

Resilience, optimism, and burnout in high-performance youth athletes

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BACKGROUND. High-performance sport's main goal is for athletes to perform at their maximum level in order to attain maximum possible success. Enhancing performance is one of the most studied areas in sport and performance psychology, with resilience being one of the most prominent variables in these studies.

OBJECTIVE: The investigation aims to study resilience as well as its relationship with optimism levels and burnout syndrome using a sample of 12- to 17-year-old high-performance youth athletes.

METHOD. 308 athletes between 12 and 17 years of age from Mexico participated in this research. After obtaining the authorization, resilience, optimism and burnout syndrome were measured.

RESULTS demonstrate that athletes that scored high on resilience and optimism presented lower levels of emotional exhaustion, depersonalization, and reduced personal accomplishment.

CONCLUSION Resilience and optimism appear to be protective factors against developing burnout. Designing and applying intervention programs that allow youth athletes to develop these resources and coping strategies to face the stressful situations high-performance sport presents appears to be important to avoid the development of burnout syndrome or illness.

KEY WORDS: Sport psychology, performance, resilience, optimism, burnout.

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Introduction

High performance sport's main goal is for athletes, within each discipline's own rules, to perform at their maximum level to attain maximum possible success (Gómez-López et al., 2013). Consequently, performance enhancement has been one of the areas that has received most attention in the recent past. Following this trend, one of the most studied variables within sport is resilience (Bretón, et al., 2016; Deen, et al., 2017; Mohammadi, 2019) because it allows athletes to overcome adversity (Chacón, et al., 2016; Ortín et al., 2013; Zurita, et al., 2016) and enhance athletic performance (Romero, 2015).

Previous studies that characterize resilience in elite-level teams (Morgan et al., 2013) have found higher performance and athletic success (Fletcher & Sarkar, 2012); better coping strategies (Belemet al, 2014; García-Secades, et al., 2016; Joyce, et al., 2005; Yi et al., 2009); higher levels of well-being within sport and lower risk of mental health disorders (Hosseini & Besharat, 2010); and better levels of self-concept related to physical appearance (Zurita et al., 2017).

There are several definitions for the term resilience in the literature. According to Reivich & Shatté (2002), resilience is a complex process of interactions composed of seven skills: emotion management, impulse control, optimism, causal analysis, empathy, self-efficacy, and outreach. As per these authors, these seven factors can be measured, taught and developed. Reivich & Shatté (2002) also state that resilience will be necessary in four different types of experiences. First, overcoming childhood obstacles such as a broken home, poverty, emotional neglect or physical abuse. Secondly, overcoming daily adversity, including arguments with family members, disagreements with a boss or unexpected expenses. It will also be crucial while recovering from major misfortunes, traumatic events or fatalities like the death of a family member, a job loss or the consequences of a natural disaster. And, finally, building a support group which will help you to connect with other people, enabling the creation of solutions to life's setbacks.

In other words, Reivich & Shatté (2002) consider that, during lifetime, facing adversity is inevitable, everybody will have to deal with small day-to-day inconveniences, disaster situations and major traumas. However, these authors assert that it is possible to change the way we look at life, shifting the way we view adversity and, thus, modifying the impact it has on people's lives.

Resilience is a multidimensional construct that relates to a psychological profile consisting of a balanced and healthy personality (Friborg et al., 2005);

and with individuals who have the capacity to change physiological and affective responses in a flexible manner to adapt to the demands of the environment (Waugh et al., 2011). In sport, two theoretical models explain the importance of resilience in athletic domains. One is the Psychological Theory by Fletcher & Sarkar (2012), which proposes that athletes with resilient characteristics will evaluate stressful situations as a motivating challenge and not as a threat. On the other hand, the conceptual model of sport resilience proposed by Galli & Vealy (2008) indicates that the most important factor in the process of resilience is the perception of obtaining positive results because of facing adversity. This latest model is the one used in our research.

Pesce et al. (2004) and Kern & Moreno (2007) affirmed that resilience is not a characteristic a person is born with, instead, it is something that is acquired over time. Therefore, when considering resilience in function of an individual's age, Almeida, Luciano et al., (2014), López-Suárez (2014) and Castro et al. (2016) pointed out that although no significant differences between resilience and age have been found, it is possible to find that older athletes will possess a higher level of resilience, probably because of their personal experience. However, Lopez-Suarez (2014) affirmed that teenagers have more energy to face challenges and adverse situations that allows them to counteract the lack of personal experience resulting from their age. Additionally, different studies (Becona, et al., 2006; Hawkins & Mulkey, 2005; López-Suárez, 2014) affirm that there is no significant difference between sex and resilience level.

Among the different variables studied, one of the factors that presents higher association with resilience and contributes to its development is optimism (Reche et al., 2018 and Wu et al., 2013), a personality construct that has demonstrated to play an important role in athletic performance (Gordon, 2008; Marín, et al., 2013; Wilson et al., 2002).

Optimism can be understood as a stable belief that positive events will occur and there is an ability to obtain the best from lived experiences, always from a realistic view and not from denial or excessive optimism that deviates from reality (Gómez-Díaz, 2016). Within sport, optimism has been studied as a personality trait in athletes (Gould, et al., 2002) as well as a factor that influences an individual's stress experience (Albinson & Petrie, 2003). Scientific literature manifests that optimist athletes will have a higher chance of success and situational control of stress, compared to pessimist athletes (Marín, 2017; Moya, 2017; Ortín, et al., 2011; Seligman et al., 1990). Moreover, Lipowski (2012) affirmed that optimist athletes will compete focused on obtaining a possible success instead of focusing on negative emotions and fears.

Recently, different studies have associated optimism and resilience (Freche, 2013; González-Arratia, et al., 2012; Parkes & Mallet, 2011; Sourì & Hasanirad, 2011; Yu & Zhang, 2007). Regarding athletic performance, it has been found that more optimistic athletes (who were also the most resilient) presented lower anxiety levels and higher confidence in themselves, in addition to better performance (Martin-Krumm et al., 2003).

In sport, resilience and optimism protect an individual from suffering burnout (Gustafsson & Skoog, 2012; Marín, 2017; Marín et al., 2013; Reche et al., 2014; Tutte & Reche, 2016) as different studies have suggested that athletes who present higher levels of resilience and optimism are less vulnerable from experiencing burnout (Berengüí, et al., 2013; Berengüí, et al., 2015; Moya, 2017).

In competitive sport, environments are characterized by constant stress and psychological demands that can threaten athletes' mental health if they do not possess psychological abilities as the ones discussed earlier, leading to several consequences as burnout. Burnout consists of three components: emotional exhaustion, depersonalization, and reduced personal accomplishment. Athletes who present low levels of optimism and resilience tend to present high scores when being evaluated for burnout (Tutte & Reche, 2016).

Garcés de Los Fayos & Cantón (2007) have grouped the predictable variables of burnout in three categories: family/social variables, sport-related variables, and personal variables (Cantú et al., 2015; De Francisco et al., 2014; Franco, 2009; Garcés de Los Fayos et al., 2012). These variables generate negative situations as an increased perception of stress or a lack of satisfaction with social support (Raedeke & Smith, 2004) and worsening of the motivational climate (Chen & Chi, 2003). According to this model, when burnout appears, it will follow a process that develops throughout a time continuum and will be mediated by the athlete's personality traits.

When analyzing this psychological construct, it is necessary to avoid only thinking about high performance athletes, instead any athlete who is invested emotionally in their discipline should be considered. Authors as Feigley (1984), Smith (1986), Cohn (1990), Davies & Armstrong (1991), and Garcés de Los Fayos (1993, 1999, 2004) have suggested that burnout can be present in athletes as young as 10 years old, especially in young athletes who are pressured to perform at high levels because they have abilities that could allow them to develop a career in elite level sport (Appleton et al., 2009; Gustafsson Kenttä et al., 2007). Athletes in formative stages tend to be idealistically motivated individuals who pursue competitive success, making losing a significant problem (Garcés de Los Fayos & Vives, 2002; Isorna et al., 2019).

Data from empirically-based, descriptive studies show a prevalence of 2.77 to 10% of burnout in Spanish athletic populations (Garcés de Los Fay-

os, 1999; Medina & García-Ucha, 2002; Pedrosa & García-Cueto, 2014; Sánchez-Alcaráz & Gómez-Mármol, 2014; Vives & Garcés de Los Fayos, 2004). Other studies have suggested that prevalence of burnout in international athletic populations range from 1 to 7%, while a 15% of the population may suffer from moderate symptoms (Gould et al., 2002; Gustafsson et al., 2007).

It is important to remember that the association between resilience and optimism could act as a protective factor against experiencing burnout (Reche et al., 2014). This means that the capacity to be resilient would lead an individual to resist conflict while generating positive behaviors and attitudes to overcome challenges (Vanistendael & Lecomte, 2002). Moreover, optimist individuals will be able to better adapt to reality when compared to pessimists who may focus on failure, impotence, defenselessness and depression (Flórez-Lozano, 2006). Therefore, a high level of optimism in athletes relates to suffering less burnout symptoms (Reche et al., 2014; Berengüí et al., 2013; Chen et al., 2007; Chen et al., 2008; Marín et al., 2013). This apparent logical relation would suggest that optimist athletes would be more predisposed to face challenges in training and competition.

This study aims to investigate the relation between burnout, resilience and optimism levels, age, and sex in high performance athletes aged 12 to 17 years old, because there are few studies that analyze these variables the present work acquires great importance to prevent Burnout Syndrome.

Method

PARTICIPANTS

This study was composed of athletes who are part of the Dirección de Deporte Competitivo del Consejo Estatal para el Fomento del Deporte (CODE). The total population was composed of 308 athletes aged 12 to 17, with a median of 13.78 years and a standard deviation of 1.52 years. All athletes in the sample compete at high-performance level in their discipline, including cycling, rhythmic gymnastics, combat sports, swimming, speed skating and shooting. Participants had a median of 4.65 years (s.d. 2.84) practicing their sport. 55.2% of the population was male.

INSTRUMENTS

A questionnaire to obtain sociodemographic data (age, sex) and sport-related data (practiced discipline; years practicing sport; gold, silver and bronze medals earned) was applied. In addition, the following instruments were administered:

- Spanish Version of Resilience Scale (Ruíz et al., 2012; adapted from Wagnild & Young, 1993) adapted to Spanish for soccer populations; has demonstrated reliability in a sam-

ple of Spanish fencers and Uruguayan judokas (Reche & Ortín, 2014; Reche et al., 2014), with a global internal consistency of .89 in both cases. It is a scale that consists of 25 items using a 7-point Likert scale. The scales aims to obtain a global resilience score as well as scores for each of the following factors: personal competence, and acceptance of oneself and life. The instrument's reliability in this study is .924.

- Revised Life Orientation Test (LOT-R; Scheier et al., 1994) presents an internal consistency of .78. The instrument is composed of 10 items using a Likert scale (three positive, three negative, and four neutral). The instrument's reliability in this study is .728.
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PROCEDURE

To complete this study, permission from the *Dirección de Deporte Competitivo del Consejo Estatal para el Fomento del Deporte* (CODE) was requested as well as informed consent from the athletes' parents or legal guardian. The process of recruitment consisted of asking athletes who met the study's criteria (competing at high performance level, ages 12 to 17) to participate. A total of 341 individuals volunteered to participate in the study. The sociodemographic questionnaire and test battery were applied in a group setting by a team of psychologists who ensured the correct application as well as comprehension of all items.

Once the data was compiled, 33 individuals were discarded for not following the protocol to answer the instruments correctly. This resulted in the final sample of 308 athletes.

DATA ANALYSIS

To evaluate the instruments' reliability, Cronbach's alpha was measured. Statistical analysis using medians, standard deviation, frequency, and percentages to determine the prevalence of different evaluated factors were applied.

To determine the relationship among variables the following was used: regression analysis to evaluate the causal relationship between the factors and the verification of the theoretical model of burnout, an analysis comparing the medians for the relationship between the factors of burnout syndrome with each variable and a student's t-distribution for the differences between sexes. The statistical program SPSS version 24 was used.

Results

In the first place, the sample's resilience, optimism, and burnout were analyzed, as can be observed on Table I. Regarding burnout syndrome, 11.7% of the sample showed high scores in the three factors of IBD-R. In addition a 57.8% of the sample's total presented high scores in some factors and 30.5% presented high scores in all factors.

TABLE I
Descriptive Analysis Of Resilience, Optimism, And Burnout In The Sample

	Minimum	Maximum	Median	Standard Deviation
Resilience	40	175	140.40	21.51
Optimism	3	73	4.27	10.82
Burnout	19	73	41.27	10.82

Table II demonstrates that half of the sample shows moderate optimism scores (50.6%) while 35.1% obtained a high score. Almost 57.8% of the sample shows low resilience scores and high scores on the three components of burnout, with 40.3% of athletes scoring high on reduced personal accomplishment, 38.3% on emotional exhaustion, and 39.6% on depersonalization.

In second place, optimism, resilience, and burnout differences between sex and age were analyzed. To do this, a student's t-distribution was used to observe the differences between sex scores. In this analysis, no significant statistical differences were observed in the optimism and resilience variables ($t_{306} = -1.108, p = .269$ y $t_{306} = -.980, p = .328$). However, partially significant statistical differences ($t_{306} = 1.936, p = .054, d = -.22$) were observed on emotional exhaustion scores, as can be observed on Table III.

TABLE II
Description Of The Sample According to the interpretation of variables

	Low	Moderate	High
Optimism	35.1%	50.6%	14.3%
Resilience	57.8%		42.2%
Reduced personal accomplishment	25.3%	34.4%	40.3%
Emotional exhaustion	31.8%	29.9%	38.3%
Depersonalization	23.7%	36.7%	39.6%

TABLE III
Description Of Variables According to sex

	Men	Women	t	p	d
Optimism	15.07 (3.34)	14.63 (3.50)	1.108	.269	
Resilience	141.73 (21.76)	139.32 (21.30)	.980	.328	
Reduced personal accomplishment	16.30 (5.98)	15.18 (5.48)	1.704	.089	
Emotional exhaustion	14.68 (5.82)	15.89 (5.11)	-1.936	.054	-.22
Depersonalization	10.26 (4.44)	10.22 (4.20)	.064	.949	

To analyze differences in the variables associated to age, various regression analyzes were performed. In this tests, statistical significant differences were found in resilience and emotional exhaustion ($F_{2,305} = 7.54, p < .01, R^2 = .05$).

In third place, the study aimed to better understand the relationship between optimism and resilience, and burnout. Therefore, different statistical tests were performed. When analyzing reduced personal accomplishment, significant statistical differences in its relationship with resilience and optimism were observed ($F_{2,305} = 32.3, d < .001, R^2 = .169$). Concretely, differences in all median scores were observed because athletes who scored low on reduced personal accomplishment obtained high scores on optimism and resilience (16,29 s.d. 3,20 and 152,231, respectively).

As before, when studying emotional exhaustion, significant statistical differences were observed in relationship with resilience and optimism ($F_{2,305} = 27.8, p < .001, R^2 = .149$). Differences between the medians of the scores of resilience and optimism in accordance to the emotional exhaustion interval (low, moderate, or high) were obtained. Differences between the medians with high and low emotional exhaustion were observed; thus, athletes that presented higher scores in resilience and optimism also presented lower scores in emotional exhaustion (148.551 and s.d. 16.926 and 15.877 and s.d. 3.495).

About the depersonalization variable, significant statistical differences were also found in the optimism and resilience scores ($F_{2,305} = 11.3, p > .001, R^2 = .06$). Differences in resilience and optimism medians were obtained according to the degree of depersonalization. Results showed differences in the medians with high and low scores in depersonalization; therefore, athletes with higher resilience and optimism scores presented lower depersonalization scores (147.059 and s.d. 18.059 and 16.206 and s.d. 3.004).

Finally, the relationship between burnout syndrome's own factors were studied. Statistically significant differences were observed between the emotional exhaustion and reduced personal accomplishment variables ($F_{1,306} = 6.658, p < .01, R^2 = .018$) and depersonalization and emotional exhaustion ($F_{1,306} = 104.436, p < .01, R^2 = .252$). However, significant statistical differences between depersonalization and reduced personal accomplishment were not observed ($F_{1,306} = 1.135, p = .288$).

Discussion

The goal of this study was to measure the relationship between burnout, levels of resilience and optimism, age, and sex in high performance athletes aged 12 to 17. As results showed, this group of athletes did not present el-

evated levels of resilience, obtaining similar statistical data as that obtained in other studies with samples competing in diverse sports (Gómez & Reche, 2021; Reche & Ortín 2014; Reche, et al., 2014; Reche, et al., 2018; Reche, et al., 2020; Tutte & Reche 2016).

In sport, it is important to have the capacity to persist regardless of obstacles faced and readjust quickly to redirect energy towards new goals (Reyes, 2010). Resilience is a variable that favors this, allowing individuals to face adversity in athletic contexts (Reche, et al., 2014). Therefore, this group of athletes could present difficulties when trying to adapt and overcome future challenges because they do not possess a high resilience level, which could lead to using inadequate coping strategies (García-Secades et al., 2016; Joyce et al., 2005; Yi et al., 2005), lower well-being within their sport and life (Bretón et al., 2016), a higher risk of suffering mental health disorders (Hosseini & Besharat, 2010), and lower performance level and athletic success (Fletcher & Sarkar, 2012).

As discussed in the introduction, one of the factors that presents a strong relationship with developing resilience is optimism (Wu, et al., 2013; Reche et al., 2018). In this group of athletes, only 14.3% of the sample presented high optimism levels, being this a personality construct that acts as a determining factor when an athlete faces a high-pressure situation (Seligman, 2004). Optimism is a protective factor that contributes to resilience and protects an individual from suffering burnout syndrome (Chen et al., 2008; Gustafsson & Skoog, 2012) because an optimist athlete will be more willing to face the demands of the situation. Therefore, it is a worrying fact that this group of young athletes mostly present low resilience and optimism, increasing their probability of suffering burnout (Tutte & Reche, 2016).

Due to the levels of optimism present in this sample, it would be convenient to foment it within these individuals because it has been demonstrated that optimism can function as a mediating factor of performance and protect against the possibility of suffering from anxiety or other mental-health related problems (Berengüí, et al., 2015; Gómez & Reche, 2021; López-Gullón et al., 2017; Ortín et al., 2018).

As observed in the results, 11.7% of the sample of athletes are suffering from burnout, and a very high percentage (57.8%) present burnout symptoms. Therefore, this sample of athletes presents a higher percentage of burnout when compared with other studies that have found 7-10% of burnout within their samples (Pedrosa & García-Cueto, 2014; Sánchez-Alcaráz & Gómez-Mármol, 2014; Vives & Garcés de Los Fayos, 2004; García-Jarillo, et al., 2020; Reche et al., 2014; Tutte et al., 2010), making this an alarming situation because the sample consists of athletes aged 12 to 17, who could present

a high risk of abandoning their athletic practice, presenting health-related problems (illness or injury), or feeling unsatisfied with their role within sport (Carlin, et al., 2012; García-Parra, et al., 2016).

In addition, almost 60% of the studied sample presents high scores in one or two burnout factors; therefore, as burnout theories indicate, these athletes would be more at risk of suffering from the syndrome. Additionally, as studies like those from Tutte (2015) and Tutte and Reche (2016) suggested, athletes presenting burnout symptoms would present a less resilient and optimist profile compared to the rest of the population.

As could be observed, resilience and optimism are protective factors against developing burnout, as other studies have suggested (Chen et al., 2008; Gnuustafsson & Skoog, 2012; Tutte, 2015; Tutte & Reche, 2016). Future studies should aim to confirm this hypothesis.

In respect to the differences between the three constructs' relationship with age, our data presented a small effect size. However, other authors have observed statistically significant differences the more resilience (Castro et al., 2016; López-Suárez, 2014), more optimism (García-Naveira & Díaz, 2010; Seligman et al., 1990; Venne et al., 2006). Future studies should deepen this fact.

In function of sex, only partially significant statistical scores were obtained in emotional exhaustion, with higher scores among women than men, as found in previous studies (Moya, 2017; De Francisco et al., 2014; Reynaga, 2009; Reynaga & Pando, 2005). In regard to sex, inconsistencies exist across the literature (Balaguer et al., 2009; Vitoria et al., 2003); thus, more studies are required.

With these results, the importance of developing intervention programs aimed at acquiring resources and coping strategies to successfully face stressful situations within sport and avoid developing mental health disorders becomes clear. An adequate management of adversity as well as the capacity to transform unfavorable situations into challenges could be useful skills for athletes to protect themselves from the possibility of suffering from burnout (Tutte & Reche, 2016). However, this study has limitations such as the small sample. For this reason, future studies should continue studying the relationship of these variables in young athletes.

Conclusion

Once the study's results main orientations have been discussed, it is necessary to conclude with a series of remarks:

- The sample of athletes did not present an elevated resilience level, which could generate difficulties when adapting to adverse situations and trying to overcome future challenges faced within sport or disability.
- In addition to the low resilience levels, only 14.3% of the sample presented high optimism levels. This fact is worrisome because a youth athlete with low resilience and optimism presents a high probability of developing burnout.
- In this sample, there is a high percentage (11.4%) of athletes presenting burnout syndrome and a very high percentage of athletes presenting burnout symptoms (57.8%).
- Athletes that scored high on resilience and optimism also presented low scores on emotional exhaustion, depersonalization and reduced personal accomplishment.
- The study shows similar results to previous studies that demonstrate that resilience and optimism function as protective factors in the development of burnout.
- The older the individual, the more resilience and optimism is presented while reduced personal accomplishment levels are lowered.
- Significant statistical differences between the three constructs in relationship with sex were not found. Only partially significant scores were observed in emotional exhaustion, with women scoring higher than men.

References

- Albinson, C. B., & Petrie, T. A. (2003). Cognitive appraisals, stress, and coping: Preinjury and postinjury factors influencing psychological adjustment to sport injury. *Journal of Sport Rehabilitation, 12*, 306-322. <https://doi.org/10.1123/jsr.12.4.306>
- Almeida, P., Luciano, R., Lameiras, J., & Buceta, J. M. (2014). Beneficios percibidos de las lesiones deportivas: Estudio cualitativo en futbolistas profesionales y semiprofesionales. *Revista de Psicología del Deporte, 23*(2), 457-464. <https://doi.org/10.33155/j.ramd.2017.05.002>
- Appleton, P., Hall, H., & Hill, A. (2009). Relations between multidimensional perfectionism and burnout in junior-elite male athletes. *Psychology of Sport and Exercise, 10*(4), 457-465. <https://doi.org/10.1016/j.psychsport.2008.12.006>
- Balaguer, I., Duda, J., Castillo, I., Moreno, Y., & Crespo, M. (2009). Interacciones entre las perspectivas situacionales y disposicionales de meta y el burnout psicológico de los tenistas junior de la élite internacional. *Acción Psicológica, 6*(2), 63-75. <https://doi.org/10.5944/ap.6.2.222>
- Becoña, E., Mínguez, M. C., López, A., Vázquez, M. J., & Lorenzo, M. C. (2006). Resiliencia y consumo de alcohol en jóvenes. *Revista Salud y Drogas, 6*(1), 89-111. <https://doi.org/10.21134/haaj.v6i1.106>
- Belem, I., Caruzzo, N., Nascimento Junior, J. R., Vieira, J. L., & Vieira, L. F. (2014). Impact of coping strategies on resilience of elite beach volleyball athletes. *Revista Brasi-*

- leira de Cineantropometria e Desempenho Humano, 16(4), 447-455. <https://doi.org/10.5007/1980-0037.2014v16n4p447>
- Berengüí, R., Garcés de los Fayos E. J., Ortín, F. J., De la Vega, R., & Gullón, J. M. (2013). Optimism and Burnout in competitive sport. *Psychology, 4*, 13.
- Berengüí, R., Ortín, F. J., Garcés de Los Fayos, E. J., López-Gullón, J. M., & Pinto, A. (2015). Optimismo, burnout e estados de humor em desportos de competição. *Análise Psicológica, 33*(2), 221-233. <https://doi.org/10.14417/ap.1019>
- Bretón, S., Zurita, F., & Cepero, M. (2016). La resiliencia como factor determinante en el rendimiento deportivo. *Revisión Bibliográfica.e-balonmano.com: Revista de Ciencias del Deporte, 12*(2), 79-88. <https://doi.org/10.6018/300411>
- Cantú Berrueto, A., López Walle, J., Castillo, I., Ponce, N., Álvarez, O., & Tómas, I. (2015). Burnout en el deporte. En M. Rodríguez, O. Ceballos, y J. Tristán (Eds.), *Psicología del deporte: Conceptos, aplicaciones e investigaciones* (pp. 55–59). CHAP, Monterrey: Universidad Autónoma de Nuevo León.
- Carlin, M., Garcés de Los Fayos, E., & De Francisco, C. (2012). El síndrome de burnout en deportistas: nuevas perspectivas de investigación. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte, 7*(1), 33-47. <https://doi.org/10.4321/s1578-84232014000100004>
- Castro, M., Chacón, R., Zurita, F., & Espejo, T. (2016). Niveles de resiliencia en base a modalidad, nivel y lesiones deportivas (Levels of resilience based on sport discipline, competitive level and sport injuries). *Retos, 29*, 162-165. <https://doi.org/10.47197/retos.v0i29.41314>
- Chacón, R., Castro, M., Espejo, T., & Zurita, F. (2016). Estudio de la resiliencia en función de la modalidad deportiva: fútbol, balonmano y esquí. *Retos, 29*, 157-161. <https://doi.org/10.47197/retos.v0i29.41313>
- Chen, L. H., Kee, Y. H., & Tsai, Y. M. (2007). The influence of optimism on athlete burnout. *Journal of Sport & Exercise Psychology, 29*, 208.
- Chen, L. H., Kee, Y. H., & Tsai, Y. M. (2008). Relation of dispositional optimism with burnout among athletes. *Perceptual and Motor Skills, 106*(3), 693-698. <https://doi.org/10.2466/pms.106.3.693-698>
- Chen, Y. L., & Chi, L. (2003) The relationships of goal orientation and perceived motivational climate to burnout tendency among elite basketball players. *Journal of Sport and Exercise Psychology, 25*, 40-41. <https://doi.org/10.1037/e579872013-130>
- Cohn, P. J. (1990). An exploratory study on sources of stress and athlete burnout in youth golf. *Sport Psychologist, 4*(2), 95-106. <https://doi.org/10.1123/tsp.4.2.95>
- Davies, D., & Armstrong, M. (1991). Factores psicológicos en el deporte competitivo. Barcelona: Ancora.
- De Francisco, C., Garcés de Los Fayos, E., & Arce, C. (2014). Burnout en deportistas: Prevalencia del síndrome a través de dos medidas. *Cuadernos de Psicología del Deporte, 14*, 29-38. <https://doi.org/10.4321/s1578-84232014000100004>
- Deen, S., Turner, M. J., & Wong, R. S. (2017). The effects of REBT, and the use of credos, on irrational beliefs and resilience qualities in athletes. *The Sport Psychologist, 31*(3), 249-263. <https://doi.org/10.1123/tsp.2016-0057>
- Feigley, D. A. (1984) Psychological burnout in high-level athletes. *Physician and Sport medicine, 12*, 109-119. <https://doi.org/10.1080/00913847.1984.11701971>
- Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic Champions. *Psychology of Sport and Exercise, 13*(5), 669-678. <https://doi.org/10.1016/j.psychsport.2012.04.007>
- Flórez-Lozano, S. A. (2006). Optimismo y salud. *Jano, 1616*, 59-61.
- Franco, C. (2009). Modificación de los niveles de burnout y de personalidad resistente en un grupo de deportistas a través de un programa de conciencia plena (mindfulness). *Anuario de Psicología, 40*(3), 377–390. <https://doi.org/10.1016/j.aprim.2009.10.020>

- Freche, R. (2013). Optimism and resilience, as moderated by coping style, on prenatal depressive symptomology and salivary cortisol response to stress. (Order No. 1527372, California State University, Long Beach). ProQuest Dissertations and Teses, 139.
- Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J. H., & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research*, 14(1), 29-42. <https://doi.org/10.1002/mpr.15>
- Galli, N., & Vealey, R. S. (2008). "Bouncing back" from adversity: Athletes' experiences of resilience. *The Sport Psychologist*, 22, 316-335. <https://doi.org/10.1123/tsp.22.3.316>
- Garcés de Los Fayos, E. J. (1999). Burnout en deportistas: un estudio de la influencia de las variables de personalidad, sociodemográficas y deportivas en el síndrome. Tesis doctoral no publicada, Universidad de Murcia, Murcia. <https://doi.org/10.4321/s1578-84232014000300005>
- Garcés de Los Fayos, E. J. (1999). Burnout en deportistas: Un estudio de la influencia de variables de personalidad, sociodemográficas y deportivas en el síndrome. Universidad de Murcia: Tesis Doctoral no publicada. <https://doi.org/10.4321/s1578-84232014000300005>
- Garcés de Los Fayos, E. J. (2004). Burnout en deportistas: Propuesta de un sistema de evaluación e intervención integral. Madrid: EOS.
- Garcés de Los Fayos, E. J., & Cantón, E. (2007). Un modelo teórico-descriptivo del burnout en deportistas: Una propuesta tentativa. *Informació Psicològica*, 91-92, 12-22.
- Garcés de Los Fayos, E., & Vives, L. (2002). Variables motivacionales y emocionales implicadas en el síndrome de burnout en el contexto deportivo. *Revista electrónica de motivación y emoción*, 5(11-12). <https://doi.org/10.15359/ree.15-1.14>
- Garcés de Los Fayos, E., De Francisco, C., & Arce, C. (2012). Inventario de Burnout en Deportistas Revisado (IBD-R). *Revista de Psicología del Deporte*, 21(2), 271-278. <https://doi.org/10.4321/s1578-84232014000100004>
- García-Jarillo, M., De Francisco, C., Ortín, F. J., & Garcés de Los Fayos, E. J. (2020). Sintomatología del síndrome de burnout en deportistas: un estudio con metodología Delphi. *Cuadernos de Psicología del Deporte*, 20(3), 15-25. <https://doi.org/10.6018/cpd.367531>
- García-Naveira, A., & Díaz, F. (2010). Relación entre optimismo/pesimismo disposicional, rendimiento y edad en jugadores de fútbol de competición. *Revista Iberoamericana de psicología del ejercicio y el deporte*, 5(1), 45-60. <https://doi.org/10.6018/analeps.29.3.175771>
- García-Parra, N., González, J., & Garcés de los Fayos, E. J. (2016). Estado actual del estudio del síndrome de burnout en el deporte. *Cuadernos de Psicología del Deporte*, 16, 21-28
- García-Secades, X., Molinero, O., Salguero, A., Ruíz-Barquín, R., de la Vega, R., & Márquez, S. (2016). Relationship between resilience and coping strategies in competitive sport. *Perceptual and Motor Skills*, 122(1), 336-349. <https://doi.org/10.1177/0031512516631056>
- Gómez-Díaz, M. (2016). Psicología positiva y bienestar psicológico. En M. García-Gómez, P. Sánchez-Cobarro, M. S., Delgado-Gómez, R., Gómez-Sánchez, y M. Gómez-Díaz (Eds.), Bienestar emocional (pp. 11-28). Madrid: Dykinson. <https://doi.org/10.15198/seeci.2017.42.159-160>
- Gómez-López, M., Granero-Gallegos, A., & Isorna, M. (2013). Análisis de los factores psicológicos que afectan a los piragüistas en el alto rendimiento. *Revista Iberoamericana de Diagnóstico y Evaluación - e Avaliação Psicológica*, 1(35), 57-76. <https://doi.org/10.32911/as.2014.v7.n2.475>
- Gómez, M., & Reche, C. (2021). Resiliencia y optimismo en gimnasia rítmica. *Retos*, 41, 581-588. <https://doi.org/10.47197/retos.v0i41.83086>
- González-Arratia N. I., Valdez J. L., van Barneveld H. O., & González S. (2012). Resiliencia y factores protectores en menores infractores y en situación de calle. *Psicología y Salud*, 22(1), 49-62. Result score too low

- Gordon, R. (2008). Attributional style and athletic performance: Strategic optimism and defensive pessimism. *Psychology of Sport and Exercise, 9*, 336-350. <https://doi.org/10.1016/j.psychsport.2007.04.007>
- Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology, 14*, 172-204. <https://doi.org/10.1080/10413200290103482>
- Gustafsson, H., Kenttä, G., Hassmeén, P., & Lundqvist, C. (2007). Prevalence of burnout in adolescent competitive athletes. *The Sport Psychologist, 21*, 21-37. <https://doi.org/10.1123/tsp.21.1.21>
- Hawkins, R., & Mulkey, L. (2005). Athletic investment and academic resilience in a sample of african females and males in the middle grades. *Education and Urban Society, 38*(1), 62-88. <https://doi.org/10.1177/0013124505280025>
- Hosseini, S. A., & Besharat, M. A. (2010). Relation of resilience whit sport achievement and mental health in a sample of athletes. *Procedia Social and Behavioral Sciences, 5*, 633-638. <https://doi.org/10.1016/j.sbspro.2010.07.156>
- Isorna, M., Vázquez, M. J., Pérez, I., Alias, A., & Vaquero, R. (2019). Síndrome de Burnout en piragüistas españoles de alto nivel: prevalencia en función de variables sociodemográficas y de la práctica deportiva. *Psychology, Society y Education, 11*(1), 83-97. <https://doi.org/10.25115/psye.v11i1.2070>
- Joyce, P. Y., Smith, R. E., & Vitaliano, P. P. (2005). Stress-resilience, illness, and coping: a person-focused investigation of young women athletes. *Journal of Behavioral Medicine, 28*(3), 257-265. <https://doi.org/10.1007/s10865-005-4662-1>
- Kern, E., & Moreno, B. (2007). Resiliencia en niños enfermos crónicos: aspectos teóricos. *Psicología en Estudio, 12*(1), 81-86. <https://doi.org/10.1590/s1413-73722007000100010>
- Lipowski, M. (2012). Level of optimism and health behavior in athletes. *Medical science monitor: international medical journal of experimental and clinical research, 18*(1), 39-43. <https://doi.org/10.12659/msm.882200>
- López-Gullón, J., Martínez-Abellán, A., & Pallarés, J. (2017). Optimismo versus pesimismo precompetitivo en los deportes de combate olímpicos. Diferencias de género, ranking y campeones. *Cuadernos De Psicología Del Deporte, 17*(2), 67-72. <https://doi.org/10.4321/s1578-84232015000300009>
- López-Suárez, M. (2014). Relación entre satisfacción con la vida y satisfacción con el deporte y en jóvenes deportistas. Tesis Doctoral: Universidad de las Palmas de Gran Canaria. <https://doi.org/10.1787/fad11812-es>
- Marín, E. (2017). Burnout y Optimismo en Psicología de la Actividad Física y el Deporte: un Estudio en Deportistas Universitarios (Tesis Doctoral). Universidad de Murcia. <https://doi.org/10.17081/psico.25.47.4836>
- Marín, E., Ortín, F. J., Garcés de los Fayos E. J., & Tutte, V. (2013). Analisis bibliométrico de burnout y optimismo en deporte. *SPORT TK-Revista EuroAmericana De Ciencias Del Deporte, 2*(1), 77-87. <https://doi.org/10.6018/sportk.431181>
- Martin-Krumm, C. P., Sarrazin, P. G., Peterson, C., & Famose, J. P. (2003). Explanatory style and resilience after sport failure. *Personality and Individual Differences, 35*(5), 1685-1695. [https://doi.org/10.1016/s0191-8869\(02\)00390-2](https://doi.org/10.1016/s0191-8869(02)00390-2)
- Maslach, C., & Jackson, S. E. (1981). MBI: Maslach Burnout Inventory. Manual. Palo Alto, CA: Universidad de California, Consulting Psychologists. <https://doi.org/10.1037/t05190-000>
- Medina, G., & Garcia Ucha, F. (2002). Burnout, Locus de control y deportistas de alto rendimiento. *Cuadernos de Psicología del Deporte, 2*(2), 29-42. <https://doi.org/10.4321/s1578-84232014000100012>
- Mohammadi, F. (2019). Una investigación sobre el efecto de mediación del estilo de afrontamiento sobre la relación entre la resiliencia psicológica y el estrés percibido en atletas con

- lesiones deportivas. *SPORT TK-Revista EuroAmericana De Ciencias Del Deporte*, 8(1), 101-106. <https://doi.org/10.6018/sportk.362151>
- Morgan, P. B., Fletcher, D., & Sarkar, M. (2013). Defining and characterizing team resilience in elite sport. *Psychology of Sport and Exercise*, 14(4), 549-559. <https://doi.org/10.1016/j.psychsport.2013.01.004>
- Moya, F. J. (2017). Burnout, optimismo y deporte (Tesis Doctoral). Universidad de Murcia.
- Ortín, F.; De la Vega, R., & Gosálvez-Botella, J. (2013). Optimismo, ansiedad-estado y autoconfianza en jóvenes jugadores de balonmano. *Anales de psicología*, 29(3), 637-641. <https://doi.org/10.6018/analesps.29.3.175751>
- Ortín, F. J., Garcés de Los Fayos, E. J., Gosálvez, J., Ortega, E., & Olmedilla, A. (2011). Optimismo y ejecución en el deporte en situaciones adversas. Replicando a Seligman 1990. *Revista de Psicología del Deporte*, 20(2), 491-501. <https://doi.org/10.12800/ccd.v4i10.130>
- Ortín, F. J., Martínez, A., Reche, C., Garcés de Los Fayos, E. J., & González, J. (2018). Relationship between optimism and athletic performance. Systematic review. *Anales de psicología*, 34(1), 153-161. <https://doi.org/10.6018/analesps.34.1.270351>
- Parkes, F., & Mallet, J. (2011). Developing mental toughness: attributional style retraining in rugby. *Sport Psychologist*, 25(3), 269-287. <https://doi.org/10.1123/tsp.25.3.269>
- Pedrosa, I. & García-Cueto, E. (2014). Estudio del síndrome de burnout en deportistas: prevalencia y relación con el esquema corporal. *Universitas Psychologica*, 13(1). <https://doi.org/10.11144/javeriana.upsy13-1.esbd>
- Pesce, R., Assis, S., & Oliveira, R. (2004). Risco e proteção: em busca de um equilíbrio promotor de resiliência. *Psicologia: Teoria e Pesquisa*, 20(2), 135-143. <https://doi.org/10.1590/s0102-37722004000200006>
- Raedeke, T. D. & Smith, A. L. (2001). Development and preliminary validation of an athlete burnout measure. *Journal of Sport & Exercise Psychology*, 23(4), 281-306. <https://doi.org/10.1123/jsep.23.4.281>
- Reche, C., & Ortín, F. (2014). Consistencia de la versión española de la escala de resiliencia en esgrima. *Avances de la Psicología del Deporte en Iberoamérica*, 2, 49-57. <https://doi.org/10.17081/psico.25.47.4836>
- Reche, C., Gómez-Díaz, M., Martínez-Rodríguez, A., & Tutte, V. (2018). El optimismo como contribución a la resiliencia deportiva. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 13(1), 131-136. <https://doi.org/10.5093/rpadef2018a14>
- Reche, C., Martínez-Rodríguez, A., & Ortín-Montero, F. J. (2020). Characterization of the resilience and exercise dependence athlete. *Cultura, Ciencia y Deporte*, 15(43), 17-26.
- Reche, C., Tutte, V., & Ortín, F. J. (2014). Resiliencia, optimismo y burnout en judocas de competición uruguayos. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 9(2), 271-286.
- Reivich, K., & Shatté, A. (2002). The resilience factor: 7 essential skills for overcoming life's inevitable obstacles. Broadway Books
- Reyes, M. (2010) Propiedades psicométricas del cuestionario de orientación a la meta en futbolistas profesionales. *Revista de Psicología UCV*, 12(1), 102-120. <https://doi.org/10.16888/interd.2012.29.1.5>
- Reynaga-Estrada, P., & Pando, M. (2005). Relación del síndrome de agotamiento crónico (Burnout) con el trastorno psicológico potencial en jóvenes deportistas. *Investigación en Salud*, 7(3), 153-187.
- Reynaga, P. (2009). Prevalencia del síndrome de agotamiento crónico ("burnout") en jóvenes deportistas de alto rendimiento de Jalisco. Primer Encuentro on line de Psicología del Deporte de la SIPD, México. <https://doi.org/10.4321/s1578-84232014000100004>
- Romero, C. (2015). Meta-análisis del efecto de la actividad física en el desarrollo de la resiliencia (The effect of physical activity in the development of resilience: A meta-analysis). *Retos*, 28, 98-103. <https://doi.org/10.47197/retos.v0i28.34829>

- Ruíz, R., De la Vega, R., Poveda, J., Rosado, A., & Serpa, S (2012). Análisis psicométrico de la Escala de resiliencia en el deporte del fútbol. *Revista de Psicología del Deporte*, 2(1), 143-151. <https://doi.org/10.4321/s1578-84232014000300010>
- Sánchez-Alcaraz, B. J., & Gómez-Mármol, A. (2014). Prevalencia del síndrome de burnout en tenistas según su orientación motivacional. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 9(1), 111-122. <https://doi.org/10.5093/rpadef2021a6>
- Seligman, M. E. P. (2004). *Aprenda optimismo*. Madrid: Debolsillo.
- Seligman, M. E. P., Nolen-Hoeksema, S., Thornton, N., & Thornton K. M. (1990). Explanatory style as a mechanism of disappointing athletic performance. *Psychological Science*, 1, 143-146. <https://doi.org/10.1111/j.1467-9280.1990.tb00084.x>
- Smith, R.E. (1986). Toward a cognitive-affective model of athletic burnout. *Journal of Sport Psychology*, 8(1), 36-50. <https://doi.org/10.1123/jsp.8.1.36>
- Souri, H., & Hasanirad, T. (2011). Relationship between resilience, optimism and psychological well-being in students of medicine. *Procedia-Social and Behavioral Sciences*, 30, 1541-1544. <https://doi.org/10.1016/j.sbspro.2011.10.299>
- Tutte, V. (2015) *Psicología positiva en el fútbol juvenil. Una forma de prevenir el burnout deportivo*. 6to Congreso Uruguayo de Psicología de la Actividad Física y el Deporte. Montevideo, Uruguay. <https://doi.org/10.17081/psico.25.47.4836>
- Tutte, V., & Reche, C. (2016). Burnout, resiliencia y optimismo en el hockey sobre hierba femenino. *Cuadernos de Psicología del Deporte*, 18(3), 73-78. <https://doi.org/10.6018/cpd.406651>
- Tutte, V., Blasco, T., & Cruz, J. (2010). Perfiles de implicación en la práctica deportiva en jóvenes deportistas. *Revista de Iberoamericana de psicología del ejercicio y del deporte*, 5(2), 213-232. <https://doi.org/10.1016/j.ramd.2015.01.009>
- Vanistendael, S., & Lecomte, J. (2002). La felicidad posible. Despertar en niños maltratado la confianza en sí mismos: Construir la resiliencia. Barcelona: Gedisa
- Venne, S. A., Laguna, P., Walk, S., & Ravizza, K. (2006). Optimism levels among collegiate athletes and nonathletes. *International Journal of Sport and Exercise Psychology*, 4(2), 182-195. <https://doi.org/10.1080/1612197x.2006.9671792>
- Vitoria, H., Paredes, M., & Paredes, L. (2003). Burnout en profesores de educación física. *Revista del Psicología del Deporte*, 12(2), 133-146.
- Vives, L., & Garcés de Los Fayos, E. (2004). Incidencia del síndrome de Burnout en el perfil cognitivo en jóvenes deportistas de alto rendimiento. *Cuadernos de Psicología del Deporte*, 4(1 y 2), 29-43. <https://doi.org/10.4321/s1578-84232014000100004>
- Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1(2), 165-178.
- Waugh, C. E., Thompson, R. J., & Gotlib, I.H. (2011). Flexible emotional responsiveness in trait resilience. *Emotion*, 11(5), 1059-1067. <https://doi.org/10.1037/a0021786>
- Wilson, G. S., Raglin, J. S., & Pritchard, M. E. (2002). Optimism, pessimism, and precompetition anxiety in college Athletes. *Personality and Individual Differences*, 32(5), 893-902. [https://doi.org/10.1016/s0191-8869\(01\)00094-0](https://doi.org/10.1016/s0191-8869(01)00094-0)
- Wu, G., Feder, A., Cohen, H., Kim, J. J., Calderon, S., Charney, D. S., & Mathé, A. A. (2013). Understanding resilience. *Frontiers in Behavioral Neuroscience*, 7. <https://doi.org/10.3389/fnbeh.2013.00010>
- Yi, J., Smith, R., & Vitaliano, P. (2005). Stress-resiliencie, illness and coping: a person focused investigation of young women athletes. *Journal of Behavioral Medicine*, 28(3), 257-265. <https://doi.org/10.1007/s10865-005-4662-1>
- Yu, X. & Zhang, J. (2007). Factor analysis psychometric evaluation of the Conner-Davidson resilience scale (CD-RISC) with Chinese people. *Social Behavior and Personality*, 35(1), 19-30. <https://doi.org/10.2224/sbp.2007.35.1.19>
- Zurita, F., Espejo, T., Cofré, c., Martínez, A., Castro, M., & Chacón, R. (2016). In-

- fluencia de la actividad física sobre la resiliencia en adultos con dolor de hombro. *SPORT TK-Revista EuroAmericana de Ciencias del Deporte*, 5(2), 53-58. <https://doi.org/10.6018/264651>
- Zurita, F., Santos, E. O., Moral, P. V., Fernández, S. R., Sánchez, M. C., & Molina, J. J. (2017). Análisis de la resiliencia, autoconcepto y motivación en judo según el género. *Revista de Psicología del Deporte*, 26(1), 71-81. <https://doi.org/10.15366/rimcafd2019.74.005>