



The Effect of Twelve Sessions of Swimming Program on the Self-concept of Male Addicts under Treatment

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ABSTRACT: Addiction to narcotics is one of the individual and social damages which makes the individual physical and mentally dependent on drugs and influences their behaviors. Every community incurs many expenses each year in addiction control programs. In this research we will study the effect of twelve training sessions of swimming on the self-concept of addicts under treatment. This research is quasi-experimental and conducted as a field study. A convenient sample of 20 subjects was selected from the male addicts referring to addiction control centers of Tehran province congress 60. Each sample filled out the Beck standard self-concept test (1978) and participated in twelve swimming training sessions and filled out the tests after completion of these twelve sessions. Finally, data was analyzed by Kolmogorov-Smirnov test for normalcy of data distribution and paired-sample t test in significance level 0.05 through SPSS 22. Results of self-concept at significance level $\alpha = 0.05$ indicated that there was a significant difference between scores of self-concept of male addicts (before the training = 78.35) and (after the training = 88.7). No significant difference was observed in mean scores before and after the training in view of the results of self-concept subscales including mental ability and physical attractiveness. Results of the research showed that twelve swimming sessions can be effective in improvement of psychological conditions of quitting addicts and help them enhance their sense of value, positive attitude toward themselves and hence self-concept. Therefore, swimming can always be included in the addicts' treatment programs.

Keywords: Self-concept, Swimming training, Addicts

INTRODUCTION

Drug abuse and dependence is a chronic and recurrent disorder with biological, cultural, psychological, social, behavioral and spiritual effects (Dabaghi *et al.*, 2008). Various addictive substances with different characteristics and influences on the physiologic and neural systems of human have tranquilizing or triggering effects. Therefore, addictive substances can be categorized in two general groups of "Addictive" or reducing C.N.S. activities and "stimulant" which increase the function of central nervous system. It seems that the addictive substance is essential for normal cellular function and its interruption may cause changes in physiologic processes and hence deprivation symptoms which lead to unpleasant physical and psychological moods known as "hangover". As concerns narcotics addiction, sports and physical activities can be useful by improving physiological characteristics such as improvement of cardiovascular condition, physical fitness, bone density, muscular strength, insomnia, ... and psychological characteristics such as reduction of anxiety, depression, aggressiveness, improved concentration and attention, increased self-confidence ... , and in psychological area by improving characteristics such as sociability, legitimacy, independence (Belardinelli *et al.*, 1999, Sandercock *et al.*, 2007, Landers and Petruzzello 1994,

McDonald and Hodgdon 1991, Craft, 1998, North *et al.*, 1990).

Sport has the potential to improve and enhance health in the body of the addict in cases that the addicts suffer disorders. With regard to the side effects of drugs in the treatment of addicts, sport is a non-pharmaceutical method that can have reciprocal effect on the remuneration system. Sport activates the same system in the brain that is resulted from drug consumption through dopamine and its receptors (Micheal, 2002, O'Dell *et al.*, 2012, Lynch *et al.*, 2010).

According to scholars, a major part of personality characteristics, nature and behavioral characteristics of individuals depends on the self-concept of each individual in mind. Precision in self-concept helps us be realistic about our mistakes, assume the responsibility of our behavior and accurately assess our performance without wandering between accountability and blaming. In general, self-concept helps us have better performance.

Some studies have stated that young addicts have lower self-concept than non-addicts. Landers *et al.*, 2002 came to the conclusion that appropriate physical activities may reduce psychological indicators such as depression and anxiety and increase self-esteem and self-confidence to a significant level.

The researchers of behavioral sciences believe that self-concept can be influenced by intervening programs such as sports and physical exercise or power increasing programs (Damiano *et al.*, 1995). One of the low-cost and riskless sports is swimming. The effects of swimming on the body and mind are countless. Swimming has all of the characteristics of sport in securing health and mental health (Carson and Bridges 2011).

According to the above findings and the sports' property in releasing emotions and enhancing self-concept, and with regard to the few studies on the role of sport in the self-concept of addicts particularly on the role of aquatic sports on their self-image, the researcher seeks to find whether 12 sessions of swimming is effective in the self-concept of male addicts under treatment with D.S.T and O.T using balanced sport beside medical and psychological treatments.

RESEARCH METHODOLOGY

This research is quasi-experimental which was carried out as a field study. The statistical population of the research includes male addicts of Tehran province who voluntarily referred to one of the addiction centers of the human restoration society of Tehran province congress 60 in 2014 to quit addiction. Finally, 20 qualified individuals were selected by convenient method.

The basis for including the samples into study was that all samples aged between 20 and 40. Subjects had no special disease unless addiction. (AIDS sufferers and other acute diseases were excluded from the study). All samples had at least 5 years of addiction experience. The subjects had started their treatment process 2 months before. Samples filled out the Beck standard self-concept test (1978) with Cronbach's alpha

coefficient of. 0.752. The test aims to assess self-concept including 25 questions in the Likert 5-item scale including mental ability, physical attractiveness, ethical issues, work conscience, and social skills. At first samples filled out the questionnaire after being informed about the research and how to fill out questionnaires. They participated in 12 training sessions of swimming three times a week and 90 minutes per session. The program had been devised by the researcher and his colleagues. After completion of the educational course, they completed the questionnaire for the second time and the obtained results were analyzed.

Data was analyzed by appropriate statistical tests including descriptive statistics (including measures of central tendency and scattering, tables and diagrams) and inferential statistics (Kolmogorov-Smirnov test for normalcy of data distribution and paired-sample t test in significance level 0.05 by SPSS v. 22).

RESULTS

Results of descriptive study of age showed that most respondents (35%) aged between 36 years and 40 years, and 20% of them aged 31 years to 40 years. Most respondents (70% had high school diploma and 5% had studied up to high school. Most subjects were literate. As regards the duration of addiction, most respondents had been consuming addictive substances for 9 to 12 years and 15% of subjects had been addicts for 12 years and higher. As regards the type of consumed substance, most respondents (55%) used glass, 10% of them used heroin and Hashish, 50% were addicted to opium and 25% used grass. In view of the duration of trip (the time of starting healing) most respondents (50%) aged between 8 months and 10 months and 20% of them aged between 5 months and 7 months.

Table 1: The frequency distribution of respondents by age.

Age (year)	Frequency	Frequency (%)	The cumulative percentage
20-25	4	20	20
26-30	4	20	40
31-35	5	25	65
36-40	7	35	100
Total	20	100	-----

Table 2: Distribution of respondents with regard to education.

Level of Education	Frequency	Frequency (%)	The cumulative percentage
The diploma	1	5	5
Diploma	14	70	75
Associate Degree	3	15	90
Masters	2	10	100
Total	20	100	-----

Table 3: Distribution of respondents in terms of substance.

Substance	Frequency	Frequency (%)
Grass	5	25
Opium	10	50
Hashish	2	10
Glass	11	55
Heroin	2	10
Total	30	150

The self-concept of each individual is equivalent to the total scores obtained on research indicators (mental abilities, physical attractiveness, ethical issues, work conscience and social skills). Data shows that the significance level of paired-sample t test is <0.05. The mean of self-concept scores before and after the training was 78.35 and 88.7 respectively, which indicated the significance of difference.

Results of self-concept subscales (i.e. mental abilities, physical attractiveness, ethical issues, work conscience and social skills) showed that swimming training had no influence on mental ability and physical attractiveness of the samples. However, ethical issues, work conscience and social skills indicated a significant difference before and after swimming.

Table 4: Comparison of self-treated male addicts before and after training.

Index	Group	Mean	SEE	Sig
Self-concept	Before education	78.35	10.88	< 0.001
	After education	88.7	8.18	
Mental ability	Before education	16.8	3.05	0.577
	After education	17.1	2.49	
Physical attractiveness	Before education	17.35	3.58	0.460
	After education	18.85	2.56	
Ethical issues	Before education	12.35	2.98	< 0.001
	After education	18.45	2.74	
Working efficiency	Before education	12.2	3.41	0.043
	After education	13.25	3.13	
Social skills	Before education	19.65	2.43	< 0.001
	After education	22.05	2.54	

DISCUSSION

This research aims to study the influence of twelve swimming sessions on the self-concept of male addicts under treatment. Research results showed that 12 swimming sessions positively influenced the self-concept of male addicts. Results of a new study showed that 12 swimming sessions positively influenced the self-concept of old women. Falkner and Sim studies roved an improvement of self-concept and mental health following physical exercises (Dabaghi *et al.*, 2008).

The positive effects of physical exercises began from the first sessions of sport activities and continued following sport activities. Findings of Euroshi *et al.* 1999 and Soleimani & Noorbakhsh 2012 indicated a positive and meaningful influence of physical education particularly water exercises on mood and mental health and happiness. Plent *et al.* carried out a study to review the influence of sport on mental health. They found that physical exercises improve mood, mental health, self-esteem and self-confidence of participants (Sandercock *et al.*, 2007).

Individuals can improve their effective social communication and feeling usefulness and self-concept by physical exercises and increasing their physical strength. In this case they feel valuable which means positive self-concept. This feeling of value is created following pleasant social contacts. Perhaps one of the reasons of convergence of these studies is that once the individuals take part in regular and permanent physical activities they can make changes in the physical strength leading to physiological benefits. Saadat Mehr 2014 conducted a research under the title of studying the effectiveness of an aerobic exercise program on physical self-concept and self-esteem of nurses. They

found that aerobic activity has no effect in the self-esteem of nurses (Saadatmehr *et al.*, 2014).

Mayorga 2012 made a short term study on the influence of physical fitness program on the self-concept of students and found that progress in physical fitness is not accompanied by major changes in self-concept. It seems that the lack of association of the findings of other researchers can be attributed to constraints such as the short period of exercise program, the intensity and the type of exercise. This is because according to the statement published by US sport medical college, desired psychological benefits can be achieved by 3 to 5 sessions per week of regular aerobic exercise. The questionnaire for assessment of self-concept can be different. Other reasons of lack of coherence of studies may include demographic characteristics such as age, sex, living conditions and education of the subjects. Yet, other reasons are the degree of interest of subjects in the performed activities. Therefore, it is recommended to assure the subjects' positive attitude to the intended activity before introducing intervention measures in future studies. Another assumption for explaining the absence of relationship between aerobic exercise and self-concept of the subjects is that it seems that subjects had a good self-concept from the beginning. Short-term sport courses led to no capability and qualification in the sample and did not improve their self-concept.

As we may know, healing addiction consists of two medical and non-medical parts. Medical treatments contribute to almost 5% to 10% while non-medical treatments contribute to 90% to 95% of healing an addict. Low self-esteem and self-concept are the two factors in addiction and recurrence after healing. Group and individual exercising has helped addicts increase their self-concept, followed by feeling value which means positive self-concept and enables them to resume a new life.

On the whole, the findings of research showed an increase in self-concept. In other words, 12 sessions of swimming training improved the self-concept of male addicts under treatment. Findings also proved that the present exercise program enhances the subscales ethical issues, work conscience and social skills in samples. However, it was not effective in mental ability and physical attractiveness.

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