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## **Sports services: motivations and attitudes in the practice of physical activity and sports in Spain and Colombia**

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**Abstract:** This is a cross-sectional, empirical study set in Spain and Colombia to examine the main motivations and attitudes towards physical and sports activity in different population groups. An empirical model is proposed which integrates two existing models that explain the behaviour of physical exercise and sports practice: the physical activity and leisure motivation scale (PALMS), and the theory of planned behaviour (TPB). The results show neither significant differences between the two countries nor any differences in other categories, such as gender or age group. The motivation to take part in sports is seen as an improvement in physical condition and mental state and as a desire for mastery in sports practice. This is one of the most complete studies carried out in two countries at the same time to examine the process of consumer behaviour regarding sports services.

**Keywords:** customer service; sport; physical activity; motivations; attitude, behaviour; Colombia; Spain; fitness; wellness; management; marketing; international; business.

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## 1 Introduction

Physical activity and sports practice in twenty-first century societies has evolved into different forms and experiences and has even become practices related to lifestyle and fashion trends; practices can be found in different forms, habits and preferences for physical and sports activity in modern cities (De la Cámara et al., 2019; Sánchez-Torres et al., 2020). There is a worldwide social trend to increase sports practice due to the desire to improve wellbeing, with Europe leading the new sport trends. In addition, the development of new physical and sports activity practices are supported by both the public and private sectors (Zuev and Popova, 2018). In many countries, however, high morbidity rates are still contributing to a lack of physical activity and sports participation, particularly due to cardiovascular disease (Grima et al., 2018; Theodorakis et al., 2019).

Studies on the practice of physical activity and sports have been based on behavioural theories since these allow a determination of the relevant aspects leading to intention and the desired behaviour of sports practice (Aiken et al., 2018; Beville et al., 2014; de Bruijn and van den Putte, 2012; Haro-González et al., 2018; Molanorouzi et al., 2014; González-Serrano et al., 2017; Pierpaolo and Antonia, 2018; Rodríguez Cañamero et al., 2019; Roychowdhury, 2018; Zhou et al., 2020; Sánchez-Torres et al., 2020; Yavuz, 2019; Zach et al., 2012).

In general, behavioural profiles in physical and sports activity from which different behavioural theories of personality and sporting habits have been generated (Silva-Cortés et al., 2017) show that the main predictor of physical or sports activity is an individual's intention to exercise, reinforced by the degree of identification or alienation of their personality towards sports (Beville et al., 2014). The cult of the body, or a healthy lifestyle, is a cultural factor that has fostered the inclusion of physical and sports activity in daily habits (Apostolou and Lambrianou, 2017; de la Cámara et al., 2019).

This study aims to analyse the primary reasons for choosing and participating in sports activities by proposing a model that integrates two existing models which explain physical exercise and sport practices as behaviour: the physical activity and leisure motivation scale (PALMS), which has been demonstrated as the most complete scale with which to measure the motivations around sports practice and physical activity (Zach et al., 2012; Zhou et al., 2020), and the theory of planned behaviour (TPB), which is a classic model of human behaviour (Ajzen, 1991).

This article will discuss the construction of the model from the theoretical framework. It will then provide a detailed description of how the methodology was developed in terms of data collection, statistical analysis and results. Finally, the conclusions of the study will be presented.

## **2 Theoretical framework**

Physical activity is defined as any repetitive movement that requires skeletal muscle activation and requires energy above the basal metabolic rate (Molanorouzi et al., 2014); sports is a subcategory of physical activity that includes rules for its practice. Studies of human behaviour related to physical activity and sports have been structured in psychological behavioural models which describe the main factors that intervene in an individual's activity. Studies have focused on different aspects of physical activity or sports, such as determining the reasons that lead to physical or sporting exercise, determining mechanisms for sports adherence, analysing sports disciplines or studying personality traits, age, gender, culture, etc. in these contexts (Beville et al., 2014; González-Serrano et al., 2017; Haro-González et al., 2018; Molanorouzi et al., 2014; Song and Park, 2015; Roychowdhury, 2018; Summers et al., 2018). Studies on the intention of sports practice and physical activity have been conducted in the field of sports psychology and in relation to health; there are few studies from the perspective of the marketing of sports services (Mickelsson, 2017; Rodrigues et al., 2020; Sánchez-Torres et al., 2020).

## 2.1 *Theory of planned behaviour (TPB)*

The theory of planned behaviour (TPB) (Ajzen, 1991) has been used in various empirical studies to explain that physical activity or sports are conditioned on the intention to practise as a reflection of intrinsic motivations and attitudes from prior experiences, subjective norms and perceived behavioural control (PBC) (De Bruijn and Van den Putte, 2012). This theory was developed from previous proposals, such as the theory of self-determination and the theory of self-efficacy and social cognition (Bandura, 1977) however, different scales can complement the classic behavioural model (Sánchez-Torres et al., 2020; Silva-Cortés et al., 2017).

## 2.2 *Physical activity and leisure motivation scale (PALMS)*

Physical activity and leisure motivation scale (PALMS) was developed from motivational descriptive models for physical activity and sports, the participation motivation questionnaire (PMQ), motives for participation in physical activity (Zach et al., 2012, 2013) and the recreational exercise motivational measure (REMM) (Zach et al., 2012).

Various studies from different countries have identified the main reasons that people practise physical and sports activities both recreationally and competitively (Molanorouzi et al., 2014; Roychowdhury, 2018; Zach et al., 2012, 2013). The most common results have shown the high significance of seven variables: the intrinsic motives of mastery and enjoyment; the extrinsic motives of psychological condition, physical condition and appearance; and the social reasons of affiliation and competition – ego (Molanorouzi et al., 2014).

According to Zach et al. (2012), the PALMS has three advantages: the items conform to a solid theoretical framework (it includes intrinsic extrinsic motivations); the empirical process of this model is broad (several studies); and it fits the context of sports in all its facets up to high sports performance, even though it was initially used to evaluate recreational exercise.

The variables in the PALMS model have been validated in different studies (Molanorouzi et al., 2014; Roychowdhury, 2018; Zach et al., 2012; Zhou et al., 2020).

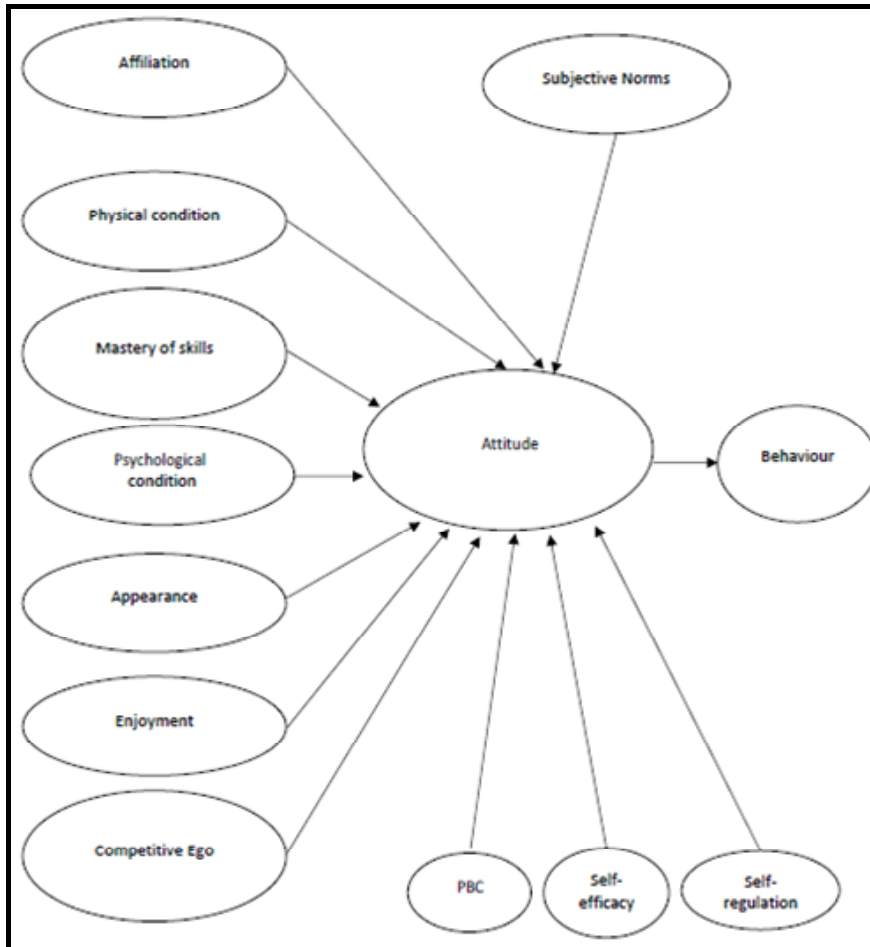
Studies have evaluated psychological perspectives, such as time and its connection to sports practice (Pierpaolo and Antonia, 2018). In a study by Hall and Fong (2003), participants in a time perspective intervention reported high levels of physical activity in relation to those who were not involved in the time perspective intervention. This study provided the first experimental evidence that the effects of health behavioural interventions can be improved by increasing someone's long-term perspective and that the time perspective affects health behaviour. The temporal perspective is thus an important ingredient in interventions designed to promote physical activity.

McVeigh et al. (2016) found that adulthood (defined here as 20 to 25 years) is a critical period in which to establish independence and adopt lifestyle behaviours that are important for physical and mental health.

Thus, research into physical and sporting activity behaviour requires studies that integrate more complete explanatory models that allow for a more detailed analysis of this context (García-Fernández et al., 2018). This study proposes to integrate the PALMS and the TPB model to examine which variables influence the practice of physical and

sports activity in two population groups in Spain and Colombia to see if any cultural differences exist (Figure 1).

**Figure 1** Model

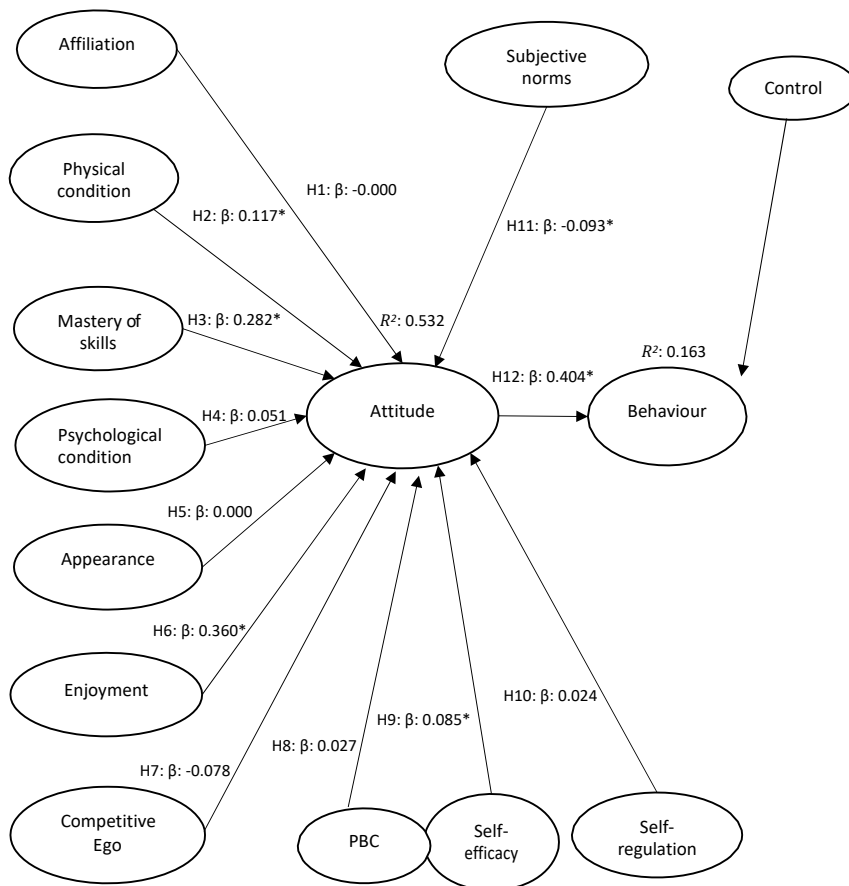


This study proposes the following hypotheses:

- H1 Affiliation influences attitude towards sports practice.
- H2 Physical condition influences attitude towards sports practice.
- H3 Mastery of skills influences attitude towards sports practice.
- H4 Psychological condition influences attitude towards sports practice.
- H5 Appearance influences attitude towards sports practice. H6: Enjoyment influences attitude towards sports practice.
- H7 Competitive ego influences attitude towards sports practice.
- H8 PBC influences attitude towards sports practice.

- H9 Self-efficacy influences attitude towards sports practice.
- H10 Self-regulation influences attitude towards sports practice.
- H11 Subjective norms influence attitude towards sports practice.
- H12 Attitude towards sport influences sports behaviour.

**Figure 2** Results



Note: significant at \* $p < 0.05$  t-value 1,960; \*\* $p < 0.01$ , t-value 2,576.

### 3 Methods

#### 3.1 Sample

A non-probability sampling method was chosen because the population was not specific. The sample was made up of only people who practiced sports filtered without specifying the type of sport or the intensity of the practice.

The questionnaire was distributed in electronic form in two countries: Spain and Colombia. The snowball technique was used via social media and email to collect the

sample with the goal of obtaining the largest number of completed questionnaires. A drawing for the chance to win a voucher for use in a sports store was used to motivate participation in the study. A total of 459 questionnaires were completed in Spain, and 549 questionnaires were obtained in Colombia (Table 1).

**Table 1** Sample summary

Age	15–17: 2%	18–25: 62%
	26–32: 18%	33–29: 10%
	> 40	8%
Country	Spain:	459 – 46%
	Colombia	549 – 54%
Gender	Male:	44%
	Female: 56%	
Total surveys	1,008	

### 3.2 Validation of the measurement tool

The questionnaire used the PALMS scale and the TPB scale, which have previously been validated in several studies (Molanorouzi et al., 2014; Roychowdhury, 2018; Song and Park, 2015; Zach et al., 2013).

A psychometric test was applied in accordance with the manual for transcultural translations and adaptations, which was proposed by Wild et al. (2005). The test was translated into Spanish by two different translators to guarantee that each question in the instrument was not altered (Appendix 1). A pre-test of the measurement tool was conducted with a group of 20 people, and no comprehension problems were found with respect to the questions.

The partial least square (PLS) methodology was used to verify both the reliability and validity of the measurement tool and to evaluate the hypotheses with the proposed model (Hair et al., 2019). This is a multivariate technique for testing recommended structural models as exploratory models (Hair et al., 2014).

The first analysis was completed to examine the convergent and discriminate validity of all variables. As for the convergent validity, all the results had correlation loads higher than 0.505 with significance levels lower than p- value 0.001 (Hair et al., 2014; Table 2).

The other measures of convergent validity were also supported Table 3. The Dillon– Goldstein coefficient of reliability value was greater than 0.70 for all variables (Gefen et al., 2000). Cronbach’s alpha test had values above 0.70 (Churchill and Iacobucci, 2004) and, finally, the analysis of variance had values over than 0.50 (Henseler et al., 2014).

Divergent validity was evaluated using two tests. The first compared the average variance extracted (AVE) value of the variables with the correlation of the constructs with respect to each variable elevated to the square; the results demonstrated that each variable was related more to its own items than to the others (Fornell and Larcker, 1981) Table 4. The Henseler–Ringle et al. (2014) test showed values below 0.90, thereby validating the measurement tool Table 5.



**Table 2** Loads of the indicators

<i>Indicator</i>	<i>Load</i>	<i>T-value*</i>
AF1←AF	0.897	71.62
AF2←AF	0.895	68.156
AF3←AF	0.831	34.016
AF4←AF	0.848	38.168
BI1←AI	0.901	108.749
BI2←AI	0.888	51.426
BI3←AI	0.878	60.708
AP1←AP	0.954	201.93
AP2←AP	0.966	303.807
AP3←AP	0.93	106.475
AP4←AP	0.925	123.506
CE1←CE	0.909	94.208
CE2←CE	0.947	155.118
CE3←CE	0.954	190
CE4←CE	0.923	113.251
EN1		
EN	0.78	41.427
EN2	←	
EN	0.895	110.159
EN3	←	
EN	0.928	141.021
EN4	←	
EN	0.927	152.675
MA1	←	
MA	0.887	97.504
MA2	←	
MA	0.886	89.479
MA3	←	
MA	0.843	68.099
MA4	←	
MA	0.863	69.728
NS1←SN	0.939	4.141
NS2←SN	0.985	3.824
NS3←SN	0.746	3.349

**Table 2** Loads of the indicators (continued)

<i>Indicator</i>	<i>Load</i>	<i>T-value*</i>
PB1	←	
PBC	0.909	90.209
PB2	←	
PBC	0.912	89.962
PB3	←	
PBC	0.843	56.473
PC1←PC	0.895	92.572
PC2←PC	0.674	21.179
PC3←PC	0.919	129.338
PC4←PC	0.774	35.341
PL1←PL	0.898	76.398
PL2←PL	0.901	69.953
PL3←PL	0.926	122.114
SE1←SE	0.852	61.502
SE2←SE	0.921	134.964
SE3←SE	0.906	115.471
SR1←SR	0.938	166.238
SR2←SR	0.95	261.198

Note: \* All items were significant with a p-value < 0.001.

**Table 3** Convergent validity of indicators

<i>Variable</i>	<i>Cronbach's alpha</i>	<i>Composite reliability</i>	<i>Average variance extracted (AVE)</i>
AFF	0.906	0.924	0.753
AP	0.959	0.970	0.891
BI	0.866	0.918	0.788
CE	0.951	0.964	0.871
EN	0.906	0.935	0.782
MA	0.893	0.926	0.757
NS	0.906	0.920	0.796
PBC	0.866	0.918	0.790
PC	0.840	0.891	0.674
PL	0.895	0.934	0.826
SE	0.873	0.922	0.798
SR	0.916	0.924	0.856

Notes: AFF: affiliation, AP: appearance, CE: competitive Ego, EN: enjoyment, MA: mastery, NS: subjective norms, PBC: perceived behavioural control, PC: physical condition, PL: psychological condition, SE: self-efficacy, SR: self-regulation, BI: behaviour intention, B: behaviour.

**Table 4** Discriminate validity of indicators – Fornell and Larcker test

AF	0.86											
F	8											
AP	0.21	0.94										
	5	4										
BI	0.31	0.32	0.88									
	0	8	8									
CE	0.35	0.22	0.13	0.93								
	7	8	8	3								
EN	0.47	0.32	0.64	0.30	0.88							
	7	7	5	9	5							
M	0.40	0.44	0.61	0.27	0.61	0.87						
A	5	2	8	3	6	0						
NS	0.19	0.15	-0.04	0.29	0.05	0.09	0.89					
	0	4	7	8	9	6	2					
PB	0.18	0.25	0.34	0.15	0.39	0.32	0.05	0.88				
C	9	2	6	4	8	7	5	9				
PC	0.26	0.54	0.50	0.13	0.48	0.61	0.11	0.34	0.82			
	3	5	6	5	6	1	7	5	1			
PL	0.34	0.37	0.49	0.15	0.60	0.49	0.05	0.30	0.54	0.90		
	9	6	3	9	9	7	3	5	2	9		
SE	0.22	0.34	0.44	0.27	0.46	0.46	0.02	0.47	0.37	0.34	0.89	
	0	9	2	2	9	6	6	7	7	1	3	
SR	0.28	0.43	0.43	0.37	0.53	0.52	0.17	0.39	0.39	0.39	0.58	0.92
	0	3	7	2	4	7	0	6	0	7	4	5

Notes: AFF: affiliation, AP: appearance, CE: competitive ego, EN: enjoyment, MA: mastery, NS: subjective norms, PBC: perceived behavioural control, PC: physical condition, PL: psychological condition, SE: self-efficacy, SR: self-regulation, BI: behaviour intention, B: behaviour.

**Table 5** Discriminant validity of indicators – Henseler and Ringle test

AFF												
AP	0.21											
	3											
BI	0.28	0.36										
	1	0										
CE	0.40	0.24	0.14									
	8	0	8									

Notes: AFF: affiliation, AP: appearance, CE: competitive ego, EN: enjoyment, MA: mastery, NS: subjective norms, PBC: perceived behavioural control, PC: physical condition, PL: psychological condition, SE: self-efficacy, SR: self-regulation, BI: behaviour intention, B: behaviour.

**Table 5** Discriminant validity of indicators – Henseler and Ringle test (continued)

EN	0.47	0.35	0.71	0.33							
	9	3	3	9							
MA	0.40	0.47	0.69	0.29	0.68						
	0	6	9	8	6						
NS	0.28	0.18	0.03	0.40	0.11	0.14					
	8	8	3	3	5	1					
PBC	0.18	0.27	0.39	0.16	0.44	0.37	0.08				
	2	5	5	7	7	0	9				
PC	0.26	0.61	0.55	0.17	0.53	0.68	0.16	0.39			
	8	5	8	3	4	3	4	1			
PL	0.35	0.40	0.55	0.17	0.67	0.55	0.08	0.34	0.60		
	3	5	4	1	0	5	4	4	4		
SE	0.20	0.38	0.50	0.30	0.52	0.52	0.10	0.54	0.42	0.38	
	8	4	0	2	4	9	2	6	1	4	
SR	0.27	0.46	0.48	0.40	0.58	0.58	0.24	0.44	0.43	0.43	0.66
	5	3	6	1	6	4	6	2	8	7	0

## 4 Results

### 4.1 Validation of the structural model

Regarding the predictability of the model, re-sampling was conducted using the bootstrapping technique with 5,000 sub-samples (Henseler and Chin, 2010). This study obtained an  $R^2 = BI: 0.532$ ,  $B: 0.163$ , which is an acceptable value that allows the conclusion that the model may enable a high level of prediction with a great degree of statistical validation of the variables (Hair et al., 2020).

The results of the model tests are as follows:

#### 4.1.1 $H1 = \beta: 0.000, p > 0.005$

The hypothesis that affiliation influences attitude towards sports practice was not supported. The sample did not value affiliation with a group as one of the reasons for an intention to practise physical activity or sports. This may be due to recent changes in sports practice habits in which individual training has increased in recent years (De la Cámara et al., 2019).

#### 4.1.2 $H2 = \beta: 0.117, p < 0.00$

The hypothesis that physical condition influences attitude towards sports practice was supported, which indicates that physical condition is one of the motivating factors for sports practice. This result reinforces this motivation as one of the most important reasons to engage in physical activity and sports (Aoyagi et al., 2020; Molanorouzi et al., 2014).

#### 4.1.3 $H3 = \beta: 0.282, p < 0.00$

The hypothesis that mastery of skills influences attitude towards sports practice was supported, which indicates that the mastery variable related to a desire to develop a particular skill of a physical or sporting nature is another motivator for adherence to physical exercise. This is appreciable in sports such as Cross Fit or sports of great difficulty, such as extreme sports, in which practitioners constantly seek to overcome challenges (Dominski et al., 2020; Heywood, 2015; Zhou et al., 2020).

#### 4.1.4 $H4 = \beta: 0.245, p < 0.00$

The hypothesis that psychological condition influences attitude towards sports practice was supported, which indicates that the desire to reduce stress and improve mental health is another motivator for practising sports. This verifies another of the main motivations for the practice of exercise (Molanorouzi et al., 2014; Roychowdhury, 2018).

#### 4.1.5 $H5 = \beta: 0.000, p > 0.05$

The hypothesis that appearance influences attitude towards sports practice was not supported. This result is contrary to other studies which have found that the pursuit of sports and physical activity results from people wanting to improve their appearance (Molanorouzi et al., 2014; Roychowdhury, 2018).

#### 4.1.6 $H6 = \beta: 0.360, p < 0.00$

The hypothesis that enjoyment influences attitude towards sports practice was supported as affecting the intention of sports practise, which corroborates that fun is another of the great determinants of practising physical exercise (Silva-Cortés et al., 2017).

#### 4.1.7 $H7 = \beta: -0.078, p < 0.05$

The hypothesis that competitive ego influences attitude towards sports practice was supported. In contrast to the results of other studies (Zach et al., 2012), a competitive and egoistic personality trait led to less sports practice.

#### 4.1.8 $H8 = \beta: 0.027, p > 0.05$

The hypothesis that PBC influences attitude towards sports practice was not supported, which means that the variable PBC does not influence the intention to practice sports. This result is also contrary to previous behavioural studies in general as well as sports studies in particular (Sánchez-Torres et al., 2020). This may be due to numerous factors related to the perception of management and the use of free time that can be devoted to exercise or sports, since external factors such as work, study hours or family commitments often affect the ability to practise sports regularly.

#### 4.1.9 $H9 = \beta: 0.085, p < 0.05$

The hypothesis that self-efficacy influences attitude towards sports practice was supported; therefore, self-efficacy is another of the factors that influences sports practice, a variable that has been validated in all previous studies (Pierpaolo and Antonia, 2018).

#### 4.1.10 $H10 = \beta: 0.024, p > 0.05$

The hypothesis that self-regulation influences attitude toward sports was not supported, a result that is similar to those of other studies, possibly because the participants did not directly associate it with motivation.

#### 4.1.11 $H11 = \beta: -0.093, p < 0.05$

The hypothesis that subjective norms influence attitude toward sports was not supported, which was also contrary to the predictions of other behavioural studies; that is, subjective norms act contrary to the predictions of other behavioural studies (Silva-Cortés et al., 2017).

#### 4.1.12 $H12 = \beta: 0.404, p < 0.05$

The hypothesis that attitude towards sport influences sports behaviour was supported, which means that a positive attitude towards sports generates the practice of physical activity and sports (Sánchez-Torres et al., 2021).

**Table 6** Summary of the validity of the structural model

<i>Hypothesis</i>	<i>Effect</i>	<i>Original sample (O)*</i>	<i>R squared</i>	<i>Standard deviation (STDEV)</i>	<i>T statistics ( O/STDEV)</i>	<i>P value</i>	
H1	Reject	AFF BI →	0.000	BI: $R^2 = 0.532$	0.028	0.160	0.876
H2	Accept	PC BI →	0.117**		0.027	2.604	0.000
H3	Accept	MA BI →	0.282**	B: $R^2 = 0.163$	0.044	6.256	0.000
H4	Accept	PL→BI	0.245**		0.031	7.846	0.000
H5	Reject	AP BI →	0.000		0.029	0.152	0.879
H6	Accept	EN→BI	0.360**		0.044	8.237	0.000
H7	Accept	CE BI →	-0.078**		0.025	3.110	0.002
H8	Reject	PBC→BI	0.027		0.030	0.915	0.360
H9	Accept	SE→BI	0.085**		0.032	2.643	0.008
H10	Reject	SR→ BI	0.024		0.035	0.683	0.495
H11	Accept	NS→ BI	-0.093**		0.035	2.665	0.008
H12	Accept	BI→ B	0.404**		0.029	13.714	0.000

Notes: Significant at \* $p < 0.05$  t-value 1,960; \*\* $p < 0.01$ , t-value 2,576. AFF: affiliation, AP: appearance, CE: competitive ego, EN: enjoyment, MA: mastery, NS: subjective norms, PBC: perceived behavioural control, PC: physical condition, PL: psychological condition, SE: self-efficacy, SR: self-regulation, BI: behaviour intention, B: behaviour.

## 5 Discussion

The purpose of this study was to determine the main reasons for choosing and engaging in sports activities, taking into account the intrinsic and extrinsic motivations and attitudes of the individual. The results of the empirical model verified its predictive capacity with respect to the variables analysed and their effect on weekly practice intensity. In contrast to the results of other studies, the competitive and egoistic personality trait led to less sports practice. It can be concluded that the motivational and attitudinal behaviour is the same in both countries. No significant differences were found between gender, age or type of sport performed.

Of the proposed hypotheses, only three motivational variables were positively validated: improvement in physical condition, pursuit of mastery in sports practice and improvement in mental state. These variables constituted the reasons individuals seek physical activity and sports. This study reinforces previous studies that have related sports to improvements in health and with healthy life habits associated with greater longevity (Smith et al., 2017; Tinazci et al., 2019). These habits continue to be a trend in public health policies and in different social movements of consumption (Smith et al., 2017). They are also associated with Zen, fitness and wellness lifestyles and new cultural movements in urban sports (Harris and Dacin, 2019; Sánchez-Torres et al., 2020).

The variable of mastery in sports practice is related to the desire for improvement in this practice, and it can be concluded that individuals will seek to practise physical activity or sports with the aim of constantly improving the objectives of their practice. Individuals will also look for physical and sports activities in which they feel they will achieve improvement. Conversely, if they do not feel comfortable with their performance, they will leave the physical or sports activity. Adherence or desertion can thus be directly linked to the mastery in sports variable.

Mental or emotional wellbeing is another of the motivators to practise sports, especially those activities or sports that allow people to disconnect from their routines. One of the variables that has been evaluated in other studies and that has been linked to the main reasons for an individual to stay motivated to practise sports is the enjoyment related to physical activities or sports which allows the individual a state of happiness during and after practice. Recreational sports may thus generate more adherences.

This study failed to verify hypotheses that have been previously validated or that, due to their nature, should have been validated. The variables of group affiliation and appearance (Summers et al., 2018) were found not to be significant, and in the case of the competitive personality trait, the hypothesis was accepted but in a negative way. This result is reinforced by the search for enjoyment or fun, although the variable of desire for improvement in sports performance was also significant, indicating that the studied individuals also looked to practise their sports with better dexterity.

Affiliation with groups can be associated with a tendency to individualism, in which each person wants to do personalised things that fit their own time and space, therefore avoiding compulsive grouping to practise sports. The desire for an improvement in appearance related to beauty was rejected, although this result could be biased if participants associate it with a high level of banality which prompts them to answer negatively. It may also be that the sample involves people who are only looking for the main aspects of health and wellbeing that physical activity and sports can generate.

The TPB model was partially validated, which could be due to its limitations in fully measuring sports practice behaviour. It only found that the variable of self-efficacy was positively accepted and that the subjective norms variable was significant but in a negative way.

The PBC and self-regulation variables were not supported. This was not unexpected, as the time devoted to sports practice does not depend on the individual but on other factors beyond individual control which are not accounted for in this theory, such as work or societal roles that take precedence.

The implications of this study for the management of physical and sports activities suggest that sports services must be offered for enjoyment, recreation and health; these results are consistent with the new social needs established in the search for improvements in the quality of life (Breitbarth et al., 2019). The results of this study are aligned with the findings of Theodorakis et al. (2019), which demonstrated that participants were looking for increased happiness and quality of life through sports practice.

Companies dedicated to sports services, gyms, sports centres, sports halls and parks, should focus on satisfying these needs, taking into account that an individual's use of time will be a determining factor in their adherence to or abandonment of physical and sports activity. Similarly, this study did not find that the social environment affected individual attitudes towards sports nor was affiliation significant. This suggests that activities by sports service providers should be offered individually, which is implicit in the new forms of consumption as co-creation (Mickelsson, 2017).

From the perspective of providing non-competitive sports services, welfare, recreation and health, disability sports and sports-for-all (Pitts and Shapiro, 2017; Willem et al., 2019), plans and strategies should be developed with pillars that consist of motivations for people who seek physical activity or sports that are fun, enjoyable and dynamic. For example, the development and evolution of different directed activities or personalised training that is focussed on the achievement of objectives and innovative activities in all sessions of the service.

Planning a sports service should therefore be more focused on personalised services that include co-creation, such as allowing people to carry out sports activities at the times they prefer (24-hour service hours), in different spaces and using a variety of materials to perform the activities (De la Cámara et al., 2019; García-Fernández et al., 2018; Mosquera- González et al., 2019).

The findings of this research are aligned with modern trends and very particular lifestyles, such as those of 'Parkour' (Puddle et al., 2018), 'Zumba' and 'CrossFit', and with physical sporting activities that combine the reasons individuals engage in such activities (Dominski et al., 2020; Heywood, 2015). We must also consider the technological advances of the twenty-first century, such as the Internet and geolocation, in order to offer support services and virtual training using, for example, mobile devices and watches, which have proven effective in motivating the practice of sports (Direito et al., 2015; Joachim et al., 2020).

Finally, there is a potential to create sports entrepreneurship to meet the various segments and market niches as an opportunity in the coming years (Carrillo Barrantes, 2020; Ratten, 2018; Rodríguez Cañamero et al., 2019; Sánchez-Torres et al., 2020).



## 6 Limitations and future lines of research

The limitations of this study are related to the generalisation in the sample that the practice of all sports and physical activities are perceived as equal by the individual, although there may well be differences. Aspects of this study could not be controlled. The sample was drawn from two countries, one European (Spain) and the other South American (Colombia), and thus, the results cannot be generalised with respect to other regions of the world. This study also did not find significant differences between men and women or between age ranges, although other studies have found differences (Summers et al., 2018). On the other hand, the proposed relationships between the variables were exploratory and, in general, were not statistically supported.

Future research must always be contextualised by target populations, given that the factors may change in each case; for example, behavioural studies can be undertaken regarding the type of physical activity or sports, and studies in other regions may determine changes in behaviour towards sports by other cultures and among different population groups. As suggested by Pierpaolo and Antonia (2018), it is also necessary to explore a model that integrates and analyses biological, psychological and social levels to explain the motivational processes of human performance.

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## Appendix

**Table A1** Questionnaire

<i>Construct</i>	<i>Item</i>	<i>Literature support</i>
Behaviour	How much weekly time do you dedicate to the practice of any physical activity or sport?	
Behaviour intention	BI1 I will practise sport or exercise that I like	
	BI2 I would probably practice physical exercise or sport	
	BI3 I would definitely like to practice physical exercise or sport	
Mastery	MA1 Improve in the practice of my physical or sports activity	
	MA2 Improve my current physical abilities	
	MA3 I do physical exercise to improve personal bests	
Physical condition	PC1 Because it helps me to maintain a healthy body	
	PC2 To avoid becoming overweight	
	PC3 To maintain my physical health	
	PC4 To improve my cardiovascular level	
Affiliation	AF1 Because I enjoy doing these activities with others	
	AF2 To do something in common with my friends or close friends	
	AF3 To talk with my friends when we do exercises or physical activities	
	AF4 To be with my friends or people nearby	

**Table A1** Questionnaire (continued)

<i>Construct</i>	<i>Item</i>	<i>Literature support</i>
Psychological condition	PL1	Because it helps me to relax
	PL2	To get away from the pressures of my routine
	PL3	To clear my mind
Appearance	AP1	To define my body and have a positive body image
	AP2	To improve my body shape
	AP3	To improve my appearance
	AP4	To maintain a toned body
Enjoyment	IN 1	Because I think it's interesting EN2 Because it makes me happy
	IN 3	Because it's fun
	IN 4	Because I have fun doing it
Competitive ego	CE1	Because it makes me be better than others
	CE2	To be the best in the group where I practice CE3. To do it better than others
	CE4	To be more fit than others
Subjective norms	NS1	The people that are most important to me believe that I should do physical activity or sport
	NS2	The people that are most important to me have suggested that I do a physical activity or sport
	NS3	I am very motivated to do physical activity or sports because the people that are most important to me expect me to do it.
Self-regulation	SR1	I usually propose objectives in my physical activity or sports practice
	SR2	My sports goals or my physical activity increase my motivation to exercise
Self-efficacy	SE1	Follow a plan or routine of exercises in a given period of time
	SE2	Include physical or sports activity in your weekly routine
	SE3	Organise your schedule to be able to do physical activity or sport in a consistent way
	PBC	PB1. Participate in physical activities or sports weekly, it is totally up to me
	PB2	In general, it is up to me to practice physical or sports activities
	PB3	I believe that I have total control of the physical or sports practice that I perform