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STUDENT-ATHLETES IDENTITY AND MOTIVATION TOWARDS DUAL CAREER: THE CONTEXT MATTERS

IDENTITETA ŠTUDENTOV ŠPORTNIKOV IN NJIHOVA MOTIVACIJA ZA DVOJNO KARIERO: POMEMBEN JE KONTEKST

ABSTRACT

We hypothesized that student-athletes' athletic identity and motivation are influenced by their own institutions sport policies. The aim of the study is twofold: a) to validate a measure of athletic identity among Portuguese college students; b) to analyze the effects of 3 different types of college policies on identity and motivation. This study used a quantitative design. 201 Portuguese student-athletes answered to two questionnaires, BIMS (Baller Identity Measurement Scale) and SAMSAQ (Student Athletes Motivation towards Sports and Academics Questionnaire). To comparative purposes, three types of university were considered according to their institutions' sport policies: type 1 (i.e sport organized exclusively by higher education institutes (HEIs)), type 2 (i.e organized by HEIs and/or student associations) and type 3 (i.e organized outside the HEIs). The CFA showed the adjustment of the model of BIMS with two factors for Portuguese student-athlete (emotions and exclusivity) (CFI: 0.918, RMSEA: 0.123) and the SAMSAQ with three factors (academic motivation, motivation to be a student-athlete, motivation for a sports career) (CFI: 0.933, RMSEA: 0.106). This was the first time that these instruments were combined to analyze the Portuguese reality. The findings show that the micro and meso environment of the university seems to shape the perceptions and feelings of the students about their participation in sport. An important practical implication is that the higher expression of satisfaction came from universities where the students had a stronger implication in the activities´ organization and management. For policy makers this is a significant contribution for decision making about dual career.

Keywords: dual career, student-athlete, motivation, policy, sports

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IZVLEČEK

Postavili smo hipotezo, da na športno identiteto in motivacijo študentov športnikov vpliva športna politika njihove izobraževalne ustanove. Namen raziskave je bil dvojen: a) potrditi sistem za merjenje športne identitete študentov portugalskih visokih šol; b) analizirati učinke treh različnih tipov visokošolskih politik na identiteto in motivacijo. Raziskava je bila zasnovana kvantitativno. V njej je sodelovalo 201 portugalskih študentov športnikov, ki so odgovorili na dva vprašalnika, in sicer BIMS *(Baller Identity Measurement Scale – lestvica za merjenje identitete)* in SAMSAQ *(Student Athletes Motivation towards Sports and Academics Questionnaire –* vprašalnik za študente športnike o športnem in akademskem udejstvovanju). Za namen primerjave smo obravnavali tri vrste univerz glede na njihovo športno politiko, in sicer tip 1 (športne dejavnosti organizirajo izključno visokošolske ustanove), tip 2 (športne dejavnosti organizirajo visokošolske ustanove in/ali študentske organizacije) in tip 3 (športne dejavnosti so organizirane zunaj visokošolskih ustanov).

CFA je pokazal prilagoditev modela BIMS z dvema dejavnikoma za portugalske študente športnike (čustva in ekskluzivnost) (CFI: 0,918, RMSEA: 0,123) ter modela SAMSAQ s tremi dejavniki (akademska motivacija, motivacija biti študent športnik, motivacija za športno kariero) (CFI: 0,933, RMSEA: 0,106).To je bil prvi primer kombiniranja teh instrumentov za ugotavljanje dejanskega stanja na Portugalskem. Izsledki kažejo, da tako mikro kot mezo okolje univerze oblikujeta percepcijo in občutke študentov glede ukvarjanja s športom. Pomembna praktična vrednost raziskave je, da je bilo višje zadovoljstvo izraženo na univerzah, kjer imajo študentje večji vpliv na organizacijo in upravljanje športnih dejavnosti. Za snovalce politike je to pomemben prispevek pri odločanju o dvojni karieri.

Ključne besede: dvojna kariera, študent športnik, motivacija, politika, šport

INTRODUCTION

Sport is a growing social and economic phenomenon which strongly contributes to strategical goals defined by the European Union, playing a fundamental role to the personal and individual development, charity, tolerance and fair play of the European citizen (European Commission, 2007).

Although sports participation is strongly encouraged, young athletes have severe difficulties in making sport compatible with educational requirements (Conzelmann & Nagel, 2003; Capranica & Millard-Stafford, 2011).

The literature has shown that the European athletes tend to abandon sport and prioritize education in order to prepare for future job opportunities or, in opposite situations, to abandon academic training because of competition, economic resources or lack of support through the dual career (López de Subijana et al., 2015).

The student-athletes have several dimensions in their academic career and sports career and the lack of dual career definition is a problem that must be investigated to understand what systems should be implemented to improve the satisfaction level of the Portuguese student-athlete.

In Portugal, there are still a very significant number of student-athletes who cannot reconcile a sports and academic career and end up abandoning one of them.

One of the transitions in which the dropout rate of one of the careers is significant is in the student's entry into higher education. The importance of career transitions has been increasing over the past few years and there are already several programs (Brown et. al, 2015; Mateos, Torregrosa & Cruz, 2004; van Rens, Elling & Reijgersberg, 2015) to support career development and the development of athletes' skills in various government structures, National Olympic Committees, Sports Federations and academic institutions.

The study "An investigation of potential users of career transition services in the United Kingdom" (North & Lavallee, 2004), applied to participants of the ACE UK program - a program established to allow the existence of support structures for the development of the athlete's career, allowing best sport achievements and easier transition to retirement - has shown that athletes spend more time training and competing, but are more motivated when there is a balance between sports and non-sports activities.

These career transition programs have been growing in Europe along with studies of development models such as Wylleman, Alfermann & Lavallee (2004) that have created a development model that includes normative transitions (e.g. transitions from junior to senior level) in several dimensions of life (athletic, individual, psychosocial and academic) with the premise of strong relationships between athletic transitions and academic, psychosocial and professional transitions. In the article "Dual career of European student-athletes: the systematic literature review" (Guidotti, Cortis, & Capranica, 2015), the transitions of the sport career from one stage to the other are considered a process instead of an isolated event. For the athlete, the development of the sports career is a multidimensional, dynamic, multilevel and multifactorial process (athletic, psychological, psychosocial and educational).

To complete this development it is necessary that support structures prepare athletes for their transitions in sports and academic career. Some studies report that the involvement of athletes

in dual career support programs demonstrates better academic results and higher levels of satisfaction.

According to Ābeļkalns & Geske (2013), in the university phase, many student-athletes make several mistakes (e.g. time planning, organizing, controlling, lack of motivation) in the management of their academic career. The strategy of reconciling sport and education for many European athletes has been to move to the United States of America, since there are no support structures in their higher education institutions. The athletes recognize that a dual career is a tool that allows them to transfer skills from one career to another, both for a foremost academic development and a professional sports career. A dialogue between academic structures on the various dimensions of dual careers in European student-athletes is urgent, in order to understand the strategy for dual career development. According to Guidotti, Lupo, Cortis, Di Baldassarre, & Capranica (2015), teachers are available to provide dual career support services through more flexibility in schedules, online support, e-learning and tutorial support. In addition, it is also important to develop a stronger relationship between players and managers based on sporting and educational values, which can help athletes to arrange their daily lives (Henricken, Stambulova, & Roessler 2010) (Larsen, Alfermann, & Christensen, 2013).

Taking the student-athlete as a multidimensional object, programs need to be developed in order to help them plan their career needs in the long term so that they can make better decisions for their life and future.

Guidotti, Cortis, & Capranica (2015) argue that transnational studies and projects can play an important role in identifying the best practices to reduce the dropout rate of academic and sports career, promoting a successful reform of athletes and guiding governments, sport structures and education institutions to make better decisions in the management of sports and education for future European citizens.

They further affirm that future studies should explore the relationships between the different dimensions of the dual career using qualitative and quantitative methodologies and develop scales that will measure the effectiveness of the dual career in student-athlete development.

The dual career system in Portugal is club-based, as the European reality. (Ryba,

Stambulova, Ronkainen, Bundgaard, & Harri, 2015)

According to the Academic Sports University Federation (FADU), it is estimated that in Portugal about ten thousand students practice university sports and therefore need to match the requirements of the training with the academic requirements. In order to harmonize the potential conflict between sport and the education of athletes, understanding and defining dual careers becomes an increasingly relevant topic for improving student-athlete training. It is important to understand the characteristics of the student-athletes' motivation in order to allow approaches to the dual career constraints based on the social and cultural structure that surrounds them and the sports and university policies conditioning them.

The literature has been reporting descriptive studies based on instruments used in Europe and the United States of America (e.g., *The Student Athletes' Motivation towards Sports and Academics Questionnaire (SAMSAQ)* (Gaston-Gayles, 2005) and *The Baller Identity Measurement Scale (BIMS)* (Harrison, Transyowick, Bukstein, McPherson-Botts, & Lawrence, 2014), but the information about the student-athletes' identity and their perception of the concept remains scarce.

The BIMS, originally used in the United States of America, was applied to the National Collegiate Athletic Association Division I Football Bowl Subdivision athletes at a northwestern university. The SAMSAQ has been applied in several European countries. The original version was applied in the United Arab Emirates and in Italy (Fortes, Rodrigues & Tchantchane, 2010; Guidotti, Minganti, Cortis, Piacentini, Tessitore & Capranica, 2013) and the results were significantly different.

Therefore, a new adaptation was created, containing 21 items of the original questionnaire and 9 items adapted to the Italian context. (Guidotti, Minganti, Cortis, Piacentini, Tessitore & Capranica, 2013)

Subsequently, Lupo (2012) applied a questionnaire to the Italian-Slovenian student-athlete population that contained the 30 items of the original questionnaire plus 9 items from the Italian version. This version was denominated SAMSAQ-EU.

This version was applied to Portuguese, Brazilian, Spanish, Swiss, and French student-athletes. In the case of Portugal, a state with regulations (Moreira & Gonçalves (2016), it was found that most of the population practiced sports at a national level and said they had difficulties in reconciling sport and education. In this application, the item that obtained the highest agreement was "studies are important to acquire knowledge and skills", which reveals a greater concern with the academic career.

After consulting the Sports Law and Student-Athlete Statutes published in the Diário da República of each higher education institution (HEI), it was verified that in Portugal there are very significant differences between HEIs. In addition to HEIs where there is no student-athlete legislation, there are many different sports policies in which they have their own legislation. One of the major differences is the organization of the sports system. While in some HEIs the sport is coordinated by the student associations, in others the coordination is done within the HEI itself.

In addition, the rights and duties of the student-athletes are quite heterogeneous from institution to institution.

In some HEIs the students receive financial support for their sports practice; in others the students merely have justification of absences or priority in the choice of schedules. Even in what concerns the analysis of student-athlete duties, there are differences depending on the HEI.

There are institutions that assign the status to those who are present in a certain percentage of training time, while others only attribute the status in case of representation of the institution in national championships.

According to Guidotti, Cortis & Capranica (2015), there is little development of the dual career. It is necessary to explore the different political systems, preferably using mixed methodologies, to reveal the factors that favor or constrain the development of dual careers. For this study, the questionnaires referred above will be used, which, having already demonstrated reliability and informative power, require detailed attention with translation and validation, since the study population in BIMS (Harrison et al., 2014) and in the SAMSAQ (Gayles, 2005) is inserted in a university sports reality that is very different from the Portuguese one.

The present research analyses the identity and motivation levels of the Portuguese student-athletes through the inclusion of cultural factors, which has not been made yet in the European context.

Through a quantitative analysis of the variables, it is intended to validate the BIMS and SAMSAQ questionnaires for the Portuguese student-athlete population and to analyze the influence of university regulation on student satisfaction levels and student-athlete identity.

MATERIALS AND METHODS

This study used a quantitative methodology to validate the translation and adaptation of three questionnaires in the Portuguese population of student-athletes.

For comparative purposes, the type of HEI was considered the most important factor for the differentiation of the student-athlete satisfaction levels. All HEI participants in the questionnaire were divided into three types: Type 1 HEIs where sport is organized exclusively by HEIs, Type 2 HEIs where the sport is organized by HEI and/or student associations and Type 3 HEIs where the sport is organized outside the HEI. Types 1 and 2 have legislation for the student-athlete and Type 3 does not have legislation.

In order to select the sample, the probabilistic sampling method was used, allowing the best representation of the population, according to the proportional stratified random technique, given that we want to "divide the target population into homogeneous subgroups called strata and then randomly sample a sample of each stratum" (Fortin, 2003, p.206).

The statistical analysis using Cronbach's Alpha allowed us to precise the internal consistency of the instrument by the estimation of the internal reliability, understood as the possibility of obtaining the same results when the measurement is made with the same instruments in different times (Black, 1999).

A correlation matrix was constructed to assess the existence of collinearity between the dependent variables.

The socio-demographic questionnaire with 10 items collected information about gender, nationality, educational institution, importance of sport, level of sports practice and contact with the student-athlete status.

The (BIMS) (Harrison et al., 2014) has 10 items and was fundamental in integrating cultural factors.

The BIMS, developed and validated by Harrison et al. (2014) is a questionnaire adapted from the AIMS (Athletic Identity Measurement Scale) and SAMSAQ. The questionnaire aims to analyze and understand how sports and academic identities impact on motivation and performance.

In order to understand the purpose of the questionnaire, "sports identity" is defined as the degree to which the individual identifies with the role of an athlete (Brewer et al., 1993) and "academic identity" as the identification of the student role.

One of the major differences of this questionnaire in relation to the SAMSAQ is the inclusion of cultural factors, making a theoretical deepening on the perceptions of identity that the students have.

The Student Athlete Motivation Toward Sports and Academics Questionnaire (SAMSAQ), created by Gaston-Gayles (2005), is a 30-item measurement scale that examines academic and athletic motivation as a determinant variable in predicting student-athlete academic performance. It was

originally applied to athletes of 8 modalities of the 1st Division of the University of Midwest. It was created to measure students' academic and sports motivation. The authors identified three factors validated by the reliability alpha coefficient: dual career motivation (0.86), sports career motivation (0.84), and academic career motivation (0.79).

Later, other versions that were applied in a European context demonstrated the validation of a three-factor model. (Guidotti, Minganti, Cortis, Piacentini, Tessitore & Capranica, 2013)

 The questionnaire applied presented 50 items contemplating the individual, cultural and academic dimensions of the student-athlete, through the conjugation of the questionnaires mentioned above.

Participants were asked to respond by indicating the level of agreement with each statement, using a Likert-type scale with six defined levels of "I totally agree" (1) to "I strongly disagree" (6).

The participants were 201 Portuguese female (n = 78) and male (n = 123) student-athletes competing mostly at amateur level in eleven sport modalities (i.e rugby, basketball, triathlon, athletics, karate, canoeing, handball, futsal, tennis, volleyball and climbing) and coming from 17 higher education institutions in Portugal. This application was carried out in the context of university sports competition, not exclusively to high performance athletes.

The application was made in April 2017 to all participants in the Portuguese National University Championships 2017 through online and paper form, using the electronic tools provided by Google. The answers to the questionnaire were voluntary and anonymous and the application was approved by the Academic Federation of University Sports.

The data was processed anonymously.

The data of the student-athletes to the questionnaire was analyzed through descriptive and inferential statistics. In order to verify the adequacy of the obtained results to the original models, factorial exploratory/AFE and confirmatory/AFC analyses were used. In the inferential statistics, three types of HEI defined above were considered.

Reliability was estimated using the Cronbach's Alpha test, the homogeneity indicator per excellence in tests applied once (Black, 1999; Punch 1998).

According to Hill & Hill (2000) Cronbach's Alpha values above 0.600 can be considered acceptable when there are scales with a low number of items, which is verified in the BIMS (Harrison et al., 2014).

The dependent variables were represented by scores of factors resulting from the AFC. The Kaiser-Meyer-Olkin test (KMO) was used to verify the suitability of the sample.

The fixed factor extraction was considered, starting from the factors of the original scale and the varimax rotation was used. The load factor defined was 0.40, as suggested by Pedhazur & Kerlinger (1982). The software used was the SPSS program, version 24.0.

To confirm the exploratory factorial analysis, a confirmatory factorial analysis was carried out. The maximum likelihood estimation method was used as probabilistic method and the AMOS program (version 24) was used to confirm the model.

The values of Standardized Root Mean Square Residual and Root Mean Square Error of Approximation were set as goodness indexes for adjustment of the models with cutoff values of 0.80 and 0.05, respectively. The results were analyzed to validate the confirmatory factorial analysis.

The Standardized Root Mean Square Residual (SRMS) and Root Mean Square Error of Approximation (RMSEA) values were considered as adequacy indices.

According to Hu & Bentler (1999), an SRMR value of less than 0.08 is generally considered a good model.

Studies have shown that the combination of RMSEA values <0.05 (0.06) and SRMR> 0.06 (0.07, 0.08, 0.09, 0.10, or 0.11) result in acceptable type 2 error rates for poorly specified simple and complex models, under conditions of robustness and not sturdiness.

The total sample was subjected to an inferential analysis to understand the influence of the independent variable "university type" on the dependent variables represented by the factors that emerged from the questionnaires. For this purpose, an ANOVA technique was used.

RESULTS

In a first analysis of the literature the questionnaires used allowed the identification of four factors in the BIMS and three factors in the SAMSAQ. The factors extracted in the BIMS (Harrison et al., 2014) were exclusivity, social identity, negative emotions and positive emotions.

In SAMSAQ (Gaston-Gayles, 2005) three motivation factors were extracted: motivation to be a student-athlete, motivation for an academic career and motivation for a sports career. To describe and synthesize the data by grouping the items that are correlated with each other, an exploratory factorial analysis was performed. The Kaiser-Meyer-Olkin test (KMO) was used to verify the suitability of the sample. In BIMS (Harrison et al., 2014) and SAMSAQ (Gaston-Gayles, 2005) the KMO test values were 0.772 and 0.887, respectively. The sample values were considered significant in both questionnaires, since in the Bartlett's sphericity test the significance value was p <0.001. The use of the Bartlett's test showed a suitability of the technique to the initial 10-item BIMS solution. After the varimax rotation analysis, with inclusion of a factorial load ≥ 0.40, and because of the value of the internal reliability (0.713), it was decided to perform the fixation of two factors for the BIMS and three for the SAMSAQ.

After the exploratory factorial analysis two factors were defined for the BIMS and three factors for the SAMSAQ, as demonstrated in Tables 1 and 2.

In Table 1 and 2 the variables with more factor load were extracted, analyzing the values obtained with the indication of the factors from the original questionnaires

In the BIMS (Harrison et al., 2014) two factors were extracted: exclusivity and emotions; in SAMSAQ (Gaston-Gayles, 2005) three factors were extracted: motivation to be student-athlete (MSA), motivation for a sports career (MSC) and academic motivation (AM).

In SAMSAQ (Gaston-Gayles, 2005) Cronbach's Alpha values are close to or greater than 0.800, which shows good internal consistency.

The theoretical model proposed between the observed variables and the latent variables are presented in Figure 1.

Table 1: Exploratory factorial analysis of the BIMS in the Portuguese population

	Factor Load	Cronbach's Alpha	Eigenvalues	Variance explained
FACTOR 1: Exclusivity		0.750	3.536	35.36%
5- I spend more time thinking about the sport I practice than anything else.	0.813			
9- Competition is the most important thing in my life.	0.801			
2- I have many goals related to my sport improvement.	0,713			
FACTOR 2: Emotions		0.679	1.851	18.51%
6- When I play I feel good about myself.	0.824			
8- I feel bad about myself when I do not achieve my sport goals.	0.815			
10- I would feel very depressed if I was injured and could not play.	0.587			
Total variance				53.87%

Notes: a) Coding: 1- Completely Agree 6- Completely Disagree; b) Extraction Method: Principal Component Analysis. C) Rotation
Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations. d) KMO Measure of Sampling Adequacy=0.782; Bartlett's test of Sphericity: $\chi 2 = 617,332$, df=45, p=0.000

Table 2: Exploratory factorial analysis of the SAMSAQ in the Portuguese population

	Factor Load	Cronbach's Alpha	Eigenvalues	Variance explained
FACTOR 1: Academic Motivation		0.810	8.188	27.29%
7- I will be able to use what is taught in my courses in different aspects of my life outside of school.	0.804			
3- It is important for me to learn what is taught in my courses.	0.792			
4- I am willing to put in the time to earn excellent grades in my courses.	0.711			
FACTOR 2: Motivation to be Student-Athlete		0.777	4.776	15.92%
27- I am willing to put in the time to be outstanding in my sport.	0.786			
2- Achieving a high level of performance in my sport is an important goal for me this year.	0.778			
19- I am confident that I can be a top level performer on my team/ sport this year.	0.760			
FACTOR 3: Motivation for a sports career		0.859	1.572	5.24%
8- I choose to play my sport because it is something that I am interested in as a career.	0.706			
20- My goal is to make it to the professional level or the Olympics in my sport.	0.667			
22- I am confident that I can make it to an elite level in my sport (Professional/Olympics).	0.598			
Total variance				48.45%

Notes: a) Coding: 1- Completely Agree 6- Completely Disagree; b) Extraction Method: Principal Component Analysis. C) Rotation
Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations. d) KMO Measure of Sampling Adequacy=0.887; Bartlett's test of Sphericity: $\chi 2 = 2808.4$, df=435, p=0.000
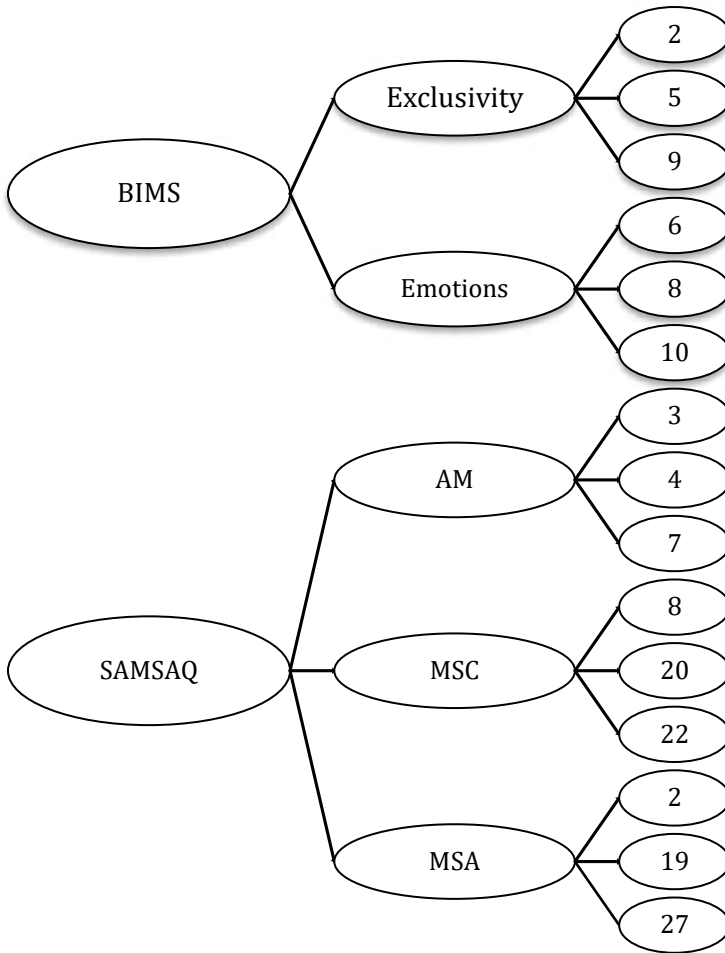
Figure 1. Result model from the analysis between observed variables and variables latent

Notes: Coding: MA: Academic Motivation; MSC: Motivation for a sports career; MSA: Motivation to be a Student-Athlete

After the exploratory factorial analysis, we proceeded to a confirmatory factorial analysis to confirm the former.

Table 3: Questionnaire: Results of Factorial Confirmatory Analysis

Questionnaire	Chi-Square	CFI	RMSEA	SRMR	DF
BIMS	32.294	0.918	0.123	0.0757	8
SAMSAQ	76.961	0.933	0.106	0.0619	24

Notes: Coding: CFI: Comparative Fix Index; RMSEA: Root Mean

Square Error of Approximation; SRMR: Standardized Root Mean Square Residual; DF: Degrees of freedom

After the exploratory and confirmatory factor analysis, the student-athlete satisfaction levels were analyzed according to the different typologies of HEI.

Table 4: Levels of motivation in the different typologies of HEI: mean, standard deviation and ANOVA factor

	Evaluation			
	N= 201	Mean	SD	F.	Sig.
BIMS					
Emotions				0.974	0.379
T1	69	2.86	0.96		
T2	123	2.74	1.18		
T3	9	3.26	1.79		
Exclusivity		1.76	0.89	3.336	0.038
T1	69	1.97	0.99		
T2	123	1.63	0.81		
T3	9	1.78	0.74		
SAMSAQ					
Academic Motivation				2.477	0.087
T1	69	2.23	0.86		
T2	123	1.92	0.97		
T3	9	1.96	0.87		
Motivation to be a student-athlete		2.79	1.20	5.602	0.004
T1	69	2.89	1.09		
T2	123	2.65	1.18		
T3	9	3.96	1.67		
Motivation for a sports career				0.119	0.888
T1	69	3.70	1.57		
T2	123	3.71	1.54		
T3	9	3.96	1.58		

Notes: Coding: a) 1- Completely Agree 6- Completely Disagree; b) T1: Typology 1; T2: Typology 2; T3: Typology 3; c) p< 0.05 = there are statistically significant differences

According to Table 4, there are statistically significant differences ($p < 0.05$) in the exclusivity and motivation to be student-athletes when the HEI typology is the comparison variable. Regarding the exclusivity and motivation factors to be student-athlete (MEA), student-athletes present higher levels of satisfaction in Type 2 HEIs. In the case of exclusivity, it is in Type 1 HEIs that student-athletes present lower levels of satisfaction. In relation to the MEA factor it is in Type 3 HEIs that the students present lower levels of satisfaction.

It is verified that there are no statistically significant differences in the factors emotion, motivation for the academic career and motivation for the sports career when the sports policy is the variable of comparison. Overall, Type 1 universities with a more structured type of government have less motivated athletes, while Type 2 HEIs have the most motivated athletes.

DISCUSSION AND CONCLUSIONS

The exploratory factorial analysis has shown that the BIMS (Harrison et al., 2014), validated on other countries, had different results in the Portuguese population.

Harrison et. al (2014) has demonstrated the existence of four factors in the American population: social identity, exclusivity, positive emotions and negative emotions. When applied exclusively to the Portuguese population, two factors were identified: exclusivity and emotions.

One of the factors extracted in the original questionnaire that could not be extracted in the Portuguese population was the social identity factor. Unlike the sports system of the United States of America, Portugal does not have a system in which sports are widely integrated into the academic structure. Thus, the sports career and the academic career are usually different careers that the athletes must manage under their own responsibility. The social and academic structure does not recognize the student-athlete as a distinctive agent of the academic population, integrating it as a regular student in the education system. The lack of understanding about the needs of the student-athlete conducts the educational system to a devaluation of the student-athletes in the social and cultural system. According to the results, the student-athletes affirm that they do not feel different from their colleagues for practicing sports and a preference for an academic career is evident.

When analyzing the factors using the type of institution as a comparison variable, it was verified that there are statistically significant differences ($p < 0.05$) in the exclusivity factor. The results demonstrate that the emotion does not have variations in student-athlete satisfaction levels when comparing the different types of HEI.

The emotional impact level of sports practice does not have significant variation according to different sports legislations.

When analyzing the means of the two factors (i.e exclusivity and emotions) it is observed that student-athletes are more motivated in HEIs Type 2. Analyzing the emotions, we found that athletes are less motivated in HEIs Type 3 (M = 3.26) and, in exclusivity, they are less motivated in HEIs Type 1(M = 1.97).

Assuming emotions and exclusivity as an important factor to the motivation of the student-athlete, the results suggest that the student-athletes are generally more motivated in university types where they are part of the organization system.

The results of the exploratory and confirmatory factorial analysis shown by the application of the SAMSAQ (Gaston-Gayles, 2005) in the Portuguese population were very similar to the original questionnaire. Three factors were extracted from it: academic motivation (AM), motivation to be a student-athlete (MSA) and motivation for a sports career. (MSC)

The comparative analysis of the different types of HEI showed that the only factor with statistically significant differences ($p < 0.05$) was the motivation to be a student-athlete. When analyzing the results of the means, in general, athletes are more motivated in Type 2 HEIs (MA = 1.92, MSA = 2.65) and less motivated in Type 3 HEIs (MSA = 3.96).

As observed using the BIMS, the results demonstrate higher levels of motivation in structures where the sports organization is shared between HEIs and student associations.

This indicates that students are more motivated when they are themselves part of the organizational system and decision makers in the university sports system. Student associations seem to be very important for the motivation of student-athletes, since these structures are closer to the students and, therefore, able to understand and respond to their needs quickly.

The motivation for the sports career is the factor in which the students have lower levels of motivation (M = 3.59). The results from the comparison of student-athlete satisfaction levels using the typology of the institution as the comparative variable seem to demonstrate that students have a lower levels of satisfaction in Type 3 HEI and, in general, there is no motivation for a sports career. These results highlight the importance of dual career legislation as an impact factor in the motivation levels of athletes. In Type 3 HEIs, where there is no legislation or sports organization, students are less motivated to embark on a dual career.

In what concerns the motivation for a sports career factor, the lack of motivation to develop a sports career may be related to the sample. This questionnaire was applied in the context of university sports and not in elite competitions, which reflects a population that, for the most part, practices sports at an amateur level and does not consider sports as a future professional career.

After defining the predominant factors in the student-athletes' motivation, the correlations between the factors defined in the analysis were explored: academic motivation (AM), motivation for the sports career (MSC), motivation to be a student athlete (MSA), exclusivity and emotions.

According to the results, the Portuguese student-athlete are motivated to be a student-athlete, although there are great difficulties in reconciling sport and education. However, they still prioritize their academic career over their sports career.

Table 5: Correlations between BIMS and SAMSAQ

		AM	MSC	MSA	Emotions	Exclusivity
AM	ρ de Person	1	-0.058	0.193**	0.481**	0.109
	Sig. (2-tailed)		0.414	0.006	0.000	0.124
MSC	ρ de Person	-0.058	1	0.596**	0.023	0.555**
	Sig. (2-tailed)	0.414		0.000	0.743	0.000
MSA	ρ de Person	0.193**	0.596**	1	0.436**	0.643**
	Sig. (2-tailed)	0.006	0.000		0.000	0.000
Emotions	ρ de Person	0.481**	0.023	0.436**	1	0.394**
	Sig. (2-tailed)	0.000	0.743	0.000		0.000
Exclusivity	ρ de Person	0.109	0.555**	0.643**	0.394**	1
	Sig. (2-tailed)	0.124	0.000	0.000	0.000	

Notes: Coding: MA= academic motivation; MSC= motivation to sports career; MSA = motivation to be a student-athlete

As pictured in Table 5, it is possible to verify that there is a very significant relation between student-athletes' motivation and exclusivity (0.643).

There is also a reasonably significant relationship between sports career motivation and exclusivity (0.555) and academic motivation and emotions (0.481), suggesting that the association between motivation and identity represents a pathway to explore in the future.

This study uses exclusively quantitative methodologies, but it is also important to use qualitative methodologies to bring the researcher closer to the social and political context of the dual career. The approach to direct decision-makers and athletes is elementary to understanding the dual career definition in Portugal.

At a European level, there is still a very uneven situation in the development and application of dual careers. Despite the recommendations of the European Commission in the 2012 EU "Guidelines on Dual Careers of Athletes", advances have not developed as expected. There is a need for extensive research into the European situation comprising the dual career development models in different European countries as well as direct contact with European institutions and organizers.

It would be of importance to apply this study in elite competitions in the future, in order to understand the effect of university sports policies on the population of high-performance student-athletes.

After the statistical analysis of the questionnaire translated and adapted, it can be verified that this can be a tool to analyze the Portuguese student-athletes. As mentioned previously, the original questionnaires presented a number of factors slightly different from the results of the Portuguese population. In the BIMS (Harrison et al., 2014), it was possible to extract exclusivity, social identity and negative and positive emotions as factors while in the Portuguese population it was only possible to extract the exclusivity and emotions factors.

In SAMSAQ (Gaston-Gayles, 2005) the extraction of factors in the Portuguese population was identical to the extraction of the original application: motivation to be a student-athlete, motivation for an academic career and motivation for a sports career.

After the analysis of student-athlete satisfaction averages in relation to the type of HEI, it was verified that there are statistically significant differences in exclusivity and motivation to be a student-athlete factors. In general, students are more motivated in Type 2 HEI and less motivated in Type 3 HEI.

The motivation for a sports career factor is the one in which student-athletes are less motivated, which suggests that, in this population, there is no interest in the development of sports as a professional career.

The innovative aspects of the present study are grounded on the cultural approach to the measurement of the student-athletes' identity and motivation levels and its contribution to a deeper analysis of the Portuguese context, allowing for a global perspective of the Portuguese organizational systems and for future comparative studies.

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