

Original Article

Effect of Yoga and Naturopathy Interventions among Alcohol Addicts

Subbiah R¹, Anusha R², Prashanth S³

From, ¹Lecturer, Department of Microbiology, Atthi Naturopathy and Yoga Medical College, Gudiyattam, Vellore- 635806, ²Principal cum Professor, Department of Obstetrics and Gynaecology, Sree Ramakrishna Medical College of Naturopathy and Yogic Sciences Kulasekaram, Kanyakumari. Tamil Nadu 629161, ³Assistant Medical Officer/Lecturer Grade 2, Department of Yoga Philosophy, Government Yoga and Naturopathy Medical College and Hospital, Chennai 600106, India.

ABSTRACT

Alcoholism is a prevalent and deadly illness that is linked to mental health issues. Heavy drinking throughout adolescence harms a developing brain and may cause cognitive issues in later life. Symptoms of alcohol withdrawal syndrome usually include headache, nausea, hallucinations, sleeplessness, and moderate anxiety. Ten men between the ages of 30 and 50 who had a history of alcohol addiction for the previous five years were diagnosed using the AUDIT scale according to DSM-5 criteria. As part of their rehabilitation, they received yoga and naturopathy treatments such as mud packs, gastro-hepatic packs (GH packs), acupuncture, aroma oil head massages, gibberish meditation, and relaxation techniques for ten consecutive days. This study was designed as pre- and post-data collection and the paired samples t-test revealed a statistically significant difference ($p < 0.001$), the participants exhibited a substantial decrease in their alcohol consumption from pre-treatment (27.9 ± 4.01) to post-treatment (11.4 ± 2.84). Thus, Yoga and Naturopathy intervention helps to improve the physical and mental health status of the alcoholic individuals.

Key words: Alcoholism, Yoga and Naturopathy, Gibberish meditation, quality of life

Alcohol addiction, commonly referred to as alcoholism, is a disorder that impacts individuals from many socioeconomic groups. Other psychological symptoms are frequently linked to alcohol use disorders, which are prevalent and deadly illnesses. Researchers have attempted to identify genetic, sex, racial, psychological, and socioeconomic characteristics that may make someone more susceptible to alcoholism [1]. In 2014, the World Health Organisation reported that the total amount of alcohol consumed annually by those aged over 15 was 6.2 liters of pure alcohol, or almost 13.5 grams per day. Alcohol is one of the leading causes of mortality and disability in the globe, and this is also true in India. Every year, alcohol is responsible for 3.2% of all fatalities [2].

However, heavy drinking by adolescents may have negative consequences on growth, endocrine development, liver, and bone. Drinking alcohol when still young may harm the growing brain and cause cognitive issues in later life [3]. Usually, alcohol withdrawal syndrome manifests as moderate headaches, sleeplessness, gastrointestinal distress, and anxiety. Severe symptoms like alcohol withdrawal delirium can develop from this disease, which makes diagnosis and treatment extremely difficult. Drinking hallucination, which is characterized by visual or auditory hallucinations that often go away 48 hours after stopping drinking, can develop from mild

symptoms. Within a few hours of stopping alcohol, individuals may experience withdrawal seizures [4].

Yoga and naturopathy are drug-free medical practices that use non-invasive methods to treat a range of conditions. They are thought to be the best complementary and alternative medicine (CAM) option for treating psychological and metabolic disorders because they are safe and have not been demonstrated to have any adverse effects. A combination of therapies, such as massage therapy, yoga, diet, and hydrotherapy [5], may be able to help someone who is addicted to alcohol, counselling is combined with all of these strategies to assist the individual in overcoming alcoholism [6]. Therefore, this study aims to analyse the impact of Yoga and Naturopathy in the management of alcohol addiction.

MATERIALS AND METHODS

Study design

It is designed as a pre- and post-study design, using the AUDIT scale based on DSM-5 criteria from the 10 individuals ($n=10$) who participated in this study.

Participants

On the 5th of August 2024, a total of 10 male Individuals selected from the Institute of Natural Healing Hospital located

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Correspondence to: Dr. Prashanth S, Department of Yoga Philosophy, Government Yoga and Naturopathy Medical College and Hospital, Chennai, India.

Email: drprashanth513@gmail.com

in Telangana, between 30 to 50 years of age, who had a habit of alcohol addiction for the past 5 years and underwent Yoga and Naturopathy treatment for the 10 consecutive days as a part of rehabilitation. They were included in the study by obtaining informed consent and based on the inclusion criteria, as this study focuses on individuals aged 18 and above diagnosed with alcohol use disorder (AUD) based on DSM-5 criteria. Alcohol dependence meets DSM-5 criteria for Alcohol Use Disorder (AUD), while alcohol-related problems include health issues, social issues, and legal issues. Behavioral criteria include loss of control, withdrawal symptoms, tolerance, neglect of responsibilities, and continued use despite problems. Physical criteria include elevated blood alcohol concentration (BAC), abnormal liver function tests, and other biomarkers indicating excessive alcohol consumption.

Psychiatric criteria include co-occurring mental health disorders, cognitive impairment, neurodevelopmental disorders, schizophrenic disorders, OCD, sexual disorders, substance abuse, and alcoholic disorders, presenting with symptoms like insomnia, confusion, tremors, and altered mental states [7]. The exclusion criteria for this study include individuals with severe cognitive impairments or psychiatric disorders that prevent participation, those currently undergoing treatment for alcoholism or other substance use disorders, and individuals who are unwilling to provide informed consent [7].

Assessment

Alcohol Use Disorders Identification Test (AUDIT) is an alcohol screen that can help identify patients who are hazardous drinkers or have active alcohol use disorders. AUDIT Assessment contains 10 questions that help to diagnose the addictive status of the individual. Questions regarding the alcohol intake frequency, quantity of alcohol intake, and behaviour status along with rest are included in these questions. Each question contains a 0 to 4 score level. A total score out of 40 in that 0 to 7 indicates a low risk of addiction, between 8 to 15 indicates an increased risk of addiction, between 16 to 19 indicates a higher risk of addiction, and above 20 indicates possible dependence on addiction [8].

Intervention

A brief explanation was given about the mud pack, GH pack, effects of acupuncture, aroma oil head massage, and gibberish meditation to the selected individuals along with its effectiveness in their health. Mud pack placing the mud inside the cotton cloth and applying it over the eyes and abdomen every day both morning and night for 20 minutes before food time. GH pack application of hot fomentation pack over the abdomen and cold pack over the back especially on the lumbar region once a day at around 10 am for 20 minutes. Aroma oil

head massage application of lavender oil along with massage techniques over the head for 15 minutes every day once a time at around 7 pm Gibberish meditation in this technique asks to blabber the words and create some sounds to clear out the emotions for 30 minutes every day once a time at around 8 pm. Acupuncture by insertion of needles on specific points improves the energy level in the body for 20 minutes every day once a time at around 8 pm (The details are given in Table 1).

Statistical analysis

Data analysis was done using appropriate statistical tests in R statistical software version 4.0.2. for the parametric variable, the Paired t-test expressed the mean and standard error difference between the pre-and post-values with the P value of $< .001$, and the data were expressed in Mean and Standard deviation (SD).

RESULTS

The graph represents the improvement in withdrawal symptoms after the yoga and naturopathy interventions. The paired samples t-test revealed a statistically significant difference ($t(9) = 17.2$, $p < .001$) between pre-and post-treatment measures for alcoholism. Participants exhibited a substantial decrease in their alcohol consumption from pre-treatment (Mean = 27.9, SD = 4.01) to post-treatment (Mean = 11.4, SD = 2.84). The study shows improved physical and mental health status of alcoholic individuals with Yoga and Naturopathy interventions (given in Table 2, and Figure 1).

Table 1: Details of the intervention

Treatment	Duration	Frequency
Mud Pack to Eyes and Abdomen	20 Minutes	Daily Morning and Evening [Twice a day]
Gastro Hepatic Pack (GH pack)	20 Minutes	Once a day around 10 am
Aroma Oil Head Massage (Before Bed Time)	15 Minutes	Every day once around 7 pm
Acupuncture (St-36, P-6, H-7, Du-20, Ex-1)	20 Minutes	Once a day at 11.30 am
Instant Relaxation Technique [IRT], Quick Relaxation Technique [QRT] And Gibberish Meditation.	30 Minutes	Every day once at 8 pm

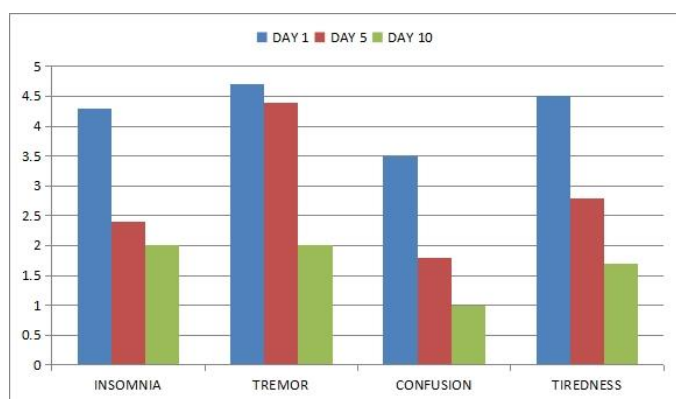


Figure 1: Total recovery from the symptoms before and after Treatment

Table 2: Results of the study

Paired Samples T-Test						
			df	p	Mean difference	SE difference
pre	post	Student's t	9.00	< .001	16.5	0.957

	N	Mean	SD
Pre	10	27.9	4.01
Post	10	11.4	2.84

Descriptives of the results; N=sample size, SD= standard deviation, df=degrees of freedom, SE=standard error.

DISCUSSION

This study shows that yoga and naturopathy interventions help to recover from withdrawal symptoms and improve the physical and mental aspects of life. This study revealed that Yoga and naturopathy also affect alcohol addictions. Mud is a combination of water and inorganic and organic materials that have undergone biological and geological processes when subjected to different physiochemical influences. Through dilating and absorbing the body's toxic substances, it eventually eliminates them from the body. It also relaxes skin pores, draws blood to the skin's surface, relieves pain and congestion inside the body, and encourages the removal of morbid matter and heat [9]. By increasing liver circulation and Kupper cell activity, the GH pack reduces the harm that alcohol causes to the liver's cells. The autonomic nervous system controls hepatic blood flow; however, norepinephrine's adrenergic stimulation causes a 35% drop in hepatic blood volume and a 15% rise in vasodilation, which suggests lower blood volume and greater oxidase activity. This same mechanism would work in hepatic blood flow reduction due to alcohol intake in individuals and in the GH pack the hot fomentation bag is kept on the abdomen which primarily helps

in increasing the blood flow. This occurs because there will be a reduction in the sympathetic nervous system activity due to external heat application which results in increased hepatic blood volume. During this process, phagocytosis and macro pinocytosis processes may remove unwanted metabolites from the liver. Cold application on the lower back in the GH pack may cause vasoconstriction, supplying blood to other parts of the body, as the liver's demand for blood supply increases after heat application [10]. And also regulates the sugar levels [11].

Head massages with aroma oils have calming properties that enhance quality of life and encourage better sleep. The latency to non-rapid eye movement (NREM) sleep was significantly reduced, the total amount of NREM sleep at the expense of wakefulness (W) was increased, and cortical EEG slow wave activities, particularly delta power spectra density, were improved by applying lavender oil at a concentration of 25.0% during the light (inactive) phase. The main effective monomer components that promote sleep are linalool, d-limonene, 1, 8-cineole, linalyl acetate, and terpinene-4-ol. Lavender oil's hypnotic properties are further supported by its capacity to help people with insomnia go relapsed [12], and massage also helps people feel less discomfort and have better lymphatic drainage [13]. Gibberish meditation facilitates the release of emotions that enhance personality and have an impact on mental wellness. Besides hypnotically induced relaxation, biofeedback, and autogenic training, meditation. More significantly, these methods have impacts on the central nervous system in addition to their peripheral (muscular, autonomic) effects [14]. Yoga and relaxation techniques are useful in enhancing cognitive performance [16] and increasing the quality of sleep [15].

Acupuncture has calming and toning properties. Compared to the control circumstances, where the effect size was modest, the acupuncture intervention had a greater favourable impact on alcohol-related symptoms and behaviours. The β -endorphin-mediated reduction of alcoholic withdrawal tremor is produced by acupuncture. In ethanol withdrawal, acupuncture prevented a decrease in the rate at which neurones fired in the ARC of the hypothalamus. Acupuncture may be able to lessen ethanol dependency in part because of β -endorphinergic neurons [17]. All the treatments have a specific effect on both physical, mental, and emotional levels of aspects of the body in each individual. This study shows that using yoga and naturopathy intervention can modify the alcoholic addictive behaviour and help to relieve alcoholic withdrawal effects. Limitations of this study are we cannot include the psychologically ill and chronically addicted individuals.

CONCLUSION

This study showed a significant change in the pre-and post-values based on the AUDIT scores, which shows that Yoga and Naturopathy treatments improve all the aspects of

symptoms among alcoholic individuals which improves their quality of life. Further studies with larger sample sizes and randomization may warrant our results.

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