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**CONTRIBUTION SOME BIOLOGICAL LIMITS AND  
PHYSICAL SKILLS OF (KATA) PLAYERS IN KARATE  
SPORT AS A BASIS FOR SELECTION AND  
CLASSIFICATION**

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## **Summary**

# **CONTRIBUTION SOME BIOLOGICAL LIMITS AND PHYSICAL SKILLS OF (KATA) PLAYERS IN KARATE SPORT AS A BASIS FOR SELECTION AND CLASSIFICATION**

### **Introduction and importance of research:**

Careful selection should be focused on the biological indicators (physiology and morphology), skilled-physical and psychological. As this selection is a process with many trends, so it needs the cooperation of all aspects to achieve the goal and to direct the players to the activity or the competition suitable to his abilities. This approach is helping in providing a good model for selection and the excellent players will become the suitable model to define the selection criterion.

And Aamal Ahmed Al-Halabi (1999) see that regardless of the existing argument to define the determents and basic elements which should be followed when choosing and selecting players for any sport activity , there is some agreements about the opinions related to this and which is define in some important points. Reaching players to a higher level is indicating that they have abilities and capacities leading them to this excellence and that they have some amount of harmony, which makes them a model, which can be, directed from it the determinants and the basic elements for the selection process.

As selection is based on an expert eye to judge, the skillful performance level which allow personal based in selection without scientific principles to support it, therefore this study sought to find the physiology, morphology and skilled-physical determents relevant to first level players specialized in the motor phrase (kata) and the relative contribution of these determents to the level of the motor skillful performance of the most common of the motor phrases.

The pilot study was divided into three stages:

a) to define the most common motor phrases during the different playing roles in three championships: world championship 2006 in Finland (men),western Asia 2006 in Doha (men),Kuwait championship 2006 (men), it was extract from the results six motor phrases (kata) which were the most common in use on the international and local level.

b) To define the expert opinion (n = 17 experts) about the determents which contribute to selecting the motor phrases players (kata) on the elite level. It was concluded that the selection principles are based on:

- 1- The personal opinion in performance.
- 2- The total height of the player.
- 3- The player coordination and his ability to demonstrate combative spirit in performance.
- 4- Continuity in training without stopping.

c) In the review of literature, studies and science researches in training field and selecting areas of the motor phrases (kata) players it was clear that they didn't deal

with the specialization in the imaginary compact race (kata) except some few studies in the field of the developing the performance.

None of these studies has dealt with the field of selecting the players according to the biological determinants of the gulf society.

Concluded from above the researcher found that the important of this study focused on two cores:

1- Achieving the recommendation of the scientific committee of the Gulf Karate Federation by finding a scientific methods to get a scientific solution for the selection problem.

2- Extracting a method for selecting and classifying the players of the motor phrases (kata) based on the biological determinants, which contribute to the performance of (kata).

The review of studies which dealt with karate in general and the motor phrase (kata) in particular and from reconnaissance of expert and trainers opinions in selecting and training karate players specialized in the motor phrases (kata), also from the researcher experience as a former international player and a specialist trainer in the motor phrases (kata) it was noted that most trainers are depending on the personal experience in their training not on the biological determinants based on a scientific principles which assist in the appropriate selecting and classification.

Accordingly, the researcher has contacted the scientific committee of the gulf and Kuwait karate federation in Kuwait to find if there is any scientific method is used in selecting and classifying process. The researcher has found a recommendation in one meeting of this scientific committee concerning the subject of this study about a scientific of the selecting and classifying karate players in general and the imaginary combat race (kata) in particular has related to this study. Therefore, the researcher has adopted the idea of this study.

In spit of variety of the motor phrase (kata) performed during different championships, still there is a focus on six motor international phrases (kata) as they are the most common ones used in championships : " Join, Kanku dai, Enpi, Unsu, Gojusheho Sho and Gojusheho Dai".

Finally and after review of studies, which have dealt with karate events in general, and the imaginary combat (kata) in particular, it was clear for the researcher and his limitation of knowledge that this research subject was not studied from scientific perspective in the Gulf society. Therefore, the researcher has found there is a need for this study to benefit the scientific applicable field of the karate sport. In addition, it was emphasized by scientific committee recommendation of the Gulf cooperative council concerning the study of the athletic problem about selecting and training.

## **Objective:**

The purpose of this study was to know some biological and physical skillful determinants lead to excel in the imaginary combat race (kata) in karate event through discrimination analyses among the first level players "elite", and the second level "not elite".

## **Research questions:**

- 1- What are the biological and physical skillful determinants, which discriminate the first level karate players from the second level?
- 2- What is the correctly percentage of determinants which extracting as a basis of selecting and classification?

## **Procedures:**

The researcher has used the descriptive serving method. In addition, the pilot study was conducted, from 1-11-2007 to 15-11-2007, to expert in karate sport to know the basis of selecting the motor phrase players (kata), also to know the qualification, which discriminate the elite players from other players.

The basic study was conducted on a sample over 18 years, consisted of (n=19) karate players specialized in motor phrase (kata), and they where divided into three categories: elite, non-elite and practitioners from 1-7-2008 to 21-7-2008. morphologic, physiologic and physical skillful measurements were done.

The researcher used the following statistical treatments: means, s d, simple variance analysis, multi comparison by using L.S.D, coefficient correlation, chi square, Wilks' Lambda, test for differences, F test.

## **The results:**

1- Through using discriminating analyses seven variables were obtained (factors) cased this discrimination among imaginary combat players (kata), elite in the first level, and non-elite in the second level in karate:

The right long straight forward punch skill "Oi-zuki", forearm length, shoulder width, homeruns length, lean body weight, explosive strength of the left reverse forward straight punch skill " Gyaku-Zuki" and the strength endurance of left blocking with the edge of the hand " Shoto Uke".

2- Discriminative function effectiveness ratio in define the position of the imaginary combat players (kata) was extracted. Also predicting their discriminative levels through the biological and physical skillful indicators were significant (100%).

## **Recommendations:**

Based on the results the researcher has recommended the following:

1- The officials at Kuwait karate federation and the gulf karate federation should use these results as guidance when selecting and classifying the players.

2- Using the extracted seven variables as a function linear blend of the efficiency of the training situation through selection and classification processes and training the imaginary combat players (kata) in karate sport.

3- Conducting similar research to the applied on all other age groups of the motor phrase players (kata) from the beginning of the practice until the championship stage to know the biological determinants, which contribute in selecting and classifying the players.

4- Conducting similar researches on the psychological mental and social determinants, which contribute in selecting and classifying the players.

5- Conducting similar searches on other motor phrases (kata) which maybe practiced in the local or international championships to define the most important variables.

6- Conducting further studies and research to define the different functions, which have its effect on the player's conditions training to use it as a guide through selecting, classifying and training of the players in other individual sports.

7- Make the players and the trainers aware of the importance of the biological variables in the motor phrase players (kata), also promote and develop these variables to reach to higher levels.

8- Using the discriminator function of prediction to classify the motor phrase (kata), into two groups (first level group and second level group), which was obtained by using the discrimination analysis of a group of biological, skillful physical determinants to discriminate between the different level groups.

9- Draw attention of the trainers and who are responsible for selecting planning and preparing the training programmes concerning the imaginary combat (kata) player to the importance of specialization to the imaginary combat (kata) players in karate sport.

10- Follow up the progress of the motor phrase players (kata) through using the same measurements and tests to make sure of the validity of the testing process through follow up the development of the results.

## **Abstract**

# **CONTRIBUTION SOME BIOLOGICAL LIMITS AND PHYSICAL SKILLS OF (KATA) PLAYERS IN KARATE SPORT AS A BASIS FOR SELECTION AND CLASSIFICATION**

- Study aims to know some biological and physical skillful determinants lead to excel in the imaginary combat race (kata) in karate event through discrimination analyses among the first level players "elite", and the second level "not elite".
- Descriptive serving method has been used on a sample over 18 years, consisted of (n=19) karate players specialized in motor phrase (kata).
- Forms were prepared to explore the opinion of experts in the field of karate to identify the most important bases for the selection of players, wholesale movements (kata), as well as the most important characteristic of the motor phrases (kata) from other players (non-elite).
- The pilot study was conducted on a sample of 10 players to review the conditions and specifications of the application of measurements, tests and measurements of the stability calculation and testing selected.
- The basic study was conducted on a sample over 18 years, consisted of (n=19) karate players specialized in motor phrase (kata), and they were divided into three categories: elite, non-elite and practitioners from 1-7-2008 to 21-7-2008. Morphologic, physiologic and physical skillful measurements were done.
- The researcher identify the most important seven determinants of biological and physical skillful that lead to excellence in competition of motor phrases (kata) in karate sport as follows: The right long straight forward punch skill "Oi-zuki", forearm length, shoulder width, homeruns length, lean body weight, explosive strength of the left reverse forward straight punch skill " Gyaku-Zuki" and the strength endurance of left blocking with the edge of the hand " Shoto Uke".
- Also researcher discriminative function effectiveness ratio in define the position of the imaginary combat players (kata) was extracted. Also predicting their discriminative levels through the biological and physical skillful indicators were significant (100%).
- The researcher recommends the following:
  - 1- The officials at Kuwait karate federation and the gulf karate federation should use these results as guidance when selecting and classifying the players.
  - 2- Using the extracted seven variables as a function linear blend of the efficiency of the training situation through selection and classification processes and training the imaginary combat players (kata) in karate sport.

- 3- Conducting similar research to the applied on all other age groups of the motor phrase players (kata) from the beginning of the practice until the championship stage to know the biological determinants, which contribute in selecting and classifying the players.
- 4- Conducting similar researches on the psychological mental and social determinants, which contribute in selecting and classifying the players.
- 5- Conducting similar searches on other motor phrases (kata) which maybe practiced in the local or international championships to define the most important variables.
- 6- Conducting further studies and research to define the different functions, which have its effect on the player's conditions training to use it as a guide through selecting, classifying and training of the players in other individual sports.
- 7- Make the players and the trainers aware of the importance of the biological variables in the motor phrase players (kata), also promote and develop these variables to reach to higher levels.
- 8- Using the discriminator function of prediction to classify the motor phrase (kata), into two groups (first level group and second level group), which was obtained by using the discrimination analysis of a group of biological, skillful physical determinants to discriminate between the different level groups.
- 9- Draw attention of the trainers and who are responsible for selecting planning and preparing the training programmes concerning the imaginary combat (kata) player to the importance of specialization to the imaginary combat (kata) players in karate sport.
- 10- Follow up the progress of the motor phrase players (kata) through using the same measurements and tests to make sure of the validity of the testing process through follow up the development of the results.

## إسهام بعض المحددات البيولوجية والبدنية- المهارية لدى لاعبي الجملة الحركية (الكاتا) في رياضة الكاراتيه كمحدد للانتقاء والتصنيف

رسالة مقدمة من الباحث :

**مصطفى سليمان سند سليمان الشطي**

ضمن متطلبات الحصول على درجة الماجستير في التربية الرياضية

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا  
إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

بِسْمِ اللَّهِ  
الرَّحْمَنِ الرَّحِيمِ

(سورة البقرة - آية ٢٢)

## شكر و تقدير

الحمد لله الذي هدانا وما كنا لنهتدي لولا أن هدانا الله...

أحمدُ الله عز وجل على ما منحني من قوة ومثابرة لمواصلة الجهد لإخراج هذا العمل في صورته الحالية ولا يسعني عرفاناً بالجميل إلا أن أتقدم بخالص الشكر والامتنان والتقدير إلى سعادة الشيخ / خالد العبد الله الناصر الصباح رئيس الإتحاد الكويتي للكراتيه خاصة وإلى كل من ساهم في انجاز البحث من أصدقاء ولاعبي المنتخب الوطني وإدارة الإتحاد الكويتي للكراتيه عامة لما بذلوه من جهد وما قدموه لي من عون و توجيهات لها قيمتها العملية خلال تنفيذ هذا البحث وانجازه لنيل هذه الدرجة العلمية.

وأخيراً أهدي ثمرة جهدي وخالص شكري لوالدي العزيز رحمه الله تعالى و إلى والدتي الغالية والعزيزة على قلبي اللذان بفضلهما ورعايتهما قد وصلت لما أنا فيه الآن، وكانا مثلاً للعطاء.

والله ولي التوفيق ،،،

الباحث

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