Comparison of Key Indicators of Physiological and Mental Characteristics of Karateka Elite Females in Iranians Teen, Young and Adults in Kata and Kumite

Mahshad Nahid and Heidar Sadeghi[2]*

[1]*MSc Sport Biomechanics, Central Tehran Branch, Islamic Azad University Tehran, Iran*
[2]*Department of Sport Biomechanics, School of Physical Education and Sport Sciences, Kharazmi University, Tehran, Iran*

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ABSTRACT

The most effective and most important factor in contemporary sports is early detection and timely discovery of talents. Using talent identification process improves standards of sports successes by maximizing the number of talented athletes and since that Karate is one of the most popular sports in our country the need for recognizing indicators that are important for talent identification is to be felt. The main purpose of this research was comparing the main mental and psychological indicators of female teen, youth, adults elite Iranian karatkas in both karate and Kumite. The statistical population sample was 42 members of national team(including 5 Kata and 15 Kumite), young's (including 4 Kata and 7 Kumite), teenagers (including 4 Kata and 7 Kumite). Random sampling method was purposefully.4 physiological and 6 mental parameters from the 60-item Ottawa questionnaire recorded and calculated from the participants. Normality of data distribution were examined by using Kolmogorov-Smirnov test and determined that data distribution is normal. In the inferential statistics the difference between kata and kumite elite groups were examined by using independent T statistical method. According to the results of this study we can say that there is no difference between mental characteristics (except motivation, focus, mental imagery, self-confidence) in teenagers and confidence in adults and between psychological characteristics in three age category of Karateka and elite Kumite. Also the main obtained characteristics can be considered in the process of Talent identification of directors, officers and planners.

Key words: Psychological Characteristics, Mental, Karate, Female
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INTRODUCTION

Parents and educators wish kids under their education will be one of the best athletics in the world. They spend a lot of energy, time and costs for achieving this goal. There are several factors for success in today's modern sports most important among them is natural talent of people. In contemporary sports early detection and timely discovery of talent for anything is the most effective and the most important factor (Hare, 1995). According to scientific achievements for championship sports the success of athletes at different levels on the one hand is depended on the timely selection and proper foster of human resources. There is no doubt that better and more accurate identification of talents and determination of the criteria necessary to prepare this recognition in order to avoid the process of trial and error in selecting athletes which has nothing but a waste of human resources, energy and time becomes a necessity. Hare at 1982 mentioned that the main philosophy of talent identification is means that the development of young athletes may happen in the best way and the most appropriate time (Hare, 1995).in this regard some researchers states that talented people must quickly identified and constantly helped to reach the highest levels of performance in sport (Bompa, 1990 quoted from Molaeenejhad, 2009). Talent identification helps that the development of talented people be accelerated to the elite level. Also helps elite people to timely achieve to high performance skills and to achieve international rankings. Also talent identification helps people to choose a sport

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that is appropriate them (Arab, 2008). Using talent identification process improves the standards of sporting success by maximizing the number of talented athletics which are participated in certain sports and provides a chance for young talent to improve their sports skills and finally increases the potential of all peoples that have the possibility of their sports success. Also using talent identification in sport requires decision making and understand the type of game and more investigation before detailed mapping models that can be acceptable(Gaeeni, 2006).of course the ability of the coach and those that hired for discover talented people is must be considered. However using these experiences is considered a very subjective and personal process and should provide impartial scientific methods. Accordingly research on the field of talent identification indicated that success is the result of complex interaction of variables that are not fully understood. Some researchers insist that a combination of numerous factors (Genetic and local) is effective in creating an elite athlete. So before executing talent identification programs those special factors that may affect the performance of (Individual and social sports or both) must be examined with special experiments15 these factors are include physiology, anthropometry and mental. However some researchers have realized experiments that are using in talent identification provide a good indication of the future potential of an athlete and is the best sport guide for an athlete but is not a reliable tool. Today almost all over the world the talent identification process done for the different fields of sports Bompa(1985), Peltola (1992) and Gita (1994) are believed that talent identification accelerate the process of people identification for reaching elite level and provide conditions that talented people reach to their highest performance level also helps people to choose their proper sport field. In addition talent identification causes to coaches spend their time on exercising peoples with talent and higher potential 20. Peltola (1992) knows the talent identification of a way for countries to the best people among their sports resources. It is clear that science talent identification causes to development levels of athletics at the global level. Bompa stated the benefits of using scientific criteria in the process of discovering and finding talent as saving time, increasing coach efficiency, increasing competitive spirit, increasing quality in sports, increasing confidence of athletic and become scientific of sports exercises.

In addition talent identification programs cause's countries achieve to a favorable result by spending less cost (Hadve, 1998). So reaching to elite level in sports from the view of talent identification is not limited to just discovering talented people yet guidance, monitoring and continuous evaluation of talented individuals is also very important. Some of the youths that recognized as talented people have abandoned the sports because of various reasons including contrasting with interest, disease and injury, social factors, economic factors and…for this reason the people are believing that talent identification is easy but directing talents is very difficult (Robergez, 2000). From the other hand for determine the real importance of talent identification we must say that achiving to the universal level of sport is affected by a two important agent naming "society" and "sport system"(Robergz, 2000). Briefly saying the goals of talent identification in the modern world are including cost saving, increasing the probability of success, increasing the useful life of Sport for champions, Leading non-talented people to other areas and preventing of waste of capital and better distribution talents. Scientific findings emphasize the fact that athletic ability is largely determined by genetic factors So it is very important for educators to know to achieve the highest levels of athletic performance should also be given to the genetic endowments. Because training alone cannot guarantee individual success for achieving high levels of sports (Portman, 1994, quoted from Sadeghi, 2012).

Karate requires a combination of capabilities, including physical, technical, tactical and psychological. Karate is one of the most popular sports in our country. The need to indicators which are important for talent identification in this field and in one hand affects increasing the useful life of athletes and it on the other hand causes to decreasing damage to athletics. Doing this requires accurate information and adequate indicators influencing factors are mentioned. Unfortunately, in our country because of the lack of recognition for the Talent identification there is no possibility of having a fixed pattern. This research has done in order to compare the mentioned features among the female karateka. This research seeks to answer the question whether there is difference between the main indexes of Physiological and mental characteristics of teen, young and adult elite Iranian karatekas in two sections kata and kumitte?

EXPERIMENTAL SECTION

The method of research was semi experimental; the research plan was relationship of comparison and its model is casual, it was cross study and it was practical from the view of type. The population was 42 person of elite karateka of female teenager (14 and15 age) and young(16,17 age) and adults (18 years and older) in our country who they had at least one year membership in Iranian National Karate Team and 42 people was the member of teenager ,young and adults female karate national team of the Iran who they participated as subjects in this research. Psychological indexes (cardio respiratory stamina, aerobic power and resting heart rate) and main indexes of mental state characteristics (The motivation, emotion control, focus and confidence) of elite karateka and kumitte teens ,young and adult girls, investigation of normality distribution data from kolmogorov Smirnov test then the statistical method T test were used for examine the differences between the two groups.

RESULTS

Kolmogorov-Smirnov test showed that the data are in normal condition and physiological and mental test results are as follows.

Table 1, results of independent T for the main characteristics of karateka and kumitte teenager elite

T-test equality of means			Levine test		Evaluation of equality and non-equality of variances	index
The significance level	Freedom degree	The value of t	Meaningful level	The value of f		
0.57	9	0.59	05	9.29	Equality	Resting heart rate
0.46	6.512	0.79			Non-equality	
0.12	9	-1.70	0.21	1.79	Equality	Aerobic power 1609
0.06	7.732	-2.18			Non-equality	
0	9	-4.60	0.12	2.94	Equality	Motivation
0.04	3.185	-3.45			Non-equality	
0.1	9	1.85	0.15	2.54	Equality	Focus
0.05	6	2.50			Non-equality	
.01	9	-3.62	0.04	5.89	Equality	Confidence
					Non-equality	
0	9	4.64	0.94	.005	Equality	Mental imagination
0	8.33	5.13			Non-equality	

Findings indicated that: there is difference between the main mental characteristics (Motivation, focus, mental imagery and mental control, purpose, confidence) of karateka and kumitteka of elite female adults.

It means that between the main indicators of psychological traits (Motivation, focus, mental imagery and self-confidence) there is meaningful difference ($p \leq 0.5$).

Table 2: results of independent t test for the main features of karateka and kumitteka female young elite

T-test equality of means			Levine test		Evaluation of equality and non-equality of variances	index
The significance level	Freedom degree	The value of t	Meaningful level	The value of f		
0.57	9	0.59	0.01	9.29	Equality	Resting heart rate
0.46	6.512	0.79			Non-equality	
0.74	9	-0/34	0.15	2.52	Equality	anaaerobic
0.78	4.226	-0.3			Non-equality	
98.0	9	-0.03	0.29	1.27	Equality	motivation
970.	8.969	-.03			Non-equality	
080.	9	1.94	0.81	0.06	Equality	Mental imagination
110.	5.743	1.87			Non-equality	
0.16	9	1.52	0.01	10.51	Equality	objectivity
0.09	6.252	2.04			Non-equality	

According to findings of the research there was not seen meaningful difference between main indexes of psychology and mental of kata and kumitteka young females **p**≤0.5.

Table 3: results of independent t test for the main features of karateka and kumitteka female adults elite

T-test equality of means			Levine test		Evaluation of equality and non-equality of variances	index
The significance level	Freedom degree	The value of t	Meaningful level	The value of f		
0.01	9	0.59	0.01	9.29	Equality	Resting heart rate
	6.512	0.79			Non-equality	
0.15	9	-0/34	0.15	2.52	Equality	anaaerobic
	4.226	-0.3			Non-equality	
0	2.63	-0.03	0	18.19	Equality	confidence
	3.11	-.03			Non-equality	Mental imagination
0.16	0.71	1.94	0.16	2.28	Equality	Control psychotic episodes
	0.78	1.87			Non-equality	
0.28	1.21	1.52	0.28	1.3		
	1.31	2.04				

Findings indicated that: there is difference between the main mental characteristics (Motivation, focus, mental imagery and mental control, purpose, confidence) of karateka and kumitteka of elite female adults.

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It means that there was a significant difference between the main mental indexes (confidence) p ≤0.05.

DISCUSSION AND CONCLUSION

The most purpose of this research doing comparison between the main Physiological nad mental Characteristics of female elite kataka and kumitteka which was performed in the form of following goals:

The main special goal: Compare the main physiological Characteristics of elite karateka works adolescent and young adult groups in Iran in kata and kumite groups. According to findings of the research the main Physiological parameters of female teenager, young and adult karateka include Cardio respiratory endurance, resting heart rate then by using independent t-test the main indexes for Three age categories. Results indicated that there is no meaningful difference between the main the indexes of mental and psychological characteristics kataka and kumitteka .there was not found the similar research to compare the results of research with that. However the current result does not fit with results of Kashef(2013) which can be due to differences in the type of sport or gender.

Sub second special goal**:** Compare the main features of psychological karateka elite female teenager, young and adult of kata and kumitte.

According to findings of research the main parameters of Mental Karateka elite teenage girls, young and adult daughter including :(Motivation, focus, control mood, self-esteem, mental imagery and objectivity) then the main indicators for three age categories were compared by using independence T test in the both groups of kata and kumitte. results indicated that between characteristics of (Motivation, focus, mental imagery and self-confidence) and kata and kumite work of elite female teenager and (confidence) in the adult group there is a meaningful difference. Also among the young group there was no significant difference between any of Features. No similar study found to compare and investigate its results with it .however the results of research is compatible with Hoseini research 2013 and incompatible with Kashef 2013.

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