

Effectiveness of mindfulness meditation techniques on stress among the clients with substance abuse in de addiction cum rehabilitation center

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Abstract

Introduction:

Stress is a state of worry or mental tension caused by a difficult situation. Stress is considered as a major contributor to the initiation and continuation of substance abuse. Substance abuse is a complex problem determined by multiple factors including psychological and physiological components. Stressful events can profoundly influence the abuse of alcohol or other drugs. Mindfulness meditation is considered to be very useful for stress reduction.

Materials and Methods:

A Quasi experimental one group pre and post-test research design was adopted for this study. Total of 30 participants who met with inclusion criteria in FIRE – Jeevodaya De Addiction cum Rehabilitation Centre, Coimbatore were taken as samples. The sampling technique used for this study was simple random technique, researcher used lottery method to select the samples. Modified stress inventory (DASS) scale was used to elicit the level of stress. Pretest was conducted to assess the level of stress, after that mindfulness meditation technique was administered to the clients, then post test was conducted. Informed consent was obtained from all the study participants.

Result

The mean pre- test score of stress was 76 and after the intervention the stress level was reduced to mean post test score of 51. The study also revealed that demographic variables like age, education, duration of substance abuse had significant association with posttest level of stress.

Conclusion

The present study unveiled that the mindfulness meditation technique was effective to reduce stress among client with substance abuse.

Key words: Mindfulness meditation technique, stress, substance abuse.

Introduction

Stress is defined as a physical or psychological stimulus that can produce mental tension or physiological reaction that may lead to illness. Stress can have a great negative impact on physiological as well as psychological wellness. At the same time, in modern life it is nearly impossible to avoid stress completely. Substance abuse remains a pervasive public health concern, posing significant challenges to individuals, families, and societies worldwide. Despite concerted efforts to address this issue through various interventions, the complex nature of addiction often necessitates multifaceted approaches for successful treatment and rehabilitation. One promising avenue that has gained increasing attention in recent years is the integration of mindfulness meditation techniques within de-addiction and rehabilitation programs. Mindfulness meditation, rooted in ancient contemplative practices, has garnered empirical support for its effectiveness in promoting mental health and well-being across diverse populations. In the context of substance abuse treatment, stress plays a pivotal role, serving both as a precursor to addiction and as a significant barrier to recovery. Clients grappling with substance abuse often experience heightened levels of stress stemming from various sources, including interpersonal conflicts, financial strain, and the physiological effects of withdrawal. Recognizing the critical interplay between stress and addiction, researchers and clinicians have increasingly turned to mindfulness-based interventions as a means of ameliorating stress-related symptoms and bolstering coping mechanisms among individuals undergoing rehabilitation. By fostering a non-reactive awareness of present-moment experiences, mindfulness practices empower clients to cultivate greater emotional resilience and adaptive stress responses, thereby reducing the likelihood of relapse and facilitating long-term recovery. The present investigation represents a critical step towards harnessing the transformative potential of mindfulness meditation in addressing the complex interplay between stress and substance abuse within the context of de-addiction cum rehabilitation centers. Through rigorous empirical inquiry and close collaboration with treatment

providers and clients, this study endeavors to advance our understanding of mindfulness as a promising adjunctive therapy for promoting holistic recovery and resilience among individuals with stress.

Materials and Methods:

Evaluative approach was used to determine the effectiveness of mindfulness meditation techniques in terms of level of stress among clients with substance abuse. Quasi experimental, one group pre-test post-test research design was adopted for this study. The Study was conducted in FfIRE – Jeevodhaya De Addiction cum Rehabilitation Centre, Coimbatore which is situated at fifty km away from our college. The sample size selected for the present study was 30. The sampling technique used for this study was simple random technique. The total population of FfIRE – Jeevodhaya De Addiction cum Rehabilitation Centre was 50 and the researcher used lottery method to select the samples. Tool for data collection comprised two sections section A and section B. Section A consists of demographic variables which include age in years, sex, religion, marital status, type of family, education, occupation, place of residence, monthly income and duration of illness. Whereas Section B is the rating scale for assessment of stress among client with substance abuse by using modified DASS Stress Assessment Scale. The modified DASS assessment scale consists of 30 items. The ratings are never = 1, rarely = 2, sometimes =3, often= 4. The maximum score given is 120. The Grading of Modified DASS Assessment Scale as follows

Level of Stress	Score
No stress	Less than 30
Mild stress	31 – 59
Moderate stress	60 – 89
Severe stress	90 – 120

After getting formal permission from the Managing Trustee of FfIRE – Jeevodhaya De Addiction cum Rehabilitation Centre, the researcher explained and obtained written consent from the study participants. The study was conducted for a period of 4 weeks. After the pretest, Mindfulness meditation technique was administered for about 20 minutes in morning and 20 minutes in the evening for clients with substance abuse for consecutive 25 days. Post test was conducted on the following day to evaluate the stress of participants after administering mindfulness meditation techniques. After 26th day stress level was assessed using modified DASS assessment scale.

Data Analysis

The investigator adopted descriptive and inferential statistics to analyze the data. The demographic variables were analyzed by using frequency and percentage. The effectiveness of mindfulness meditation techniques in reducing the stress level among the clients with substance abuse, association between demographic variables were analyzed by using paired' test and χ^2 test respectively.

Results and discussion:

Table 1 and figure 1revealed that the stress level of study participants with substance abuse before administration of mindfulness meditation technique was as follows, 3(10%) of them had severe stress, 18(60%) had moderate stress, 9(30%) had mild stress and none of them had no stress. In other hand post test revealed that after administering mindfulness meditation technique there was a significant reduction in stress level. Where in the posttest 2(6.67%) of them had severe stress, 8(26.27%) had moderate stress, 11(36.67%) had mild stress and 9(30%) had no stress. This revealed that there was a marked difference between the pretest scores and posttest scores hence the effectiveness of mindfulness meditation technique on minimizing stress was proven.

Table 2 and figure 2 revealed the mean test score in pretest and posttest was 76 and 51 respectively. The calculated 't' value was 10.29 and significant at 0.05 level. Hence it revealed that there was significant difference exists between pretest and post test score on stress level. The study highlighted that the mind fullness meditation techniques have significant effect in reducing stress among clients with substance abuse.

The study also divulged the association of demographic variables with post test score of stress among client with

substance abuse. The selected demographic variables namely age, religion, marital status, type of family, educational status, occupation, place of residence, monthly income, duration of substance abuse were assessed and associated with post test score by using χ^2 test. The demographic variables like age, education, duration of substance abuse has significant association with post test score of stress level of clients with substance abuse.

Table. 1 Description of Level of Stress among Clients with Substance Abuse

	Level of Stress	Pre Test		Post Test	
		f	%	f	%
1.	No stress	-	-	9	30
2.	Mild stress	9	30	11	36.67
3.	Moderate stress	18	60	8	26.67
4.	Severe stress	3	10	2	6.67

FIGURE -1 Level of Stress among Clients with Substance Abuse

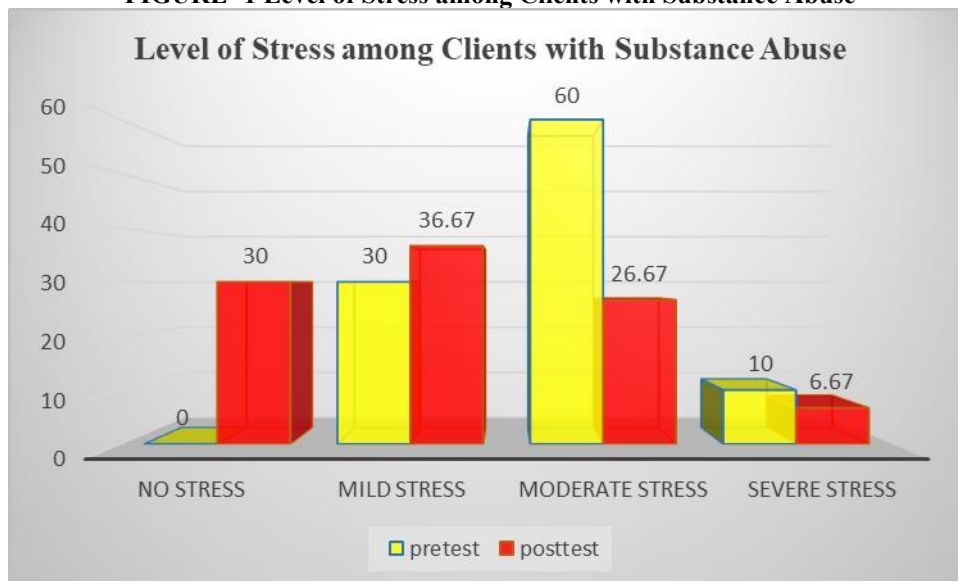
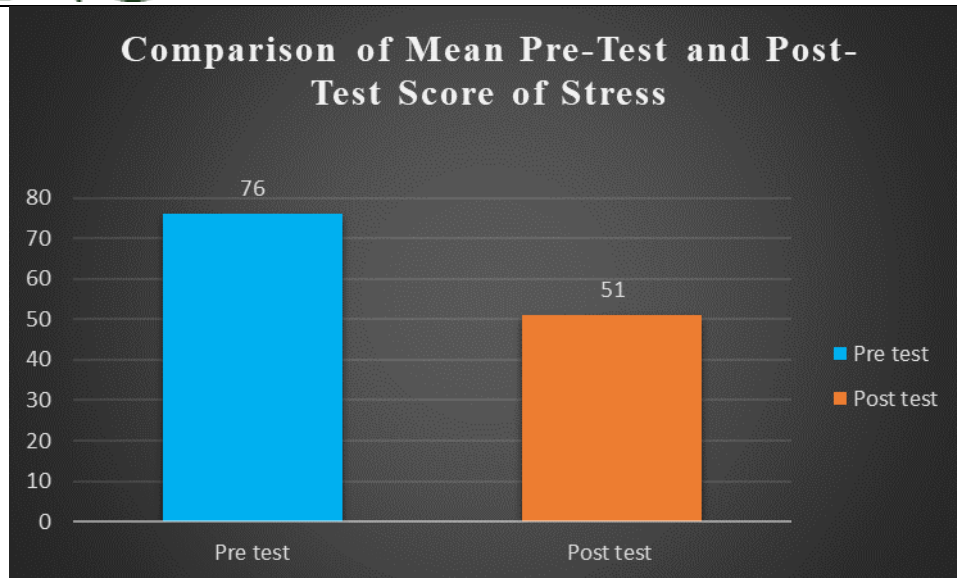


Table. 2 Comparison of Mean Pre-Test and Post-Test Score of Stress

S.No.	Stress Score	Mean	S.D	't' value	P value
1.	Pre test	76	17.38	10.29*	>0.0001
2.	Post test	51	16.92		

Figure - 2 Comparison of Mean Pre-Test and Post-Test Score of Stress



In concordance with present study Vignesh et al conducted a study to assess the effectiveness of mindfulness therapy on stress among care givers of psychiatric patients. One group pretest and posttest design was used in this study. The sample size for the study was 32. The Zarit Caregiver Stress Assessment Scale was used for this study. Mindfulness therapy was administered for a period of 2 weeks. Appropriate statistical technique was used to analyse the data. In terms of total stress scores, in pretest, the mean was 38.96, mean percentage was 48.7, standard deviation was 8.62. But in the post test the mean has drastically reduced to 22.15, mean percentage to 27.7 and standard deviation to 7.57. The calculated 't' value 14.28 was found to be significant at 0.05 level. The other study conducted by Murphy to 31 male inmates with alcohol abuse and aggressions ranging in age from 17 to 46 were randomly assigned to six two-hour treatment sessions training in Mindfulness Meditation. The sample consisted of 31 male inmates ranging in age from 17 to 46. There were non-significant reductions in self-reported anger (State-Trait Anger Expression Inventory) and impulsivity (Porteus Maze Test). One month follow up revealed a slight increase in aggressive responding in the PRT group and a slight decrease in the MM group. In concurrence with the present study Brewer conducted a study to Mindfulness meditation training and stress reactivity in substance abuse. Thirty-six individuals with alcohol and/or cocaine use disorders were randomly assigned to receive group Mindfulness training or CBT in an outpatient setting. Drug use was assessed weekly. After treatment, responses to personalized stress provocation were measured. Fourteen individuals completed treatment. There were no differences in treatment satisfaction or drug use between groups. The laboratory paradigm suggested reduced psychological and physiological indices of stress during provocation in Mindfulness training compared to CBT. This study provides evidence of the feasibility of Mindfulness training in treating substance use disorders and suggests that Mindfulness training may be efficacious in targeting stress. Garland conducted a study to assess the effect of Mindfulness training may disrupt the risk chain of stress-precipitated alcohol relapse. 53 alcohol- dependent adults (mean age = 40.3) recruited from a therapeutic community located in the urban south-eastern U.S. were randomized to mindfulness training or a support group. Mindfulness training significantly reduced stress and thought suppression. Hence, mindfulness training appears to target key mechanisms implicated in alcohol dependence, and therefore may hold promise as an alternative treatment for stress- precipitated relapse among vulnerable members of society.

Conclusion:

The mindfulness meditation techniques demonstrated promising effectiveness in reducing stress levels among clients with substance abuse. Through cultivating present-moment awareness and non-judgmental acceptance, mindfulness practices offer individuals coping mechanisms to manage stressors inherent in recovery processes. By fostering a greater sense of self-awareness and emotional regulation, these techniques empower clients to navigate challenges with greater resilience and clarity. However, further research is warranted to explore the long-term benefits and integration of mindfulness interventions within comprehensive substance abuse treatment programs. Nonetheless, the existing evidence suggests that incorporating mindfulness meditation into therapeutic approaches holds considerable potential in enhancing the well-being and recovery outcomes of individuals grappling with substance abuse issues.

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