# Attitude towards sport practice: What makes an individual continued practice of sport?

#### Abstract

Sport practice is conditioned by different factors; previous studies have shown that the attitude toward physical activity and sports practice is largely conditioned by the same individual. This study proposes to examine whether the classic model of TBP behavior reinforces the main motivations for people to exercise practice.

An empirical model based on the classic model of TBP behavior was proposed, adding three motivational variables to practice sport. A sample was made with 1,008 valid questionnaires collected online. The analysis of the data was performed using the partial least square technique using the Smart PLS 3.0 statistical program.

The proposed model presents a statistical validity that proves that the practice of physical and sporting activity is determined by the evaluation of each individual on their abilities and perceptions and their relationship with the motivations generated by continuing the practice of physical or sports activity, consequently how adhesion is generated.

Keywords - Sport, Physical activity, Motivations, Attitude, Behavior, Service

Type of article- Empirical paper.

# Introduction

Practice sports and physical activities that have been growing in modern societies, this is not only a single issue as the social relationships that these activities offer, but also, in individual factors and personality.

Studies on behavior in the same aspect in sports practice have been limited mainly in the area of psychology, in practice, in the development of different models, in theories, in behavior and in motivations; however, there are few developments in the area. That sporting behavior already presents a solid description.

The compression of the behavior starts from the search for the activities that occur in the same positive result in a unique and coherent sense. This process leads to self-esteem perceptions that is the integration of intrinsically motivated and autonomous behaviors; however, excessive control or negative forces can frustrate this behavior, evoke emotions, or negative feedback. This is be measured by the degree of motivation (Martin S. Hagger, Culverhouse, Chatzisarantis, & Biddle, 2003).

Regarding this, the theory that best explains this behavior is the theory of planned behavior (TPB)(Ajzen, 1991), on the basis that physical activity or sport is conditioned by the intention or attitude, which is the reflection of the motivations to do so, previous experiences, the subjective norm and the control of perceived behavior (de Bruijn & van den Putte, 2012). Likewise, the main predictor of physical or sports activity is the intention to exercise that the individual has, which is positively related to the degree of identification and alienation of his personality towards sports practice and that allows a higher level of adherence long-term (Beville et al., 2014).

Studies on sports practice have specialized in looking for differences between genders, ages, cultures, physical or sports activity class, among others (Martin S Hagger, Chatzisarantis, & Biddle, 2001; de Bruijn & van den Putte, 2012; Debadeep Roy Chowdhury, 2012; Molanorouzi, Khoo, & Morris, 2014; Beville et al., 2014; Heywood, 2015; Lee, 2017; González-Serrano, Moreno, Hervás, & Prado-Gascó, 2017; Aiken, Bee, & Walker, 2018; Puddle, Wheaton, & Thorpe, 2018; Summers, Hassan, Ong, & Hossain, 2018; Cepeda-Carrión & Cepeda-Carrion, 2018; Haro-González, Pérez-Ordás, Grao-Cruces, Nuviala, & Nuviala, 2018; Aleksovska-Velickovska, Gontarev, & Ruzdija, 2019; Rodríguez Cañamero, García-Unanue, Felipe, Sánchez-Sánchez, & Gallardo, 2019; Yavuz, 2019; Zhou, Chlebosz, Tower, & Morris, 2019; Deelen, Janssen, Vos, Kamphuis, & Ettema, 2019; Sabiston et al., 2020; Aoyagi et al., 2020). Few studies have dared to integrate different models of analysis or with new relationships, although the statistical validity of the influence of several variables on sports behavior has been demonstrated. Especially, as some motivational variables characteristic of sport are fundamental in that individuals practice physical and sports activities (Silva Cortés, Correa-Díaz, Benjumea-Arias, Valencia-Arias, & Bran-Piedrahita, 2017; Aleksovska-Velickovska et al., 2019; Aoyagi et al., 2020).

Regarding the sports sector of fitness and wellness services, there is a need to offer studies that allow us to understand why the individual moves away from sports practice, which is not only based on extrinsic, social or service quality factors, in which only certain studies are set especially in sports marketing (Lee, 2017; Koronios & Kriemadis, 2018; Rodríguez Cañamero et al., 2019).

The sports consumer is therefore complex to analyze and requires high attention in their behavior, especially due to social change in terms of use of free time, life in solitude, personalization of services and other megatrends that do not follow classic patterns of behavior (Aoyagi et al., 2020). It is for this reason that the main objective of this article is to analyze from the behavioral theories what are the variables that the individual perceives both of himself and of the motivations inherent to his personality for the practice and adherence to physical and sports exercise.

## **Theoretical framework**

The self-efficacy according to Bandura, reflects the evaluation of the individual's confidence in the performance of a given behavior, being, therefore an important predictor of physical exercise and can also allow the evaluation of the perception of confidence and the skills in the achievement of the individual's objectives (Martin S Hagger et al., 2001).

Regarding perceived behavioral control (PBC), this defines the degree to which an individual believes they have control over physical activity or exercise. (Bozionelos & Bennett, 1999).

According to (Brooks et al., 2017) the theory of behavior planning (TBP) fails to explain by itself how their constructs are what lead to an attitude towards sports practice, supported by suggests that this theory should be a theoretical framework flexible and that can incorporate other constructs.

Although the predictive variables of behavior are the TPB variables, the motivational variables may be the ones that explain better because they maintain adherence to sports practice. Bearing in mind that TPB variables are intrinsic to models of behavior suitable

for practice, but that they need to affect the main motivational variables to generate sports behavior.

This explains it very well (Mickelsson, 2017) giving example of a gymnasium, where this should be understood as a system of people, tools, and activities. Consumers are committed to this system to cause physical and mental changes in themselves, that is, are the results of practicing the exercise motivating factors finally behavior. They are the factors that generate the emotions to follow the sport practice, that is to say, it is not the knowledge that generates the sports practice as a direct factor, but rather measurements of achievement are required.

However, (Mickelsson, 2017), highlights that people in a high percentage tend to behave by their habits, that is, they do not necessarily reflect on the achievement of their sporting activities.

This is why this study aims to check whether the variables intrinsic to the behavior of an individual precede the motivations, which ultimately lead to the attitude towards exercise or physical activity, especially its long-term adherence. The following hypotheses are proposed:

H1: PBC of the individual influences the motivations to practice sport and physical activities

H2: the self-efficacy of the individual influences the motivations to practice sports and physical activities

*H3: The self-regulation of the individual influences the motivations to practice sports and physical activities* 

H4, H5, and H6: the main motivations to practice sport of the individual are the generators of their attitude for their adhesion and practice in the long term.

# Methodology

The construction of the model was based on the three classical variables of the theory of planned behavior (TPB) (M. S. Hagger, Chatzisarantis, & Biddle, 2002), the social influence was excluded because only the intrinsic variables were consulted to the individual, and this model was completed with the most representative variables of the different motivational sports theories (Molanorouzi et al., 2014; Brooks et al., 2017; Aleksovska-Velickovska et al., 2019). Psychometric test was applied following the manual for transcultural translations and adaptations proposed by Wild *et al.* (2005). A pre-test of the measurement tool was conducted.

# Sample

The sample collection process was determined in a non-probabilistic manner to obtain the largest number of completed questionnaires. For this purpose, they were motivated to participate in the study with the drawing of a purchase voucher at a sports store. great world prestige. For both countries the questionnaire was distributed through an electronic form in the period between June-December 2018, participation in Spain was a total of 459 completed questionnaires and for Colombia a total of 549 questionnaires were obtained. The final sample was 1,008 valid questionnaires between the two countries. The sample highlights that a high percentage of participants belong to the millennial generation, and that women participated in a greater proportion of men, however, no

differences were found that biased or moderated the data with any of the demographic variables (Table 1).

### Analysis of data and results

The method of analysis used was the Partial Least Squares (PLS) technique, given that the model is exploratory and even the relationships between the variables have not been supported in previous studies (Hair, Hult, Ringle, & Sarstedt, 2014).

# Validation of the measurement model

The first step in the analysis was to examine the convergent and discriminant validity of all variables to determine the reliability of measures of the items. As for the convergent validity, all the results had correlation loads higher than 0.505 with significance levels lower than p-value 0.001, fulfilling this test (Hair et al., 2014) (Table 2).

# (Insert table 2)

The other measures of convergent validity were also accepted (Table 3). The Dillon-Goldstein coefficient of reliability value was greater than 0.70 for all variables (Gefen, Straub, & Boudreau, 2000). Cronbach's alpha test presented values well above 0.70 (Churchill & Iacobucci, 2004), and the analysis of variance showed values greater than 0.50 (Henseler, Ringle, & Sarstedt, 2014).

# (Insert table 3)

The divergent validity was verified by means of two tests, the first one by comparing the AVE value of the variables with the correlation of the constructs with respect to each variable elevated to the square, being that these are inferior to the square root of the AVE, demonstrating that each variable is related more strongly to its items than to the other

(Fornell & Larcker, 1981) (Table 4). The second Henseler-Ringle test shows that the values are below 0.90, acceptable also to validate the entire tool in terms of divergent validity (Henseler et al., 2014) (Table 5).

(Insert Table 4)

(Insert Table 5)

# Validation of the structural model

For the validation of the structural model, the predictive capacity of the model was first examined, fearing that the value of R2 for the dependent variables was greater than 0.1, especially for the attitude toward sports practice (R 2 = 0.503) which allows positively verify that the model explicably validates the causality between its variables. To establish the statistical significance of the model, the technique of resampling or bootstrapping was applied, taking 3,000 sub-samples in order to give greater statistical rigor (Hair et al., 2014) (Table 6).

The results of the study at a general level without differentiating sports show an interesting cause-effect relationship between classical factors of human behavior that were only examined directly on attitude, however, in this study it was shown that these intrinsic variables generate other more specific motivating variables enhance the attitude to practice sport or physical activity, that is, to have adhesion in sports practice.

Specifically, hypothesis H1 was statistically validated with especially a higher value of effect of the PBC variable on physical condition H1b: B = 0.179, that is, those who have a high degree of physical exercise will tend to consider that sport generates physical and health improvements; similarly happens with the H2, the effect of the self-efficacy variables being greater on the motivation "Mastery" H2a: B = 0.375, Those who have

greater confidence in sports practice will tend to consider that sport generates perfection in its achievement; and H3 is supported to the impact of "Self-regulation" on motivations, especially with "Mastery" "H3a: B = 0.375 and" Perceived enjoyment "H3c: B = 0.366, Regarding this, those who plan and control their physical activity tend to consider that sport generates enjoyment and improvement in the achievement of their objectives (Table 6) (Figure 2).

# Conclusions, limitations and future lines of research

The management and planning of offers of services for exercise and sports should take into account all the aspects that intervene in the behavior of the sports consumer, as suggested (Funk, 2017), the sports user (needs) the sports context (experience of use) and sports organization (business objectives); being, therefore, a very complex model that can not be minimized or generalized, this is where personalization in the offer of sports services and support are fundamental especially for achieving adherence to the practice of physical and sporting exercise in the long term (Joachim, Schulenkorf, Schlenker, & Frawley, 2020).

Here it is clear that marketing actions focused on promotions and attracting new users may not be effective even in the medium term, since, if the essential reasons for membership are not generated, the desertion will be high.

Regarding the intrinsic factors, sports centers can mediate so that the user can have high PBC variables, self-efficacy and self-regulation, for example, offer schedules of broad hourly coverage, access facilities and sports practice, flexible rates and factors motivational as accompaniment, personalized training, the establishment of

achievements, prizes and bonuses for achievement of objectives, the variety of activities,

support services, are necessary for users to continue their sports routine.

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Figure 1. Proposed model





Figure 2. Empirical model

# Annex 1. Questionnaire

Construct	Item	Literature support
	AI1 The practice of physical exercise or sport I like	
Attitude to	AI2. I would probably practice physical exercise or sport	
practice sport	AI3. I would definitely like to practice physical exercise or sport	
	MA1. Improve in the practice of my physical or sports activity	
Mastery	MA2. Improve my current physical abilities	
-	MA3. I do physical exercise to give the best of me in the achievement	
	of my personal marks	
	PC1. Because it helps me maintain a healthy body	
Physical	PC2 To avoid overweight	
condition	PC3. To maintain my physical health	
	PC4. To improve my cardiovascular level	
	IN 1. Because I think it's interesting	
Enjoyment	EN2 Because it makes me happy	
	IN 3. Because it's fun	
	IN 4. Because I have fun doing it	
Self	SR1. I usually propose objectives in my physical activity or sports	
regulation	practice	
	SR2. My sports goals or my physical activity increase my motivation	
	to exercise	
	SR2. My sports goals or my physical activity increase my motivation	
Self efficacy	SF1 Follow a plan or routine of exercises in a given period of time	
Sell ellieacy	SE2. Include physical or sports activity in your weekly routine	
	SE3. Organize your schedule to be able to do physical activity or	
	sport in a constant 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 consider that I have total control of the physical or sports	
	practice that I perform	

# Table 1. Sample summary

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

Indicator	Load	t-value*
AI1 <- AI	0.9	105.428
AI2 <- AI	0.888	51.688
AI3 <- AI	0.878	62.552
EN1 <- EN	0.79	44.714
EN2 <- EN	0.894	113.536
EN3 <- EN	0.924	134.684
EN4 <- EN	0.924	139.016
MA1 <- MA	0.882	94.747
MA2 <- MA	0.881	89.287
MA3 <- MA	0.852	80.015
MA4 <- MA	0.864	73.187
PB1 <- PBC	0.907	94.109
PB2 <- PBC	0.914	98.539
PB3 <- PBC	0.843	60.608
PC1 <- PC	0.887	92.402
PC2 <- PC	0.682	22.85
PC3 <- PC	0.914	122.154
PC4 <- PC	0.785	41.119
SE1 <- SE	0.858	70.135
SE2 <- SE	0.915	119.952
SE3 <- SE	0.906	129.349
SR1 <- SR	0.936	164.116
SR2 <- SR	0.947	243.51
SR3 <- SR	0.892	105.258

Table 2. Loads of the indicators

EN: Enjoyment, MA: Mastery, PBC: perceived behavioral control, PC: Physical condition, PL: Psych condition, SE: Self-efficacy, SR: Self-regulation, AI: Attitude. All items had significance with p-value < 0.001.

Table 3. Convergent validity of indicators

Variable	Cronbach's Alpha	Composite reliability	Average Variance Extracted
EN	0.906	0.935	0.783
AI	0.868	0.919	0.790
MA	0.893	0.925	0.756

PBC	0.866	0.918	0.789
PC	0.84	0.892	0.676
SE	0.873	0.922	0.798
SR	0.916	0.947	0.856

EN: Enjoyment, MA: Mastery, PBC: perceived behavioral control, PC: Physical condition, PL: Psych condition, SE: Self-efficacy, SR: Self-regulation, AI: Attitude.

Table 4. Discriminant validity of indicators - Fornell & Larcker test

EN	0.885						
IN	0.616	0.889					
MA	0.059	0.096	0.870				
PBC	0.398	0.327	0.055	0.888			
PC	0.486	0.611	0.117	0.345	0.822		
SE	0.609	0.497	0.053	0.305	0.542	0.894	
SR	0.469	0.466	0.026	0.477	0.377	0.341	0.920

EN: Enjoyment, MA: Mastery, PBC: perceived behavioral control, PC: Physical condition, PL: Psych condition, SE: Self-efficacy, SR: Self-regulation, AI: Attitude.

Table 5	. Discri	minant v	validity	of indicators –	Test	Henseler	and	Ringl	e
			2					0	

EN						
IN	0.711					
MA	0.686	0.703				
PBC	0.447	0.391	0.37			
PC	0.534	0.564	0.683	0.391		
SE	0.524	0.497	0.529	0.546	0.421	
SR	0.586	0.48	0.584	0.443	0.438	0.66

EN: Enjoyment, MA: Mastery, PBC: perceived behavioral control, PC: Physical condition, PL: Psych condition, SE: Self-efficacy, SR: Self-regulation, AI: Attitude.

Table 6. Summary of the validity of the structural model

Hypot	thesis	Effect	Original Sample (O)*	R squared	T Statistics ( O/STDEV)	P Values
H1a	Supported	PBC -> MA	0.079*	MA:	2.078	0.038
Hlb	Supported	PBC -> PC	0.179**	$\mathcal{R}^2 = 0,322$	4.139	0.000
H1c	Supported	PBC -> PE	0.172**	-	4.516	0.000
H2a	Supported	SE -> MA	0.375**	PC:	9.697	0.000
H2b	Supported	SE -> PC	0.155**	$\mathcal{R}^2 = 0,209$	3.401	0.001
H2c	Supported	SE -> PE	0.171**	-	4.190	0.000
H3a	Supported	SR -> MA	0375**	PE:	9.173	0.000

H3b	Supported	SR -> PC	0.228**	$R^2 = 0,345$	5.510	0.000
H3c	Supported	SR -> PE	0.366**		2.643	0.000
H4	Supported	PE -> AT	0.391**	AT:	10.333	0.000
H5	Supported	PC -> AT	0.138**	$\mathcal{R}^2 = 0,503$	3.425	0.001
H6	Supported	MA -> AT	0.295**		6.767	0.000
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Notes: Significant at: \*p<0,05 t-value > 1,960; \*\*p<0,01, t-value > 2,576

EN: Enjoyment, MA: Mastery, PBC: perceived behavioral control, PC: Physical condition, PL: Psych condition, SE: Self-efficacy, SR: Self-regulation, AI: Attitude.