

A Correlative Study to Understand the Relationship between Depression, Anxiety, and Patients with Alcohol Dependence Syndrome

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ABSTRACT

The present study was carried out to learn the relationship between Depression, Anxiety, and patients with Alcohol Dependence Syndrome. Purposive sampling technique was used in the study and 30 participants were taken as subjects for the same. Initially, ADUIT (Alcohol Use Disorder Identification Test) was administered to screen the individuals with Alcohol Dependence Syndrome and later were administered Hospital Anxiety and Depression Rating Scale (HADS). The scores were then recorded and analysis using Pearson Product Moment Correlation. The results showed no significant relation between Depression, Anxiety, and patients with Alcohol Dependence Syndrome. It was concluded from this study. There is a very weak positive relationship between the above-mentioned variables.

Keywords: *Depression, Anxiety, Alcohol Dependence Syndrome, Alcohol Use Disorder Identification Test, Hospital Anxiety and Depression Scale*

The dependence syndrome according to (*The ICD-10 Classification of Mental and Behavioural Disorders, 1992*) can be defined as – “A cluster of physiological, behavioural, and cognitive phenomena in which the use of the substance takes a much higher priority for a given individual than other behaviours that once had greater value”.

The craving (generally strong, sometimes overriding) to consume psychoactive drugs, alcohol, or tobacco is the cardinal feature of the dependence syndrome. Some evidence might be present indicating that after a period of abstinence, return to substance use indicates a quicker re-emergence of additional features of the syndrome than transpires with nondependent persons.

It is also specified by the ICD-10 definition that 3 or higher than 3 of the above manifestations should have appeared together for at least 1 month, or if persevering for a period of less than 1 month, should have occurred collectively, repeatedly within a 1 year period.

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The diagnostic guidelines of dependence syndrome:

- An enhanced motive or increased urge to consume alcohol;
- Problems in controlling behaviour regarding consumption of substance in relation to the onset, cessation, or levels of usage;
- A physiological withdrawal state when consumption of substance has ceased or been reduced, as witnessed by the characteristic withdrawal syndrome for alcohol; or consumption of the same (or a closely related) with the intent of eliminating or escaping withdrawal symptoms;
- Indication of tolerance, such that large dosages of the psychoactive elements are required to obtain effects formerly produced by lower dosages;
- Gradual indifference toward alternate pleasures or interests due to the usage of psychoactive substance, an extra amount of time is required to achieve or consume the substance or to bounce back from its effects;
- Continuing with consumption of substance in spite of clear indication of the apparently harmful ramifications of it, such as damage to the liver through exaggerated levels of drinking, depressive mood states subsequent to times of substantial substance consumption, or drug-related deterioration in cognitive working; efforts should be invested in order to determine whether the user was actually, or could be predicted to be, conscious of the type of and level of the harm

Though alcohol helps a person to fall asleep faster, it eventually impairs a person's sleep pattern. Heavy drinkers are more likely awaken after a few hours and have difficulty falling back asleep. Due to heavy drinking, the gastrointestinal system is severely affected with a relatively common problem of an acute or at times severe inflammation of the esophagus or the stomach, often accompanied by vomiting or bleeding. High doses of alcohol results in deterioration of the heart muscles manifesting itself as irregular beats and signs of heart failure. Thus, one of the leading causes of early deaths in alcoholics is cardiovascular disease. Consumption of 8 or more drinks per day decreases the production of the white blood cells and also impairs the ability of these cells to migrate to the site of infections. Such kind of drinking also affects the stem cells, as well as increases the size of the red blood cells and also impairs the production of the blood platelets in the body. High rates of the majority of cancers are associated with alcoholism, especially tumors of head, esophagus, neck, stomach, liver, pancreas, colon, lungs, and also breast tissue.

The initiation of alcohol consumption probably depends largely on social, religious, and also on personality characteristics. The genetic characteristics such as risk-taking behaviour and impulsivity might also contribute to the development of alcohol intake. Approximately 60 percent of the genetic factors are responsible for the risk of alcoholism, while 40 percent were the environmental factors. A combination of psychological, sociocultural, biological and also other factors are responsible for the development of the severe, repetitive alcohol-related problems.

The presence of depression in alcohol-dependent patients is likely to influence the treatment process and outcomes in the study (1). The study was basically constructed to study the association between alcohol dependence and depression before and after the treatment of alcohol dependence. Identification of depression is considered to be important though not every alcohol-dependent person requires treatment with medication. The study was determined to look into the prevalence of depression among alcohol-dependent patients

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before and after detoxification and rehabilitation. A clinical trial with pre/post measurements on 188 alcohol-dependent patients at intake and after six months were used for the study. It was found from the study that the prevalence of depression among alcohol-dependent patients is high. At post-test, depressed patients had a statistically significant craving for alcohol and were later concluded that alcohol dependence is associated with major depression.

In order to characterize anxiety among the participants who were receiving treatment for alcohol use disorder was carried out (Domenico L. H., Lewis B., Hazarika M., Nixon S. J., 2017). This study was carried out to learn about the demographic in alcohol use disorder treatment seekers and associating it with characters of Generalized Anxiety Disorder (GAD). This study aimed to investigate the difference in the characteristics associated with respect to varying levels of anxiety symptomatology in inpatients with alcohol use disorder. For this purpose, general linear models, t-test, chi-square and also correlational analysis was administered to measure group differences among the three groups. One group included individuals with no GAD (n=256), one with anxiety subclinical in nature (n=85) and lastly the last group included those with GAD (n=61). The results showed a substantial difference between the group with no GAD and GAD individuals and no differences were to be seen regarding the subclinical and GAD groups. It was later stated that GAD levels of subclinical features should not be overlooked in assessing and treating alcohol use disorder patients.

METHOD

Tools Used:

1. Sociodemographic Details:

The details included here are gender, age, education, marital status, socioeconomic status, occupation, family type, residence, income, substance/s involved, age of onset, duration of drinking pattern, frequency of drinks and family history of Alcohol Use Disorder (Yes/No).

2. ALCOHOL USE DISORDER IDENTIFICATION TEST (AUDIT):

It is a tool developed by the WHO (World Health Organization) which was used to screening and also to measure the consumption of alcohol, behaviours related to drinking as well as problems related to alcohol. There are two versions of this tool namely-

- Administered by the Clinician and
- Administered by the participant himself.

On the basis of the terms related to the standard drinks, the patients will be supposed to respond to the items. The test also includes the list of an approximate number of standard drinks in different alcohol beverages. An obtained score of 8 or more is reflected to be dangerous and unsafe use of alcohol. Reliability and validity seem to be very high. High internal consistency (alpha of 0.94) was observed in the AUDIT. The test-retest reliability of the Alcohol Use Disorder Identification Test is high i.e., 0.98.

3. HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS):

This tool was designed and introduced by Zigmond and Snaith in order to assess anxiety and depression among the general medical population. The two modes of HADS administration is paper pencil and electronically. Time taken to complete the administration of the scale is 2-5 minutes. The severity of the symptoms ranges from mild to severe where scores from 8-10 are indicative of mild severity, 11-14 moderate severity and 15-21 severe intensity of symptoms. The scores of anxiety and depression are scored separately. This tool is useful to

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check the initial diagnosis and also to track the progression of the symptoms which are psychological in nature.

A quantitative paradigm was followed in this study. The researcher who developed the screening tool was approached. The study design was then taken into clearance by the ethical committee. The Rehabilitation Centres and the De-addiction Centres were shortlisted and the respective authorities were then approached for the proposed study and were explained about the same in detail. Written informed consent, disseminating information about the study was obtained from the institution authorities. Following this, the Alcohol Use Disorder Identification Test (AUDIT) was administered. After the screening tool is administered, the individuals were administered with the Hospital Anxiety and Depression Scale (HADS). The data obtained was recorded or noted down. The data was later analyzed and discussed accordingly.

SPSS 23. The version was used in this study. Pearson Product Moment Correlation was used to find out the relationship between Anxiety and Depression with the score obtained from the AUDIT.

RESULT

Table 1 Mean and SD of Depression Scale from HADS and AUDIT

Descriptive Statistics			
	Mean	Std. Deviation	N
TOTAL_D	7.93	4.441	30
TOTAL_AUDIT	26.27	10.252	30

Table 1 shows the Mean for the Depression scale of HADS which is 7.93 and for the AUDIT is 26.27 which is more than the depression scale. The dispersion form normal of AUDIT is more than the Depression scale of HADS which is 10.252.

Table 2 Correlation between the depression scale of HADS and AUDIT

Correlations			
		TOTAL_D	TOTAL_AUDIT
TOTAL_D	Pearson Correlation	1	.019
	Sig. (2-tailed)		.922
	N	30	30
TOTAL_AUDIT	Pearson Correlation	.019	1
	Sig. (2-tailed)	.922	
	N	30	30

Table 2 shows no significant relationship between the scores of depression scale from HADS and scores of AUDIT which is 0.92. It also shows a very weak positive relationship between the Depression scale of HADS and AUDIT which is 0.19.

Table 3 Mean and SD of Anxiety scale of HADS and AUDIT

Descriptive Statistics			
	Mean	Std. Deviation	N
TOTAL_AUDIT	26.27	10.252	30
TOTAL_A	9.87	4.826	30

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Table 3 shows the Mean of AUDIT i.e. 26.27 whereas for the Anxiety scale of HADS is 9.87 which is less than AUDIT. The dispersion from normal of the AUDIT is more than the Anxiety scale which is 10.252.

Table 4 Correlation between the Anxiety scale of HADS and AUDIT

Correlations			
		TOTAL_AUDIT	TOTAL_A
TOTAL_AUDIT	Pearson Correlation	1	.010
	Sig. (2-tailed)		.959
	N	30	30
TOTAL_A	Pearson Correlation	.010	1
	Sig. (2-tailed)	.959	
	N	30	30

Table 4 shows no significant relationship between the obtained scores of Anxiety scale of HADS and AUDIT which is 0.96. It also shows a very weak positive relationship between AUDIT and the Anxiety scale of HADS which is 0.10.

DISCUSSION

The aim of the current study was to learn the relationship between AUDIT and the Anxiety and Depression scale of HADS among patients with Alcohol Dependence Syndrome.

According to Table 2, the obtained correlation between the Depression scale of HADS and AUDIT was found to be not significant. This basically suggests that the occurrence of depression is molecularly responsible for the symptoms of alcohol dependence syndrome in an individual or vice versa which is in contrast to the earlier study (1). The earlier study apparently stated that the presence of depressive features was sufficient to create a craving in individuals with respect to alcohol use. The co-occurrence of both the disorders i.e. depression and alcohol use is highly possible as people might indulge in drinking in order to escape from the negative thoughts that are generated in them. In a study carried out by Davidson K., Ritson E in the year 1993 also stated that 4% of both gender population has been diagnosed with alcoholism and depression at one point in life simultaneously, using the depressive symptomatology. These contrast findings in the previous studies state that the co-morbidity of alcohol-dependent syndrome and depression are more likely to be possible.

It can be assumed that the nature of the on-going treatment would have resulted in the discrepancy between the test results of current and previous studies. In other words, it can be stated that due to the sample size being small in the current study, the results would have shown the discrepancy. Also, as the cause and its nature is not known or identified in the current study the obtained results have been such. Various other factors can also be responsible for observing such discrepancy in the results such as the duration of the illness, the severity of the illness, treatment duration, the coping style used by the patients, and the scales used in the study. Though the findings of the current study differ from the previous ones the above-mentioned factors can be considered in order to justify the discrepancy in the result obtained.

According to Table 4, the obtained correlation between the Anxiety scale of HADS and AUDIT was found to be not significant. This basically suggests that the occurrence of alcohol

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dependence syndrome only molecularly is responsible for the symptoms of anxiety in an individual or vice versa which is in contrast to the earlier study (Caldwell, T. M., and et al, 2002). The findings of the current study suggest that there is a very weak possibility for the occurrence or comorbidity of anxiety in patients with alcohol dependence syndrome. And the study carried by Caldwell states that lower levels of positive affect and higher levels of anxiety and depression were to be observed among patients with alcohol dependence syndrome irrespective of whether currently abstinent or not.

Such discrepancy can be seen firstly because of the small sample size used in the current study. The larger the sample the more reliable would be the result which can be generalized to the population. It was also found that during the treatment sessions, withdrawal symptoms were to be experienced by the patients leading to anxiety-like state. This explains the reason for the consumption of alcohol even during the ongoing treatment. This could not be observed in the current study due to the late administration of the tool after the rehabilitation of the patients was going to be completed. Therefore, this describes the factors which might be responsible for the discrepant obtained results. This also leads to the hope that a change in the results might be seen if a larger sample would be taken for the study and the administration of the tools be carried out in a timely and prospective manner.

CONCLUSION

The current study shows the molecular possibility of occurrence of alcohol dependence syndrome with respect to depression and anxiety was to be found.

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Conflict of Interest

The authors carefully declare this paper to bear not a conflict of interests

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