



Effect of Yogic Practices with and without Diet Modification on Selected Psychological variables among Middle Aged Diabetic Men

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Abstract

The purpose of the random group experimental study is to investigate the effect of Yogic Practice with and without the diet modification on the selected psychological variables among the middle aged Type II diabetic men. It is hypothesized that there would be significant differences on the selected psychological variables due to Yogic Practices with and without diet modification among the middle aged Type II diabetic men than the control group. The study is confined to Type II diabetic men. The subjects are from Chennai. The age of the subjects are ranged from 40 - 50 years. The independent variables are Yogic Practices with and without diet modification. The selected dependent variables are Psychological variable namely self-confidence and adjustment only. Random group experimental design is used. Random sampling method is followed to select the subjects. 120 Middle aged diabetic men come forward, 90 patients are found with Type II diabetes and finally 60 diabetic men are selected randomly. Three groups, 20 each are formed as a Yogic Practice With Diet Modification (YPWDG) Yogic Practice Without Diet Modification (YPWODG) and Control group (no treatment but in active rest - CG). Treatment is given for 12 weeks, 6 days a week, an hour daily maximum in this random group experimental design for the experimental groups. Pre-tests were conducted initially for all the groups on selected dependent variables. Post-tests are conducted for all the groups on the selected dependent variables. Analysis of Co-Variance (ANCOVA) is used to assess the significant differences among the groups between the pretest and posttest. The normality of the data collected is tested through the Standard statistical procedures, F test (ANCOVA). The results proved that there are significant differences due to the Yogic practice with diet modification (YPWDG) and Yogic practice without diet modification (YPWODG) on the selected Psychological variables such as Self-confidence (improved) and Adjustment (improved) than the Control group (CG). Thus, the hypothesis is accepted at 0.05 level of significance.

Keywords: Diabetic, Yogic Practices, Diet, Self-confidence and Adjustment.

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Introduction

Today the mankind lives in the computerized world. All works were easily done by machine with the single button. So the physical work of human being slowly vanish, it leads to obesity. Obesity was the door for all kinds of disease, particularly diabetes. Diabetes is a metabolic disorder when there is a defect in utilization of sugar by the body. Diabetes is a life style related condition due to an imbalance in handling a glucose load and is not a disease. Health is the prime and basic parameter for better and quality living. In 2015, 40 million global deaths, 70 % of the total were due to non-communicable diseases including diabetes. The total number of annual deaths had increased from 48 million in 1990 to the maximum of 56 million in 2015. It is one of the life style related to the chronic conditions with an

end result of complications that are related to the early aging changes, resulting in the blockage of small and large arteries. Yoga is complementing the lifestyle changes which are required to keep the diabetic symptoms under control, but also helps a lot in creating a life that is full of happiness and vitality. Yoga exercises reduce the harmful effects of stress-related ailments. Yogic Practices with and without diet modification would help to control the diabetes in a better way.

Objectives of the Study

To find the significant differences on the selected psychological variables among the middle aged Type II diabetic men due to Yogic Practices with and without diet modification.

Purpose of the Study

The purpose of the study is to find out the effects of Yogic Practices with and without diet modification on the selected psychological variables

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among the middle aged Type II diabetic men.

Hypothesis

It is hypothesized that there are significant differences on the selected psychological variables due to Yogic Practices with and without diet modification among the middle aged Type II diabetic men than the control group.

Review of Related Literature

Santhanayaki (2010) found that the effect of varied Yogic Practices on the selected physiological biochemical and psychological variables among diabetic patients. The study was conducted on forty five diabetic patients at Trichy and were selected as subjects, their age was ranged from 35 to 55 years. The selected subjects were divided into three groups. Among which one group followed the VYASA pattern and the other group followed Bihar school of yoga pattern. The study was formulated as a pre post and pre experimental design. The yogic practice group had a significant improvement in self-confidence and decrease in stress than the control group.

Schell, Allolio & Schonake (1994) conducted a study on physiological and psychological effects of Hatha-yoga exercise in the diabetic middle aged men. They measured heart rate, blood pressure, the hormones cortisol, prolactin and growth hormone and certain psychological parameters in a yoga practicing group and control group of young female volunteers prior and after the experimental period. The heart rate was significantly different in yoga group and having a significant decrease in heart rate during the yoga practice. In the personality inventory, the yoga group showed markedly higher scores in life satisfaction and lower scores in excitability, aggressiveness, openness, emotionality and somatic complaints. Significant differences could also be observed concerning coping with stress and adjustment at the end of the experiment. The yoga group had significant higher scores in high spirits and extravertedness.

Methodology

In the random group experimental design, the study was limited to Type II diabetic patient. The subjects were selected from Chennai. The age of the

subjects were ranged from 40 and 50 years. The independent variables were Yogic Practices with and without diet modification. The dependent variables chosen were Psychological variable such as self-confidence and adjustment. Random group experimental design was used. Random sampling design was followed to select the subjects. 120 Middle aged Type II diabetic men came forward, 90 patients were found with Type II diabetes and finally 60 diabetic men were selected randomly. Three groups, 20 subjects in each group was formed as a Yogic practice with diet modification (YPWDG) Yogic practice without diet modification (YPWODG) and Control group (no treatment but in active rest - CG). Psychological tests were conducted for the Pre and Post tests to collect the data.

VARIABLES	CRITERIAN MEASURES	INSTRUMENT USED
Self confidence	Numerical Value	Self-confidence questionnaire by Rekha Agnihotri consisting of 52 questions
Adjustment	Numerical Value	Adjustment questionnaire by H.S.Asthana(1950)

Experimentation was done for 12 weeks, 6 days a week and daily. Pre-tests were conducted initially for all the groups on selected dependent variables. Post-tests were also conducted for all the groups on selected dependent variables. Analysis of Co-Variance (ANCOVA) was used to assess the significant differences among the groups between the pretest and post test of the groups. The normality of the collected data was tested through the standard statistical procedures, F test (ANCOVA). 0.05 level of significance was fixed to test the hypothesis.

Results and Discussions

The data pertaining to the variables collected from the three groups before and after the training period were statistically analyzed by using Analysis of Co-variance (ANCOVA) to determine the significant difference and tested at 0.05 level of confidence.

Table I. Analysis of co-variance (ancova) for pre and post tests data on the self-confidence of the experimental groups and control group

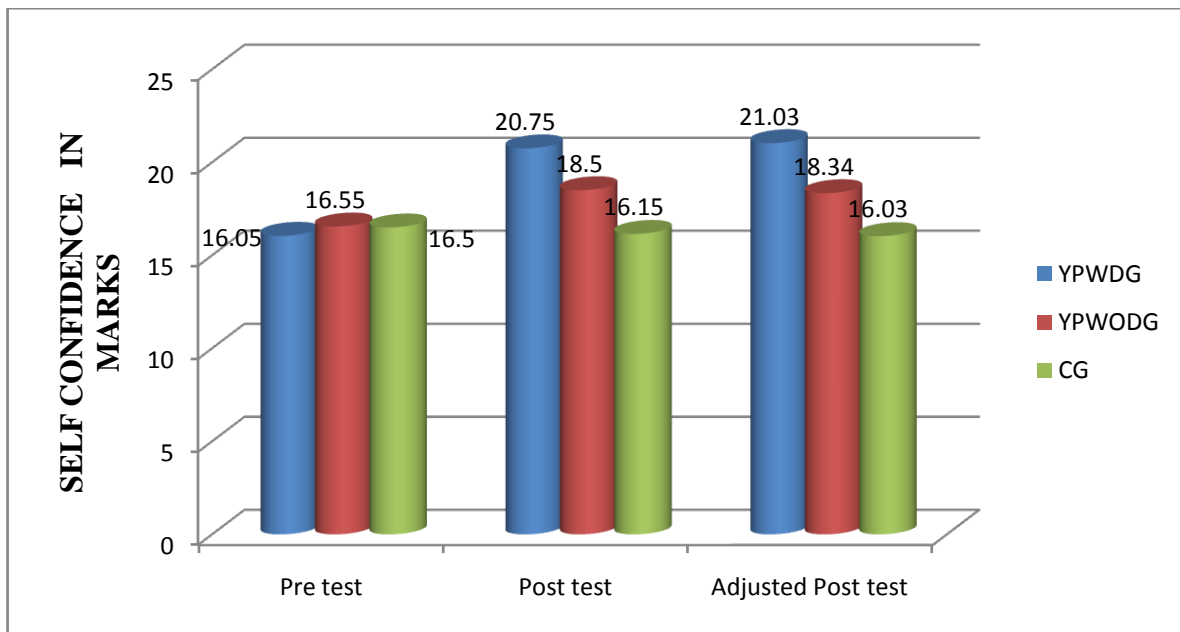
Tests/ Groups		YPWDG	YPWOD G	CG	S O V	Sum of Squares	df	Mean Squares	“F” Ratio
Pre Test	\bar{X}	16.05	16.55	16.50	B	3.03	2	1.52	0.59
	σ	1.85	1.79	1.05	W	146.90	57	2.58	
Post Test	\bar{X}	20.75	18.50	16.15	B	211.63	2	105.82	40.95*
	σ	1.68	1.88	1.18	W	147.30	57	2.58	
Adjusted Post Test	\bar{X}	21.03	18.34	16.03	B	247.12	2	123.56	230.39*
					W	30.03	56	0.54	

* Significant at 0.05 level of confidence (The table values for significance at 0.05 level of confidence with df 2 and 57 and 2 and 56 are 3.16 and 3.16)

The obtained F - ratio value for the Self-confidence are greater than the table value, it indicates that there is a significant difference among the posttest and adjusted post-test means of the Yogic Practices with and without Diet Modification group than the Control

Group. The pre test, post test and adjusted post-test mean values of the YPWDG, YPWODG and CG on Self-confidence performance are graphically presented in the figure I.

Figure I. Bar diagram showing pre test, post test and ordered adjusted mean post test on self-confidence of the experimental and control groups



The above finding substantiated by observations of the expert Schell, Allolio and Schonake (1994). The Analysis of Co- Variance (ANCOVA) on BMI –

Adjustment of the Yogic Practices with and without Diet Modification and the Control Groups are analysed and presented in the Table 2.

Table II. Analysis of co-variance (ancova) for pre and post tests data on the adjustment of the experimental groups and control group

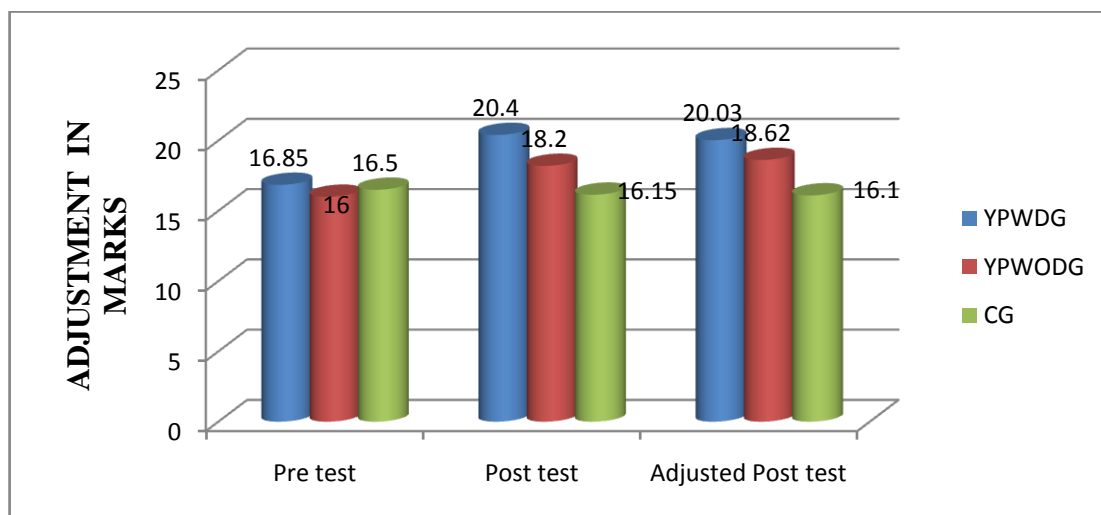
Tests/ Groups		YPWDG	YPWODG	CG	S O V	Sum of Squares	df	Mean Squares	“F” Ratio
Pre Test	\bar{X}	16.85	16.00	16.50	B	7.30	2	3.65	2.75
	σ	1.09	1.29	1.05	W	75.55	57	1.33	
Post Test	\bar{X}	20.40	18.20	16.15	B	180.70	2	90.35	39.45*
	σ	1.27	1.96	1.18	W	130.55	57	2.29	
Adjusted Post Test	\bar{X}	20.03	18.62	16.10	B	157.07	2	78.54	68.30*
					W	64.39	56	1.15	

* Significant at 0.05 level of confidence (The table values for significance at 0.05 level of confidence with df 2 and 57 and 2 and 56 are 3.16 and 3.16)

The obtained F - ratio value for the Adjustment are greater than the table value, it indicates that there is a significant difference among the posttest and adjusted post-test means of the Yogic Practices with and without

Diet Modification than the Control Group. The pretest, posttest and adjusted post-test mean values of the YPWDG, YPWODG and CG on Adjustment performance are graphically presented in the figure II.

Figure II. Bar diagram showing the pre test, post test and ordered adjusted mean post test on the adjustment of the experimental and control groups



The above findings can also be substantiated by the observations made by renowned Kosuriet.al.,(2009). The results proved that there are significant differences due to Yogic Practices with Diet Modification (YPWDG) and Yogic Practices without Diet Modification (YPWODG) on the selected Psychological variables such as Self-confidence and Adjustment were improved than the Control group (CG). Thus, the hypothesis was accepted at 0.05 level of significance.

Conclusions

It is concluded that the Yogic Practices with Diet Modification (YPWDG) and Yogic Practices without Diet Modification (YPWODG) on selected Psychological variables such as Self-confidence and Adjustment were improved than the Control group (CG). The practitioners of the Yogic Practices with and

without Diet Modification are better in the promoting psychological variables than the non-practitioners.

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