

## Clinical-sports psychological intervention in elite karate fighter during the COVID-19 crisis. Case report

### Intervención psicológica clínico-deportiva en karateca élite durante la crisis de COVID-19. Informe de caso

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#### ABSTRACT

In the present case study, the participant was a 15-year-old female adolescent belonging to the “Young Promises” Project sponsored by the Ecuadorian Olympic Committee (COE). The research reflects the importance of clinical-sports psychological intervention, in the initial stages of a competitor's life with high performance projections; evidence of the lack of mental preparation that exists at the level of formative structures and at mature ages in Ecuadorian athletes, for which it relied on research methods and techniques such as projective tests, House, Tree, SEAPSI, Automatic Thoughts, among others.

**Keywords:** Clinical-sports psychological intervention; Karate; COVID-19; Case report

#### RESUMEN

En el presente estudio de caso, la participante fue una adolescente de sexo femenino, con una edad de 15 años, perteneciente al Proyecto “Jóvenes Promesas” que auspicia el Comité Olímpico Ecuatoriano (COE). La investigación refleja la importancia de la intervención psicológica clínico-deportiva, en etapas iniciales de la vida de un competidor con proyecciones al alto rendimiento; evidencia la falta de preparación mental que existe a nivel de las estructuras formativas y en edades maduras en atletas ecuatorianos, para lo cual se apoyó en métodos y técnicas de investigación tales como los test proyectivos, House, Tree, SEAPSI, Pensamientos Automáticos entre otros.

**Palabras clave:** Intervención psicológica clínico-deportiva; Karate; COVID-19; Informe de caso

## **INTRODUCTION**

Regarding the mental load and psychological abilities in high-performance athletes, Martínez & Pérez (2018) within their study address the relevance of including psychology in the sports environment to achieve a complete training, in which the personal elements of the athlete, their environment and thus forge an optimal environment for good personal, emotional and obviously competitive development.

Karate requires a series of technical-tactical skills, where the philosophy of the dojo in which the athlete prepares will define his conceptual perspective of this sport, it is also mentioned that the guidance provided by the coach will be crucial; the family and the environment are included as elements that influence the competitor, as expressed by Ennis, Montero & Estrada (2020), in their study on karate training.

The study carried out on precompetitive anxiety in high-performance karate players, amateurs and novices, proposed by Vaca-García et al. (2017), highlights the importance of controlling the level of activation when making decisions intelligently in competitive situations, factors such as self-confidence, control of negative thoughts, and even taking physical risks, requires regulating cognitions, highlighting the mental factor as a crucial element, before, during and after the competition.

On the other hand, the presence of the sports psychologist stands out in various fields of action such as high-performance sports, intervention with managers, parents, in general, depending on the specific needs of the population to be addressed, such as stated by García-Naveira & Cantón (2020).

González-Hernández & González-Reyes (2017), in their study on combat sports, highlight the individual character of these athletes, the importance of constant interactions with the opponent and the factor related to sports development based on the results of the confrontation, being disciplines with not only technical, tactical or physical condition characteristics, but also with a strong psychological load.

Within this context, the importance of personality studies and evaluations is mentioned as these help to complement the usual methods of selection and

detection of athletes, identify certain characteristics of the athlete that are related to greater sports performance and the possibility of achieving elite results, as demonstrated in their study López-Gullón, Martínez-Abellán & García-Pallarés (2017).

Besides, Vesković, Koropanovski, Dopsaj & Jovanović (2019) in their mental skills program applied to elite karate fighters, demonstrate its positive effect on optimizing anxiety and self-confidence levels of the intervened athletes.

In turn, Gómez, Peña and Rosales (2019) in their research on karate fighters in training at a tactical level, highlight the fundamental role of the central nervous system, which receives stimuli that can be of internal origin, or external to the organism, to organize the information and give the appropriate response.

Based on this theoretical background, this case study focuses on a 15-year-old karate athlete, a Pan-American medalist in the category. The intervention included three phases; a phase of clinical-family evaluation, a phase of sports psych-diagnosis and planning of mental training. The research reflects the importance of clinical-sports psychological intervention, in the initial stages of the life of a competitor with high performance projections.

## **METHODS**

The present investigation corresponds to a case study, for its fulfillment all the ethical parameters for this type of psychological approach were followed. As she was a minor, the informed consent was signed by her parents and the athlete.

The procedure for the present investigation and the selection of high-performance athletes from Ecuador, was through the presentation of a written project and approved by the Methodological Technical Department of the Ecuadorian Olympic Committee (COE) and Presidency Area, which was called: "Intervention Program in Sports Psych-diagnosis, Mental Training, Monitoring and Assessment of Psychological Participation with High Performance Athletes from Ecuador towards the Tokyo 2020 Olympic Games".

Such program lasted, between the presentation of the project, analysis, approval and completion, which spanned the months of August 2020 to February 2021. The athlete was included in the "Young promises" Program sponsored by the

Ecuadorian Olympic Committee (COE), due to their interest and abilities, an individualized program was carried out with one hundred percent fulfillment of the initial planning.

The psychological intervention carried out in this athlete covered three stages. During the first phase of application of the anamnesis and clinical tests, projective tests are mentioned as the main sources of information.

The main tests applied in this period were: House, Tree, Person (HTP), Person Under the Rain, Family Test, SEAPSI, Automatic Thoughts and Salamanca Test, which provided valuable data on the personality traits of the competitor, the family situation and the environment, which, due to ethical circumstances, will not be addressed in this article.

At the level of the sports diagnostic evaluation, which corresponds to the second stage, the following tests were used: POMS (Profile of Mood States), Ways of Coping Check List, State-Trait Anger Expression Inventory (STAXI-2), Questionnaire of Psychological Characteristics Related to Sports Performance (CPRD), Competitive State Anxiety Inventory -2 (CSAI-2), Toulouse Pierón Test and the Sports Motivation Scale, which allowed the assessment of the state of mind of the athlete under study.

In the mental preparation phase, which covers the third intervention period, the Mental Training proposed by the United States Olympic Committee was applied, with the athlete being evaluated before each topic addressed in the degree of management of each psychological strategy; this through a Likert scale from 0 to 2 and over 20 points, which subjectively indicate the level of mastery of each of the strategies outlined in the mentioned preparation manual.

The sequential order in the mental training program consisted of goal setting, visualization techniques, as well as breath control, self-talk, activation levels, and attention focus control.

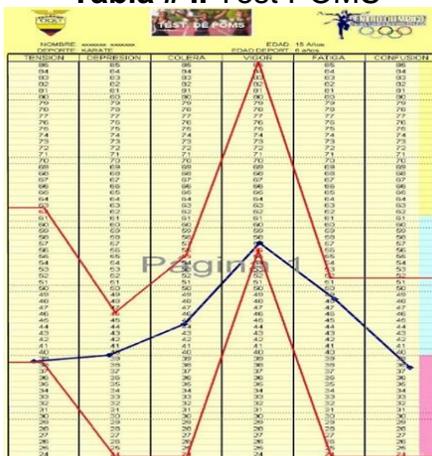
## **RESULTS**

Due to the breadth of the psychological work carried out in this manuscript, only two tests will be included, as an example of sports psych-diagnostic intervention, the same ones that were of importance due to their usefulness, results, and

investigative history in high-performance athletes, within the research bibliography and at the practical level.

The POMS Test (McNair, Lorr and Dropleman), which is a test that contains 6 scales: hostility, confusion, depression, fatigue, tension and vigor. The results of the test show an emotional balance in the karate athlete, the values obtained are within the acceptable parameters according to the scales, and even of adult age (blue indicator), since the athlete is 15 years old. (Table number I). The second test that is included as an example of a sports psychological evaluation includes the Sports Motivation Scale (SMS / SMD) by Pelletier, et al. (Table number II).

**Tabla # I. Test POMS**



**Tabla # II. Escala de Motivación**



**Source:** own elaboration.

Interpretation: intrinsic motivation, internal motivation is low in the athlete, it is confirmed during the data analysis, it expresses that her mental situation arises as a result of an injury that she has suffered during the last weeks. There is no high level of motivation to achieve sporting success, he feels that it is necessary to compete and emphasizes the importance of “bumping” or fighting in contact sports. Interpretation: extrinsic motivation, in general the external motivational levels are low, the athlete identifies that the knee injury and lack of skills have affected her in recent months. Confirm a decline in motivational levels.

Based on the clinical-sports psych-diagnosis and the mental training phase carried out with the adolescent karate athlete, the following results are specifically mentioned:

First, psychological intervention at an early age is more feasible, achieving an emotional balance and the management of mental abilities. The clinical approach is important, due to the family, cultural, social and environmental factors that surround the athlete with high performance perspectives.

Second, sports psych-diagnosis and clinical evaluation are necessary to know the inner world of the athlete, their projections, defense mechanisms, main affective relationships, approach to their evolutionary development (personal and sports) and constitute a feedback mechanism, within sports psychological programs. In this regard, it is stated that when conducting virtual sessions due to situations of isolation due to the COVID-19 crisis, elements of affective and pedagogical ties were lost in the psychological intervention. Emphasizing the importance in the psychological area of personal contact between athlete and psychologist.

Third, mental training programs help improve the psychic skills of athletes who go through this planning, which is reflected in their motivational and emotional balance aspects, which are applicable to competition and in situations of daily life.

Fourth, in Ecuador, psychological planning is not included in training programs; being complex a true transdisciplinary work at the youth group level with perspectives for the competitive elite.

Finally, the effectiveness of the combination of clinical-sports intervention stands out, due to the complexity and multiplicity of factors that affect a person, in this case, the elite athlete.

## **DISCUSSION**

This research reflects the importance of clinical-sports psychological intervention, in the initial stages of a competitor's life with projections to high performance, specifically in karate from the current situation caused by COVID-19.

To develop it, various bibliographic sources were consulted, which constitute the theoretical support of the research, among which Martínez & Pérez (2018) stand out, who highlight the convenience of the inclusion of psychology in the sports environment in order to contribute to a comprehensive training, where the personal elements of the athlete are taken into account among other issues to build an unbeatable environment for their proper development in all senses.

On the other hand, it agrees with Ennis, Montero & Estrada (2020) regarding the role played by the coach, the family and the environment that surround the athlete for a good preparation that is reflected in the results achieved in the different competitions.

They are assumed from Vaca-García et al. (2017) the factors that influence the athlete when making intelligent decisions during competitions, highlighting the mental factor as a fundamental element to regulate cognitions.

At the same time, García-Naveira & Cantón (2020) highlights the importance of the sports psychologist for high-performance sports, as well as the involvement of managers and family members during the intervention to achieve good mental preparation.

On the other hand, we agree with González-Hernández & González-Reyes (2017) regarding the individual character of athletes in combat sports, as well as that these sports are not only characterized by technique and tactics, but also by a great psychological burden.

In this sense, López-Gullón, Martínez-Abellán & García-Pallarés (2017) highlight the importance of studying and evaluating personality as a complement to the usual methods for the selection of athletes, as well as the characteristics that promote superior sports performance in the same way the results achieved.

It matches Vesković, Koropanovski, Dopsaj & Jovanović (2019) regarding the effect caused by psychological intervention in high-performance karate fighters to optimize anxiety and levels of self-confidence. In this sense, it also agrees with Gómez, Peña and Rosales (2019) in relation to the role of the central nervous system in organizing the information received and responding appropriately to it.

It should be noted that the above criteria favored the results obtained with the application of the clinical-sports psychological intervention in the athlete under study for her mental preparation in response to the global crisis caused by COVID-19.

From the analysis of the results achieved in the research, it can be concluded that the clinical-sports psychological intervention constitutes a fundamental tool to achieve a good mental preparation that influences the sporting results achieved by

the Ecuadorian karate players from the joint work of psychologists, managers and family members at the Tokyo 2020 Olympic Games.

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