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Article

# Burnout, positivity and passion in young Mexican athletes: Mediating effect of social support

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**Abstract:** The Burnout syndrome is a negative experience for the athlete development and it has been demonstrated that it gets worse when a sport is practiced in an obsessive way. The interventions about a positive vision through the sport could be a protective factor to boost the athlete's wellbeing. The aim of the present study was to analyze the mediator effect from social support, the relationship between the burnout, positivity and passion in young Mexican athletes. The sample was composed by 452 Mexican athletes, males and females from 12 to 18 years of age ( $M = 16.29$ ,  $SD = 1.66$ ). Participants answered the Athlete Burnout Questionnaire, The Scale of the Social Support Perceived by Athletes, the Passion Scale and the Positivity Scale. The results of structural equation modeling showed the model presented a good adjustment ( $\chi^2 = 813.507$ ;  $df = 229$ ;  $\chi^2/df = 3.552$ ;  $p < 0.01$ ; CFI = 0.93; TLI = 0.91; IFI = 0.93; NFI = 0.91; RMSEA = 0.07). The positivity and harmonious passion presented direct and indirect effects over the burnout, being the perceived social support the mediator variable of the indirect effects. However, the effect of the obsessive passion mediated by the perceived social support did not resulted significant.

**Keywords:** burnout; passion; positivity; social support; athletes.

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## 1. Introduction

To achieve the success in sports, the athlete is exposed to suffer high demands in their trainings since a very young age [1]. Participate in high intensity trainings and competitions the entire year becomes part of the athlete's development process to acquire skills for the high performance [2]. The most talented athletes considered that the improvement in performance is the central element within sports [3] and that leads them to increase their effort, even in a way that sports activities become a risk for their own health or wellbeing [4]. One of the negative results from this sports demand is the burnout syndrome [5].

As a result of 50 years of investigation dedicated to the burnout development in the sport context, researchers have accomplished to achieve a consensus regarding the burnout definition [6], which has derived in a measurement of burnout of general use: the ABQ [7]. In terms of symptomatology, Raedeker defines burnout as a tridimensional cognitive-affective syndrome characterized for the physical and mental exhaustion, a reduced sense of achievement and devaluation of the sports practice [6]. This definition has their similarities with the Maslach and Jackson definition [8], with a difference in the depersonalization dimension, which in the sports context it is understood as attitudes of devaluation of sports practice.

Definitively, burnout is a negative experience for the athlete which is composed by elements of physiological, emotional, cognitive and attitudinal nature [9]. The lack of so-

cial support or the little perception of support has been identified as one of the strongest factors that trigger burnout syndrome in athletes [10-13].

### *1.1. Passion in athletes*

Vallerand and Miquelon [14] defined passion as a strong connection between an individual's affinity for a sport, along with the amount of time and energy dedicated to it. From this perspective, passion can be understood as the source of energy that motivates the athlete to maintain the commitment and perseverance in any sport [15]. The dualistic model of passion [16-18] distinguishes two types of passion: harmonious passion (HP) and obsessive passion (OP), depending on how they are integrated into the individual's identity.

HP is the result of an autonomous internalization by which the athlete practices sports for joy and pleasure, due to the inspiration caused by the sport itself, more than to meet the expectations that the team or the coach could have on him/her [19]. This passion becomes evident when the person is involved voluntarily and without any pressure in an autonomously sports activity. Therefore, the athletes that have HP in a particular sport tend to have a better administration of the time they spend on it without feeling a conflict between the sport and other daily activities [20, 18].

In contrast, the OP is associated with a controlled internalization, in which the individual is forced to practice sports searching for social acceptance or better self-esteem experimenting an interiorized pressure in the process [21]. This passion emerges in the absence of satisfaction of the intrinsic needs of the individual that can result in the internalization of intrapersonal or interpersonal pressure, or even both [22, 23]. This passion can arise when the activity is rigidly internalized and when the participation is mandatory, which is, at the same time, related with the negative affection [24] and the burnout symptoms.

Differently from the HP, an athlete who experiences OP cannot live without this sport practice and becomes emotionally dependent of it in order to achieve the social acceptance and searches for a personal identity [25]. An obsessively passionate athlete overvalues the importance of the implications of the sports activity as a source to boost self-esteem and a way to escape from problems, making it even harder to stop a pleasant activity [26].

According to findings by Vallerand [17] regarding the sport performance and motivation, it has been shown that negative affect predicts athlete's burnout [27]. Burnout can lead to several problems including decrease in performance, feeling frustrated, unmotivated, exhausted, and sometimes depress [28].

### *1.2. Positivity and burnout*

Part of the work from researchers in sports psychology is to identify the individual variables that could have an impact on the wellbeing or could conduct to the psychological discomfort (e.g. the burnout syndrome). Some authors have identified the psychological construct of positivity as a long lasting personality characteristic that makes reference to the tendency of the self-evaluation which at the same time, pre-dispense the people to consider life as something valuable, addressing their lives with a positive attitude [29, 30]. Positivity can be understood as an evaluation manner, perception and construction that affect in a general manner the way in which the individual is influenced to determine actions and experiences [31]. From this perspective, the concept of positivity could be understood as a protective factor when facing the burnout experience.

Positivity also refers to a tendency of the individual to maintain a positive vision of himself, which could be strengthened by a proper intervention of oriented actions to maintain the wellbeing of people. As a basic disposition characterized by a positive orientation towards the life experience, positivity probably provides resources to help the people face life challenges and, as a last resort, to protect their mental health regardless of the adversities [29], as could be for the athlete to face the negative experience of burnout.

Positivity is conceptualized as a positive cognitive orientation to himself, life itself and the individual future. An orientation that emanates positivity could be considered as a good determining factor of the subjective wellbeing that the person has [32]. Adding, we should not see this concept as something that is exclusive of the future perception of some event that is to come in life, but as a concept that also considers the self-reference system that occurs before their own human experiences.

People with high levels of positivity, generally appreciate when they get support. On the opposite, people with negativity, have negative cognitive schemes, showing maladjusted conducts which, combined with a low perception of social support, could make the athlete more prone of having a negative experience as the burnout. The analysis of this type of thinking in young athletes, might help to understand the different protective factors that are helpful in order to avoid the burnout syndrome. Due to the above, the objective of this work is to analyze the mediator effect of the social support, in relation with the positivity, the passion and the burnout in young Mexican athletes. The main study hypotheses were the following: a) The positivity has a direct negative effect on burnout; b) The passion harmonious has a direct negative effect and the passion obsessive a direct positive effect on burnout; c) The effect of positivity, harmonious passion and obsessive passion on burnout is mediated by the social support perceived.

## 2. Materials and Methods

### 2.1. Participants

The sample was selected using a non-probabilistic incidental method. In this study, 452 Mexican athletes from both genders participated (women 45%), with ages between 12 and 18 years ( $M = 16.29$ ,  $SD = 1.66$ ) and have an average of 3 years affiliated in a sports team (football 42.5%, soccer 31.4%, volleyball 13.5%, basketball 9.7% and softball 2.7%). These athletes reported an average of 3.57 years practicing their sport, to train 3.54 days a week, mentioning a duration of 2.35 hours in each training session.

### 2.2. Procedure

The data collection was conducted between August to December of 2019, with previous authorization of the sports clubs and the athlete's parents. The application of the instruments was carried out inside the locker room, under the supervision of the main researcher, collectively and self-administrated. The confidentiality of the answers and the willingness of the participants was emphasized. Informed consents of all the participants were collected.

### 2.3. Instruments

*Athlete burnout.* In order to measure burnout the Mexican version of Athlete Burnout Questionnaire was utilized [33]. The original version of ABQ was invented by Raedeke and Smith [7] and it consists of 15 items where the athlete is asked to indicate how frequently he/she presents the symptoms, recording their answers through a Likert scale which oscillates between 1 (not frequently) and 5 (very frequently). Different studies, have confirmed the reliability and validity of the ABQ [34, 33]. The internal consistency reliability of the Mexican version of the ABQ by Cronbach's was 0.91 for the Physical and emotional exhaustion subscale, 0.85 for the Devaluation of sports practice subscale and 0.74 for the Reduced sense of achievement subscale [33].

*Social Support.* To evaluate the perceived social support, The Scale of Perceived Social Support by athletes of Cresswell and Eklund was used [35], which consists of five items organized in one single factor, utilizing the Likert scale of five alternatives. Several

studies have found appropriate psychometric characteristics [10, 36]. As to internal consistency, Cronbach's alpha ranged from 0.86 to 0.88.

*Passion.* In order to measure the passion, the Passion Scale was used [18], which consists in two scales of six items that evaluate the harmonious passion and the obsessive passion and four more items to determine the level of passion, using the Likert scale of seven points. Several studies have confirmed the psychometric properties of the scale [37, 38]. Cronbach's alpha ranged from 0.75 to 0.91 in previous studies.

*Positivity.* Positivity was evaluated with the positivity Scale (P-scale) of Caprara et al., [39] which is composed by eight items, organized in one factor, that evaluate the positive opinion of the people regarding the I, the life, the future and the trust in other people. The P-scale, uses a Likert Scale of five points that oscillates between 1 (completely disagree) and 5 (completely in agreement), with a punctuation range between 8 and 40. The highest punctuation refers to a mayor positivity. Several studies have confirmed the adequate psychometric properties of the scale [32, 39, 40]. The internal consistency of the P-scale by Cronbach's alpha ranged from 0.75 to 0.89 in previous studies.

#### 2.4 Statistical Analysis

The descriptive statistical and normality tests were analyzed (mean, standard deviation, skewness and kurtosis). Pearson's correlation coefficient was calculated between each variables. For the reliability analysis regarding the internal consistency, the Alpha coefficient rate was utilized, using the SPSS 22.0.

Structural Equation Modeling (SEM) was utilized to find the best-fitting model performed with the Maximum likelihood estimation using AMOS 22.0. To prove the goodness of fit of the model we have implemented the following adjust indexes: Chi-square statistic ( $\chi^2$ ), Chi-square divided in degrees of freedom ( $\chi^2/df$ ), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Incremental Fit Index (IFI), and the Normed Fit Index (NFI) and The Root Mean Square Error of Approximation (RMSEA).

In order to accept or reject a model, it is advisable to analyze several of the said indexes, not being appropriate to make a decision based only with one of them. A statistic  $\chi^2/df$  lower than 5.0 indicates a good adjust of the model. The IFI indicates improvements in the model adjustability on degrees of freedom in comparison with the base line of the independent model. Equal scores or higher than 0.90 are considered acceptable. The CFI is used to contrast theoretical models using samples of over 100 subjects. This index gathers scores of 0 and 1 recommending quantity equal scores or superior to 0.90 for a good adjustment or superior to 0.95 for an excellent model adjustment [41]. The TLI is an index that considers the degrees of freedom of the considered model and the null model. Equal scores or superior to 0.90 indicate a good model adjustment. The NFI compares the considered model and the null model considering an acceptable value if it is higher than 0.90. The RMSEA confirms the unbalanced grade of the covariance matrixes in the theoretical and empirical model. Scores between 0.05 and 0.10 are considered acceptable [42].

### 3. Results

#### 3.1. Descriptive statistics, internal reliabilities and bivariate correlations

As we can see on table 1, the athletes reported low levels in the three factors of burnout, as well as in the total score, obtaining values between 1.88 ( $SD = 1.07$ ) and 1.96 ( $SD = 0.92$ ). On the other hand, moderate high levels in social support were reported ( $M = 4.17$ ,  $SD = 0.80$ ) and positivity ( $M = 4.34$ ,  $SD = 0.79$ ). Regarding the types of passion, average values of harmonious passion were found ( $M = 4.22$ ,  $SD = 0.89$ ) and moderate levels of obsessive passion ( $M = 2.46$ ,  $SD = 1.27$ ).

Regarding the statistical normality, we found scores between 0.17 and 1.50 in skewness and kurtosis respectively. According to the criteria of univariate normality [43], in order to achieve this normality, skewness should be shown under the absolute score of 2 and kurtosis under the absolute score of 7. Considering these results as reference, we can continue with the factorial and structural equations analysis.

According with the criteria established by Nunnally [44], values in the Cronbach's Alpha rates equally or superior to 0.70, are considered acceptable and as they get the closest to score 1, they have better reliability. As for the internal consistency reliability, Cronbach's alpha coefficients indicated superior scores of 0.70 in every case, oscillating between 0.75 and 0.96. Based upon the foregoing, the results revealed that the measuring associated to the instruments utilized, present a good internal consistency.

**Table 1.** Descriptive statistics, internal reliabilities and bivariate correlations for variables.

	M	SD	S	K	1	2	3	4	5	6	7	8
1. PEE	1.92	1.03	1.22	0.54	(0.93)							
2. DSP	1.88	1.07	1.11	0.17	0.89**	(0.90)						
3. RSA	1.96	0.92	0.45	-1.17	0.74**	0.82**	(0.82)					
4. Burnout total	1.91	0.95	0.90	-0.29	0.94**	0.96**	0.90**	(0.96)				
5. Social support	4.17	0.80	-1.24	1.50	-0.28**	-0.34**	-0.51**	-0.40**	(0.75)			
6. HP	4.22	0.89	-1.08	0.67	-0.35**	-0.42**	-0.60**	-0.49**	0.59**	(0.92)		
7. OP	2.46	1.27	0.28	-1.26	0.61**	0.62**	0.62**	0.66**	-0.29**	-0.24**	(0.92)	
8. Positivity	4.34	0.79	-1.15	1.01	-0.40**	-0.43**	-0.58**	-0.50**	0.63**	0.59**	-0.42**	(0.79)

Note: S = Skewness; K = Kurtosis; PEE = Physical and Emotional Exhaustion; DSP = Devaluation of Sport Practice; RSA = Reduced Sense of Achievement; HP = Harmonious passion; OP = Obsessive passion. \*\*  $p < 0.01$

According with the result obtained in the Pearson correlation analysis, positive and significant correlations were found between the burnout factors and the burnout total score, being the highest correlation between the devaluation of sport practice and the burnout total, the ( $r = .96, p < 0.01$ ), considering these correlations within expectations. On the other hand, negative and significant correlations between the three factors of burnout, positivity, social support and harmonious passion were found, being the most important correlation between the reduced sensation of accomplishment and harmonious passion ( $r = -0.60, p < 0.01$ ). Another expected correlation was between the obsessive passion and the harmonious passion, finding a negative correlation ( $r = -0.24, p < 0.01$ ). Also positive and significant correlations were found between the burnout factors and the obsessive passion were found, being the most important, the correlation between the obsessive passion and the burnout total ( $r = 0.66, p < 0.01$ ). Positive and significant correlations were found between the social support, harmonious obsessive and positivity were found, being the most important the correlation between the social support and positivity ( $r = 0.63, p < 0.01$ ). Along this same line, social support was negatively correlated with obsessive passion ( $r = 0.29, p < 0.01$ ). Finally, we found positive correlations between positivity and harmonious passion ( $r = 0.59, p < 0.01$ ) and a negative correlation between positivity and obsessive passion ( $r = -0.42, p < 0.01$ ).

### 3.2. Path analysis

In order to prove the hypothesized model, a confirmation Structural Equation Analysis / Factorial Analysis was made following the estimation method of maximum authenticity. A model with three exogenous variables was estimated (positivity, harmonious passion, obsessive passion), an intermediary variable (social support) and one exogenous variable (burnout). The adjust indexes from the observed model, showed an appropriate adjust, which allows us to support the initial model ( $\chi^2 = 813.507; df = 229;$

$\chi^2/df = 3.552$ ;  $p < 0.01$ ; CFI = 0.93; TLI = 0.91; IFI = 0.93; NFI = 0.91; RMSEA = 0.07). The said model, showed the positivity as a positive and significant predictor from the social support ( $\gamma = 0.644$ ,  $p < 0.01$ ), the same way the harmonious passion resulted in positive and significant predictor from the social support ( $\gamma = 0.424$ ,  $p < 0.01$ ) and the obsessive passion as a negative predictor but not significant ( $\gamma = -0.052$ ,  $p < 0.01$ ) from social support. Finally, the social support predicted the exogenous variable burnout ( $\beta = -0.258$ ,  $p < 0.01$ ).

**Table 2.** Path analysis for the research model, standardized indirect and direct effects, regression weight and critical ratios.

Parameter	Standardized indirect effects	Standardized direct effects	Standardized total effects	Regression weight	C.R.	<i>p</i>
Harmonious passion → Burnout	-.109	-.361	-.470	.069	-3.825	0.010
Obsessive passion → Burnout	.013	.622	.635	.035	9.351	***
Positivity → Burnout	-.166	---	-.166	---	---	***
Social support → Burnout	---	-.258	-.258	.104	-2.576	***
Harmonious passion → Social support	---	.424	.424	.047	6.315	***
Obsessive passion → Social support	---	-.052	-.052	.025	-1.056	0.291
Positivity → Social support	---	.644	.644	.070	8.090	***

Note: \*\*\*  $p < .01$

### 3.3. Assessment mediator effect

For the evaluation of the mediator effect from the social support, the causal steps procedure was utilized [45]. The first step of the said procedure, requires the specification of a model with direct effects. The second step, requires to specify a model with indirect effects through social support. The third and last step, compare both models including direct effects as well as indirect effects, this procedure allows to evaluate if the effect from the social support is statistically significant. A mediation could be partial or total, in case that the partial model resulted statistically significant even when the total model indicated a better adjustment. As we can see on the table 2, it was evaluated if the mediator effect from social support regarding the burnout was statistically significant in order with the exogenous variables, positivity, harmonious passion and obsessive passion. The indirect effects are considered significant when the trust intervals of 95% (IT 95%) include the zero. The analysis of the indirect effects, proved the mediator effect of the social support from the positivity effects and the harmonious passion over the burnout, not being the case with the obsessive passion. The analysis of the direct effects of both types of passions indicated that the harmonious passion presents a greater negative direct effect over the burnout and the obsessive passion, a direct positive effect.

## 4. Discussion

The main goal of the present investigation was to analyze the mediator effect of social support, in the relation between the burnout, positivity and passion in young Mexican athletes. Based on the dual model of the passion proposed by Vallerand et al., [18], which seeks to understand the harmonious passion and the obsessive passion role. It would be important to determine if these variables have a direct effect over the burnout or if this effect is mediated by the social support. On the other hand, based on the contributions by Caprara et al., [39] we wanted to study the positivity factor as a protective element associated with the wellbeing and that possibly could mediate their effects

through social support. A negative association with the burnout syndrome would be expected. To consider the mediator role of the social support perceived, different studies in the sports context were considered as reference [11, 46-48].

According with the main results, the suggested model presented a good adjustment with the exception of the effect of the obsessive passion mediated by the perceived social support, which did not turn out statistically significant. Additionally, positivity resulted a variable with direct and indirect significant effects over the burnout. The indirect effects were mediated by the social support perceived, which could emphasized the importance of taking care of the social environment of the young athletes and its importance in the construction of positive judgments regarding themselves, the life and the future and how these could influence in the maladjusted behavior. The results could go in the direction of supporting the positivity proposal as a personality factor that plays a protective role facing negative experiences as the burnout syndrome in young athletes. These results provide empirical evidence that supports the theatrical background of positivity as a predictor of maladjusted behavior or psychological discomfort as depression, negative affects and burnout [49].

Another variable that resulted mediated by the social support was the harmonious passion that, same as positivity, presented direct and indirect effects statistically regarding the burnout. This result was expected, due to the different studies that have found that the harmonious passion is a significant predictor of burnout [27, 50]. Regarding the obsessive passion, it was not measured by the social support but it did obtain a positive direct and significant effect with the burnout. Previous studies have presented reliability difficulties to confirm the indirect effect of obsessive passion over the burnout [46], but a few other have supported the direct effect of obsessive passion over the burnout [51, 27].

An important limitation is the age and the performance level of the athletes. Therefore, it is recommended to consider adult population with cognitive characteristics different from young and adolescent athletes in future research. On the other hand, regarding to the positivity personality factor, the high performance adult athletes are in a phase from the vital cycle where their personality development is more stable and defined which could be relevant at the moment of evaluating the positivity influence in the progress of the burnout syndrome. Furthermore, we believed that future investigations could also consider to utilize a multidimensional measure of social support perceived, which might provide mayor clarity regarding the mediator role of this variable.

## 5. Conclusions

The results indicate a mediator effect of positivity over the burnout syndrome in young Mexican athletes, in a model where the mediator variable is the perceived social support. At the same time, the perceived social support resulted a mediator from the effects of the harmonious passion over the burnout. Regarding the obsessive passion, no evidence was found about the indirect effect through the social support was found, but it resulted to have direct significant effect over the burnout. Therefore, we can say that positivity as well as harmonious passion are protective variables that could, in a future, be part of the structural part of prevention programs oriented to avoid young athletes suffer the negative effect that the burnout syndrome represents. It is important to pay attention to the type of commitment the athletes made with their sports activity, since the obsessive passion could represent a bigger risk of burnout.

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