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Effect of yoga therapy in rehabilitation of drug addicts

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ABSTRACT

Drug addiction or substance abuse has been a social menace worldwide. Owing to various reasons the occurrence of drug addiction related problems cannot be done away completely by any country. But, as a responsible society every community, nations or administration cannot turn its face on this social evil. A major observation of the programs of rehabilitation centers revealed complete negligence to therapeutic effect of exercise for the purpose of rehabilitation. The purpose of this pilot study is to find out the effect of yoga therapy in rehabilitation of drug addicts. 20 male subjects were randomly assigned into experimental or control group and treated with yoga therapy program or conventional de-addiction program for six weeks. Self Confidence Inventory and Optimistic Pessimistic Attitude Scale were used as Outcome measures. Statistically significant results were observed in yoga therapy program group than control group. This study concludes that yoga therapy is effective in the rehabilitation of drug addicts.

KEYWORDS: Rehabilitation, Yoga Therapy, Drug Addicts

Background

Drug addiction or substance abuse has been a social menace worldwide. Owing to various reasons the occurrence of drug addiction related problems cannot be done away completely by any country. But, as a responsible society every community, nations or administration cannot turn its face on this social evil. Drug addiction is characterized by a sequence of processes that lead to the relapsing nature of the disorder. Since the dopaminergic mesocorticolimbic system is considered to be involved in reward-related associative learning[1], reinforcement[2] and incentive salience[3], it may have a crucial role in the development of drug addiction. From 1870 to 1900, most physicians regarded addiction as a morbid appetite, a habit, or a vice. After the turn of the century physicians began to speak of the condition as disease. A person's desire for a drug cannot be separated from the situation in which the person takes the drug. The strongest argument for addictiveness as an individual personality disposition comes from repeated findings that the same individuals become addicted to many things, either simultaneously, sequentially, or alternately. However, they then tie these behavior syndromes to other constructs, namely tolerance and withdrawal that are presumed to be biological in nature.

In 1964 the World Health Organization Expert Committee of Addiction-Producing Drugs changed its name by replacing "Addiction" with "Dependence". Physical dependence is inevitable result of the pharmacological action of some drugs with sufficient amount and time of administration. Psychic dependence while also related to pharmacological action is more particularly a manifestation of the individual's reaction to the effects of a specific drug and varies with the individual as well as the drug. In this formulation, psychic dependence is most powerful of all factors involved in chronic intoxication with psychotropic drugs abuses even in the case of most intense craving and perpetuation of compulsive abuse.

It has been frequent observation that rehabilitation programs of various rehabilitation centers emphasize more on medication treatment and rehabilitation measures like counseling, religious prayer session, hobby pursuance and nutritional measures. Regular yoga practice creates mental clarity and calmness, increases body awareness, relieves chronic stress patterns, relaxes the mind, centers attention and sharpens concentration[4]. So this study is aimed to find out the effect of yoga therapy on drug addicts in terms of self-confidence and attitude.

Methodology

A pilot study was conducted at 4S De-Addiction Center, Bangalore. Conveniently selected sample of 20 were included in the study after obtaining informed consent. The subjects were randomly assigned into any of the two groups. Control group (Group-1) was receiving the center's de-addiction program while experimental group (Group-2) was exposed to yoga therapy program in addition to regular center's program. The yoga therapy includes Surya Namaskar, Yogic Asanas, Kapal Bhatti, Pranayam and Meditation. The yoga therapy intervention was given for 6 days/week, 2 sessions/day of each one hour in the morning and evening. The experimental yoga therapy was conducted for six weeks. While administering the yoga therapy care was taken to conform that every subject performs comfortably without any difficulty, work load was adjusted if required according individual subject. No adverse events were noted during the course of the study. Rekha Agnihotry's Self Confidence Inventory[5] and Parasar's Optimistic Pessimistic Attitude Scale[6] were used as Outcome measures before and after exercise intervention for six weeks.

Data Analysis

Twenty subjects with age of 27.8 ± 5.34 years were selected for the study, randomly divided into control and experimental group, 10 subjects each. Analyses of pre and post intervention data within group was done by paired t-test and homogeneity of groups & significance difference between groups was tested by independent t-test by using IBM SPSS-20. The level of significance was kept at 0.05.

Table-1: Comparison of before and after intervention values within group

Outcome	Groups		Mean (SD)	t	p
Agnihotry's Self Confidence Inventory	Experimental	Before	41.15 (5.13)	25.13	.000
		After	9.45 (4.96)		
	Control	Before	42.65 (4.68)	14.85	.000
		After	18.75 (5.54)		
Parasar's Optimistic Pessimistic Attitude Scale	Experimental	Before	21.55 (2.64)	18.56	.000
		After	34.25 (2.57)		
	Control	Before	18.65 (2.35)	12.77	.000
		After	28.30 (2.47)		

Table-1 shows the paired t-test values for comparison of before and after intervention values of both outcome measures within group. In experimental group and control group the p value < 0.001 shows there is statistically significant improvement in self-confidence and Optimistic Pessimistic Attitude in both groups. Independent t-test was used to find out homogeneity of groups before intervention and any

significant difference in after intervention values between the groups.

Table-2 shows the independent t-test values for comparison between groups before and after intervention. Homogeneity of groups before intervention was proved with $p > 0.05$ for both outcome measures. The p value after intervention is less than 0.001 shows that there is statistically significant difference between both groups after intervention with increased self-confidence and Optimistic Pessimistic Attitude in experimental group than control group.

Table-2: Comparison between groups

Outcome	Groups		Mean (SD)	t	p
Agnihotry's Self Confidence Inventory	Before	Experimental	41.15 (5.13)	1.132	.261
		Control	42.65 (4.68)		
	After	Experimental	9.45 (4.96)	5.215	.000
		Control	18.75 (5.54)		
Parasar's Optimistic Pessimistic Attitude Scale	Before	Experimental	21.55 (2.64)	1.311	.191
		Control	18.65 (2.35)		
	After	Experimental	34.25 (2.57)	4.832	.000
		Control	28.30 (2.47)		

Discussion

This study was deliberate attempt to experiment yoga therapy program for effective rehabilitation of drug addicts. The study was conceptualized with the very idea that when worldwide trends in rehabilitation program of drug addiction primarily emphasis on regaining health and fitness status through structured exercise program. Yoga therapy is a traditional Indian medicine which includes actives like exercises. The efficacy of exercise based rehabilitation program is not well understood or not accepted in the context of practices and so the effect of yoga. Hence taking up a research work on drug rehabilitation with yoga concurrently with a regular stereo typed program of an established center did fill up a need of the time.

This study compared the effects of yoga therapy program with conventional de-addiction program and conventional de-addiction program alone in improving self-confidence and Optimistic Pessimistic Attitude of drug addicts.

This finding can be well attributed to the facts that a well-planned yoga therapy program does improve every systems of human functioning, organic structure their by inducing rise in working ability evident through fitness development. Yoga therapy effects on musculo-skeletal system, cardio respiratory system, nervous system, internal digestive system etc are well documented facts. Only psychological variables were tested in this study and not physical and physiological variables like heart rate, physical activity level etc.

Immediate effect of single bout of 30 minutes yoga therapy had beneficiary effect on mood changes and behavioral pattern in the research by Alagesan J[4], current research had been done for a period of 6 weeks also proved beneficiary in improving self-confidence and attitude. Although exercise may prevent drug addiction, one should be aware that when the exercise schedules interfere with the social, occupational and family lives it can be consider itself as dependence[7].

Marlatt etal[8] conducted an experimental study to find out the effect of Vipassana meditation as a correctional intervention to reduce alcohol and other drug use, and its concomitant problems to enhance the opportunity for a more balanced lifestyle, including increased self-awareness, self-efficacy, and hopefulness. The practice of Vipassana meditation has been shown to be effective in reducing impulsiveness and increasing tolerance of common stressors. Current study also includes meditation and pranayama techniques proving similar effects.

Yoga therapy based rehabilitation program are significantly effective in rehabilitation of drug addicts than conventional program of existing drug rehabilitation centers of India. Research project should be carried out with specific grouping according to types of drugs one is addicted to investigate whether rehabilitation in terms of nature of drug varies. Research project should be carried out according to age group of addicts to investigate rehabilitation pattern between the age groups.

Conclusion

The findings of this study conclude that yoga therapy program is effective in the rehabilitation of drug addicts. This study has revealed the use of yoga therapy program for the rehabilitation of drug addicts.

REFERENCES

1. Di Chiara G, Tanda G, Bassareo V, Pontieri F, Acquas E, Fenu S, Cadoni C, Carboni E. Drug addiction as a disorder of associative learning. Role of nucleus accumbens shell/extended amygdala dopamine. Ann. N. Y. Acad. Sci. 1999;877:461-485. | 2. Koob GF. Drugs of abuse: anatomy, pharmacology and function of reward pathways. Trends Pharmacol. Sci. 1992;13(5):177-184. | 3. Berridge KC, Robinson TE. What is the role of dopamine in reward: hedonic impact, reward learning, or incentive salience? Brain Res. Brain Res. Rev. 1998;28(3):309-369. | 4. Jagatheesan Alagesan, Upasna N. Trivedi, Vaiyapuri Anandh. Immediate Effect of Yoga, Tai Chi and Aerobic Exercises on Behavioral Patterns and Mood Changes of Air Squadron NCC. International journal of current research and review. 2011;3(11):196-201. | 5. Rekha Agnihotry. Self Confidence Inventry, Catalogue of Psychological Test and Educational Scales. National Psychological Corporation. Agra.2004:48. | 6. Parasar DS. Optimistic Pessimistic Attitude Scale, Catalogue of Psychological Test and Educational Scales. National Psychological Corporation. Agra.2004:30. | 7. MacLaren VV, Best LA. Symptoms of exercise dependence and physical activity in students. Percept. Mot. Skills. 2007;105(3Pt-2):1257-1264. | 8. Marlatt GA, Larimer M, Blume A, Simpson T, Parks GA. The Effects of Vipassana Meditation and Other Rehabilitation Programs on Alcohol and Drug Relapse and Criminal Recidivism. Department of Psychology, University of Washington, Seattle, WA 98195.