

4.1 Concepts and Definitions

Introduction

In recent years, sports psychology has been dedicated to the study of variables that influence performance. The goal of this research is to understand how to improve these variables so that an athlete's performance is not affected by avoidable issues.

Over the course of this module, we will work on *self-confidence and resilience* as variables that impact athletic performance.

In specific sporting situations, it is important to clearly define where you want to focus your attention to obtain quality performance across each stage of competition. Athletes must identify disruptive thoughts and stressful or difficult situations, to then design an action plan that ensures the athletes are familiar with the competitive environment and are implementing strategies that they have chosen and practiced to face the specific challenges. This will give the athlete the efficiency and confidence they need to achieve optimal performance.

When an athlete's confidence or efficiency decreases, she must be able to face demanding situations with strength. Resilience is a quality athlete's should have in order to regain confidence in their performance when their confidence is lost.

An athlete's psychological skills are tools they should have and be able to use to manage the demands of competition and training and to effectively manage interpersonal relationships. The pressures of a sports career mean that athletes have to work to maintain optimal levels of self-confidence, motivation and concentration. Sports psychology focuses on training psychological variables in order to optimize athletic performance.

Self-confidence

Self-confidence is defined as the capability of an athlete to believe in his skills and abilities to achieve success, in this case, in sports. It is related to the subjects' perceptions of themselves when facing certain situations.

Based on the judgments that the athlete makes about herself and her qualities, she will take action to achieve the proposed objectives. Some authors use the terms self-confidence and self-efficacy interchangeably to refer to the concept described above.

Sports psychology seeks to provide tools to coaches and athletes to achieve the desired objectives. As athletes conquer the objectives that their coaches set for them and that they set for themselves, their confidence levels can increase.

An athlete's level of confidence is determined by a range of variables. Technical and tactical motor skills are important variables, but we must also take into account an athlete's self-management skills as well as their psychological resources.

Coaches play a pivotal role as a potential resource for increasing an athlete's self-confidence. To the extent that coaches support players and their interventions focus on positive reinforcements (words of encouragement and rewards), athletes will feel supported and will be able to develop confidently. According to Buceta (1990) some of the characteristics that coaches should possess so that athletes can trust in them and improve their levels of self-confidence are:

- Communicating their knowledge to the athletes.
- Sharing their experiences as coaches and athletes, if they have been athletes.
- Having a good reputation and credibility in the sporting world.

Another area of analysis is how an athlete evaluates the results after they perform an action. Self-confidence levels are affirmed to the extent that their expectations align with the results. In this sense, failures or errors, in addition to readjusting the individual's internal structures for future actions, can cause frustration if the athlete does not know how to manage them. This in turn will negatively affect their self-confidence. On the other hand, if expectations match results, the athlete's self-confidence will improve.

We must clarify that, when expectations are not met, athletes with high levels of self-confidence are able to analyze these results as part of the possible outcomes of training or competitions.

Several authors such as Bandura (1977) and Buceta, (1999) suggest that self-confidence depends on the following variables:

- Correct interpretation and control of the situation.
- Adjustments between realistic expectations and the player's expectations.
- Correct interpretation of success or failure.
- Correct application of performance assessments regarding athletic experiences.

Bandura (1977) is one of the first authors to develop a theory about self-confidence and self-efficacy. This theory proposes three dimensions to take into consideration:

- The Athlete's Level: refers to the goals that the athlete has achieved and hopes to achieve and the number of tasks to be performed before this result is obtained.
- Generality: refers to the number of skills in which the athlete considers themselves to be proficient in a generic way. That is, how many things the athlete knows and believes they are highly skilled in.
- Strength: refers to the real prospects for athletes to obtain their hoped for results.

Children and adolescents go through stages when their levels of self-confidence mature. Their expectations versus the results achieved can be confusing for them. This produces insecurity rather than self-confidence and can disrupt an athlete's development. The coach, as mentioned above, plays an important role when managing these stages.

Buceta (2004) states that if athletes optimize their levels of self-confidence and sense of security, this will have positive benefits not only in terms of sport, but in their lives more generally.

According to González-Oya (2004) performance levels according to self-confidence can be divided as follows:

- Lack of confidence: refers to athletes who, despite having good motor and mental skills, are not able to deal with competitive situations when facing athletic disadvantages.
- Excess confidence: refers to athletes who interpret their abilities as sufficient to perform tasks and often underestimate the importance of training hours to improve skills. These athletes believe that they don't have to train because they are more than capable of performing the task; that is, they believe they are the best.
- Optimal confidence: refers to establishing rational and achievable objectives. This is the desirable level of confidence, as an athlete with optimal confidence is one who will engage in maximum preparation, establishing a series of objectives that are truly within their reach.
- False confidence: is characterized by having an attitude towards others that does not reflect the athlete's inner lack of confidence and concerns.

In competition, self-confidence is considered to be a variable that athletes should conquer because it guarantees an increase in the chances of success. The execution of motor actions and strategies that are put into play in a competition are enhanced by optimal levels of self-confidence.

As mentioned above, Bandura and Vealey (1986) are other authors who have developed theoretical models of self-confidence. Next, we will look at the general features of both models in order to understand the points for analysis in each.

Bandura (1977) suggest that an athlete must have at least three basic factors that will determine their athletic performance. These are:

- Cognitive and personal.
- Related to behavior and the environment.
- Value judgments about one's abilities when facing a test.

The author states that before executing a certain action, the athlete considers two expectations: the first refers to effectiveness, in which the possibilities of succeeding in a concrete test are considered, and the second is related to the result, in which the athlete considers whether her intervention will generate the desired result (Bandura, 1977).

Bandura (1977) argues that for an athlete to establish expectations to overcome a test, he must have the capacity to execute (motor skills and technical-tactical skills), the ability to learn through observation, level of physiological arousal and self-talk and/or verbal self-instruction.

Prior to a specific task or prior to competing, the athlete must conduct an internal and general evaluation of their feelings about the situation. This evaluation can be done for each task performed and the magnitude, strength and generality are measured.

When discussing self-confidence, Vealey (1986) refers to the capacity of the subject to believe she is capable of succeeding in a sports competition.

This author states that there can be two types of confidence: trait and state.

- Trait confidence: is when the athlete believes that sporting success is possible. For example: the athlete feels continually confident and believes that all the tests she will face during the season will go well (although in some cases she does not get a good result).
- State confidence: is the athlete's confidence at a given moment regarding her abilities to perform a certain action. For example: the athlete feels prepared and has high expectations for successful performance in the weekend match.

Analyzing Vealey's (1986) model, we can speak of general or specific confidence. The first type is related to confidence in sports or during

competition and the second is linked to the specific task during competition or training.

According to Vealey (1986) self-confidence is a variable that can be measured. The author proposes three instruments: trait confidence, state confidence and competitive orientation. In the case of the first two, direct questionnaires are given to athletes to collect information about how they complete their concentration tasks, their preparation for competition and how they set goals they want to achieve. In the case of the third instrument, the athlete is asked about how they are orientated in terms of obtaining favorable athletic results.

Evaluation of self-confidence

As we previously mentioned, Vealey (1986) proposes three instruments to evaluate self-confidence:

- TSCI: Trait Sport Confidence Inventory.
- SSCI: State Sport Confidence Inventory.
- COI: Competitive Orientation Inventory.

Authors such as Bandura (1977) recommend evaluation instruments that are based on *microanalysis*: each of the actions or tasks performed by the subject-athlete are observed. The tasks are broken down in order of difficulty and the levels of self-confidence are assessed for each. Each response is taken as an athlete's self-referential thought, based on an initial perception that may vary according to the context or other unspecified reasons.

Sport Confidence Inventory

This is an instrument that measures the confidence that an athlete may have regarding specific tasks in their regular practice. Confidence is measured from the physical perspective (a subject's motor skills to perform the task at hand) and mental abilities, which the athlete uses to resolve whether she is able to emotionally deal with a particular situation.

Next, we will detail a list of variables which are useful for regulating one's own self-confidence:

- Obtain correct skill levels to execute tasks and achieve favorable results.
- Be secure and trust in the ability of the trainers and the training methods they utilize.

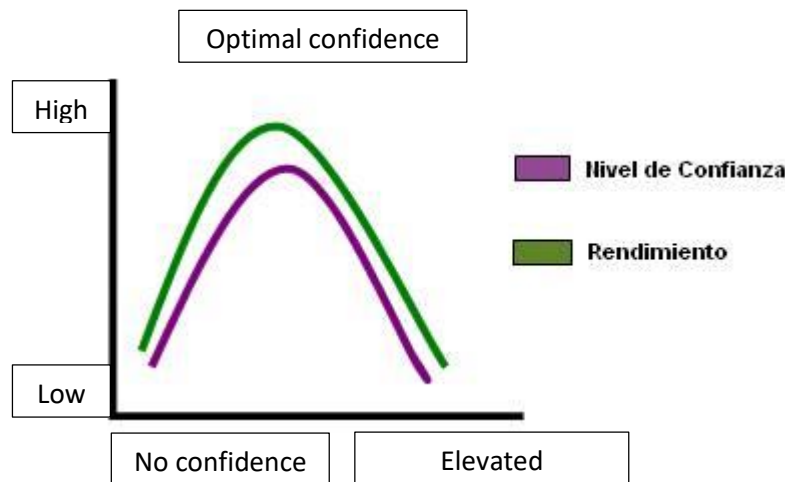
- Train at optimal levels in terms of technique and tactics.
- Establish an action plan, including potential modifying factors and difficulties. Study the specific context and the opponent to overcome.
- Manage emotional impulses.
- Control perception of the situation.
- Take action based on the optimal motor resources and concrete possibilities for action.
- Ensure information sources or channels that provide appropriate *feedback* are available.

Confidence and performance

The link established between an athlete's confidence and the likelihood of performing well is very high. For this reason, it is important to include sessions or spaces focused on issues or variables such as confidence in an athlete's training. The team of sports psychologists works together with the coaches to implement these types of interventions. If there are no psychologists on the team, coaches must have the theoretical tools to handle these issues.

Confidence is understood to be an attribute that everybody needs in order to perform in each area of their lives. Without confidence in oneself, the likelihood of conquering success or dealing with certain situations diminishes. Athletes are subjects who on a day-to-day basis face situations which require them to demonstrate levels of confidence. In competitions during the year, training sessions, and every weekend, athletes are evaluated by the public and their opponents. In an almost obligatory way, this type of exposure leads them to develop their confidence, without which they would not be able to perform optimally.

Figure 1: Relationship between confidence and athletic performance



Source: Prepared by the author.

Each of the possibilities manifested in the graph exposes the athlete to different types of results. It clearly shows the importance of reaching optimal levels of confidence, since low and high levels of confidence lead to less chances of success. Athletes who set realistic expectations for what they will achieve have optimal levels of confidence. This data is highly valuable to coaches who are with players day in and day out because by observing the players in training and competitions, the coaches will be able to measure each player's individual level of confidence.

An excess of self-confidence leads to athletes believing that they do not need to try too hard to achieve a result. In turn this decreases the likelihood of obtaining optimum performance, because there is confusion between what is believed will happen and what really happens. This prevents an athlete from acknowledging errors and leads to limited self-criticism and conflicts with teammates, coaches, and so on.

It is important for the athlete to analyze and identify situations in which they had excessive or minimal self-confidence, in order to understand the impact of these extremes. Based on experience, an athlete must identify those moments, training sessions and competitions in which her confidence levels were not conducive to good performance. The ability to self-evaluate will allow the athlete to self-regulate, using the strategies necessary to adapt their level of confidence to each moment of training or competition. Poor management of self-confidence not only leads to poor results, but other negative consequences such as poor concentration, motivation and physical condition in general.

Factors that can affect self-confidence

When dealing with self-confidence, the goal is that the athlete, throughout her career, builds within herself a series of personality traits that allow her to face both competitive and training situations in the best way possible, trusting her own potential.

Factors that can cause interference in the building of self-confidence are:

- The results obtained: achieving positive results is proportional to generating higher levels of self-confidence. In the opposite case, self-confidence is negatively affected.
- The acquisition of new motor skills: here the coach plays a decisive role. The coach is responsible for establishing a training methodology for the acquisition of skills. For subjects who find it harder to learn new skills, the coach must adapt and individualize strategies to an athlete's individual abilities. When learning is delayed, self-confidence will be impacted. When learning is fast, self-confidence increases.
- Low levels of extrinsic-intrinsic motivation: levels of motivation, both internal (from within the athlete) and external (coach, public, etc.) affect self-confidence. Athletes must always be motivated—it is the motor that drives the performance of any type of activity.
- Interpretation of training level: self-confidence is affected when the athlete identifies that she does not have the necessary levels of physical, technical, tactical preparation, etc. and does not feel apt to compete or train, or perform as she considers necessary.
- Inadequate goal setting: meeting goals is proportional to optimal confidence levels. If unrealistic goals are set and these are not achieved, self-confidence will be affected.

Psychological variables that impact athletic performance

The demands of high performance make conquering psychological variables and finding harmony between them inevitable. These variables are: anxiety, stress, self-confidence, motivation and attention-concentration, mood, self-control, regulation, interpersonal skills and adjustment or emotional stability. Therefore, in coordination with the coach the subject-athlete must consider how to manage training sessions in such a way that they address these issues and that they develop along with physical capabilities.

Next, we will look at a series of studies that reflect the importance of viewing *self-confidence* as a psychological variable that should be trained. These studies focus on the results obtained from measuring self-

confidence. Some studies have also made comparisons between genders, attempting to identify whether there are differences in terms of self-confidence for males and females and how that influences athletic performance.

Analysis cases, gender and athletic differences

A study monitored soccer players from the Spanish League in the 2015-2016 season, in which all the psychological variables mentioned above were analyzed, including how they influence athletic performance. In this case, we will focus on the variables of self-confidence and the associated results from the study.

The same investigation conducted by Gonzales Campos, et al. (2015), also with soccer players, shows how optimal levels of self-confidence lead to lower anxiety levels and consequently improved stress management. It is observed that some variables, such as self-confidence, cause stability in other variables.

Authors such as Medrano, Mateos and Martos (2016) demonstrate in their paper "Self-Confidence in Sport in School Age" some gender differences in terms of self-confidence and athletic performance. In this study, there were statistically significant differences between males and females, with males having higher self-confidence than females. These results may be related to the more extensive opportunities that males have in sports environments, and it would be interesting to examine further from an anthropological point of view, why these variables occur. Females showed higher levels of concern regarding the learning techniques and a greater tendency for fear of failure, which resulted in less self-confidence.

Males had lower levels of competitive anxiety with a higher percentage of self-confidence. As for females, the opposite was observed: high anxiety levels and low self-confidence. It is noted that one of the reasons why females experienced lower levels of self-confidence could be related to going through puberty, since physical changes lead to a tendency for introversion in response to being more highly observed, which leads to shyness and lower self-confidence.

In terms of different sports, it was observed that sports that are aesthetically oriented, that is to say, those in which appearance is measured, are the sports correlated with lower levels of confidence and security. This is due to the impact of tests that athletes are subjected to which change their physical self-perception.

Statistically significant differences are observed between individual and team sports. Athletes dedicated to individual disciplines had higher levels of self-confidence when compared to subjects dedicated to team sports. One of the possible explanations for this could be that the errors committed in team sports not only affect the subject who committed them, but the group as a whole, with a run-on effect for levels of motivation and self-confidence. Being constantly evaluated by one's peers creates a lot of pressure.

Martens et al. (1990) and Zeng (2003) also analyzed these factors and obtained the opposite results regarding individual and team sports—their study revealed higher levels of self-confidence in team sports.

An interesting result worth noting is the difference found between a subject dedicated to an athletic discipline compared to those who are not, as higher levels of self-confidence were observed in those subjects dedicated to a sport.

In relation to an athlete's age, no statistically significant differences were found in the study. This is due to the fact that athletes of all different ages understand the importance of both physical and mental training to achieve athletic results.

As can be seen, an athlete's level of self-confidence is determined by a large number of variables. As trainers or psychologists working in formative stages, it is important to understand this, so that athletes can develop all their abilities in parallel. Results will not be achieved without working on these variables. Lower levels of self-confidence are due to a lack of understanding at a pivotal time of the importance of self-confidence. This applies universally to both men and women, to individual or team sports, to children, youth and adults, for experts or novices, for soccer players, tennis players or judo competitors, etc.

Internal locus of control versus external locus of control

An important variable in athletic performance is an athlete's attentional focus, in other words, where they focus their attention whilst seeking optimal performance. Depending on where an athlete focuses their attention, their perception of self-confidence will be higher or lower. A perception of control over events in competition provides a greater sense of self-efficacy and confidence.

In this context, attentional focus is defined as a personality trait that determines whether the athlete's perception of performance and the

results of their actions are the result of actions under their control (internal locus of control) or, on the contrary, if they see their performance as the result of fate, luck or elements and circumstances external to and beyond their control (external locus of control). In other words, if the result of our actions are determined by what we do (internal control orientation) or if they are determined by events beyond our control (external control orientation).

In this way, a subject with an internal locus of control will be able to look for success in the performance of their own actions, while those who focus on external elements and events for good performance results will believe that success is predetermined, to a large extent, by factors such as luck or fate, which are aspects beyond their control.

Next we will look at athlete characteristics in terms of their attentional focus.

Players with an external locus of control typically will be:

- Players who attribute success to variables that are not associated with their own effort, such as luck, help from others or help from trainers.
- Players who give up easily and are generally negative.
- They perform better when effort is maintained at the same levels.
- Exaggerated emotional instability. Both in relation to success and to failure. As a result, prone to mood swings.
- Tend to believe that everything is against them: playing surface, spectators, etc.

On the other, players with an internal locus of control typically will be:

- Players who feel responsible for both success and failure. Responsibility, not guilt.
- They work better when the work load is well distributed.
- They have clarity about what they want to achieve. They don't give up easily and their clarity in terms of objectives guides them.
- They are emotionally stable. They do not show strong emotions, except when competitive circumstances demand as such. Emotional management is focused on objectives; they do not allow emotions to take over.
- They are more independent with a clear focus on achievement.
- They do not look for other people to blame or external justifications to explain their successes and failures. They look within themselves for answers and solutions to the complex situations that they face during competition.

- They are satisfied when positive results are a product of achieving what was planned.

From this, we can see how an athlete's performance will vary depending on the type of attentional focus that they decide to adopt.

Resilience

Next, we will look at a concept related to self-confidence: resilience. Maintaining optimal levels of self-confidence is a complex task for coaches, psychologists and the athletes themselves. Resilience becomes part of the field of psychology during an athlete's psychological recovery processes. This resource allows some athletes to face and overcome situations with greater resources than their opponents. Since confidence is not stable throughout the competition or over a season, athletes must be able to recover optimal levels of efficacy when they detect that their confidence is not adequate for optimal performance. Thus, the correct regulation of self-confidence in the face of adverse or unforeseen situations is made possible through resilience.

It refers to a set of abilities of a personal nature that allow an individual to function normally or gives them the capacity to adapt to adverse contexts and to specifically complex situations. Resilience is proportional to a subject's capacity to adapt to adverse contexts.

There are two trends that analyze or define resilience. On the one hand, there are the interpretations that relate resilience to psychological traits and, on the other, those that comprehend it as a dynamic process. In the second case, when resilience is viewed as a process, it is understood that it develops throughout life and is the result of interactions between the subject and their environment. Thus, it can be observed that the subject's resources are demonstrated when interacting with the environment. The capacity for harmonious interaction is the capacity for resilience.

Some authors define resilience as mental strength. Numerous studies have concluded that resilience is formed, in part, thanks to support from the subject-athlete's family, coaches and peers. In this sense, the confidence others have in a subject-athlete is an important factor for them to develop self-confidence and resilience.

Among the traits attributed to resilient subjects, in addition to those mentioned above, are: being emotionally positive, enthusiastic and

optimistic. In other words, individuals who manage to overcome non-positive experiences through creative resources or with humor.

Some studies indicate that the best way to improve resilience is through training protective variables (self-efficacy, self-esteem, optimism and social support), rather than working on removing risk factors (anxiety, stress and depression).

Galli and Vealey (2008) propose a resilience model where they establish that negative experiences have the capacity to generate resilient qualities. For example, self-confidence and self-efficacy can be the result of an adaptation stage and the struggle to work through a negative event. By identifying an event as stressful or threatening, adaptation and resilience will be built, depending on how subjects face such events.

When people are facing adversity, one of the external variables that impact this process is the social support and contextual factors that surround them.

Fletcher and Sarkar's resilience model (2012) is based on positive evaluation and metacognition. Metacognition is understood as an innate human capacity that allows us to understand and be aware of our own thoughts, but also of the ability of others to think and judge reality, which enables us to anticipate our own and others' behavior through constantly perceiving the emotions, attitudes and feelings of others, which in turn allows us to formulate hypotheses about how they will act in the future.

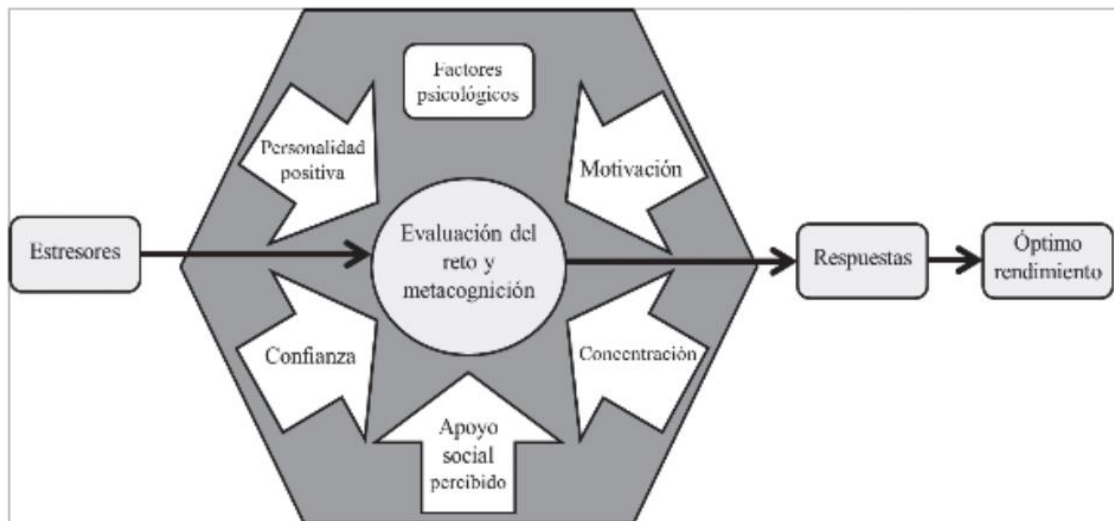
Athletes will consider these types of events as opportunities for improvement, as challenges that must be overcome and not as threatening situations. When an athlete deals with a stressful situation in this way, it reflects an equilibrium that has been achieved in terms of psychological variables. This makes positive sports results more likely based on the following personal characteristics:

- Positive personality: the ability to be excited about having new experiences, be extroverted and emotionally stable.
- Motivation: adequate motivation is fundamental for the development of any type of activity, especially when facing novel or risky situations. A balance between both intrinsic and extrinsic motivation must be achieved.
- Confidence: balances the variables of stress-resilience-performance, which is considered to be key for an athlete. We must always remember that confidence is proportional to athletic performance.
- Concentration: an athlete's ability to focus is a key attribute for performance. Focus is internal and external. Internal focus refers to

thinking about oneself and external focus refers to not being aware of distractions in one's environment.

- Perceived social support: connections with family members, coaches, colleagues and club members. Social and environmental support is the foundation for an athlete's progress, since support is unconditional and is part of each of the stages that the subject goes through.

Figure 2: Theory of Resilience



Source: Fletcher and Sarkar (2012).

Galli and Vealey's (2008) resilience model emphasizes that athletes must understand that when they achieve the expected athletic results, this outcome is the product of their effort and ability to overcome new challenges. Athletes with effective personality traits and sociocultural support resources, etc., will benefit in a number of ways, in addition to that already outlined previously. These benefits are:

- Learning: through the experiences and values obtained through a sports career.
- Perspective: by facing adversity, athletes manage to expand their worldview and this serves them not only for sport, but for life in general.
- Identifying social support: recognizing the challenge of facing adversity, athletes can recognize the importance of social support when facing adversity.

The subject-athlete's ability to conquer these variables will impact their metacognition. This makes it possible to plan interventions, detecting possible failures and regulating learning by evaluating processes.

Resilience and high performance

In a study conducted by Galli and Vealey (2008), ten high performance athletes were interviewed and asked about the most complex events that they have had to deal with. Five events that were considered as adverse were identified. These included: injuries, decreased performance, transition to college, athletic *burn out* and illnesses that get in the way of sport.

It was concluded that the athletes were able to deal with these adversities thanks to the following variables:

- Sociocultural support: family, friends and coaches.
- Personal resources: determination, competitiveness, love for the sport.

These variables make it possible for the athletes to work through these events, and furthermore, increase their learning capacity and increase their motivation. The coping strategies employed allowed athletes to fight adversities. In some cases, athletes shared that if there had not been a stressor or barrier that they had to overcome, they would not have won gold medals.

It can be seen how for athletes, stressors generate competencies that are transformed into the ability to overcome a crisis. However, in many cases, precisely the opposite happens: crises trigger stress agents and thus a chain of negative events that lead to a decrease in performance.

Some authors suggest that future lines of research should investigate why some athletes appear to have a personality profile that allows them to cope better than others as suggested by Scanlan, Russell, Magyar and Scanlan (2009) in their paper on the *Sports Commitment Model*.