol Journal 82:53-61.

17 Tai B, Volkow ND (2013) Treatment of Substance use disorder: opportunities and challenges under the Affordable Care Act. Social Work Public Health 28:3-4.

18 Hogarth L (2020) Addiction is driven by excessive goal-directed drug choice under negative affect: translational critique of habit and compulsion theory. Neuro psycho pharmacology 0:1-16.