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The effect of eight weeks hydrotherapy exercises on the mental health of men staffs of bid boland gas purge company of omidiyeh city

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Abstract

The aim of this research is to consider the Effect of Eight weeks Hydrotherapy Exercises on the Mental Health of Men staffs of Bid boland gas purge company of Omidiyeh city. The method of this research is semi-experimental type that has been done on experimental and control groups. Celburg and healer general health questionnaire GHQ-28 has been used in this study. This questionnaire has four dimensions (Physical Complaint, Anxiety, Disorder in Social adequacy, Depression). Also by using hydrotherapy exercise in the format of aerobic exercise the experimental group was practiced in swimming pool. The statistical society for the study is all the 40-50 years old male employees (n=200) in the Bid boland gas purge company that after calculating the mean of mental health scores (mean= 50.69) and also standard deviation (SD= 13.88) in statistical population, with one and half SD higher than average ($50.69 + (1.5 \times 13.88)$), 40 participants were selected and then these people randomly divided into 2 experimental (n=20) and control (n=20) groups. Analyzing of data was performed by computer and using spss software and statistical method of independent-sample t-test. Considering the study findings showed that hydrotherapy exercise of running in water with intensity of 60% to 70% of Maximum Heart Rate (MHR) has a positive effect on mental health and its dimension. Since level of hormones such as nor epinephrine, serotonin and dopamine is low in body of some one who is suffering than depression and anxiety. It seems that hydrotherapy exercise could increase level of these hormones. (Gaszkow, 2004) suggest to person who is suffering than depression, anxiety that for decrease depression and anxiety and another disorders do hydrotherapy exercise in swimming pool with intensity of optimal aerobic exercise that was suggested by researcher. (Netz, 2005). In addition, when exercise is done in water the persons have at least pressure on their joints in compare with do exercise in out of water and also have goog feel.

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1. Introduction

The technology age and machine life by its own have resulted in some problems although it brings up all the advantages for humanity. Because this life style takes away a dynamic human characteristic: e motion front itself and have replaced immobility and motionless by it since motion is the human life key and this is by motion that human can interact the others and fulfill it's talents any risk threatening this human characteristic as a result could affect the person mental health and produce some problems result from stresses such as depression, anxiety and

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other problems. Depression is among the most common mental problem brings about people to refer psychologists and other specialists like mental health specialists Depression is comparable, in this light, with cold among physical problems 15 to 70 percent to adult society individuals may exhibit different signs and conditions of major depression. At least 12 percent of developed countries populations refer to psychologists to treat major depression signs over their lives and it's assumed that 0/5 percent of those hospitalized in psychotherapy institutes are suffering from depression. Higher percentage of women are with depression for unknown reasons as well as depressed men to woman rat in the industrialized developed countries is about 2-1-studis conducted in recent years behalf world health organization specialists in developing countries of Asia and Africa indicator increase in depression prevalence range among developing nation: The person psyche will be undergone stress followed by depression and this stress would be led to Various physical reactions in effect when people suffer from stress heart, lungs, end ocarina glands and neural system function is higher than other parts of body. Possibility of occulting in a kind of physical disorder would be increased where these signs are continues. Therefore, some strategies should be planned to treat patient with respect to vulnerability level. Although medicine therapy has been effective in treating these "types of people, most specialists like (meyer, 2000), (Brosnahan and sterphan, 2004), Anderson et al. (2005), (Debora et al, 2006), (Vaile et al, 2007) suggest sport activity in treating tense types of people water therapy could be mentioned among sport activities water therapy or mention therapy in water is a combination of practicing in water and physiotherapy use of water practices designed in the form of playing to bring uplifting sprite in patients with mental conditions.

2. Methods

This method of this research is semi-experimental type conducting in field manner and using experimental and control groups. In this research coldburg and Healer GHQ-28 questionnaire including 28 questions and 4 dimensions has been used. This questionnaire has four dimensions (Physical Complaint, Anxiety, Disorder in Social adequacy, Depression).the reliability of this questionnaire was counted for 4 dimensions and its mental health by using cronbachs alpha and split-half(%88,%84;%92,%86;%71,%73;%80,%85;%92,%92).The statistical society for the study is all the 40-50 years old male employees (n=200) in the Bid boland gas purge company that after calculating the mean of mental health scores (mean= 50.69) and also standard deviation (SD= 13.88) in statistical population, with one and half SD higher than average ($50.69 + (1.5 \times 13.88)$), 40 participants were selected and then these people randomly divided into 2 experimental(n=20) and control(n=20) groups. the experimental group did aerobic exercise of running with intensity of 60% to 70% of Maximum Heart Rate (MHR) for 8 weeks . Analyzing of data was performed by computer and using spss software and statistical method of independent-sample t-test.

3. Results

1- The results table one and two show the important information of mean and Std. Deviation of statistical population and also sample groups

Table 1: Descriptive Statistics of statistical population

	N	Minimum	Maximum	Mean	Std. Deviation
Physical complaint	200	7.00	22.00	12.3400	5.52149
Anxiety	200	7.00	24.00	13.1900	6.09258
Disorder in social adequacy	200	8.00	20.00	16.0750	2.92784
Depression	200	7.00	17.00	9.2900	2.73924
Mental health	200	34.00	75.00	50.8950	13.84857

Table 1: Descriptive Statistics of statistical samples

Stage	Variables	groups	N	Mean	Std. Deviation	Std. Error Mean	
Pre-test	Physical complaint	experimental group	20	21.4000	.50262	.11239	
		control group	20	21.3500	.48936	.10942	
	Anxiety	experimental group	20	23.2000	1.00525	.22478	
		control group	20	23.3000	.97872	.21885	
	Disorder in social adequacy	experimental group	20	18.3500	1.08942	.24360	
		control group	20	18.0000	.00000	.00000	
	Depression	experimental group	20	10.0500	.39403	.08811	
		control group	20	10.2000	.61559	.13765	
	Mental health	experimental group	20	73.0000	1.21395	.27145	
		control group	20	72.8500	.87509	.19568	
	Post test	shekayat2	experimental group	20	17.1500	1.63111	.36473
			control group	20	21.2000	1.39925	.31288
azterab2		experimental group	20	18.1000	3.04181	.68017	
		control group	20	23.6000	.50262	.11239	
karkard2		experimental group	20	13.7500	2.17340	.48599	
		control group	20	18.3500	.67082	.15000	
afsord2		experimental group	20	7.4500	.68633	.15347	
		control group	20	10.0000	1.12390	.25131	
salamat2		experimental group	20	54.2500	5.59958	1.25210	
		control group	20	73.1500	2.05900	.46041	

Table 3: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Std. Error Difference	95% Confidence Interval of the Difference	
		Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
Pre- Physical complaint	Equal variances assumed	.395	.534	.319	38	.752	.05000	.15686	-.26755	.36755
	Equal variances not assumed			.319	37.973	.752	.05000	.15686	-.26756	.36756
Pre- Anxiety	Equal variances assumed	.395	.534	-.319	38	.752	-.10000	.31372	-.73510	.53510
	Equal variances not assumed			-.319	37.973	.752	-.10000	.31372	-.73511	.53511
Pre- Disorder in social adequacy	Equal variances assumed	10.32	.003	1.437	38	.159	.35000	.24360	-.14315	.84315
	Equal variances not assumed			1.437	19.000	.167	.35000	.24360	-.15987	.85987
Pre- Depression	Equal variances assumed	1.606	.213	-.918	38	.365	-.15000	.16343	-.48085	.18085
	Equal variances not assumed			-.918	32.331	.366	-.15000	.16343	-.48277	.18277
Pre- Mental health	Equal variances assumed	.163	.688	.448	38	.657	.15000	.33462	-.52741	.82741
	Equal variances not assumed			.448	34.548	.657	.15000	.33462	-.52964	.82964
Pos- Physical complaint	Equal variances assumed	.859	.360	-8.428	38	.000	-4.05000	.48054	-5.02281	-3.07719
	Equal variances not assumed			-8.428	37.140	.000	-4.05000	.48054	-5.02355	-3.07645
Pos- Anxiety	Equal variances assumed	31.32	.000	-7.978	38	.000	-5.50000	.68939	-6.89560	-4.10440
	Equal variances not assumed			-7.978	20.037	.000	-5.50000	.68939	-6.93788	-4.06212
Pos- Disorder in social adequacy	Equal variances assumed	34.12	.000	-9.044	38	.000	-4.60000	.50861	-5.62963	-3.57037
	Equal variances not assumed			-9.044	22.587	.000	-4.60000	.50861	-5.65320	-3.54680
Pos- Depression	Equal variances assumed	3.807	.058	-8.660	38	.000	-2.55000	.29447	-3.14612	-1.95388
	Equal variances not assumed			-8.660	31.441	.000	-2.55000	.29447	-3.15023	-1.94977
Pos- Mental health	Equal variances assumed	16.30	.000	14.167	38	.000	18.90000	1.33407	21.60068	-16.19932
	Equal variances not assumed			14.167	24.046	.000	18.90000	1.33407	21.65310	-16.14690

2- Comparison between experimental and control group show that there is no significant difference between two group in the stage of pretest but there is significant difference between two groups on variables of study. The result table 3 shows it completely.

4. Discussion and Conclusion

The purpose of this study the effect of eight weeks of hydrotherapy on the rate of mental health staff of Bid boland gas purge company of Omidiyeh city. Results of this study shows, the group that did hydrotherapy at least one suffering from mental disorders have been better. The study also can be concluded that continuing to do hydrotherapy can reduce to some mental disorders. in total the Findings of this study show that hydrotherapy exercises has positive effect on most of mental health factors. The results of this research are harmony with research results of (Anderson,2005), (Debora & et al 2006), (Vaile and c & et al 2007), (Gaszkow, 2004), (Evan, 2004), (Martinsen, 2000. On the other hand the results of this study indicate that hydrotherapy exercise is not related to any disorder in social adequacy. This results is harmony with the research results of (Dong, 2008), (Resende, 2007), (Khenchtle, 2004), (is in parallel.

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