

**THE EFFECTIVENESS OF YOGIC EXERCISES ON DUAL
DIAGNOSIS TREATMENT OF ALCOHOLISM AND
DEPRESSION: AN EMPERICAL STUDY ON SARGUJA
DISTRICT**

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ABSTRACT

The purpose of the study is to investigate the effectiveness of yoga exercises on dual diagnosis (alcoholism and depression). To select subjects for experimental and control group; some criteria such as "depression scale" Scores and amount of SGOT and SGPT liver enzymes on blood of that addicted persons were considered. For the experimental group the yogic exercise as an independent variable was carried out, during 60-75 minutes lasting 4 months. During the period the control group did not receive any treatment. The results were discussed in the light of related literature.

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INTRODUCTION:-

Some people say they drink alcohol to "drown their sorrows" after a bad breakup, job loss, or other major life stress. Alcohol does have a sedative effect on the brain. A few beers or glasses of wine can seem to relieve anxiety and make you feel more relaxed and calm.

A drink once in a while when you are feeling stressed out or blue is one thing, but using alcohol as a way to deal with your problems could be a sign of alcohol abuse. Addiction and depression often go hand in hand. Depression may be the reason an addict begins using drugs or alcohol. Or, it may develop as the addiction progresses.

Depression is a physical and emotional condition that can impact every aspect of a person's life. At times, depression is mild, a temporary episode of sadness brought on by some outside stimulus. Other times, depression can be severe, leading to an inability for a person to cope with anything, which is known as major depression. The combination of substance abuse addiction and depression can have negative consequences on the physical and emotional stability of a person.

The Downward Spiral of Depression and Alcoholism

"Alcohol is a central nervous system depressant, which means that it slows down the body and the mind. In moderate to heavy amounts, it can make someone more depressed. If someone is already down, drinking alcohol will only increase the depression," explains "Richard Shadick", PhD, director of the counseling center and adjunct professor in the psychology department at Pace University in New York City.

Symptoms of Depression and Alcoholism

According to the National Institute on Alcohol Abuse and Alcoholism, alcoholism is defined by the following four symptoms:

- Craving: You have a strong desire to drink.
- Inability to stop: You lose control of how much you drink.
- Withdrawal: You feel sick when you stop drinking.
- Tolerance: You need more alcohol to get high.

By the overdosing of alcohol liver cells get damaged and level of some liver enzymes such as SGOT and SGPT in blood are increased. A test for elevated SGOT levels in the blood is

normally used in conjunction with other liver enzyme tests rather than on its own. High levels of AST compared to those of ALT, when both are above normal, are a marker for chronic alcoholism. If ALT is higher than AST, that's more typically an indicator of non-alcoholic liver disease of some kind.

Chronic alcoholism or alcohol abuse always calls for a blood test for liver enzymes to screen for possible damage to the liver from the high consumption of alcohol. Other risk factors include obesity, diabetes, and the use of certain medications (most notably anti-cholesterol medications) and a family history of non-alcoholic liver disease.

AST or SGOT (aspartate aminotransferase or serum glutamic oxaloacetic transaminase) normal range- 8/40 IU/L for men.

ALT or SGPT (alanine aminotransferase or serum glutamic pyruvic transaminase) normal range - 7-50 IU/L for men.

Common symptoms of depression experienced by people who abuse alcohol include intense sadness or hopelessness. Other signs of depression include changes in sleep or appetite, irritability, guilt, worthlessness, loss of interest in things you once enjoyed, and thoughts of suicide.

Dual diagnosis:-

Dual diagnosis (also called co-occurring disorders, COD) is the condition of suffering from a mental illness and a comorbid substance abuse problem. There is considerable debate surrounding the appropriateness using a single category for a heterogeneous group of individuals with complex needs and a varied range of problems. The concept can be used broadly, for example depression and alcoholism, or it can be restricted to specify severe mental illness (e.g. psychosis, schizophrenia) and substance misuse disorder .

When a person has an alcohol and or drug dependency and a mood disorder they are considered to have a dual diagnosis, co-occurring disorder. This condition used to be referred to as a dual diagnosis and has recently changed to co-occurring disorder. There is a high rate of co morbidity or dual diagnosis among people who suffer from addiction and mental health disorders. The greatest danger of depression and alcoholism is suicide. According to the American Foundation for Suicide Prevention, the combination of depression and alcoholism causes more than 75 percent of all suicides. "In some people with depression, there is a strong link between alcohol and suicide," says Dr. Shadick. This reality requires accurate diagnosis and

appropriate dual diagnosis treatment. The first step for the treatment of dual diagnosis is acceptance.

Acceptance:-

Just like alcoholism and addiction, acceptance is the first step. Once we accepted we have a problem we are able to work on it, therefore if we accept we have a mental or behavioral disorder we can get the medical help we need. Getting sober and dealing with our substance abuse is our primary concern because if we don't get off the alcohol and drugs we will never be able to deal with our mental disorder.

Yoga is a common practice for people who want to bring a sense of calm into their lives, get into shape, or connect with their spiritual side. It is also becoming a more common component of dual diagnosis treatment.

In the light of the above literature the purpose of this study is to investigate the effects of yogic exercises on rehabilitated addicted person's alcoholism and depression.

Yoga and Dual Diagnosis:-

It's very common for people with a mood or mental disorder such as depression, anxiety, PTSD or bipolar disorder to use drugs or alcohol to cope with their symptoms. Yoga is a great way for people with a dual diagnosis to overcome their substance abuse problem and alleviate their mood/mental disorder symptoms. In addition to the mental benefits of yoga, yoga also helps people in addiction recovery programs to detoxify their body, enhance physical and mental stamina, increase self-awareness, and reconnect with their inner spirituality.

Review of Literature

The effects of SKY on depression on 60 Alcoholic Dependant subjects were studied during Standard Detoxification Program organized by "**Mental Health Center Bangalore**" and the result of their experiment vindicates this present experiment. Two groups were formed:

1. Standard Alcoholism Treatment Control Group
2. Sudarshan Kriya Yog SKY Group

After three weeks the standard depression level in SKY group decreased 75% and in Standard Alcoholism Treatment Control Group decreased 60%.

Researchers at Boston University School of Medicine (BUSM) and McLean Hospital have found that practicing yoga may elevate brain gamma-aminobutyric (GABA) levels, the brain's primary inhibitory neurotransmitter. The findings, which appear in the May issue of the *Journal of Alternative and Complementary Medicine*, suggest that the practice of yoga be explored as a possible treatment for depression and anxiety, disorders associated with low GABA levels.

The acquisition of the GABA levels was done using a magnetic resonance spectroscopy technique developed by "**J. Eric Jensen**", PhD, an assistant professor of psychiatry at Harvard Medical School and an associate physicist at McLean Hospital. Using magnetic resonance spectroscopic imaging, the researchers compared the GABA levels of eight subjects prior to and after one hour of yoga, with 11 subjects who did no yoga but instead read for one hour. The researchers found a twenty-seven percent increase in GABA levels in the yoga practitioner group after their session, but no change in the comparison subject group after their reading session.

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According to **QJM: An International Journal of Medicine**, men diagnosed with major depression are nearly three times more likely to develop a dependence on alcohol, while women with depression are over four times more likely to become alcohol-dependent.

The 2011 USA National Survey on Drug Use and Health found that 17.5% of adults with a mental illness had a co-occurring substance use disorder; this works out to 7.98 million people.[4] Estimates of co-occurring disorders in Canada are even higher, with an estimated 40-

60% of adults with a severe and persistent mental illness experiencing a substance use disorder in their lifetime.

Only a small proportion of those with co-occurring disorders actually receive treatment for both disorders. In 2011, it was estimated that only 12.4% of American adults with co-occurring disorders were receiving both mental health and addictions treatment. Clients with co-occurring disorders face challenges accessing treatment, as they may be excluded from mental health services if they admit to a substance abuse problem, and vice versa.

According to Mridul Mishra and Rajesh k. Sinha (2001) depression level of rehabilitated alcohol addicted person decreased by yogic exercises.

METHODOLOGY:-

In this study subjects were purposely selected from "Nasha Mukti Kendra" of Surguja district, Chhattisgarh. To determine the depression level of subjects depression scale was applied to 190 addicted persons and to determine the effect of alcoholism, levels of SGOT and SGPT on blood was taken by some liver functioning test. Total 45 subjects were assigned to experimental and 45 subjects were assigned to control group. The subjects were assigned to experimental and control groups randomly. Addiction period of the subjects was 5 to 7 years and they were more or less healthy. Age range was 18 to 45 years having no physical problem such as Obesity, Diabetes or Heart disease.

Tools

- Depression scale by "Dr. Shamim Karim and Dr. Rama Tiwari" was used to measure depression.
- Some liver function test was done to measure level of SGOT and SGPT in blood.

Procedure

For the experimental group yogic exercises as an independent variable was carried out 60-75 minutes lasting 4 months.

Depression scale and liver functioning test was administrated to experimental and control group as a pre-test. The yogic exercises program was consisted of many sessions. First session includes detoxification, second session includes relaxation and other session includes behavior modification and cognitive restructuring. After taking pre-test report of liver functioning test and scores of depression scale, yogic exercises has been started for

experimental group. During this period the control group has not received any treatment and after yogic exercises post test was applied to both groups. Analysis was given on the basis of mean scores and S.D. scores of pre-test and post-test of experimental and control group.

Result and Discussion:-

MEAN SCORES AND S.D OF DEPRESSION

TABLE NO. - 1

EXPERIMENTAL GROUP				CONTROL GROUP			
PRE-TEST N=45		POST- TEST N=45		PRE-TEST N=45		POST-TEST N=45	
MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D
200	27.36	94.155	10.95	200.44	11.35	156.33	21.85

When we investigate table no.1 it can be seen experimental and control groups pre-Test scores mean were experimental group (M=200,S.D=27.36); control group(M=200.44,S.D=11.35). Experimental group Post-Test mean scores of depression (M=94.155, S.D=10.95) were much lesser than control group Post-Test mean scores (M=156.33, S.D=21.85). However control group post test scores were also lesser than Pre-test control group mean scores, but very less changes occurs in control group.

MEAN SCORES AND S.D OF SGOT IN BLOOD

TABLE NO. - 2

EXPERIMENTAL GROUP				CONTROL GROUP			
PRE-TEST N=45		POST- TEST N=45		PRE-TEST N=45		POST- TEST N=45	
MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D
110.9	18.1	31.3	6.57	109	18.2	60	3.4

When we investigate table no.2 it can be seen experimental and control groups pre-Test scores mean were experimental group (M=110.9, S.D=18.1); control group (M=109, S.D=18.2). Experimental group Post-Test mean scores of SGOT (M=31.3, S.D=6.57) were much lesser than control group Post-Test mean scores (M=60,S.D=3.4). However control group post test scores

were also lesser than Pre-test control group mean scores, but very less changes occurs in control group.

MEAN SCORES AND S.D OF SGPT IN BLOOD

TABLE NO. - 3

EXPERIMENTAL GROUP				CONTROL GROUP			
PRE-TEST		POST- TEST		PRE-TEST		POST- TEST	
N=45		N=45		N=45		N=45	
MEAN	S.D	MEAN	S.D	MEAN	S.D	MEAN	S.D
81.8	4.45	28.7	4.24	80	5.03	50	4.9

When we investigate table no.3 it can be seen experimental and control groups pre-Test scores mean were experimental group (M=81.8, S.D=4.45); control group (M=80, S.D=5.03). Experimental group Post-Test mean scores of SGPT (M=28.7, S.D=4.24) were much lesser than control group Post-Test mean scores (M=50, S.D=4.9). However control group post test scores were also lesser than Pre-test control group mean scores, but very less changes occurs in control group.

The result of this study indicated that the group experience based on the yogic exercises had a positive effect on both the depression level and alcoholism (on Dual diagnosis) of Rehabilitated addicted persons. When considered depression level and SGOT, SGPT enzymes level in blood of both experimental and control groups. The research hypothesis was accepted as expected direction. This is consistent with the previous findings that indicated the yogic exercises had a significant positive effect on experimental group (Mridul Mishra and Rajesh k. Sinha, 2001, Mental health centre in Bangalore, Levisohn and Moolani (1999), Nobul (1979), Robert E.Thayer .

It is important to note that besides experimental group, Control group Post-Test scores were also decreased .This means that some changes occurred independently from any intervention .The control group persons may be exhibit less depression and alcoholism because they are developing cognitive and social maturity and a disciplined life style that is not a result of any treatment. This situation can be interpreted that addicted persons has changed and they develop self-confidence and positive attitude towards life naturally over time .However experimental group mean scores still lesser than control group. This result is similar to Mridul

Mishra and Rajesh k. Sinha (2001) experimental study result that rehabilitated alcohol addicted person's depression level decreased by yogic exercises.

The effects of SKY on depression on 60 Alcoholic Dependant subjects were studied during Standard Detoxification Program organized by Mental Health Center Bangalore and the result of their experiment vindicates this present experiment. Two groups were formed:

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Yogic exercises provide a positive atmosphere of acceptance of negative situation like failure; emotional trauma etc. yoga develops self-confidence, encouragement and positive energy instead of negative energy.

Former substance abusers who practice yoga say that yoga fosters the kind of discipline and self-peace. That is because yoga forces your mind and body to work in perfect synergy.

Yoga therapy can release pent-up emotions that you might be feeling while in the course of substances abuse and depression treatment. You will learn how to acknowledge and properly channel these emotions when they seem over whelming many a sanas (or postures) facilitate acceptance, which is a major theme in many substance abuse treatment programs. Your body will manifest the internal states of mind necessary for recovery form substance abuse.

This study is a based on limited samples. Yoga exercises can be applied on different samples and different types of problematic persons. Further studies are necessary to determine which variables contribute to treatment of dual diagnosis.

As a conclusion yoga exercise could be beneficial for the treatment of dual diagnosis (alcoholism and depression) and this yogic exercise could be incorporated into every type of physical and mental problems.

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