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Effect of mental exercise on under-spinned back hand service of table tennis male athletes of 13 to 18 in Kermanshah city

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ABSTRACT

This study is done on the effect of mental exercises on table tennis, male athletes in 13-18 in Kermanshah the goal of study is to assign the role of mental exercise on the skill of under spinned – back hand service among the tale tennis athletes. The statistical society includes all of male, table tennis athletes in 13 to 18 in Kermanshah, they were 242, and they had at least once attended in the competitions. 32 people were randomly chosen, and they also randomly classified in two groups including: control group (16 persons) and experience group (16 persons). At first, they had taken in the primary exams, and then the control group attended in practical exercise (technical) the experience group taked the primary, mental exams. After passing 12 sessions of exercise, they attended in the final exams. Methodology is semi-experimental. We choose the independent t-exam in order to analyize data.the dependent t-exam relates to mono-lateral variance analyses (ANOVA). The results show that there is no meaningful difference between the middle of pre-test and post-test in the control group. The same result is in the middle of post-test in the control group according to screwed, under-spine-back hand service.

Keywords: table tennis athletes, exercise, function, mind

INTRODUCTION

Regarding technological, industrial development in the different societies, unfortunately humans are alls industrialized and less-movement. The region physical treatment of body is so extended that it can provide these problems. But there is a deep distance between our sport and the world, such distance can be covered in a study. One of the approaches of physical treatment branch is the psychology of sport. If athletes know about the psychological moods, they can achieve the sublime goals in the physical treatment. The condition of our life, the role of relaxation (minus any tension) can help people. The relaxation exercise is the introduction for mental imagination, it means people can use the positive effects of mental imagination. It is no doubt that the person should be relaxed before mental exercise. The mental imagination has positive effect on learning and movement skills. As whole, the researches show that doing the mental exercise is better than not doing them. The combination of mental and physical exercise can be affective as other exercise. Among the researches that have been done, on mind in 1980, those of Richardson published in 1976 which was the best, but the mental exercise was an affective factor both in learning and the movement skills. Besides, the researches of Hamid Foroghi Poor in 1996 and Keyvan Kazemi in 1996 concluded that the mental imagination can be affective in learning and developing the sport skills.

Every person has a special image or design in his mind, he may not be conscious about it, but they exist in details. The mental imagination has the plentitude application, every person can use them in every situation, along with R. Issac researched on the effect of visual, mental exercise on learning as a complex physical skill in an actual situation and its effect on applying skills. The results show that there is no meaningful difference between imagination and the primary abilities in the experiment and control groups. Those who have imagined deeply developed more than those who have done them less. Orlic and Partington's researches showed that 99 percentage of 135 players have accepted the imagination as a means to prepare them for competition. Shamsi Sanati Monfared has also researched on the effect of mental exercise of female, table tennis players in 1379, she concluded that the experiment group has used the relaxation and mental imagination developed comparing to the control group considerably.

Mozhgan Salehipoor researched on the effect of mental exercised by using auditory and visual models on volleyball player's carefulness in their services, the same research has been done among female Volleyballist player in 15-20 in Ilam in 1379. She concluded that the program of mental imagination is influenced on the volleyball player's services. As whole, the most researches of mental exercise on the sport skills have been useful, and there was only a few left unapproved. Finally, it should be mentioned that mental instruction isn't a mystical, magical formula, instead it is one of the aspects of athletes' complete programs, its goal is to help people to play in the best psychological condition.

The Goals of Study:
It is to examine the effect of mental exercise on male, table tennis athletes in 13-18 in Kermanshah city.

The sophisticated goal:
It is to examine the effect of mental exercise on under-spinned back hand services among the male, table tennis athletes in 13-18 in Kermanshah.

The Research Hypothesis
There is no meaningful difference between the

Hypothesis 1: middle of pre-test and post-test on the skill of under-spinned, back hand service in the experiment and control groups.

Table 1. T-dependent test to compare the middle in the pre-test and post-test

The skill of under-spinned, back hand service in the experiment group

	middle	number	standard deviation	middle of standard deviation
pre-test	6.81	16	3.449	%862
post-test	12.68	16	4.854	1.213

statistics of bilateral examples

	number	correlation	meaningful correlation
pre-test & post-test	16	0.124	0.648

dependent t-test (bilateral examples)

	the difference of dependent examples					
	middle	standard deviation	middle of standard deviation	t	freedom level	meaningful
pre-test & post-test	-5.875	5.596	1.399	-4.199	15	0.001

Regarding the meaningful number of t-test, dependent (0.001) which is less than 0.05, table shows that there is meaningful difference between the middle in pre-test and post-test on the skill of under-spinned, back hand service, it means the rejection of zero hypothesis, because of meaningful differences of results, analyses show that H_0 is rejected and (H_1) is approved meaning the acceptance of research document.

The diagram 1 is based on comparison of middles in pre-test and post-test in the experiment group. Considering the diagram, we know the experiment group has developed after 12 session in the level of post-test.

diagram 1 the comparison of middle in pre-test and post-test in under-spinned back, hand service

Hypothesis 2: There is not meaningful difference between the middle in pre-test and post-test in the control group in under-spinned, back hand service.

Table 2. Dependent t-test to compare the middle in pre-test and post-test in under-spinned, back, hand service

Statistics of bilateral examples

	middle	number	standard deviation	middle of standard deviation
pre-test	7.06	16	4.024	1.006
post-test	8.25	16	4.389	1.097

The correlation of dependent examples

	number	correlation	meaningful correlation
pre-test & post-test	16	0.588	0.017

Dependent t-test (bilateral examples)

	the difference of dependent examples					
	middle	standard deviation	middle of standard deviation	t	freedom level	meaningful
pre-test & post-test	-1.18	3.833	0.958	-1.239	15	0.23

Regarding the meaningful number of dependent, t-test (0.23) which is more than 0.05, table 2 shows that there is no meaningful difference in the middle of post-tests and pre-tests on the skill of under-spinned, back hand service, it means the hypothesis zero is approved. It shows that there is no meaningful difference between the results, hence (H_0) is approved and (H_1) is rejected.

Diagram 2 is based on comparing the middle in pre-test and post-test in the control group. We know that there is very trife difference between the middle in the control group in pre-test and post-test.

MATERIALS AND METHODS

It is done on semi-experimental method including a group of 242 table tennis athletes in Kermanshah in which 32 people were randomly chosen who were also randomly classified in two groups: control group (16 persons), and the experiment group (16 persons). the control group just concerned the pragmatic exercises and the experiment group did the relaxation and mental exercises. They took also pre-test and post-test on the skill of under-spinned, back, hand serviceboth groups exercised for 12 session, every session was 60 minutes, the experiment group exercised the mental sport and the relaxation for 30 minutes, and the last 30 minutes were passed on the pragmatic exercise, but the control group spent whole time on the pragmatic exercises.

They also planned to avoid clumsiness in the exercise, they used the descriptive, approved statistics to analyize data. The descriptive statistics have used the tendency (middle, median, mode), desperate factors (standard deviation, variance of factors). The approved statistics have used the dependent and independent t-test, mono-lateral variance, Colmogroof, Smirnof, Alfa Cronbakh tests to analyize data.

CONCLUSION

Regarding the results of research hypotheses, it can be concluded the
- Mental imagination exercise improve the table tennis athlete's functions in the skill of under-spinned, back hand service in the experiment group.
- The mental, imagination exercise does not improve the table tennis athlete's functions in the skills of under-spinnde, back hand service.

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