Journal of Hospitality, Leisure, Sport & Tourism Education 31 (2022) 100394

Contents lists available at ScienceDirect

Journal of Hospitality, Leisure, Sport & Tourism Education

journal homepage: www.elsevier.com/locate/jhlste

Does background matter? Analysis of the influence of sex, socioeconomic status and the existence of an entrepreneurial family member as a precursor to entrepreneurship in university students of Sport Sciences

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ARTICLE INFO

Keywords:
Sport entrepreneurship
Entrepreneurial intentions
University student
Sex
Socioeconomic level
Enterprising family member

ABSTRACT

This study aims to analyze the backgrounds of the entrepreneurial behaviors of university students of the Degree of Physical Activity and Sports Sciences (DPASS), taking into account the differences based on sex, the existence of an enterprising family member and the socioeconomic level. Data was collected using an online survey with 181 third and fourth course DPASS students (127 men and 54 women). The results indicate that the sex and socioeconomic level do not influence entrepreneurial intention, while the existence of a family member close to the entrepreneurial community does influence it. From the University itself, spaces for knowledge and/or encounter of entrepreneurial subjects should be promoted that allow students to have close to them and to know of clear examples of entrepreneurship that can extrapolate their concerns, experiences and/or help them in the beginning of the business adventure.

1. Introduction

Entrepreneurship may entail risk for individuals, but it also presents an intrinsic attraction by offering them greater independence, self-esteem and life satisfaction (Constant & Zimmermann, 2006). In the same way, entrepreneurship influences as a dynamizer of a country's prosperity and economic development (Constant & Zimmermann, 2006). In addition, some researchers point out as one of the main causes of a country's economic growth, the actions developed by entrepreneurs as they introduce new techniques and innovations (Flores-Asenjo & Palao-Barberá, 2013). Likewise, entrepreneurship favors the creation of new jobs and new products, generating competition and new labor/economic opportunities for the entrepreneur (Nicolás-Martínez & Rubio-Bañón, 2020). In this sense, entrepreneurship could be an opportunity to be taken into account as an action measure in the face of the economic crisis derived from the Covid-19 pandemic.

In this way, entrepreneurs are able to create something new or to give a different use to something already existing and thus

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https://doi.org/10.1016/j.jhlste.2022.100394
Received 23 November 2021; Received in revised form 5 May 2022; Accepted 16 May 2022
Available online 10 June 2022

generate an impact on their lives and that of the community in which they live (Calderón, 2014). For this reason, the entrepreneur offers attitudes, aptitudes and personal and group skills that allow him/her to seek his/her own outlets at the labor, family and individual levels (Jiménez-Marín, Elías-Zambrano and Silva-Roblez, 2014). In addition, entrepreneurship requires individual characteristics such as recognition of opportunities, risk-taking about security and tenacity to implement innovative ideas (Moriano, Topa, Valero, & Lévy, 2009). According to Ball (2005), the sports industry, along with the hospitality, leisure and tourism industries, are the most closely related to entrepreneurship.

Particularly, leisure and tourism have a strong relationship with the sports industry. In fact, focusing on entrepreneurship in sport, both nationally and internationally, is growing and acquiring a certain status quo in the field of research, based on the increase in publications in recent years (González-Serrano, González-García, & Pérez-Campos, 2018). It is noteworthy that entrepreneurship in sport goes beyond innovating (Ratten & Tajeddini, 2019), explaining the behaviors of innovation, risk-taking and proactivity, with behaviors that relate to the discovery and exploitation of new markets, technologies, product opportunities and human capital (González-Serrano, Valentine and Crespo-Hervás, 2014; Ratten, 2010). Due to the growth and diversification of the sports sector, these qualities must be taken into account by sports managers to generate new ideas that allow them to remain competitive (Ratten & Ferreira, 2017).

Therefore, it is necessary to perform an analysis of what the cultural variables or background of the entrepreneur are, and therefore, reduce the existing disconnection between the professional field and research (Ratten & Tajeddini, 2019). Among them, sex, age, education background, employment status, the parents' level of education, and the existence of a self-employed family member have been the most researched socio-demographic variables in relation to entrepreneurship in recent years (Aragón & Baixauli, 2014; Jaén & Liñán, 2013; Liñán & Chen, 2009). However, either because of controversy in the literature (e.g. the implication of sex and the existence of an entrepreneurial family member in relation to sport entrepreneurship) or because it is not addressed from the prism of entrepreneurship in sport (e.g. influence of socio-economic status on sport entrepreneurship), these sociodemographic aspects that should continue to be addressed and analyzed as possible precursors of entrepreneurship in sport.

For this reason, this study aims to analyze the precursors of entrepreneurial behaviors of university students of the Degree in Physical Activity and Sport Sciences (DPASS), taking into account the differences according to sex, the existence of an entrepreneurial family member and the socioeconomic level.

1.1. Sport entrepreneurship

It is important to highlight that sport is one of the most globalized businesses in the world and that in recent years it has grown exponentially, creating new jobs, providing social value and personal wealth (Ratten, 2012; Ratten & Ferreira, 2017). In the case of Spain, according to the Yearbook of Sports Statistics 2021 (MECS, 2021), the number of companies collected in the Central Directory of Companies (CDC) -whose main economic activity is sports-amounted to 41,034 at the beginning of 2020.78.6% are oriented to activities such as facility management and the activities of sports clubs or gyms; 13.2% correspond to companies engaged in the retail trade of sporting goods in specialized establishments; those engaged in sports and recreational education account for 7.5%; and, finally, 0.7% are engaged in the manufacture of sporting goods. On the other hand, 41.7% are companies with no employees, 43.7% are small companies -from 1 to 5 employees- 13.4% have 6 to 49 employees and the remaining 1.2% are larger companies, with 50 employees or more. Following these data and taking into consideration the percentages of companies with no employees (41.7%) and small companies (43.7%), it could be said that 85.4% of all companies dedicated to sports are made up of sports entrepreneurs.

When delving into the concept of entrepreneurship, it must be taken into account that it is a highly developed construct in the field of business management and administration, an aspect that is very different from entrepreneurship in sport due to the emotional and motivational nature of the latter (Holienka, Holienková, & Holienka, 2018; Miragaia, Ferreira, & Ratten, 2017; Seifari & Amoozadeh, 2014). Likewise, entrepreneurship develops from a variety of factors uniquely related to the secondary effects of knowledge resulting from sport, including emotional attachment, cultural conditions, and social attitudes (Ratten, 2021). Moreover, entrepreneurship in sport presents differential characteristics, given the fact that sport organizations inherently present economic, social objectives (sport organizations have an enormous impact on the social life of their environment, as well as generating feelings and emotions of unity and attachment, due to their possibility of group consumption and improvement of their well-being and health) and uncertainty of results and desire to win (there is the possibility of winning/losing a competition, which may have repercussions on the management and/or development of the sport organisation itself) (Hammerschmidt, Kraus, & Jones, 2022; Pellegrini, Rialti, Marzi, & Caputo, 2020).

Entrepreneurship in sport is presented as a set of values that influence the propensity to create and/or develop innovative activities in organizations (Ratten, 2012). Likewise, it should be borne in mind that entrepreneurship goes beyond innovating, directly affecting the processes of existing organizations (Ratten & Tajeddini, 2019). As stated by González-Serrano, Valentine, Crespo, and Hervás (2014), entrepreneurship in sport is explained in terms of innovation, risk-taking and proactivity behaviors, behaviors that are related to the discovery and exploitation of new markets, technologies, product opportunities and human capital. Along the same line of thought, Moriano et al. (2009) state that the recognition of opportunities, risk-taking and tenacity to implement innovative ideas are characteristics of entrepreneurial behavior that are becoming increasingly relevant in the world of organizations.

In recent years, publications related to entrepreneurship in sport have been booming, as evidenced by the latest research (González-Serrano, Jones and Llanos-Contreras, 2020; Lara-Bocanegra, Bohórquez, & García-Fernández, 2021). Despite this increase, some gaps remain evident in the research regarding the precursors of entrepreneurship, entrepreneurial intention, entrepreneurial orientation, the different perspectives linked to entrepreneurship (political, cultural, specific cases, etc.) and/or social entrepreneurship in sport (Lara-Bocanegra et al., 2021). The study of the variables (antecedents) that favor entrepreneurship in sport such as sex, the existence of an entrepreneurial family member/acquaintance and the socioeconomic level of those who wish to become

entrepreneurs is important to guide strategies to promote entrepreneurship in the sector. sex.

Regarding sex, the scientific community has presented a discordance, since for some authors it influences the entrepreneurial intention of the subjects where the male sex is the one that presents a greater propensity towards entrepreneurial intention (Do Paço, Ferreira, Raposo, Rodrigues, & Dinis, 2015; González-Serrano, Calabuig, & Crespo-Hervás, 2018), and for other authors it is a variable with no impact (González-Serrano et al., 2016; Grimaldi-Puyana, Gálvez-Ruiz, Sánchez-Oliver and García-Fernández, 2019). In an attempt to clarify this discordance, it is hypothesized that:

H1. Male DPASS students will perceive greater desire, exhibit greater perceived viability, and have a greater intention to become entrepreneurs than their female peers.

for the existence of an entrepreneurial family member or acquaintance, studies have confirmed that they increase the probability of students having entrepreneurial intentions (González-Serrano, Calabuig, & Crespo-Hervás, 2017). To confirm this influence it was hypothesized that:

H2. Those DPASS students with family members who are or have been entrepreneurs will perceive a greater desire, show greater perceived viability, and have greater entrepreneurial intention than their peers without entrepreneurial family members.

In fact, training and skill endowment to start a business are relevant for entrepreneurial intention (Teixeira & Forte, 2017) and therefore could be developed in institutions such as a university. In particular, the university should foster work experience, knowledge of entrepreneurs (in the case of not having close/known relatives), the search for financial solutions, entrepreneurial attitude and entrepreneurial skills (González-Serrano, Calabuig, & Crespo-Hervás, 2017). Specifically, among the different university students, DPASS university students have shown a higher entrepreneurial tendency than students from other university degrees, possibly due to the similarities between sport and entrepreneurship (Holienka et al., 2018). In this sense, and due to the high number of publications regarding the entrepreneurial intention of DPASS university students, these students are the future of entrepreneurship in sport above other business-oriented graduates (Dinning, 2017; González-Serrano, Crespo-Hervás, Pérez-Campos, & Calabuig, 2017; González-Serrano et al., 2016; González-Serrano, Calabuig, & Crespo-Hervás, 2017; Grimaldi-Puyana, Gállvez-Ruiz, Sánchez-Oliver, & García-Fernández, 2019; Holienka et al., 2018; Lara-Bocanegra, Bohórquez, Grimaldi-Puyana, Gálvez-Ruiz, & García-Fernández, 2020; Lara-Bocanegra, García-Fernández, Bohórquez & Del Castillo-Andrés, 2020b).

However, this student body exposes as barriers to entrepreneurship the lack of funding and work experience (Holienka et al., 2018), being able to understand this barrier of lack of funding as a socio-economic level that does not allow them to achieve their entrepreneurial idea. Since Spanish entrepreneurs have different governmental avenues for financing a new business, it was hypothesized in this regard that:

H3. Socioeconomic status will not affect the entrepreneurial intention of DPASS students, who will perceive a greater desirability to do so and will show greater perceived viability.

For all these reasons, some measures and training programs linked to entrepreneurship education are beginning to be developed at the university level (González-Serrano, Calabuig, García-Fernández, Crespo-Hervás, & Pérez-Campos, 2017; Steinbrink, Berger, & Kuckertz, 2020). Sport has a significant impact on the economy of countries and therefore of the people who work and entrepreneur in the sports system (Kokolakakis, Lera-Lopez, & Ramchandani, 2021). Although during the lockdown caused by the Covid19 pandemic, the population reduced their sports practice (Strain et al., 2022), Jáuregui, Lambert, Panter, Moore, and Salvo (2021) state that in general the population has reflected on the importance of practicing sports to improve their health. Therefore, it could be said that the sports industry is being one of the beneficiaries of the Covid19 pandemic (Ratten, da Silva Braga, & da Encarnação Marques, 2021). That is why the analysis of future professionals who participate in the sports labor ecosystem is seen as a necessity to understand what their needs and opportunities are. Thus, different works affirm the changes that are existing in the sports labor market (Sato, Kang, Daigo, Matsuoka, & Harada, 2021; Skinner & Smith, 2021) and the need for DPASS students to seek new job opportunities. One of them is entrepreneurship. Hence the importance of studying these students and analyzing the variables that can encourage entrepreneurship.

1.2. Business conduct model

In recent years the Entrepreneurial Event Model (Shapero & Sokol, 1982) and the Theory of Planned Behavior (Ajzen, 1991) have been the most widely used theories in the specialized literature to analyze entrepreneurial intention in sport (Do Paço et al., 2015; González-Serrano, Calabuig, Valantine, & Crespo-Hervás, 2019; González-Serrano, Crespo-Hervás, et al., 2017; González-Serrano, González-García, & Calabuig, 2019; González-Serrano, Jones, & Llanos-Contrera, 2020; González-Serrano et al., 2016; Lara-Bocanegra, Bohórquez, Grimaldi-Puyana, Gálvez-Ruiz, & García-Fernández, 2020; Grimaldi-Puyana et al., 2019; Naia, Baptista, Biscaia, Januário, & Trigo, 2017). Both theories are located within the cognitive approach of Entrepreneurship Theories (González-Serrano, 2019) and present a good performance (Schlaegel & Koenig, 2014). Even so, Acosta-Véliz, Washington, Villacis-Aveiga, and Jimenez-Cercado (2017) indicate that, for the analysis of desire and perceived viability, the model proposed by Shapero and Sokol (1982) presents a greater robustness in the predictions of the indicators. Along the same lines, Díez (2016) states that the Theory of Planned Behavior (Ajzen, 1991) does not establish positive relationships between entrepreneurial intention and the variables of desire and perceived long-term viability, the concepts of attitude toward behavior, perceived behavioral control and subjective norm being linked to this theory. However, Krueger, Reilly, and Carsrud (2000) argued that the subjective norm could be incorporated into the perceived desirability construct of Shapero and Sokol's (1982) model, since it could be linked to the individual's

self-efficacy to perform tasks required to start a business.

The Entrepreneurial Event Model (Shapero & Sokol, 1982) states that the belief that this activity is desired and feasible is necessary for entrepreneurial intention to arise. For González-Serrano (2019), entrepreneurial intention in this model is determined by perceived desirability, perceived feasibility and propensity to act. In addition, perceived desirability can be understood as the personal attractiveness of entrepreneurship, perceived feasibility as the subject's own perceived capacity for entrepreneurship, and propensity to act as the personal disposition to carry out one's own decisions (Krueger et al., 2000). As several authors (Audet, 2004; González-Serrano, 2019; Krueger et al., 2000; Peterman & Kennedy, 2003) argue, desire, feasibility and propensity to act directly influence subjects' entrepreneurial intentions.

This model can be divided into several phases or moments (Alonso-Galicia, 2012). The first of these resides in the experiences -whether positive or negative-that have a direct influence on starting a business. The next phase, the desire phase, is mainly determined by the subject's education, cultural context and family, which can be considered as transformers of the entrepreneurial potential. Next, the action phase is where the entrepreneurial decision is made, directly influenced by financial, technical and human resources (Alonso-Galicia, 2012; Grimaldi-Puyana et al., 2019).

Although this process of consequences and relationships between variables have been analyzed from the prism of the student in Physical Activity and Sport Sciences (Grimaldi-Puyana et al., 2019; Lara-Bocanegra, Bohórquez, et al., 2020), there is no consensus in the research field on the influence of sociodemographic aspects as precursors of entrepreneurial intention. Thus, this paper will attempt to shed light on the influence or not of some sociodemographic elements (sex, students with entrepreneurial friends/family and socioeconomic level) on perceived desirability, perceived feasibility and entrepreneurial intention. So, using the Entrepreneurial Event Model (Shapero & Sokol, 1982), the main objective of this paper is to analyze the precursors of entrepreneurial behaviors of DPASS university students, taking into account the differences according to sex, the existence of an entrepreneurial family member and socioeconomic level.

2. Materials and methods

2.1. Participants

A total of 181 students from the DPASS of the University of Seville (Spain) participated in the study (Table 1). 70.2% of the participants were men (n = 127) and the remaining 29.8% were women (n = 54), with ages ranging from 19 to 58 years (M = 24.52, SD = 7.30). Of these, 66.3% were dedicated exclusively to studying (n = 120), while the remaining 33.7% combined their academic and work activities (n = 61). With regard to social support for entrepreneurship, 53% claimed to have a family member with a business of their own (n = 96), compared to 47% who did not have this experience (n = 85). Finally, 7.2% of the participants stated having a low socioeconomic level (n = 13), 24.3% a medium-low socioeconomic level (n = 44), 56.4% a medium socioeconomic level (n = 102), and 12.2% a medium-high socioeconomic level (n = 22); no participant claimed to have a high socioeconomic level.

2.2. Instruments

The instrument used to measure the variables of this study is a structured questionnaire. To assess entrepreneurial intentions, the Spanish version of Shapero and Sokol's (1982) Entrepreneurial Event Model assessment instrument was used (Jaén & Liñán, 2013) in a sample of Spanish university students and used by other authors in DPASS studies (Grimaldi-Puyana et al., 2019; Lara-Bocanegra, Bohórquez, et al., 2020). This tool consists of 23 items with a 7-point Likert-type response scale, where 0 means no intention, feasibility

Table 1
Participants according to sex, age, employment situation, family members as entrepreneurship and socio-economic level.

	n	%
Sex		
Women	54	29.8
Men	127	70.2
Age (years)		
From 18 to 20	47	26.0
From 21 to 30	114	63.0
From 31 to 40	10	5.5
From 41 to 50	5	2.8
From 51 to 60	5	2.8
Entrepreneurship Family members		
Yes	96	53
No	85	47
Socioeconomic level		
Medium/High income	22	12.0
2 Medium income	102	56.4
Medium/Low income	44	24.3
Low income	13	7.2

or desirability of the presented behavior and 7 a high probability, feasibility or desirability. The tool is divided into three factors: entrepreneurial intention with five items (e.g., I am willing to make any effort to become an entrepreneur), perceived feasibility with six items (e.g., Indicate the extent to which you would be able to keep the new venture creation process under control) and perceived desirability with twelve items (e.g., To what extent is it desirable for you to become an entrepreneur? To what extent is it desirable for you to create and innovate?), the latter resulting from the combination of two sets of six items (six items refer to the expectation of starting an entrepreneurial business career, while the other six items refer to the desirability of initiating such a job development). In this study, the reliability (α) of the tool was 0.98, being 0.80 for the entrepreneurial intention factor, 0.95 for perceived desirability, and 0.89 for perceived feasibility.

To obtain the sociodemographic data of the participants, an ad hoc questionnaire was designed that included questions related to sex, age, academic and work situation, and the family history of entrepreneurship.

2.3. Procedure

The selection of the sample was carried out through a non-probabilistic convenience sampling technique, which allowed us to access those students who agreed to be included in the study (Otzen & Manterola, 2017). The questionnaires were administered through an online platform (Google Forms) to ensure their accessibility, as well as the complete collection of each participant's responses. The initial screening presenting the study provided information about its objectives, as well as the voluntary nature of participation and the informed consent to the use of the responses for research purposes only. As described above, participation in this study was completely voluntary, and it was necessary for the participants to indicate their acceptance of participation by reading, accepting and checking a mandatory box to start filling in the questionnaire, i.e., informed consent. The students of the subjects of the sports management area of the DPASS of the University of Seville were asked to complete the questionnaires according to their idea of future employment. Once the data had been collected, they were entered into an SPSS 25.0 software spreadsheet (IBM Corp, Armonk, NY), which was also used for the pertinent statistical analyses.

2.4. Data analysis

Before proceeding to the data analysis, the subjects' scores were calculated for each factor of the Entrepreneurial Event Model assessment instrument (Shapero & Sokol, 1982). While the scores for the entrepreneurial intention and perceived feasibility factors are the result of the direct calculation of responses to their component items, perceived desirability is calculated by combining two sets of six items. That is, the expectations of starting an entrepreneurial business career (six items) are multiplied by the desirability of starting such a career development (six items). This questionnaire correction procedure was taken from the guidelines given in the Spanish adaptation of the scale (Jaén & Liñán, 2013).

The research and data analysis were developed according to the recommendations of Martin and Bridgmon (2012). Thus, normality and homoscedasticity tests were performed in order to evaluate the distribution of the sample. A non-normal distribution was determined, as well as non-homogeneity of variances for the main study variables (Kolmogorov-Smirnov and Levene tests, $p < 0.05$). Therefore, nonparametric independent group comparison tests were performed, specifically: (a) Mann Whitney U tests for Hypotheses 1 and Hypothesis 2, and (b) Kruskal-Wallis H with post hoc Mann Whitney U contrasts for Hypothesis 3. . The effect size was analyzed using Cohen's d (Cohen, 1988).

3. Results

In order to investigate the influence of sex on perceived desirability, perceived viability and entrepreneurial intention, tests of contrast of means for independent groups were used (H1). The results (Table 2) showed that sex did not influence any of the study variables.

In order to investigate the influence of having entrepreneurial family members on perceived desirability, perceived viability and entrepreneurial intention, independent group mean tests were used (H2). The results (Table 3) showed that having a family member who is an entrepreneur makes perceived viability higher than not having one, although this factor does not affect entrepreneurial intention or perceived desirability.

In order to investigate the influence of the socioeconomic level on perceived desirability, the perceived feasibility of doing so and entrepreneurial intention, we used tests of comparison of means for independent groups and their respective post hoc comparisons (H3). The results showed that the socioeconomic level influences entrepreneurial intention ($H = 13.25$, $p < 0.01$), but not feasibility ($H = 2.88$, $p > 0.05$) or perceived desirability ($H = 4.36$, $p > 0.05$). For entrepreneurial intention, post hoc comparisons were

Table 2
Variables as a function of participants' sex.

	With entrepreneurial family member		Without entrepreneurial family member		U	p	Cohen's d
	M	DT	M	DT			
Perceived desirability	3.44	1.35	3.09	1.75	3694.00	0.27	0.035
Perceived viability	3.42	1.18	2.80	1.56	3157.50	0.01*	0.079
Entrepreneurial intention	3.44	1.09	3.11	1.50	3764.00	0.37	0.045

Table 3
Influence of entrepreneurial family member on entrepreneurial intention in its three factors.

	With entrepreneurial family member		Without entrepreneurial family member		U	p
	M	DT	M	DT		
Perceived desirability	3.44	1.35	3.09	1.75	3694.00	0.27
Perceived viability	3.42	1.18	2.80	1.56	3157.50	0.01*
Entrepreneurial intention	3.44	1.09	3.11	1.50	3764.00	0.37

Note: *$p < 0,05$.

performed (Table 4), which showed that students from lower-middle socioeconomic levels have greater entrepreneurial intention than those from middle socioeconomic levels.

4. Discussion and conclussions

The objective of this study is to delve into the precursors of entrepreneurial behaviors of DPASS university students, taking into account the differences according to sex, the existence of an entrepreneurial family member and their socioeconomic level. Next, the different hypotheses established will be discussed with the results obtained and the scientific literature.

Regarding the first hypothesis, this is rejected because the results dictate that there are no differences in terms of sex. The results obtained present that sex does not influence any of the study variables, as expressed by several authors (González-Serrano et al., 2016; Grimaldi-Puyana et al., 2019). However, other studies defend that there is a difference in terms of sex (Do Paço et al., 2015; González-Serrano, Calabuig, & Crespo-Hervás, 2018), its being indicated that men present a greater tendency to entrepreneurship compared to women although there are discrepancies with other research (Aragón & Baixauli, 2014; González-Serrano, Valantine, Crespo-Hervás, Pérez-Campos, & Calabuig, 2018). The results obtained may be biased due to the fact that there was not a similar percentage between the number of men and women, so this could lead to erroneous conclusions. In addition, the results obtained suggest that women are increasingly taking the initiative when it comes to entrepreneurship, so the equality in the results between men and women could corroborate this fact. As mentioned above, the influence of sex on entrepreneurial intention has created and continues to create controversy in the scientific literature, and may be closely linked to the continuous empowerment of women, who are increasingly present and acting with a potential equal to or greater than that of men in all areas of society and, of course, in the university. For this reason, it seems that the training, knowledge and support of all the organizations linked to education and entrepreneurship are managing to encourage entrepreneurs, regardless of their sex, and to put an end to the inequalities linked to it.

Regarding the second hypothesis, the results of this study show that the existence of a family member who is an entrepreneur makes perceived viability greater than when there is none, although it does not affect entrepreneurial intention or perceived desirability. The increase in perceived viability in subjects with entrepreneurial relatives is consistent with what has been expressed in the literature (Aragón & Baixauli, 2014). However, it is obvious to think that having a close reference would result in both the viability and the perceived desirability of the subjects. In this way, future entrepreneurs could perceive in a different way the existing benefits/problems in entrepreneurship and be able to turn to a "peer" in case of problems and/or difficulties. However, the results also indicate that the existence of a family member who is an entrepreneur does not affect entrepreneurial intention or perceived desirability, so the hypothesis is partially rejected. Along the same lines, other authors indicate that this variable does not influence entrepreneurial behavior (Lara-Bocanegra et al., 2020b). The university itself could facilitate the knowledge of entrepreneurs who could serve as an example to students (González-Serrano, Calabuig, & Crespo-Hervás, 2017), if they do not have any entrepreneurial family members/friends.

Finally, in relation to the third hypothesis, the results indicate that the socioeconomic level only influences entrepreneurial intention. Thus, the socioeconomic level does not influence all the predictors of entrepreneurial intentions. However, participants with a medium-low socioeconomic level show greater entrepreneurial intention than those who are classified in a medium socioeconomic level. Yet, DPASS students state the lack of funding as a barrier to entrepreneurship (González-Serrano, Calabuig, & Crespo-Hervás,

Table 4
Post hoc comparisons for the influence of socioeconomic status on entrepreneurial intention.

		M	DT	U	*p*
Descriptive socioec. Level.	Low (1)	3.56	0.82		
	Lower-middle (2)	3.77	0.94		
	Middle (3)	3.00	1.45		
	Upper-middle (4)	3.44	1.13		
Inferentials	1–2			227.50	0.26
	1–3			531.00	0.24
	1–4			140.00	0.93
	2–3			1428.00	0.00**
	2–4			423.50	0.41
	3–4			869.50	0.09

Note: 1, 2, 3 and 4 refer to low, lower-middle, middle and upper-middle socioeconomic levels, respectively.
**$p < 0,01$.

2017; Holienka et al., 2018), a fact closely related to the subject's socioeconomic level.

As a result of the above, and in an attempt to respond to the objective of this research study, it could be affirmed that sex does not influence as a precursor of entrepreneurial behaviors in DPASS students.

Other noteworthy and important aspects to take into account as precursors of entrepreneurial behaviors were the existence of an entrepreneurial relative in the family/friends and the socioeconomic level. With regard to the existence of an entrepreneurial family member, it is clear that a priori it only has an impact on the viability perceived by the students, but it can be a very important germ to be promoted in the future. For its part, regarding the socioeconomic level, it has been found that this only influences entrepreneurial intention and even that there is a greater tendency toward entrepreneurship in the lower-middle level than in the middle level. It seems that this is closely linked to personal needs and tendency to risk taking. Belonging to a lower-middle socioeconomic level leads to greater perceived needs, so the tendency to try to solve that situation is greater compared to those people who are in a more affluent situation.

The situation due to the Covid19 pandemic has changed the needs and reality of the sports sector. Following the recommendations of Ratten et al. (2021), the study of sports entrepreneurship during Covid-19 is necessary to deal with uncertainty and change. Our findings provide two major novelties: the importance of the family environment as a determining factor in the viability of entrepreneurship; and the socioeconomic level in the intention to entrepreneurship. Until now, it was not known in sports science students that these two variables influenced two decision-making variables for the creation of sports companies (González-Serrano et al., 2017). That is why this study adds value from the point of view of variables that affect sports entrepreneurship.

5. Theoretical and practical implications

In terms of the theoretical contribution of this study, it is clear that sex is not a limiting factor in terms of the generation of entrepreneurial intention as has been shown in the scientific literature. However, the existence or knowledge of a family member/mentor would facilitate the viability perceived by the subjects in relation to entrepreneurship in sport. With regard to socio-economic level, it has also been shown that subjects with a lower socio-economic level have a greater tendency towards entrepreneurship in sport, so that all these contributions should be taken into account by the different educational and political bodies, and generate entrepreneurship ecosystems in sport from the educational field.

According to our results, one of the factors that influences sports entrepreneurship in sports science students is the family environment. Therefore, it could be said that creating entrepreneurial ecosystems with environments that promote entrepreneurship would encourage sports entrepreneurship. For this reason, fostering connections between entrepreneurs and students would be beneficial to create an ecosystem that adds value to the sports system. On a practical level, it would be simple and cheap since networking events could be created to facilitate social-family connections. In turn, promoting and activating social networks that encourage groups of entrepreneurs and students where experiences and challenges are shared, would favor sports entrepreneurship. The results of this study have shown that the family environment could influence sports entrepreneurship and, in fact, it is a variable that can be modified by fostering relationships and creating ties with other entrepreneurs. For all these reasons, universities should create events where real cases of entrepreneurship and challenges of sports entrepreneurship are revealed based on the new needs produced by Covid19.

The findings of this study have great repercussions and practical applications for universities. Firstly, one of the main barriers to entrepreneurship for students is the economic/financial issue, so the university could create information and fund-raising strategies to help its graduates to venture different projects [e.g., spin-offs]. Likewise, the university itself could promote and disseminate among DPASS students all the existing aids for entrepreneurship and be able to train them in the search for financial resources to carry out their business proposals. On the other hand, the university itself should promote spaces of knowledge and/or meetings of entrepreneurs that allow students to have close to them and know about clear examples of entrepreneurship, which can extrapolate their concerns, experiences and/or help them in the beginning of the business adventure.

In conclusion, the university plays a fundamental role in the education and personal development of its students, and can also be a driving force for job creation if it manages to coordinate and develop projects linked to the entrepreneurial training of its students and graduates, and, more specifically, in the world of sports. In recent years, researchers have focused on the field of entrepreneurship in sport, which is leading to a greater knowledge and transfer to society.

6. Limitations and future research

This study is not without limitations, since, as mentioned above, there was not a similar percentage between the number of men and women, which could lead to the results obtained being biased and could incline to erroneous conclusions. Such is the case, that in the literature there is controversy regarding the influence of sex on entrepreneurial intention (González-Serrano et al., 2016; Grimaldi--Puyana et al., 2019; Lara-Bocanegra, Bohórquez, et al., 2020; Rodrigues et al., 2020).

Another existing limitation could be the theoretical model used for the determination of entrepreneurial intention, and therefore the instrument used for data collection, since the Entrepreneurial Event Model (Shapero & Sokol, 1982) has been used. Another existing model widely used in the literature is the Theory of Planned behavior (Ajzen, 1991). Both models are the most widely used for the detection of entrepreneurial intention (Do Paço et al., 2015; González-Serrano et al., 2016; 2017b; 2019; 2019a; 2019b; 2020; Grimaldi-Puyana et al., 2019; Lara-Bocanegra et al., 2020; Naia et al., 2017), as a step prior to behavioral development.

In addition, the fact of using only one reference center in the data collection could lead to an added bias, although it provides a snapshot of the current situation of the students in that center. In this way, the needs and strengths of the student body in the DPASS are made abundantly clear.

These limitations offer new perspectives and possible future lines of action. In fact, we advocate the analysis of the cultural variables of the student body as a way of promoting entrepreneurship, as well as the determination of the evolution of entrepreneurial intention throughout university education, developing a longitudinal study to detect how, when and why the university is able to influence the entrepreneurial intention of its student body. Likewise, an attempt should be made to address all the university centers that teach the DPASS in Spain and to compare the results with international data. In this way, a clear report would be obtained on the current situation of the student body at the regional, national and international levels, clearly determining the cultural influence and the different policies developed in each area in relation to the promotion of entrepreneurship in sport.

Author's statement

The authors declare that:

1) There is no conflict of interest in relation to this paper.
2) There are no sources of funding to be declared.

The authors, in a responsible manner, accept their authorship in the paper and in the letter of changes addressed to the reviewers.

Acknowledgements

The first author of this work has been supported by a predoctoral contract for the development of the University of Seville's own I + D + I program in areas of special attention - VI Plan Propio de Investigación y Transferencia de la Universidad de Sevilla (VI-PPITUS).

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