Use of tai chi trainings to development some of the Physiological variables and psychological skills for Karate players

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Abstract

The research aims to develop a set of tai chi exercises to identify their effect on some physiological variables (heart rate - blood pressure - the vital capacity), some psychological skills (focus of attention - the ability to imagine - Relaxation - achievement motivation - The ability to facing anxiety - self-confidence) for karate players, researcher used the experimental method, size of the sample (25) player and the researcher used the test of psychological skills, which contains 24 sentence and 6 dimensions proposed for the implementation of training for ten weeks three times a week and it was the most important results, a statistically significant differences in physiological variables and psychosocial skills.

Key word: psychological skills, Taichi, breathing, karate, physiological variables.

Introduction

Sport training became process to upgrade the player through the indicators planned for the purpose of developing competence in the performance of all modern requirements of any sport, it is part of the training methods used for the development of a player level and how to use any sport or activity or another training technique to help in improving his efficiency in that activity and the researcher had use the Tai chi training to development some physiological variables and psychological skills to the karate players.

Tai chi is one of Chinese martial arts, is composed a series of combined of slow movements, smooth, graceful and simple, an activity that can be sustained in the long term (9). Tai chi is named reflection of the movement because it contains the three components of movement, meditation, deep breathing. The basic principles of Tai chi: is to relax, slow, equality, space, balance, breathing, coordination, focus (11) the most important benefits of Tai chi are as follows:

- Heart improved
- Increased balance and stability.
- increase the strength of legs, trunk and back and improve flexibility.
- Mitigation and facing the concern.
- Increased self-confidence and self-esteem (12).
- develop the ability to relax and reduce stress.
• Focus attention does not work on relaxation of body and mind, but also help to promote mental alertness
• working to reduce metabolism and heart rate, breathing rate, blood pressure and also slows down brain waves and reduces anxiety and increases blood flow to major muscles (5).

If we look at those benefits it clear that is the most important variables that are required for karate player, which are competitive sports, which received a large popular base for their competition in the follow-up arts and tactical skill, making it occupies a distinguished place among the martial arts, and karate are divided into three parts "Basics – imagination Fighting (kata) - actual Fighting (kumote) " (1) Karate from sports, which require some special physical, physiological and psychological variables to qualify for the players to reach high levels, given the nature of Karate competition ,which require the availability of some physiological variables and psychological skills that help the player to continue in the games with the same efficiency and this physiological variables is (heart rate - blood pressure - vital capacity) and the psychological skills (the ability to imagine - relax - attention focus - The ability to facing - anxiety - achievement motivation) , psychosocial skills is an important dimension in the preparation of the players , playing a key role in the development of performance and is seen as one of the variables that must be taken side by side with the physical and tactical , skills requirements and athletes heroes at the international level converge significantly in terms of the physical level and the tactical skill and identifies the psychological factor as a result players during the competition where he plays a key role in achieving victory , El Arabi Shimon(1996) , Osama Kamel (2000) show that the development of psychological skills, like " relax - attention focus - mental imagination . Must go hand in hand with the development of elements of physical fitness through long-term programs must focus on them as is the case in the basic skills of various sports activities. (3)(2).

Based on the foregoing and given the presence of a researcher in many local and international competitions she have noticed the reduced capacity of the players on the speed of recovery between matches at different rates , and that in some cases, the player forced to compete for a large number of games in succession to reach the final round this beside of a severe case of anxiety and stress and lack of confidence when facing a rival with a known high level or one of the big teams, and thus affect the level of the players in general, therefore, the researcher tended to search for one of the ways that help the players to speed of recovery this side to the development of some important psychological aspects to support the psychological level of the players.

Method

This research aims to develop a set of tai chi exercises to identify the impact on Some physiological variables (heart rate - blood pressure - the vital capacity) , Some psychological skills (attention focus - the ability to imagine - Relaxation - achievement motivation - the ability to facing - anxiety - self-confidence) to karate players , The researcher using the experimental method by the same group with pre and post measurement . sample was selected in the manner deliberate search of players and karate had amounted to (25) player between the ages of (19-22) the mean age (20.0) ( SD 0.866) has been a consistency to them in the following variables: age , height, weight ,training age , tools used restametr , stopwatch to measure time , Sphygmomanometer , stethoscope , spirometer ,Test of psychological skills, but by Stefan Bull, John Albinson , Christopher Shambrook (1996) The Arabized Mohammad Hassan Allawi and test includes 24 sentence and 6 dimensions for measuring some psychological aspects for sports performance, namely " the ability to imagine - the ability to relax -The ability to focus attention - the ability to facing anxiety - self-confidence - athletic achievement motivation , The researcher was find transactions of scientific testing and that its application on five players and then re-apply them again after a week later

And the researcher has developed a set of tai chi exercises to be commensurate with the skills of Karate, this during special part , and also for the main part of the training , The basic experiment has done in the time period of (9 / 10 - 18 / 12 / 2005) and has been the implementation of the proposed training for ten weeks with three times weekly and the total number of the units are thirty-training unit and time unit gradient from the (60 - 90 Minutes) and the post measuring at (18 / 12 / 2005).
Results

Table 1, there were significant differences in physiological variables between before and after measuring

| Variables               | Pre-training | Post-training | T test |
|-------------------------|--------------|---------------|--------|
|                         | Mean (SD)    | Mean (SD)     |        |
| Heart rate              | 98.8 (9.71)  | 88.8 (8.33)   | 4.08 * |
| Systolic blood pressure | 155.88 (8.2) | 102.72 (9.74) | 6.16 * |
| Diastolic blood pressure| 84.6 (9)     | 75.3 (8.38)   | 5.88 * |
| Vital capacity          | 368 (42.4)   | 428 (49.18)   | 8.15 * |

Value of T indexed at the level of moral 0.5 = 1.71

is clear from Table (1) the existence of statistically significant differences in physiological variables for the post measuring.

Table 2, There were significant differences in psychological skills between before and after measuring

| Variables               | Pre-training | Post-training | T test |
|-------------------------|--------------|---------------|--------|
|                         | Mean (SD)    | Mean (SD)     |        |
| The ability to imagine  | 9.92 (4.37)  | 13.48 (2.9)   | 3.77 * |
| The ability to relax    | 7.76 (3.21)  | 13.4 (3.71)   | 5.57 * |
| The ability to focus attention | 8.72 (3.31) | 11.76 (3.92) | 3.66 * |
| The ability to facing anxiety | 10.28 (3.74) | 16 (3.14) | 6.1 * |
| Self-confidence         | 12.8 (3.01)  | 17.56 (2.97)  | 7.28 * |
| Achievement Motivation  | 12.8 (3.01)  | 17.56 (2.97)  | 7.28 * |

Is clear from Table (2) the existence of statistically significant differences in psychological skills for the post measuring.

Discussion

Is clear from Table (4) the existence of statistically significant differences in physiological variables for the post measuring, and the researcher that progress is due to the nature of the exercises used and that can be continues at the long run to helps regulate breathing to take her inspiration and exhalation with thin systematically steps and increasing the efficiency of the lungs and extend the muscles responsible for breathing, which increases vital capacity for the player.

And also considers that the systematic training of Tai Chi helps to reduce blood pressure and heart rate at rest before training them, so refer to the physiological adaptation which led to an increase in the amount of blood pumped by the heart per minute and is the size of the sum of accurate heart rate, and this is accepted with the indicated by each of the "Channer 1996 & Jin 1992" that Tai chi exercises have proven effective in reducing heart rate and blood pressure, also referred to by "Glen 1996" that, if exercise Tai chi training with low stance, will lead to improved cardiovascular capacity in the range of 60-80% of the maximum rate of the heart and also agreed with, "Jen 2003" that the training of Tai chi can cause a decrease metabolism and heart rate and blood pressure and breathing rate, and the researcher believes that the development of physiological variables would, consequently, improve the efficiency of Player of karate in general and in particular during the tournaments which require the game to compete with several games in a row and thus improve their ability to restore a more rapid recovery.

The table (5) it clear there were statistically significant differences in psychological skills for the post measuring "and the researcher returns this to the Tai chi help to balance in the brain, increase the mental alarm, and also Tai chi help remove the tension of the muscles which facilitates access to a good state of relaxation as well as mitigation and coping with fears, increase self-confidence and self-esteem and this is consistent with what was noted by "Ropert" that the use of training Tai chi lead to a sense of relaxation in good condition and reduces the stress and consistent also with the "Lawrence 1992" in which he referred, "out that the most important principles of Tai chi is relax and the researcher see that relaxation helps to get rid of tension and help the nervous system to perform its role more efficiently through practice and repetition and hence development the capacity for mental vision, and is
also agreed with what the "Wang 2004" that those exercises that enable individuals to control of mental anxiety state that haunted them and make them more aware to their thinking and opinions.

"Glen 1996" was agreed with this study in Tai chi beneficial effects that deep breathing which is characterized helping to develop of relax, reduce stress, increase attention focus and which do not work on relaxation of body and mind only, but also help to encourage the mental perception and make them more aware of their thinking and opinions.

the researcher believes that karate players need to those psychological skills, which may play an important role in success or failure, of a no less important than physical and skill variables in improving performance with enthusiasm and commitment accomplishment, when the player reach easily to relaxation thereby facilitating their ability to perception and performance the right responses by bringing mental picture of the expected skills for practice and prevent the dispersion of her idea, and thus focus on better performance, increasing their ability to focus attention leading to increased self-confidence and this increase their ability to facing anxiety thus increased ability of achievement due to increased achievement motivation, which considered one of the strongest motives that lie behind every success or excellence in sports performance, the researcher recommend for training in different ways in the form but have the same content to increase the efficiency of the players the physiological and psychological, include training Tai chi in special preparing part during the transitional period in the training season.

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