



RESEARCH ARTICLE

SUGGESTED TRAINING PROGRAM FOR PLAYERS WITH DOWN SYNDROME TO IMPROVE TECHNICAL PERFORMANCE IN KARATE

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ABSTRACT

Background: As for the importance of the mentally handicapped group and the need to take care of them and take care of their abilities to the fullest extent possible and the importance of the movement activities and their role in their lives, there have been numerous programs of interest in this category, represented in spreading sports schools, societies, institutions and clubs that help them to extract their energy to the maximum extent for the capabilities of each individual. (M.Nakayama1981). Through the researchers' acquaintance with previous studies and Arab and foreign references, they found a few ones with the lack of codified training programs that seek to reach the mentally handicapped to centers and championships as the interest in sports activities for the mentally handicapped increased through the Paralympic Committee that achieves many international championships and centers in various sports. This is what prompted the researchers to think about preparing a proposed program for karate players for people with special needs (Down syndrome). (Morris,t,(1987). **Aim:** The current research aims to design a proposed training program to improve karate technical performance for players with Down syndrome. **Method:** An experimental study on the group of mentally disabled people with Down syndrome of the Jesuit Society in Minia, who's totally number was 22 individuals. **Results:** The proposed training program has a positive impact on improving the skillful aspects (first kata - karate basics) for the mentally handicapped. **Conclusion:** The current research aims to design a proposed training program to improve the technical performance of karate for people with special needs. Due to the nature of the research and to achieve its goals and hypotheses, the researchers used the experimental approach with the experimental design for one group using the (pre-post) measurements for it.

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INTRODUCTION

Kata in karate is considered the logical arrangement for the methods of repelling, punching and constantly hitting and kicking. About fifty kata or formal exercises are practiced at the present time and some of them have been balanced from one generation to the next and others have been done in an appropriate manner recently. (M. Nakayama 1981). Kata is a consecutive series of offensive, defensive, or defensive offensive skills against an imaginary person or group and is

performed in accordance with internationally accepted norms and standards "provided that these movements are performed from specific situations and different directions" Morris, T., (1987).

MATERIALS AND METHODS

Subjects: A training program for the Karate mentally disabled group for the Jesuit Association was implemented for 12 weeks.

- Total program time = (12 weeks)
- The number of weeks of the general preparation phase = (3 weeks)

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- The number of weeks of the special preparation phase = (9 weeks)

Which lasted from 23/12/2019 to 17/3/2019, the researcher conducted the pre measurements for the basic study sample and made the post measurements in the same way, timing and tools.

Sample Selection condition: The research sample was chosen intentionally from the research community. The research community is represented with the mentally handicapped (autism, Dawn syndrome, mental retardation) and participants in sports activities (Office of Abilities and Determination - Autism Center - Cayan Association - Jesuit Association) in Minia Governorate, whose number were 108 and the total number of the sample was 22 individuals with a percentage of 20.3%, by (12 individuals for the exploratory sample + 10 individuals for the basic sample). They are the ones who meet the conditions.

Instrumentation

Tanita balance to measure the weight in kilograms, and the length in centimeters- A Swedish seat-Ground marks-Karate rug-Stop watch.

Procedures

First survey: The researchers selected a random sample from the research community consisting of (12) players from the research community and from outside the original sample, and conducted them with the skillful tests on Thursday 21/11/2019.

Second: the basic study:

Premeasurement: The researchers conducted the pre measurements of the basic study sample on Saturday 12/21/2019.

Training program application: After completing the pre measurements, the proposed twelve-week training program was implemented, which lasted from Monday, 12/23/2019 to Tuesday, 3/17/2019.

Post measurement: The researchers conducted the post measurements in the same way, timing and tools on the basic study sample, on Tuesday 3/19/2019.

Statistics

Independent Variable: The suggested training program

Dependent Variable: Improving the technical performance in karate.

Used Statistical method: The two researchers used the statistical factors that achieve the aim of the research and verify its hypotheses, which are as follows:

{arithmetic mean, median, standard deviation, coefficient of torsion, Mann-Whitney Labarometric Test, correlation coefficient, Wilcoxon Labarometric Test, percentage change}. The researchers satisfied the level of significance at two levels (0.05, 0.01), and the researchers used the Spss program to calculate some statistical coefficients.

Discussion of results: The results of the first hypothesis: which states "There are statistically significant differences between the mean of the pre and post measurements of the study sample group in the skillful variables in favor of the post measurement" Table (1) clear that there are statistically significant differences between the averages of the pre and post measurements of the study sample group in the skillful variables in favor of the post measurement. The results of the second hypothesis: which states "There is an improvement in the mean of the post measurements higher than the pre measurements of the study sample group in the skillful variables". Table (2) clear that: The percentage change between the pre and post measurements of the group "in question" in the skillful variables ranged between (42.11%: 66.67%), which indicates the effect of the proposed program on improving the skillful variables of the group in question.

The researchers attribute that to the skillful preparation ratio within the training program, which amounts to 242.5 minutes. In which the researchers divided the basics and the first kata into units of the training program to review the previous exercises. The distribution of skillful performance times in the general and special preparation stage helps to repeat the skills learned from the basics and kata parts. The researchers add that the mental state of Down syndrome is characterized by a lack of remembering and this is what was taken into account in developing the program from performing exercises inside the units that range from pregnancy to difficulty from easy to difficult; thus he can move to the following skills.

Table 1. The significance of the statistical differences between the mean levels of the pre and post measurements for the group under consideration in the skillful variables N=10

test	Pre measurement			Post measurement			(z) value
	Arithmetic mean	Average rank	The sum	Arithmetic mean	Average rank	The sum	
Basics	3.80	0.00	0.00	5.40	5.50	55.00	2.89
First Kata	2.00	0.00	0.00	4.50	5.55	55.00	2.88

* Significance at level (0.05) ** significance at level (0.01)

Table 2. The percentages of change between the pre and post measurements of the group "in question" in the skillful variables

Test	pre measurement average	post measurement average	percentage change
The basics	3.80	5.40	42.11%
First Kata	2.70	4.50	66.67%

This result was consistent with the study of: "Ušan et al" study (2018) (2): The results of the study demonstrated the importance of systematic physical activity to improve the motor development and psychological and social status of people with mild mental disabilities in karate. -Fatimah et al" study (2015) (3) "We have concluded that teaching karate techniques to children with autism leads to a significant reduction in their communication deficit". In light of the research results, the two researchers reached the following conclusions:

- There are statistically significant differences between the averages of the pre and post measurements of the study sample group in the skillful variables in favor of the post measurement
- The percentages of percentage change between the pre and post measurements of the group " in question" in the skillful variables ranged between (42.11%: 66.67%), which indicates the effect of the proposed program on improving the skill variables of the group in question

Conclusion

The proposed training program has a positive impact on improving the skillful aspects (first kata - karate basics) for the mentally handicapped.

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