

## Effect of Comprehensive Exercise Therapy in Rehabilitation of Drug Addicts in Relation to their Attitude

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### Abstract

The research project was conceptualized and titled as “**Effect of Comprehensive Exercise Therapy in Rehabilitation of Drug Addicts in relation to their attitude**”. For the purpose of the study all in total 40 drug addicts were selected. The selected addicts were substance abuser of drugs namely Heroin, Brown sugar ,Multi drug, Dendrits (nitroxs), Corax and Bentium- 5.The subjects were from wide range of age group i.e. 18- 45 years. Further the half of the subjects was from middle income group. Quite a significant number of subjects were highly qualified and from high income group. All the selected subjects were with extreme symptom of withdrawal and drug dependence. The 40 subject selected were grouped in to two as follows randomly Experimental group(20) and Control group(20).The Psychological variables or parameter which is indicative of this is Attitude and test chosen was Parasar’s Optimistic Pessimistic Attitue Scale and the Scores on Parasar’s Optimistic Pessimistic Attitude Scale (OPAS).<sup>1</sup>**Agnihotry’s Self Confidence Inventory (ASCI), Cattle’s 16 P.F. & Parasar’s Optimistic Pessimistic Attitude Scale.** The findings of the study have revealed a most of facts in relation to experimentation of Comprehensive Alternative Exercise Rehabilitation programme for the rehabilitation of drug addicts in terms of the Psychological variable that is Attitude. Comprehensive Exercise Rehabilitation programme for addicts must consider the elements of recreation, health accomplishment, and sense of satisfaction and feel good factor through participation in exercise programme.

**KEYWORDS:-** Rehabilitation, Drug addicts, Comprehensive etc .

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### INTRODUCTION

The pathological state that results from addiction of drugs is a highly complicated one. At its extreme state it is decline of physical ability, degeneration of function of various organic systems and loss of emotional balance, mental functioning and at worst is continuance of drug dependence. 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. The emphasis on extensive counseling, the religious prays session or discourse to raise morale, be ethical and consider drug dependence as sin, unethical and must be discarded once for all.

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<sup>1</sup> D.S. Parasar, “**Optimistic Pessimistic Attitude Scale (OPAS)**” Catalogue of Psychological Test and Educational Scales. National Psychological Cooperation, Agra (2004) p.30

Though such measures seems good but only when it is proven to be affective. The typical withdrawal symptom, the unstoppable urge and will to resist a next dose of drug among addicts is not that easy to deal with. Mere believing it's a sin, it is bad will not make and addict capable to discard his habit at one go. It is known fact that they have the habit inspite of knowing it's all ill effects. What is at stake is to win a major psychological battle. But the means to win this battle has to be very comprehensive. It requires to be perfect blend of program that takes care health, habit and psychological wellbeing and education. Research scholar is of opinion that the typical rehabilitation program followed in Indian centers is not well organized and systematic. It not only neglect physical aspect of health and values of recreation etc. but also reduces the total level of personality as a whole.

Exercise therapy is being successfully used in psychological and physical rehabilitation of mentally and physically handicapped people, mental and physical re-generation of old people, heart and diabetic patients etc. Research scholar is of firm view that organized exercise programmed can cause significant effect in ability development, functional capacity development, development in health, immunity and self-image by improving fitness. And all this as a whole could bring in psychological development such as self- believes, optimism, will power etc. And hence worth experimenting for rehabilitation of drug addicts.

With above understanding this research project was conceptualized and titled as **“Effect of Comprehensive Exercise Therapy in Rehabilitation of Drug Addicts in relation to their attitude”**.

## **METHODOLOGY**

The study was conducted at Elmhirst Institute of Community Studies, Santiniketan, and West Bengal. And the addict patients reported in the centre for de-addiction and rehabilitation were only exclusively used as subjects. The study was further confined to addicts to those drugs that were as found available. Further, the comprehensive alternate therapy program was confined within following areas: Yoga , Meditation, Physical Exercise and Recreational Games. The study was confined to the following variables for testing a Psychological Variables i.e. Attitude. The study following hypotheses were formulated. Further the program will also significantly improve attitude of drug addicts selected as psychological variables to experiment upon. The alternative rehabilitation program will be significantly better effective than existing rehabilitation program of Elmhirst Institute of Community Studies in every aspect. Findings of the study will significantly establish the efficacy of alternative comprehensive exercise rehabilitation program in Indian context and environment.

Scholar happened to work as lecturer in Visva-Bharati ,Santiniketan, in the department of physical education. Elmhirst Institute of Community Study situated within the premises of Visva- Bharati campus is a renowned and prestigious Institute. And, the Institute happened to regularly conducted de-addiction and rehabilitation programme since its inception in the year 1961. The Institute had been associated with various rehabilitation programs.Hence, choice of this centre to conduct the research project

became most appropriate in terms of subject availability and direct program supervision. More so because the Institute Authority readily agreed to co-operate in every aspects. For the purpose of the study all in total 40 drug addicts were selected. The selected addicts were substance abuser of drugs namely Heroin, Brown sugar, Multi drug, Dendrits (nitroxs), Corax and Bentium- 5. The subjects were from wide range of age group i.e. 18- 45 years. Further the half of the subjects was from middle income group. Quite a significant number of subjects were highly qualified and from high income group. All the selected subjects were with extreme symptom of withdrawal and drug dependence. The 40 subject selected were grouped in to two as follows randomly Experimental group(20) and Control group(20).

The Psychological variables or parameter which is indicative of this is Attitude and test chosen was Parasar's Optimistic Pessimistic Attitue Scale and the Scores on Parasar's Optimistic Pessimistic Attitude Scale (OPAS).<sup>2</sup> *Agnihotry's Self Confidence Inventory (ASCI), Cattle's 16 P.F. & Parasar's Optimistic Pessimistic Attitude Scale*

Data for this study was taken at the Elmhirst Institute of Community Study, the de-addiction and rehabilitation centre situated at Santiketan Bolpur (W.B.) when the subjects were having the enough time to spare for prescribing the exercise. All precise instructions needed for this study was given to the subjects before the administration of each test. For analysis of data 't' test was used to find out the effect of Comprehensive Exercise Program on Psychological Variables that is Attitude Further to find out efficacy of comprehensive exercise program over regular program of the Elmhirst Institute of community study, de addiction centre, analysis of co variance was used. The level of significance was kept at 0.05.

## RESULTS AND DISCUSSIONS

**Table-1**  
**COMPARISON OF MEAN VALUES BETWEEN PRE AND POST TEST ON**  
**ATTITUDE OF EXPERIMENTAL AND CONTROL GROUP**

Groups	test	Mean	Mean different	Std. Dev	d.f	S.E. of mean	't'- Ratio
<b>Experimental Group</b>	Pre	19.95	12.90	2.91	19	0.65	18.06*
	Post	32.85		2.60		0.62	
<b>Control Group</b>	Pre	18.65	8.05	2.7	19	0.60	12.69*
	Post	26.70		2.79		0.62	

<sup>2</sup> D.S. Parasar, "Optimistic Pessimistic Attitude Scale (OPAS)" Catalogue of Psychological Test and Educational Scales. National Psychological Cooperation, Agra (2004) p.30

\*significant at 0.05 (19) = 1.729

It is evident from table-1 of mean comparison between pre and post value on attitude that there is significant difference between pre and post mean of both experimental and control group. Since t- ratio value of 18.06 and 12.69 was observed for experimental and control group respectively higher than the tabulated t- value i.e. 1.729 required to be significant.

This statistical finding clearly implies that significant changes in attitude resulted as an effect of respective rehabilitation programs.

The magnitude of mean difference being higher in experimental group can be concluded that changes or transforming of attitude towards positive in experimental group was better than the control group.

**Table -2**  
**ANALYSIS OF CO-VARIANCE OF EXPERIMENTAL AND CONTROL GROUP**  
**ON ATTITUDE**

Test	Experimental group	Control group	Sum of square		d.f	Mean sum of square	F-ratio
Pre test mean	19.95	18.4	A	24.03	1	24.03	2.75
			W	331.75	38	8.73	
Post Test mean	32.85	26.7	A	378.23	1	378.23	48.43*
			W	296.75	38	7.81	
Adjusted post test mean	32.51	27.04	A	279.62	1	279.62	44.21*
			W	234.03	37	6.33	

\*Significant at 0.05 level

F.05 (1, 38) =4.10

F.05 (1, 37) =4.11

Table-2 shows that the obtained 'F' value 44.21 was much higher than the tabulated 'F' value 4.11 required to be significant.

Since 'F' value was found to be significant Post hoc mean Comparison was employed to find out the difference on attitude among the two groups.

The Post hoc test is presented in table-3

**Table -3**  
**ADJUSTED MEAN, MEAN DIFFERENCE AND CRITICAL DIFFERENCE OF ATTITUDE**

Groups	Adjusted mean	Mean difference	Critical difference
<b>Experimental</b>	32.51	5.47*	1.62
<b>control</b>	27.04		

\*Significant at 0.05 level

Table-3 indicates that the adjusted mean difference between experimental and control group 5.47 was higher than the critical difference 1.62 required to be significant. Further the findings proved that the alternative exercise rehabilitation programme was better effective than the regular rehabilitation program of the centre and produced positive changes in the attitudes for experimental group. The graphical representation of mean comparison on attitude of experimental and control group is presented in fig-1

**MEAN COMPARISON OF ATTITUDE BETWEEN EXPERIMENTAL AND CONTROL GROUP**

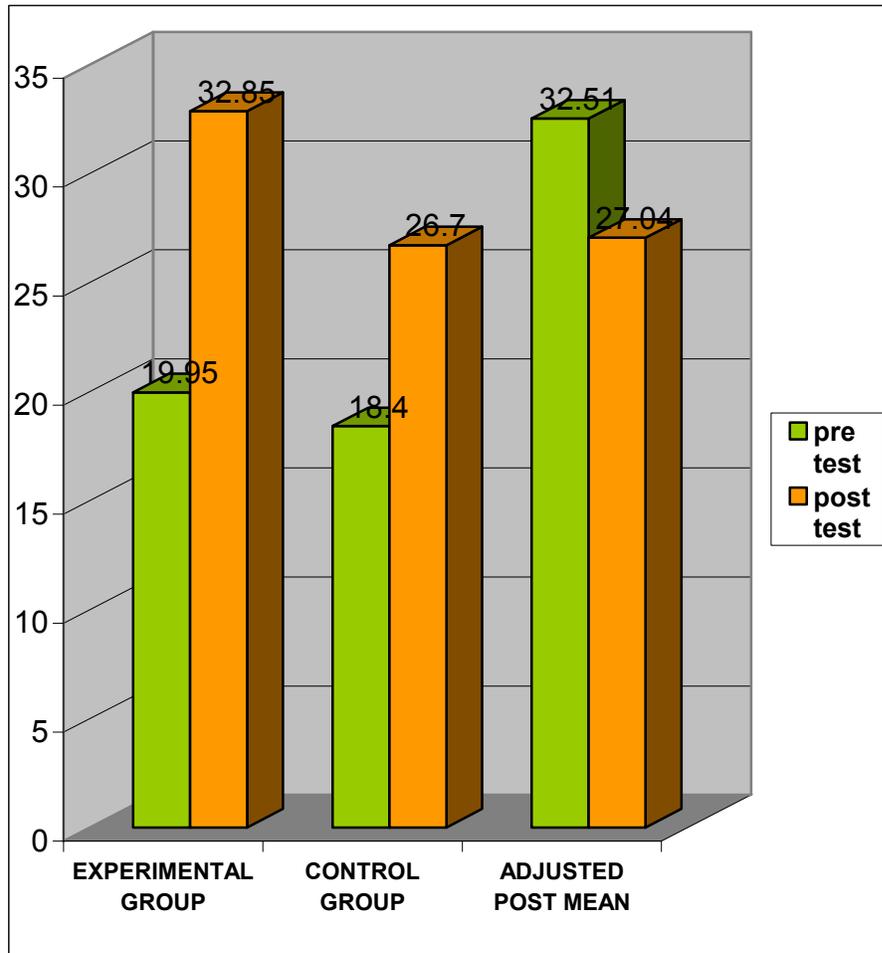


Figure-1

### **Discussion of Findings**

This study was deliberate attempt on the part of research scholar to experiment with a comprehensive exercise therapy program for effective rehabilitation of drug addicts. The study was conceptualized with the very idea that when worldwide trends in rehabilitation programme of drug addiction primarily emphasis on regaining health and fitness status through structured exercise program Indian practices have shown complete negligence to this fact. The findings of the study as revealed by all the statistical analysis have comprehensively brought forward the facts about efficacy of comprehensive alternative exercise rehabilitation as well as traditional regular programs of Elmhirst Institute of Community Study, the de-addiction rehabilitation centre situated at Santiniketan. Findings have clearly showed that, the two hours of rehabilitation programme have invariably effected positive changes in selected criterion parameter on which rehabilitation effect of programme was seen.

It was seen that is the selected variable that is Attitude scale has significant difference observed among subjects undergoing the Comprehensive Alternative Exercise Rehabilitation and regular programme of Elmhirst Institute of Community Study respectively. However quantum of change of positive effect was much higher in experimental group experiencing Comprehensive Alternative Exercise Rehabilitation. Further finding of analysis of covariance showed in Attitude effect as change among subjects of experimental groups was significantly greater than control group. This clearly indicates and establishes that Comprehensive Alternative Exercise Rehabilitation was more effective and better than Elmhirst Institute of Community Study rehabilitation programme.

The findings as revealed shows that the regular programme of Elmhirst Institute of Community Study was also effective though it was moderate when compared to Comprehensive Alternative Exercise Therapy for Rehabilitation of drug addict.

The changes observe as becoming more intelligent, discipline, outgoing, organised, participative, bold will power, behaviour in self, confident, change in Attitude towards life as well as drugs are great sign and indicators that an over whole and highly effective rehabilitation is being brought in among drug addict through Comprehensive Alternative Exercise Rehabilitation programme. The very success of the experimentation also shows-rehabilitation programme primarily based on exercise therapy can be well planned, administered and highly feasible even in the Indian context and environment.

Above finding are in consonance with finding of Mr <sup>3</sup>Sell EH, Christensen who conducted a study on The effect of physical training on physical, mental and social conditions in drug and/or alcohol addicts. The study was conducted for three months physical training which showed improvement in the physiological parameters .i.e. blood pressure resting heart rate were found to be lower and decreased after the training programme.

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<sup>3</sup> [Sell EH, Christensen NJ.](#), “The effect of physical training on physical, mental and social conditions in drug and/or alcohol addicts” [Ugeskr Laeger](#). 1989 Aug 14;151(33):2064-7

## CONCLUSIONS

The findings of the study have revealed a most of facts in relation to experimentation of Comprehensive Alternative Exercise Rehabilitation programme for the rehabilitation of drug addicts in terms of the Psychological variable that is Attitude.

1. Comprehensive Exercise Rehabilitation programme for addicts must consider the elements of recreation, health accomplishment, and sense of satisfaction and feel good factor through participation in exercise programme.
2. Development in health and fitness status brings in significant positive transformation in personality profile and psychological traits. This transformation is the major contribution towards de-addiction and resistance to urge for drug dose.
3. Mood elevation, self confidence will powers are the psychological state and experiences caused by better fitness and health improvement achieved through exercises.
4. Positive transformation in personality profile and psychological traits namely Attitude achieved through better health status and fitness (attained through exercise rehabilitation programme) directly changes attitude of drug addicts towards life and drug and reinforces his will power and desire for de- addiction or resistance to drugs.
5. Drug addiction programme must have goals and objectives to attain better health status and fitness improvement through organized and scientifically planned comprehensive exercise programme.

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