



SWIMMING — A KEMPO SPORT RECOVERY METHOD

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Abstract

In our days, recovery became a significant medium and high performance sport training element without which our body can no longer compensate the energy consumption and recover its initial status experienced previously to the effort. Furthermore, lack of a smart recovery throughout the training cycle results in body non-synergistic functionality with all the potential related adverse effects. This research is based on a questionnaire prepared by us which includes ten questions and aimed the identification of the effects of practicing swimming as recovery method. The questionnaire is addressed to high performance athletes practicing Kempo for at least three years. According to the answers to the questionnaire, we found the great interest caused by the proposed recovery programme. The sportsmen participation was active and voluntary and their involvement was thorough. Following the review of available data, we found that the hypothesis of our research was confirmed, swimming having a significant contribution to the recovery of Kempo fighters.

Keywords: recovery, Kempo, swimming, methods

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1. Introduction

In our days, recovery became a significant medium and high performance sport training element without which our body can no longer compensate the energy consumption and recover its initial status experienced previously to the effort. Furthermore, lack of a smart recovery throughout the training cycle results "in body non-synergistic functionality with all the potential related adverse effects" (Predescu & Popescu & Oprișescu, 2011).

Recovery, the sportive training trophotropic phase, benefits of a number of means that eliminate the tiredness (at all levels where it is installed) and enable the body to continue the training without a decrease in its performance. The rebalancing occurs phasically, after each effort, with or without intervention on the

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body. Obviously, the controlled recovery is the most effective and it must be associated, mandatory, with the spontaneous recovery in order to enable "the reinstatement of the homeostasis prior to the effort and even the overcoming of such homeostasis by performing a functional overcompensation" (Bratu & Gherghel, 2011).

A significant component of the controlled recovery is the active rest during which the body is subjected to an easy and pleasant effort oriented towards other functional systems and muscular groups less involved in the usual effort. Considering the foregoing, one of the mostly recommended effort is the swimming which stresses mainly the aerobic system „that favors the degradation of the acid metabolites and other metabolic waste" (Bota & Prodescu, 1997) appearing during the special Kempo neuromuscular effort, very demanding mainly for the nervous and muscular systems that depend on the superior interrelation functional capacity indexes (Bota, 2000). In Kempo, the muscular groups incur mainly unidirectional sagittal effort (Petre, 2014), being involved all the segments. Swimming has the ability to relieve the stress and relax the muscles, as well as to remedy the postural deficiencies and to improve the body posture. Moreover, swimming (according to Bratu & Gherghel, 2011, as adapted and amended by us, 2017) also enables:

- The improvement of the venous and lymphatic circulation activity;
- The rebalancing of the homeostasis status to the status existing prior to the training efforts;
- The facilitation of the removal of radicals resulted from the catabolic process;
- The prevention of the cortical excitation centers.

2. Purpose

The study aimed to continue the works of the first author and third author in the research project designed and published under aegis of the National University of Physical Education and Sports of Bucharest, as a partner of the programme co-funded by the European Social Fund within the Operational Sectorial Programme for Human Resources Development 2007-2013 through the project Pluri- and interdisciplinary in doctoral and post-doctoral programmes Project Code: POSDRU/159/1.5/S/141086, its main beneficiary being the Research Institute for Quality of Life, Romanian Academy. In this study, authors showed their concerns in different practice areas of the sportive disciplines exercised and taught. They also capitalized the previous lessons acquired in other areas of interest, combining the swimming with the karate-do art for the benefit of the sportive performance and health.



3. Hypothesis

The use of swimming as recovery method can have a significant contribution to the rebalancing of Kempo sportive discipline practitioners.

4. Methods

The study is based on the questionnaire prepared by us that contained ten questions. The questionnaire addressed to high performance athletes practicing Kempo for at least three years.

The questionnaire included closed-ended questions alternating with open-ended questions because we wanted "to obtain information hardly to be obtained under other circumstances" (Epuran, 2005). The questionnaire was filled-in by the sportsmen under the supervision of the coach who did not discuss with them and did not influence their answers.

The data obtained following the application of the questionnaire were supplemented with the information gathered by the coach by using the systematic (active, willful and structured) longitudinal and intensive observation (Epuran, 2005).

5. Experiment content

The questionnaire was applied to ten Kempo practitioners from "I. Mitrea" Sport Club of Giurgiu. The sportsmen are of 15 to 19 years aged at the time of filling-in the questionnaire.

The sportsmen have replied to the questions after their participation in the recovery programme proposed by us (February, 2017). The programme lasted fourteen days, during which, the sportsmen followed an active rest programme containing swimming style lessons. This programme was carried out simultaneously with the other school and after-school lessons, in evening, between 20:00 and 21:00 p.m., at the swimming pool from Giurgiu. Each recovery session lasted 40 minutes and included means carefully selected and matched with the skills and abilities of each and every sportsman.

6. Results

Pursuant the research carried out, we obtained the following results:

- The first three questions aimed at the experience of the sportsmen in practicing Kempo. So we found that all the sportsmen questioned are members of the national team, with more than 3 years experience. They trained three times a week under the guidance of a specialist teaching staff;



- The recovery programme was followed, for the first time, by all the sportsmen although they are members of the national team and they benefit of the best coaches and training and recovery means and methods;
- To the item concerning the swimming knowledge identification only 60% replied they know swimming. Such answer was surprisingly for us because sportsmen originate from a geographical area where the water presence is prevailing for the entire social and economic zone;
- To the item "have you practiced the swimming as recovery mean?", 63.3% of the sportsmen replied that they are at the first contact with swimming practiced as recovery method;
- All the respondents had a positive attitude to the recovery programme they have strictly followed, given also by the fact that the programme contained a recovery activity being a novelty for them;
- At the item „significant changes felt in their bodies following the participation in the recovery programme”, 70% of the sportsmen replied they observed some physical and psychical improvements. Among the benefits listed by the sportsmen, we hereby mention the sleep quality, a better control of breathing and a relaxing in water better than on the ground, higher strength a.o. (see Figure 1);

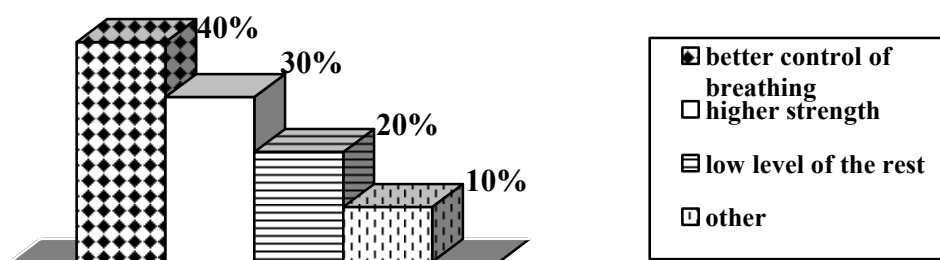


Figure 1. Benefits found by the fighters following their participation in the recovery programme

- In the top of the preferred special swimming styles (see Figure 2), the fighters placed the full backstroke swimming on the first place, followed by back swimming by lifting both arms and double back swimming.

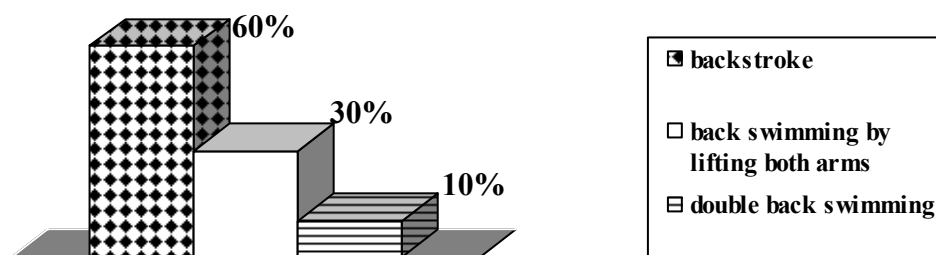


Figure 2. Swimming styles preferred in the recovery sessions

- At the end, all the fighters expressed their wish to be included this recovery programmed in the next training cycles. They were satisfied by and awarded of the benefits of this programme and its ability to provide them with a significant support in reaching new performance overcoming the previous one.

Conclusions

1. Kempo is a complex combat discipline resulting from the Martial Arts, which uses all the attack and defence methods, lower limb and upper limb hitting, sweeping, throwing and projecting, apposition and immobilization techniques, articular techniques, ground fighting techniques.
2. The Kempo effort is one of the most intensive one, during the first phase of the combat the energy consumed being mainly generated anaerobic, while during the remained combat, the aerobic side contributes to the rebalancing.
3. Recovery is conditioned by the special nature of the effort, the training level, the age, the gender, the social factors, the energetic system, the psychological training level, the muscular fiber type, the recovery supporting medium, the diet and the life style.
4. Swimming, as additional sport, aimed at the removal of the effects caused by the unidirectional sagittal effort directed to all segments involved, the development of the respiratory system and the balancing of the inner body medium indexes.
5. According to the answers to the questionnaire, we found great interest caused by the proposed recovery programme. The sportsmen participation was active and voluntary and their involvement was thorough.
6. Following the review of available data, we found that the hypothesis of our research was confirmed, swimming having a significant contribution to the recovery of Kempo fighters.



Acknowledgements

This research took into account the provisions of the WMA Declaration of Helsinki, 2013, on the ethical principles for medical research involving human subjects.

All the authors have an equal contribution to the carry out of the research and have the statute of main authors.

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