

# **Original Research Article**

Moderating role of negative career thoughts in the relationship between motivation and burnout in Portuguese dual career athletes

## **ABSTRACT**

The purpose of this study was to examine the relationship between motivation and burnout among Portuguese dual career athletes, and moderating role of negative career thoughts in the relationship between both. A total of 187 student-athletes, playing various sports, participated in the study and completed questionnaires on motivation, burnout and negative thoughts about their careers. Moderation effects were tested using linear regression models. The results indicated that there was a negative association between motivation and burnout and a moderating effect of anxiety and decision insecurity on the relationship between motivation and burnout. Understanding these variables is essential for the development of career intervention programs suitable for dual career of student-athletes.

**KEY WORDS:** negative career thoughts, motivation, burnout, dual careers athletes

## **INTRODUCTION**

Combining high-performance sport and education is a challenge recognized in international literature (e.g., Capranica et al., 2022; Saarinen et al., 2020; Stambulova & Wylleman, 2015) and received special attention from the European Commission, which listed a set of suggestions for promoting the development of high-performance sport in a socially responsible manner (e.g., Abelkals et al., 2021; European Commission, 2012).

The pressure of the fight in two intertwined domains, such as school and sports, and the search for success in both can put student-athletes at risk of burnout, both in sports and at school (Felix-Mena et al., 2021; Sorkkila et al., 2019; Sorkkila et al., 2020).

## **LITERATURE REVIEW**

According Salmela-Aro et al. (2016) academic burnout is defined as a multidimensional construct consisting of school-related exhaustion (chronic fatigue due to excessive taxes at school), school-related cynicism (loss of interest in schoolwork accompanied by an indifferent or different attitude towards school) and feelings of Inadequacy such as (i.e., less successful results and reduced feelings of competence at school). In the same way that sport burnout was defined as a multidimensional construct that consists of exhaustion related to sports (chronic fatigue due to overload in sport), cynicism (loss of interest in sport accompanied by indifferent or distal attitude towards sports) and feelings of inadequacy as an athlete (less successful achievements and reduced feelings of competence in sports). Recent studies have found that student-athletes, with a dual career, report symptoms of sports and / or academic burnout early in secondary school (e.g., Felix-Mena et al., 2021; Gustafsson et al., 2017; Sorkkila et al., 2019). Furthermore, burnout appears to be associated with school and sports dropout, with students with burnout being four times more likely to drop out of school than students without burnout (Mateo-Orcajada et al., 2022; Salmela-Aro et al., 2016; Sorkkila et al., 2019).

Among the individual characteristics investigated as a history of sports burnout are depression symptoms (Åkesdotter et al., 2020; Gustafsson et al., 2008), low self-esteem (Cresswell & Eklund, 2006), and with greater emphasis, motivational factors (Gustafsson et al., 2016). Previous studies (e.g., Quinaud et al., 2020) show that student-

athletes experience uneven levels of sports and academic motivation, with most athletes highly motivated to succeed in sports. Lack of motivation seems to be positively associated with high levels of sports burnout symptoms and high intrinsic motivation negatively associated with these same symptoms (Cresswell & Eklund, 2006; Gustafsson et al., 2017). In addition, high expectations of success in one domain seem to protect student-athletes from burnout symptoms in the same domain, but are positively related to burnout symptoms in the other domain (Åkesdotter et al., 2020).

This scenario can bring limitations to the future planning and decision of the student-athlete's career. Consequently, maintaining a dual career may result in the need to choose between maximizing sporting potential or getting someone's training/occupation to secure a post-sports career (Abelkalns, et al., 2021; Capranica et al., 2022). In this sense, negative thoughts about maintaining a dual career have been associated with higher levels of burnout and lower levels of motivation (Buzzetta et al., 2020). Negative career thoughts (NCT) are expressed as conjectures/assumptions, beliefs and generalizations that a person has about himself and the world of work, which function as cognitive barriers and interfere with the career decision-making process and the development of well-being (Bullock-Yowell et al., 2011; Saunders et al., 2000). NCT can be categorized into four dimensions: anxiety and decision insecurity: little confidence in career decisions; career pessimism: negative thinking that comes from fear of failure and lack of confidence; market pessimism: negative thoughts about past experiences and professional value; and cost of success: negative thoughts about the costs necessary to achieve success (Silva & Andrade, 2016). People who exhibit pessimistic emotional, verbal and behavioral responses about their career invariably have their career decision processes affected (Saunders et al., 2000), either through the presence of confusion in decision making, commitment anxiety or external conflict

(Walker & Peterson, 2012) or through the difficulty/avoidance in getting involved in solving career problems (Sargent & Lenz, 2017). Studies show that pessimistic views on career-related issues are associated with anxiety and depression (e.g., Dieringer et al., 2017), lower levels of psychological well-being, self-esteem, and a sense of coherence and perception. self-efficacy in career decision making (Walker & Peterson, 2012), factors that can harm a person's health and performance in the development of their profession.

Despite the number of studies in literature on sports burnout (e.g., Cresswell & Eklund, 2006; Gustafsson et al., 2008), motivation for sports (Tóth-Király et al., 2020), and in the relationship between burnout and motivation (Groenewal et al., 2021; De Francisco et al., 2020), to our knowledge, the moderator role of negative career thoughts toward dual career athletes over burnout and its impact on motivation has not received attention yet. Taking this point into consideration, this study aimed to analyze the relationship between motivation and burnout among Portuguese dual career athletes, and moderating role of negative career thoughts in the relationship between both. Thus, based on the forgoing literature, we raised the following hypotheses:

Hypothesis 1: Motivation establishes a negative and significant relationship with burnout.

Hypothesis 2: The relationship between motivation and burnout is moderated by NCT.

## **METHODOLOGY**

### **PARTICIPANTS**

A non-probability sample and the snowball sampling technique were used. The sample consisted of a total of 187 student-athletes (59.4% females and 40.6% males), aged between 13 and 27 years ( $M=18.18$ ;  $SD=2.5$ ).

## INSTRUMENTS

The first two scales had to be translated and validated for use in the Portuguese context. The translation technique that was used in this study followed by the backward translation procedure. The scales were translated and presented to two researchers fluent in Portuguese and English, having been analyzed at the conceptual, linguistic and contextual levels, reaching a consensus about their translation. Subsequently, the elaborated versions were compared with the original versions, to ensure that they kept the same meaning, and no discrepancies were found. The two researchers judged the face and content validity of the scales as adequate. To examine the structure of the scales, data from this sample were subjected to confirmatory factor analysis (CFA) using AMOS Version 27.0.

*Sport Burnout Inventory Dual Career form for student-athletes (SpBI-DC)*: The SpBI-DC (Sorkkila et al., 2017) it is a multidimensional measure of the state of burnout that integrates parallel items in the domains of school and sport, in the context of a dual career. Comprises 10 items, with three subscales: exhaustion, cynicism and Inadequacy. Athletes respond to each item by opting for an alternative, on a 5-point scale (nothing like me to much like me). CFA showed good model fit ( $\chi^2 = 393$ ,  $df = 68$ ,  $RMSEA = .08$ ,  $CFI = .97$ ,  $TLI = .95$ ,  $SRMA = .04$ ). The Cronbach's  $\alpha$  were .75, .75 and .71 for exhaustion, cynicism and inadequacy respectively.

*Student Athletes' Motivation toward Sports and Academics Questionnaire (SAMSAQ-EU)*: *SAMSAQ-EU* (Lupo et al., 2015) is a multidimensional measure of motivation that integrates parallel items in the domains of school and sports, in the context of a dual career. Comprises 24 items, with three subscales: motivation for sports, motivation for academic tasks, motivation to pursue a professional sports career. Item 5 contributes

concomitantly to the result of the first two subscales. Athletes respond to each item by choosing an alternative, on a 6-point scale (strongly disagree to strongly agree). CFA with the 3 subscales as indicators of burnout showed good model fit ( $\chi^2 = 2839$ ,  $df = 557$ ,  $RMSEA = .05$ ,  $CFI = .91$ ,  $TLI = .90$ ,  $SRMA = .05$ ). The Cronbach's  $\alpha$  were .90, .78 and .75 for motivation for sports, motivation for academic tasks, motivation to pursue a professional sports career, respectively.

*Negative Career Thoughts Scale (NCT)*: NCTS (Silva & Andrade, 2016) is a multidimensional measure of negative career thoughts as unfavourable outcomes of individual thoughts regarding beliefs, attitudes and feelings associated with decision making and career planning. Comprises 27 items, organized into 4 dimensions: anxiety and decision insecurity, career pessimism, market pessimism and cost of success.

Athletes respond to each item by choosing an alternative, on a 5-point scale (I do not identify at all to I completely identify). CFA with the three subscales as indicators of negative career thoughts showed good model fit ( $\chi^2 = 329$ ,  $df = 72$ ,  $RMSEA = .05$ ,  $CFI = .98$ ,  $TLI = .98$ ,  $SRMA = .04$ ). Cronbach's  $\alpha$  were .91, .86, .89, and .78. for anxiety and decision insecurity, career pessimism, market pessimism and cost of success, respectively.

Sociodemographic and personnel variables: age, gender, sport, education level, and competition level.

#### DATA COLLECTION PROCEDURE

Data collection was carried out through a questionnaire on the Google Form platform, consisting of the measures previously presented, to which was added the description of the objective of the study and a free and informed consent, also ensuring anonymity and

confidentiality responses, according the Helsinki Declaration. General instructions were expressed in written form, with availability to clarify any doubts as to how to respond by email of the researchers. The survey was disseminated using the snowball sampling technique. The researchers identified and personally contacted, with the team trained by one of the researchers, an initial group of dual career participants (students and athletes) to join the study and asked this same group to contact other individuals belonging to the same population (dual career). The sample was thus growing like a snowball as new individuals were referred to the researchers. On average, 15 minutes was sufficient for each participant to complete their participation. No submission was made to the Ethics Committee as this is not a required standard in Portugal.

#### DATA ANALYSIS PROCEDURES

First, descriptive analyses and correlation coefficients were obtained. Second, the moderation effects of negative career thoughts on the relationship between motivation and burnout were tested using linear regression models. All the statistical analyses were performed in SPSS. 27 software. Moderation analyses (Hayes & Rockwood, 2017) and graphical representations were performed using the ModGraph (Jose, 2013). The significance level of all variables was set to  $\alpha=.05$ .

### RESULTS

#### DEMOGRAPHICS ANALYSIS

Participants were practicing a broad range of sports: Swimming (35.8%), Basketball (18.7%), Water polo (13.9%), Triathlon (10,7%), Cycling (5.9%), Athletics (4.3%), Roller Hockey (3.2%), Volleyball (3.2%), Equestrian (2.7%), Soccer (1.1%) and Fitness (.5%). 156 (83.4%) participants competed nationally and 31 (16.6%) internationally.

Participants attended basic education (42.2%), high school (35.8%) and college (21.9%).

## DESCRIPTIVE STATISTICS AND CORRELATION

As showed in Table 1, there is a statistically significant difference in terms of motivation for academic tasks ( $t=-3.039$ ;  $p\leq.05$ ), favorable to male participants and market pessimism favorable to female participants ( $t=.226$ ;  $p\leq.05$ ). In addition, there is also a statistically significant difference in terms of motivation for sports ( $t=-3.394$ ;  $p\leq.05$ ) and motivation for academic tasks ( $t=-5.596$ ;  $p\leq.001$ ) favorable to participants competing internationally. Finally, there is a statistically significant difference in terms of exhaustion ( $Z=2.909$ ;  $p\leq.001$ ), motivation for sports ( $Z=3.045$ ;  $p\leq.05$ ), and motivation for academic tasks ( $Z=6.835$ ;  $p\leq.001$ ) when is considered the type of sport.

### Insert Table 1

As shown in Table 2, all dimensions of the motivation scale were significantly and negatively associated with each dimension of burnout. On the contrary, all dimensions of the burnout scale were positively and significantly associated with each of the NCT dimensions. Motivation for sports is significantly and positively correlated with anxiety and decision insecurity ( $r=.08$ ;  $p\leq.05$ ) cost of success ( $r=.13$ ;  $p\leq.05$ ) and motivation for academic tasks with anxiety and decision insecurity ( $r=.21$ ;  $p\leq.05$ ), career pessimism ( $r=.34$ ;  $p\leq.05$ ), market pessimism ( $r=.11$ ;  $p\leq.05$ ). In turn, motivation to pursue a professional sports career is significantly and positively correlated with anxiety and decision insecurity ( $r=.48$ ;  $p\leq.05$ ) and with the cost of success ( $r=.29$ ;  $p\leq.05$ ) and significant and negatively with career pessimism ( $r=-.10$ ;  $p\leq.05$ ) and market pessimism ( $r=.31$ ;  $p\leq.05$ ).

### Insert Table 2

## HYPOTHESIS TEST

In order to estimate the presence of significant effects between motivation and burnout, we performed multiple regression analyses. Table 3 allows us to verify that the dimension motivation for sports significantly predicts inadequacy ( $\beta=-.242$ ;  $p\leq.05$ ). This relationship is negative, which indicates that higher levels of inadequacy are related to a lower sense of motivation for sports. In turn, it appears that the dimension motivation to pursue a professional sports career significantly predicts exhaustion ( $\beta=-.216$ ;  $p\leq.001$ ) and inadequacy ( $\beta=-.221$ ;  $p\leq.05$ ). This relationship is also negative, which indicates that higher levels of exhaustion and inadequacy are related to lower levels of motivation to pursue a professional sports career.

### **Insert Table 3**

To find out the contribution of specific NCT, four moderation models were conducted with anxiety and decision insecurity, career pessimism, market pessimism and cost of success as moderators. Results indicated that only anxiety and decision insecurity as moderator has significant interactions with motivation in the prediction of burnout (Table 4). More specifically, there was a moderating effect of the anxiety and decision insecurity dimension on the relationship between motivation for sports ( $\beta=-.176$ ;  $p\leq.01$ ) and motivation to pursue a professional sports career ( $\beta=.140$ ;  $p\leq.05$ ) and the inadequacy dimension. There was also a significant interaction between motivation for sports ( $\beta=.128$ ;  $p\leq.05$ ) and the cynicism dimension. Based on these results, we proceed to the elaboration of the graph of the moderation effect to examine the effects when the anxiety and insecurity decision as a moderator was at low and high levels. Figures 2, 3 and 4 graphically present the existence of a cross-moderating effect for inadequacy values resulting from the interaction between a motivation for the sport and the

motivation to seek a professional and a of anxiety and decision insecurity, as well as cynicism resulting from the interaction between a motivation for sports and anxiety and decision insecurity.

The anxiety and insecurity decision are a factor that exacerbates the relationship demonstrated between motivation for sports and inadequacy. We found that the highest levels of inadequacy occur in student-athletes who show higher levels of anxiety and lower levels of motivation for sports (figure 1). In turn, higher levels of inadequacy occur in student-athletes who show lower levels of anxiety and higher levels of motivation to pursue a professional sports career (figure 2). Finally, higher levels of cynicism occur in student-athletes who show high levels of anxiety and higher levels of motivation for sports (figure 3).

#### **Insert Table 4**

## **DISCUSSION**

The present study aimed to discover the direct association between motivation and burnout, as well as the moderating effect of the NCT of this association among dual-career student athletes. Our results show that there is a relationship between the three variables studied.

Firstly, the results showed that there was no gender difference in burnout scores among Portuguese student-athletes, however, differences were found in terms of academic motivation, in favor of boys. This result indicates that, as in the findings of Quinaud et al., (2020) boys are highly motivated for sport, however without neglecting academic issues, in the expectation of seeking academic achievements in their future careers. The results also suggest that student-athletes who are competing at an international level tend to have greater athletic and academic motivation and compared to athletes at

national level, which may be related to investment in commitment, represented by pleasure with sports, as alternatives for involvement, personal investments, social constraints and opportunities for involvement (Abelkalns, et al., 2021; Capranica et al., 2022). Finally, there are statistically significant differences in terms of the dimension's exhaustion, motivation to pursue a professional sports career, and motivation for academic tasks in terms of the sports practiced. These results may be linked to the specific character of each sport. Since, for example, in individual sport, the athlete is responsible for the necessary strategy to guarantee its own success, and in the team, sports athletes must work together for success (Mateo-Orcajada et al., 2022). With regard to NCT, it was found that women, compared to boys, tend to have more pessimistic thoughts about their careers, which can be explained by the perception of lower expectations of self-efficacy in sports where instrumentality and leadership behaviors are dominant, threats to a certain image of femininity and perceived anticipation of family-work conflict (Dieringer et al., 2017; Walker & Peterson, 2012). In terms of correlation, the negative correlation between all dimensions of motivation and all dimensions of burnout supported previous studies (e.g., De Francisco et al., 2020; Grána et al., 2021; Groenewal et al., 2021) that demonstrate that motivation (regardless of the nature of the motivation: academic, sport or for a professional career) can be seen as a personal resource that serves as a buffer against burnout (Åkesdotter et al., 2020). This finding extends the protective role of motivation to the dual career context. As in the findings of Dieringer et al., (2017), our results also demonstrate a significant and positive relationship between anxiety and different negative career thoughts in relation to their future career plans. From the outset, these findings demonstrate the need for counseling or psychoeducational interventions in career services with student athletes to promote career adaptability resources.

Second, and with regard to the hypotheses of the study, we found a negative association between burnout and motivation. This is in the same line that other studies who stressed the idea of the affectation that this syndrome has on athlete's motivation (Groenewal et al., 2021). Stress is seen as modern society's illness by professionals from different sectors. It has effects on people's behaviors, communications and efficiency (Redhwan, et al. 2009). When analysing the moderating effect of NCT on the relationship between motivation and burnout, the model results showed a moderating effect on the anxiety and decision insecurity subscale. This scale refers to the lack of confidence in the decision-making of student athletes and, consequently, a tendency towards indecision and difficulty in committing to a specific educational or professional objective, the result of negative beliefs and high anxiety (Dieringer et al., 2017; Walker & Peterson, 2012), which can be a of the main burnout triggers (Felix-Mena et al., 2021; Gustafsson et al., 2017). More specifically, feelings of inadequacy related to less successful achievements and reduced feelings of incompetence in sports, and cynicism, i.e. loss of interest in sport accompanied by an attitude of indifference or distance towards sport (Salmela-Aro et al., 2016; Sorkkila et al., 2019). We also observed a different impact of anxiety and decision insecurity on, feeling of inadequacy and cynicism depending on motivation. We found that the highest levels of inadequacy occur in student-athletes who have higher levels of anxiety and lower levels of motivation for sports or lower levels of anxiety and higher levels of motivation to pursue a professional sports career. This experienced anxiety may be hampering, for example, the use of emotion regulation strategies which, in turn, exacerbates the feeling of inadequacy and/or cynicism. Studies show that some strategies such as self-efficacy, self-control, techniques to deal with frustration or resilience can reduce the effects of burnout (Sargent & Lenz, 2017; Sorkkila et al., 2019).

## **CONCLUSION**

The findings of this study support past findings, which have indicated that motivation affects burnout. The findings expand this research, providing evidence that anxiety and decision insecurity moderate this relationship. The results underscore the importance of career interventions that address negative career thoughts when individuals encounter career and life burnout (e.g., Åkesdotter et al., 2020; Bullock-Yowell et al., 2011).

Knowledge of students' motivation in relation to sports and school, as well as their degree of burnout, can promote a better understanding of them, providing useful information for sports and academic decision makers. currently, there is still a scarcity of studies that allow to understand the development of dual career of athletes and to monitor the adhesion of student-athletes to sports and academic programs (Stambulova & Wylleman, 2015).

## **LIMITATIONS AND FUTURE PROSPECT**

Although this study has advanced our understanding of the role of NCTs in the relationship between motivation and burnout in dual-career athletes, there are still limitations. First, it is based on cross-sectional data, which prevents us from concluding cause-and-effect relationships. Second, the data were based exclusively on self-report, which raises questions related to social reliability and memory blur. It is therefore suggested to carry out future studies with multiple sources of data, such as the teacher, the coach, the parents and the colleagues. Third, the generalization of the results is restricted, since the participants were only Portuguese and the sample was non-probabilistic. As burnout can be influenced by many contextual factors (e.g., educational background and stress) future studies are encouraged to verify the

moderation model with relevant demographic information controlled. Future research should explore specific characteristics of the sport that affect athletes' decision to pursue a dual career, as well as other variables, referred to in the literature as being closely associated with career choices, namely the social, cultural and economic background of students as well as some intrinsic variables, such as perceived self-efficacy (e.g., Mateo-Orcajada et al., 2022).

## PRACTICAL APPLICATIONS

Despite the limitations, our results highlight the importance of developing interventions focused on the beliefs about the dual career of student athletes, especially for student athletes who have high levels of anxiety and decision insecurity (Dieringer et al., 2017). Exercises to encourage setting personal goals, situations for exploring oneself and the environment, as well as activities aimed at cognitive restructuring of negative thoughts associated with dual careers (identification, challenge and change of negative thoughts), followed by behavioral interventions to help clients to act on their new thoughts (Buzzetta et al., 2020), are highly recommended. Modifying negative thinking about dual careers can allow student athletes to effectively advance dual career challenges.

### **Consent**

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

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Table 1. Descriptive statistics and comparison between groups: sex, competition level, and type of sport

Dimension		Sex		Competition Level		Type of Sport	
		Mean(SD)	<i>t(sig)</i>	Mean(SD)	<i>t(sig)</i>	<i>Z(sig)</i>	
Exhaustion	Female	8.00(2.5)	.034(.973)	National	7.86(2.6)	-1.551(.123)	2.909(.002)
	Male	7.98(2.6)		International	8.64(2.6)		
Cynicism	Female	6.17(2.5)	.262(.794)	National	6.08(2.6)	-.511(.610)	1.33 (.215)
	Male	6.06(2.9)		International	6.35(3.1)		
Inadequacy	Female	9.07(2.6)	.820(.413)	National	9.01(2.5)	.803(.423)	1.251(.262)
	Male	8.76(2.4)		International	8.61(2.4)		
Motivation for sports	Female	39.88(10.4)	-1.832(.069)	National	39.91(11.0)	-	3.045(.001)**
	Male	42.85(11.7)		International	47.03(8.8)	3.394(.001)**	
Motivation for academic tasks	Female	14.46(4.8)	-	National	14.52(4.8)	-	6.835(.000)**
	Male	16.81(5.7)	3.039(.003)*	International	19.93(5.3)	5.596(.000)**	
Motivation to pursue a professional sports career	Female	15.80(2.3)	.964(.336)	National	15.79(2.2)	1.706(.090)	1.112(.355)
	Male	15.47(2.3)		International	15.03(2.7)		
Anxiety and decision insecurity	Female	21.14(8.61)	-.531(.432)	National	21.63(8.69)	-.631(.471)	4.987(.235)
	Male	22.74(22.74)		International	22.24(8.06)		
Career pessimism	Female	10.11(4.53)	.677(.143)	National	9.80(4.35)	.267(.231)	2.109(.065)
	Male	9.08(9.08)		International	9.14(4.12)		
Market Pessimism	Female	23.36(7.40)	.226(.034)*	National	23.20(6.65)	.531(.087)	1.543(.382)
	Male	22.83(4.71)		International	22.45(6.11)		
Costs for Success	Female	10.18(4.52)	-.380(.097)	National	10.35(4.31)	-.989(.063)	1.436(.175)
	Male	10.75(10.75)		International	10.22(4.55)		

Source: student data  
\*p≤.05 | \*\*p≤.001

Table 2. Correlation coefficients

Variable	1	2	3	4	5	6	7	8	9	10
1.Exhaustion	1									
2. Cynicism	.37**	1								
3 Inadequacy	.35**	.55**	1							
4. Motivation for sports	-.04*	-.46**	-.37*	1						
5. Motivation for academic tasks	-.15*	-.15*	-.11*	.35**	1					
6. Motivation to pursue a professional sports career	-.04*	-.08*	-.12*	.03*	.27**	1				
7. Anxiety and decision insecurity	.51**	.39**	.28**	.08*	.21*	.48*	1			
8. Career pessimism	.23*	.26*	.19*	.14	.34*	-.10*	.32*	1		
9. Market pessimism	.64*	.20*	.09*	.18	.11*	-.31*	.27*	.32*	1	
10. Cost of success	.15*	.13*	.07*	.13*	.06	.27*	.29*	.36*	.33*	1

Source: study data

\*p≤.05

Table 3. Linear regressions between the dimensions of burnout and motivation

Burnout	Motivation	R <sup>2</sup>	Sig.	Beta	Sig.
Exhaustion	Motivation for sports	.35	2.001*	-.05	.616
	Motivation for academic tasks			-.121	.081
	Motivation to pursue a professional sports career			-.216	.001**
Cynicism	Motivation for sports	.011	.809	-.105	.319
	Motivation for academic tasks			.061	.397
	Motivation to pursue a professional sports career			-.308	.601
Inadequacy	Motivation for sports	.465	.002*	-.242	.034*
	Motivation for academic tasks			-.042	.545
	Motivation to pursue a professional sports career			-.221	.002*

Source: study data

\*p≤.05| \*\*p≤.001

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Table 4. Linear regressions between burnout and motivation with a moderating effect of the anxiety and decision insecurity

Motivation	Burnout	R <sup>2</sup>	sig	Coefficients	Beta	Sig.
Motivation for sports	Exhaustion	.017	.310	Motivation for sports	.028	.687
				Anxiety and decision insecurity	-.033	.634
				Interaction	-.124	.074
	Cynicism			Motivation for sports	-.533	.036
				Anxiety and decision insecurity	.093	.306
				Interaction	-.128	.037*
	Inadequacy			Motivation for sports	-.079	.249
				Anxiety and decision insecurity	.058	.397
				Interaction	-.176	.010*
Motivation to pursue a professional sports career	Exhaustion	.029	.104	Motivation to pursue a professional sports career	-.109	.115
				Anxiety and decision insecurity	-.035	.606
				Interaction	.121	.079
	Cynicism			Motivation to pursue a professional sports career	.025	.710
				Anxiety and decision insecurity	.180	.090
				Interaction	-.108	.115
	Inadequacy			Motivation to pursue a professional sports career	-.160	.019
				Anxiety and decision insecurity	.055	.415
				Interaction	.140	.041*

Source: study data

\* $p < .05$

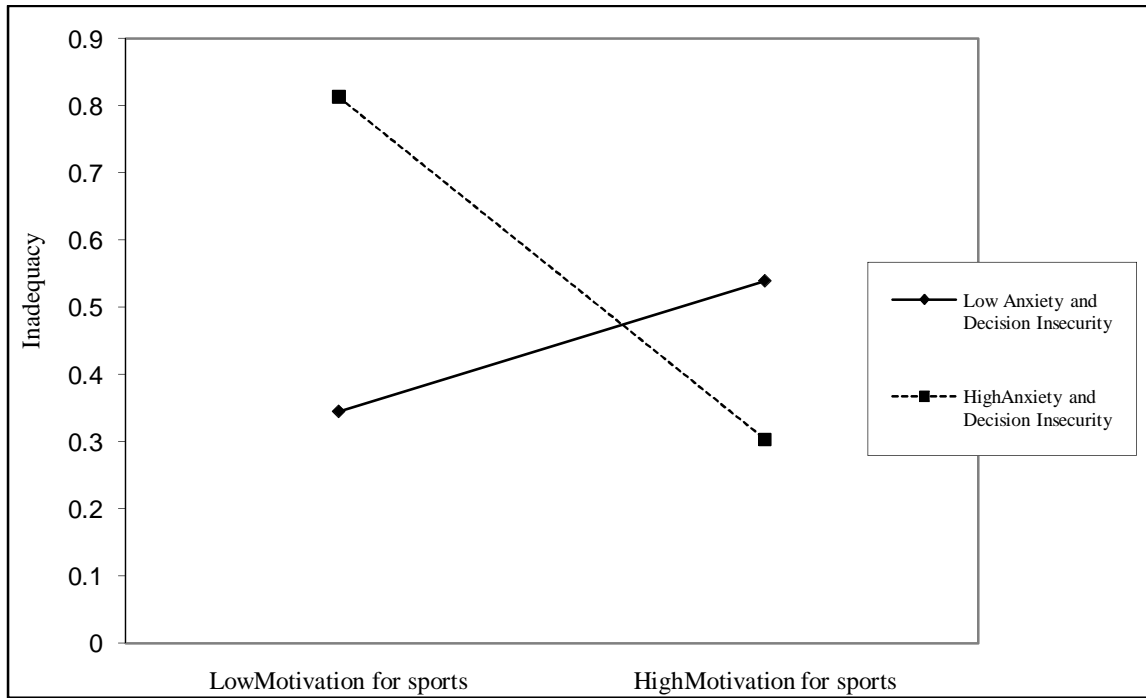


Figure 1. Moderating effect anxiety and decision insecurity on the relationship between motivation for sports and inadequacy

Source: study data

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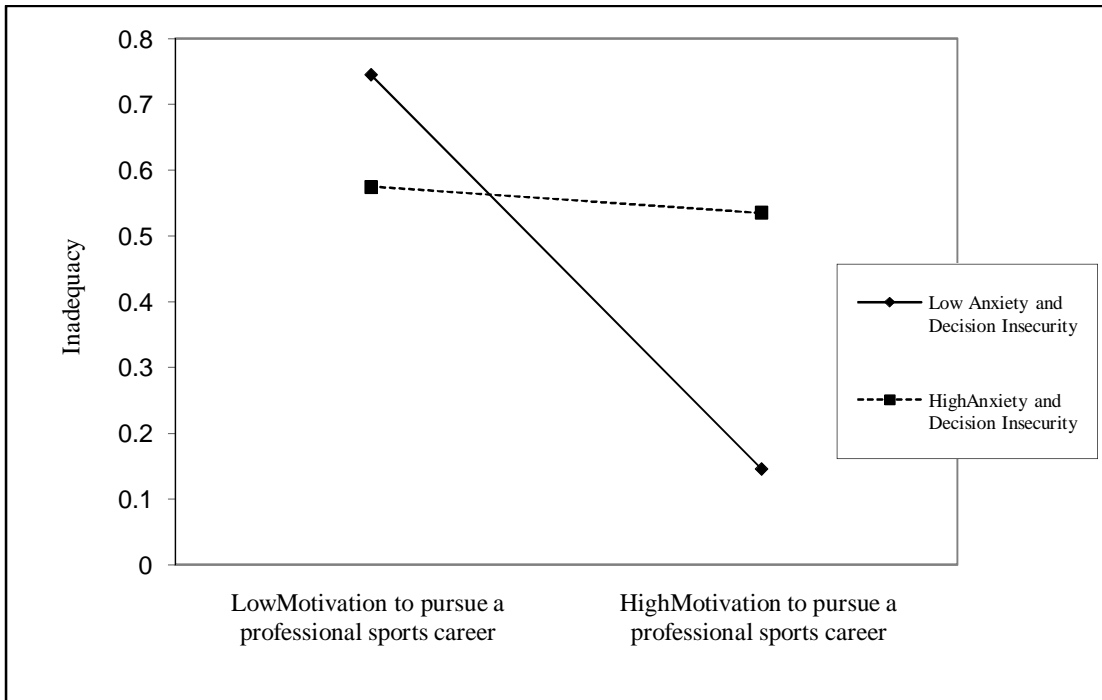


Figure 2. Moderating effect anxiety and decision insecurity on the relationship between motivation to pursue a professional sports career and inadequacy

Source: study data

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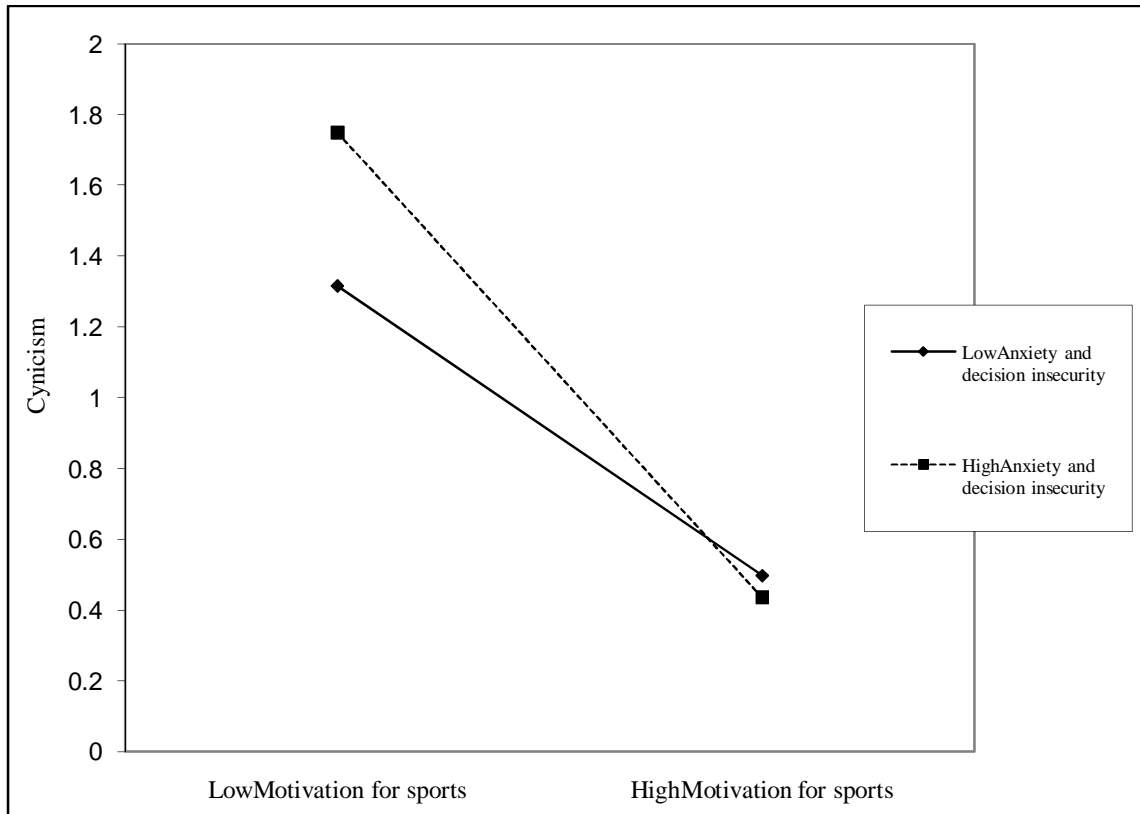


Figure 3. Moderating effect anxiety and decision insecurity on the relationship between motivation for sports and cynicism

Source: study data

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