

## Effects Of Yoga Nidra (Psychic Sleep) On Alcohol Dependent Individuals - A Randomized Control Trial

Dr. Chunchu Sandeep <sup>1</sup>, Dr. Shivaprasad k <sup>2</sup>, Dr. Prashanth Shetty <sup>3</sup>

<sup>1</sup>(Post graduate, Division of Yoga therapeutics, Department of post graduate studies, SDM College of Naturopathy and Yogic Sciences, India)

<sup>2</sup>(Dean, Division of Yoga therapeutics, Department of post graduate studies, SDM College of Naturopathy and Yogic Sciences, India)

<sup>3</sup>(Principal, SDM College of Naturopathy and Yogic Sciences, Ujire, India)

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**Abstract:** Background and Objectives: Alcoholism is one of the major health issue posing a risk on an individual's life and socio economic development of the world. Various conventional treatment modalities have been used as a remedy for alcoholism. Yoga Nidra, a relaxation technique, is easily practiced and cost effective tool to manage these symptoms. The main objectives of the study are to assess whether Yoga Nidra is having effect on controlling withdrawal symptoms balance and gait among alcoholic dependent individuals.

**Materials and Methods:** A total of sixty alcoholic dependent individuals had been selected from de-addiction camp. Alcohol Use Disorders Identification Test (AUDIT) questionnaire is been used for screening. Subjects in the group one practiced Yoga Nidra for a period of 10 days. While the group two carried on its routine activities. Both the groups were assessed for balance, gait and withdrawal symptoms at day one and day ten.

**Results:** When the both groups are compared there was a significant results seen in the withdrawal symptoms P-value < 0.001.

**Conclusion:** Ten days of Yoga Nidra practice has a good effect in reducing withdrawal symptoms in alcohol dependent individuals and there was no significant results seen in balance and gait.

**Key words:** Alcohol Dependent Individuals, Alcoholism, Balance, Gait, Withdrawal Symptoms and Yoga Nidra.

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### I. Introduction

Alcohol addiction has become a major health issue worldwide and is the major cause for poverty and familial disputes. The term alcoholism has been defined as a primary; chronic disease characterized by impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking <sup>[1]</sup>, the term is used as synonymous with alcohol addiction <sup>[2]</sup>. Sudden decrease in alcohol intake can produce withdrawal symptoms, if the patient agrees to stop drinking, many of which are the opposite of those produced by intoxication. Features like agitation and anxiety; autonomic nervous system over activity including an increase in pulse, respiratory rate, and body temperature, insomnia and tremors of the hands (shakes) <sup>[3]</sup>.

Yoga is one of the many popular techniques for achieving relaxation. Yoga has its origin in ancient India. Its original form consisted of spiritual, moral and physical practices. The different type of relaxation techniques often lead to specific psychological and physiological changes termed as relaxation response <sup>[4]</sup>. Yoga Nidra is one such kind of effective technique, not only for mental or physical relaxation but also for preparing the mind for yogic discipline. Yoga Nidra is qualitatively different from relaxation. It is a 'sleep' where all the burdens are thrown off to attain a more blissful state of awareness, a relaxation much more intense than ordinary sleep. Yoga Nidra aims to focus the mind to achieve relaxation and increase wellness. Researches also indicate that Yoga Nidra can be used as a therapeutic technique to cure psychological disorders like anxiety, hostility, insomnia etc., and psychosomatic diseases like asthma, coronary heart disease, cancer, hypertension etc. Yoga Nidra is a successful therapy for both recent and longstanding psychological disturbances of all kinds, especially neurotic behavior patterns and high anxiety levels <sup>[5]</sup>. As per the recent studies, high-profile and demanding societies have incurred increased risks and vulnerability for stress-related chronic pain and other illnesses <sup>[6]</sup>. Though Yoga Nidra has been used extensively for various conditions no study was done to evaluate the effects of Yoga Nidra on alcohol dependent individuals.

### II. Methodology

#### 2.1. Subjects

Sixty male subjects of ages ranging between 25 to 45 years were recruited.

### **2.1.1. Study Group**

Male Subjects from Sri Dharmasthala Manjunatheshwara (SDM) Deaddiction center, Lila Ujire, Dakshina Kannada were recruited for the study.

### **2.1.2. Inclusion criteria**

- Age: 25 to 45 years.
- Subjects who is willing to participate in the study.
- Gender: Male.
- Alcoholics who are eligible after screening using Alcohol Use Disorders Identification Test (AUDIT)
- Subjects having withdrawal symptoms and imbalance in balance and gait.

### **2.1.3. Exclusion criteria**

- Subjects who are on Anxiolytics.
- Subjects who underwent recent surgeries.
- Subjects who are having any Neurological diseases.

### **2.1.4. Consent form**

The subjects were instructed about the study and all subjects who are willing to take part in the study were considered. A signed informed consent was obtained from each individual. Institutional Ethical Committee approved the study.

## **2.2. Study setting**

### **2.2.1. Setting for assessments and Interventions**

Subjects were screened by using Alcohol Use Disorders Identification Test (AUDIT). Subjects who fulfilled inclusion criteria and exclusion criteria were selected and they were randomly allocated into two groups using computerized generated random number table. For (group 1) Yoga Nidra was given for 45 minutes for ten days, for (group 2) did not given any kind of Yogic intervention. Assessments were done day one and day tenth by questionnaire method.

## **2.3. Design**

The study adopted was Randomized Control Trial. 60 healthy volunteers were divided in to two groups. Group 1 received Yoga Nidra; group 2 did not receive any Yogic intervention. All the subjects were assessed on day one and day tenth.

## **2.4. Assessments**

- Baseline and post assessment were done on the both groups using the following Questionnaires.
- Tinetti balance assessment tool.
- Clinical Institute Withdrawal Assessment for Alcohol Revised (CIWA-Ar)

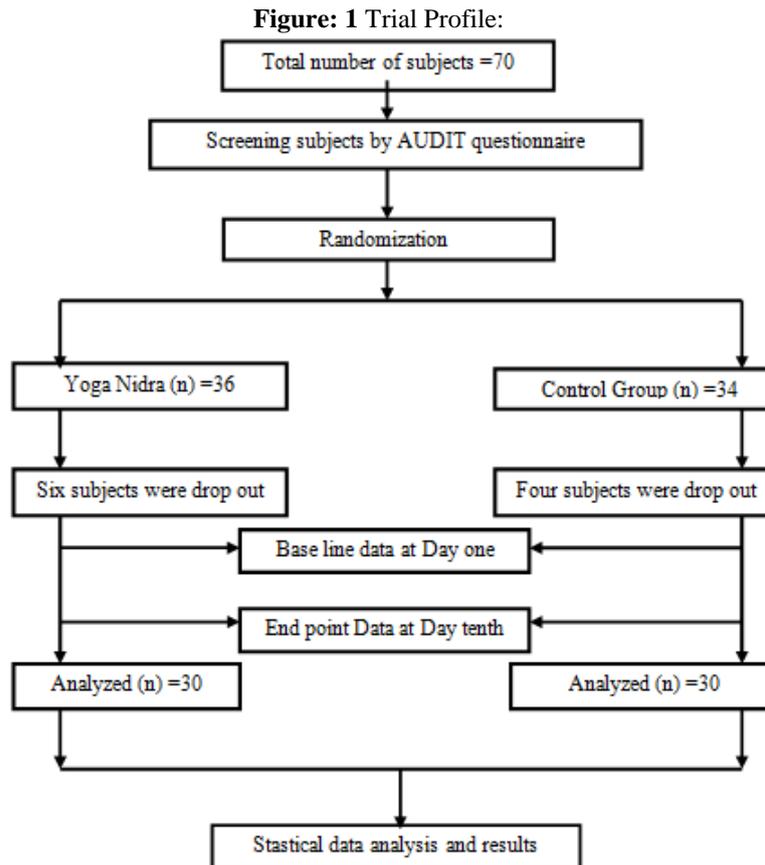
### **2.4.1. Variables Studied**

#### **2.4.1.1 Tinetti balance assessment tool**

The Tinetti Assessment Tool is a simple, easily administered test that measures a patient's gait and balance. The test is scored on the patient's ability to perform specific tasks. It takes 10 to 15 minutes to complete the task. Scoring is done on a three point ordinal scale with a range of 0 to 2. A score of 0 represents the most impairment, while a 2 would represent independence of the patient. The individual scores are then combined to form three measures; an overall gait assessment score, an overall balance assessment score, and a gait and balance score. The maximum score for the gait component is 12 points. The maximum score for the balance component is 16 points. The maximum total score is 28 points. In general, patients who score below 19 are at a high risk for falls. Patients who score in the range of 19-24 indicate that the patient has a risk for falls<sup>60</sup><sup>[7]</sup>.

#### **2.4.2.2 Clinical Institute Withdrawal Assessment for Alcohol Revised (CIWA-Ar)**

Alcohol Withdrawal Assessment Scoring Guidelines were assessed by Clinical Institute Withdrawal Assessment for Alcohol Scale, Revised (CIWA-Ar) is a common measure used in North American hospitals to assess and treat Alcohol withdrawal syndrome and for Alcohol detoxification. This clinical tool assesses 10 common withdrawal signs. This assessment for monitoring withdrawal symptoms requires 24 approximately 5 minutes to administer. The maximum score is 67 (see instrument). Patients scoring less than 10 do not usually need additional medication for withdrawal <sup>61</sup><sup>[8]</sup>.



**Figure 2:** Practicing Yoga Nidra by the participants.



## 2.5. Data extraction.

The data was collected as self-reported measures using assessment tools viz., TINETTI & Clinical Institute Withdrawal Assessment for Alcohol Revised CIWA-Ar. The assessments were done as baseline and following a 10 days intervention (yoga intervention for experimental group and no specific intervention for the control group). The data later were further scored using their respective scoring keys and then arranged in Microsoft Excel sheets for statistical analysis.

## 2.6. Stastical analysis.

The raw data obtained from each subject in each recording session were tabulated separately. The distribution of the data and normality assumption were estimated, than the group's median, mean, standard deviation and Sw p- values were calculated for all the variables. Kruskal -Wallis One-Way Analysis of Variance

(Mann-Whitney U test value) for inter group comparison between the full mud bath group and wet wrap group. Statistical analysis was done using Statistical Package for Social Sciences (SPSS 21.0).

### III. Results

The present study is conducted to evaluate the effect of Yoga Nidra on alcohol dependent individuals and its influence on the outcome variables viz, withdrawal symptoms, balance and gait. Results were assessed in between the groups. Data was extracted at both baseline and post-intervention. As the measurements depend on the score and these scores do not follow normality assumption the nonparametric methodology has been adopted to perceive the objectives in particular Kruskal Wallis test has been adapted to know the equality of sample medians.

The Null hypothesis is accepted when data don't provide sufficient information to reject. As a result of P value < 0.05 then the null hypothesis rejected else it is accepted. When the both groups are compared there was a significant results seen in the with drawl symptoms P value < 0.001 whereas balance and gait were P value < 0.14 and 0.81 which is not significant.

Table 1: Kruskal -Wallis One-Way Analysis of Variance (Mann-Whitney U test value) for post inter group comparisons.

VARIABLES (POST)	GROUP 1 POST	GROUP 2 POST	SD GROUP 1 POST	SD GROUP 2 POST	Mann Whitney U test values	p-VALUE
Ciwa	17.00	45.00	4.01	5.65	900	0.00
Vomiting	2.00	5.00	1.11	1.68	157	0.00
Tremors	2.00	5.00	0.77	1.56	25.5	0.00
Pa. sweats	2.00	4.00	0.79	1.63	103.50	0.00
Anxiety	1.00	6.00	0.72	0.97	0.00	0.00
Aud distb	2.00	4.50	1.30	1.28	137.50	0.00
Visual Dis	2.00	4.50	1.11	1.57	106.00	0.00
Tact.dist	2.00	4.50	1.11	1.57	470.00	0.00
Headache	2.00	5.00	1.10	1.35	66.50	0.00
Agitations	1.00	6.00	0.64	1.33	11.00	0.00
Ocs	1.00	5.00	0.97	1.94	95.00	0.00
Tinetti que	21.00	18.00	0.39	2.27	851.00	0.00
Balance	48.00	46.00	0.90	5.12	548.00	0.14
Gait	8.50	8.00	1.64	1.68	465.50	0.81

P < 0.05 Considered has a significant.

Ciwa: Clinical Institute Withdrawal Assessment for Alcohol Scale, Pa. sweats: Paroxysmal sweats, Aud distb: Auditory disturbances, Tact. dist: Tactile disturbances, Ocs : Orientation and clouding sensorium, Tinetti que: Tinetti questionnaire.

### IV. Discussion

The main aim of the study was to evaluate the effects of Yoga Nidra on Alcohol dependent individuals. All the subjects who fulfilled the inclusion criteria underwent the Yoga Nidra intervention for the duration of 45 minutes in the supine posture for ten days.

The autonomic status of alcohol dependent individuals have been shown to be influenced positively in Yoga Nidra group. Withdrawal symptoms following Yoga Nidra have shown significant results as compared to the control group (p < 0.001). There was no significant results found with regards to balance (p<0.14) and gait (p<0.81) when compared to control group.

Earlier studies conducted using Yoga Nidra as intervention on menstrual symptoms with anxiety and depression in a sample of 82 first-year female medical students. Nearly, half the subjects reported the frequent occurrence of at least one menstrual symptom that appeared to cause discomfort but did not interfere with performance<sup>[9]</sup>.

In a study conducted by Khushubu rani et al ., Yoga Nidra was given for six months there was significant decrease in their degree of depression (according to the psychological general wellbeing schedule) and observed a significant change during the treatment period<sup>[10]</sup>.

In a study conducted by Michalsean using Yoga Nidra there was a decrease in the anxiety level in the case group. Earlier studies have also shown that employing Yoga interventions for other conditions (cancer survivors, self-reported emotional distress) results in beneficial effects for depression and mood, as well as anxiety and physical wellbeing<sup>[11]</sup>.

The Yoga Nidra state appears to reflect an integrated response by the hypothalamus, resulting in decreased sympathetic (excitation) nervous activity and increased parasympathetic (relaxation) function<sup>[12]</sup>.

In other study there was a significant improvement in positive wellbeing, general health and vitality in the case group. Yoga Nidra is believed to balance psychic and vital energies within the psychic channels (nadis)

of the energy framework underlying the physical body. Free flow of these energies is considered to be the basis of optimal physical and mental health.

The subjects who practiced Yoga Nidra felt that they have learnt a skill in the form of Yoga Nidra that can be used in stressful situations to become relaxed and for better management of stress. They experienced that the yoga program helped in decreasing nervousness, tensions, depression, downheartedness, hopelessness, illness and bodily disorders. They felt happy, satisfied, cheerful and lighthearted. They experienced a new outlook of life. Furthermore, it could be that the energy was used to handle the feelings and emotions that they previously suppressed<sup>[13]</sup>.

In other study conducted by khushubu rani et al., concludes that Yoga Nidra appears to be a promising intervention for psychosomatic problems. It is cost-effective and easy to implement. The results indicate that somatoform symptoms in patients with menstrual disorder can be decreased by learning and applying a program based on Yogic intervention (Yoga Nidra)<sup>[10]</sup>.

A study conducted on anxiety symptom in non-alcoholics and there was a significant improvement seen in the symptoms by giving 12-week yoga intervention<sup>[14]</sup>. Since, there are no studies conducted using Yoga Nidra as an intervention to access its effect on withdrawal symptoms like vomiting, tremors, paroxysmal sweats, anxiety, tactile disturbance's, auditory disturbance's, visual disturbance's, orientation and clouding of sensorium headache, agitation. Balance and gait on alcoholic dependent individuals the present study been conducted.

Reduction in Vomiting and other withdrawal symptoms has been showed significantly ( $p < 0.001$ ) in the present study, compared to previous study which has showed Nausea and vomiting can be managed by integrated approach of Yoga as a complementary conventional treatment in breast cancer patients<sup>[15]</sup>.

By using Yoga Nidra as an intervention when we compare the Yoga Nidra group and control group the present study shows significant reduction in withdrawal symptoms ( $p < 0.000$ ) which is significant and the balance and gait  $p < 0.14$  and  $p < 0.81$  which is not significant . Further studies are guaranteed to see the Yoga Nidra effect on balance and gait by increasing the sample size and duration of the practice. The results overall have shown to be significant using Yoga Nidra a very safe and beneficial tool in helping alcoholic individuals to improve withdrawal symptoms like vomiting, tremors, paroxysmal sweats, anxiety, tactile disturbances, auditory disturbances, visual disturbances, orientation and clouding of sensorium headache, agitation after withdrawing alcohol.

## V. Conclusion

The present study concludes that ten days of Yoga Nidra practice has a good effect in reducing withdrawal symptoms like vomiting, tremors, paroxysmal sweats, anxiety, tactile disturbances, auditory disturbances, visual disturbances, orientation and clouding of sensorium headache, agitation in alcohol dependent individuals and there was no significant results seen in balance and gait.

### 1.1 Limitations of the Study.

- Short duration of the Yoga Nidra intervention.
- Sample size is very less.
- No objective variables have been used; subjective assessments tend to have bias.
- Bio chemical parameters would have given more appropriate results.

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