


## Article

# Exercise Addiction and Satisfaction of Fitness Center Users as Precursors to the Intention of Continuing to Engage in Physical Activity

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**Abstract:** Exercise addiction occurs when a person engages in excessive physical activity until they lose control. Among individuals attending fitness centers, the risk of developing exercise addiction has been estimated to be close to 10%. The objective of this study was to determine whether exercise addiction may be an antecedent of satisfaction with the service received and/or of the intention of continuing to partake in leisure-time physical activity at fitness centers in a direct or indirect manner. A total of 361 individuals ( $29.05 \pm 11.40$  years old) who were physically active at Spanish fitness centers were asked to respond to a questionnaire on exercise addiction, satisfaction with the sports service, and their intention to continue to engage in physical activity. A multi-group analysis was conducted to check for differences in relationships by sex. The results show the relationships between addiction, satisfaction, and intention to continue physical activity. The standardized values display differences between men and women, with women exhibiting the highest values for the relationships between addiction and the rest of the constructs. Satisfaction with the sports service is a mediator in the relationship between exercise addiction and intention to engage in leisure-time physical activity.

**Keywords:** exercise addiction; fitness; sports services; satisfaction; future intentions; physical activity



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## 1. Introduction

Physical exercise is one of the main activities carried out in leisure time (leisure-time physical activity, LTPA) [1]. In Europe, 54% of the population reports playing sports or doing some kind of physical activity, with 40% doing so regularly or somewhat regularly [2]. The European Commission study finds that three out of ten European citizens are members of an institution where they exercise, with 11% belonging to a fitness center. In the same vein, a study conducted in the 28 countries of the European Union, in addition to Norway, Russia, Switzerland, Turkey, and Ukraine, states that 62.2 million people report being members of a fitness club [3].

Many of the customers attend fitness centers looking to improve their health [2]. However, when exercise is taken in excess, it can become addictive and cause physical and psychological issues [4]. The concept of exercise addiction refers to the need for significant amounts of exercise to the extent that the individual loses control over their activity [5]. Signs and symptoms consistent with this disorder include: excessive preoccupation with exercise; reduction or cessation of other daily activities; withdrawal symptoms in the absence of exercise (anxiety, irritability, and trouble concentrating or sleeping); and even eating disorders, among others [6–8].

It has been estimated that 3% of those who practice sports are at risk of becoming addicted to exercise [7,9], although the variability in the studies conducted so far also shows

a great statistical dispersion [4]. Specific studies involving fitness center customers show higher, albeit disparate, results. In a study with nearly 300 subjects, 42% were found to meet the diagnostic criteria for exercise dependence [10]; in another study, with a sample of 162 Swedish and 269 Portuguese athletes of both sexes, researchers found a risk of exercise dependence in 9.2% of Swedish and 5.2% of Portuguese athletes [11]; in another study, with a sample of 531 users, 8.1% were found to be at risk [12]. In more recent studies [13], it was found that 7.8% of a sample of 128 individuals were at risk of developing dependence. Finally, in a systematic review of the sports with the highest risk of generating exercise addiction [14], it was found that 8.2% of fitness center attendees were at risk of becoming addicted to exercise.

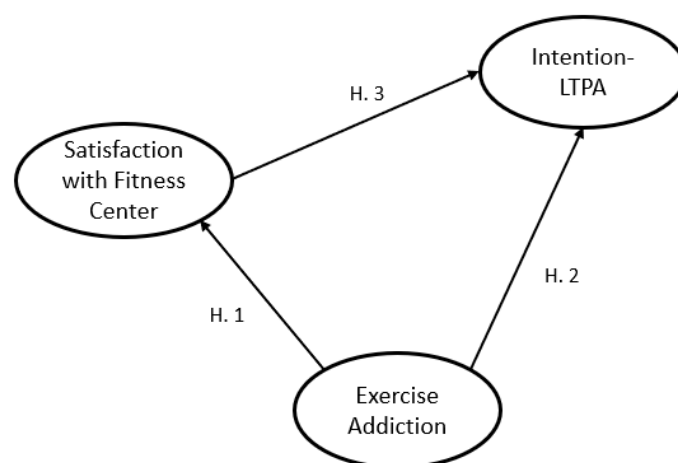
With respect to the age variable, most studies show an inverse trend with increasing age [15,16]. The results of studies on fitness users in particular continue this trend, with older age groups displaying lower levels of exercise dependence [11,12]. In the other land, the results regarding gender are inconclusive [12,17–19]. A study focusing specifically on fitness center users aged between 18 and 40 years old concluded that there were no significant differences in exercise addiction levels [20]. Although recent studies suggest that women may be more prone to exercise addiction than men, further research is needed [21,22]. Exercise addiction has also been linked to psychosocial variables such as motivation [23]; self-esteem and narcissism [24]; obsessive passion and dedication to sports [25]; exercise identity and social physique anxiety [26] or orthorexia [27]. However, exercise addiction has not been linked to fundamental variables of physical exercise, such as satisfaction with the sports service received, the physical activity performed [28–30], or the intention to partake in LTPA [31,32], among fitness center customers.

Satisfaction is the product of a comparison between expectations and the service delivered [33], which may be influenced by cognitive [34] and/or emotional aspects [35]. A number of studies have analyzed satisfaction among fitness center users [29,36,37], highlighting its relevance in shaping the future intentions of users. In these studies, the links between satisfaction and latent variables such as quality, perceived value, and loyalty are analyzed. However, satisfaction among fitness center users has not been studied in terms of gender. Studies [38,39] have shown that greater satisfaction with the sports service and the physical activity performed corresponds to a greater frequency of exercise, while dedication to sports is a predictor of exercise addiction [25]. However, there are no studies relating this variable to exercise addiction. Based on this evidence, the following hypothesis can be formulated (H1): Addiction to physical exercise among fitness center users is an antecedent of satisfaction with the sports service and with the physical activity performed.

Regarding the intention to engage in physical activity, several studies have shown that intention is one of the main determinants when it comes to attempting to engage in physical exercise in the future [40]. Intention can thus predict actual behavior [41]. It has also been established that the determinant of voluntary behavior is the intention to participate in that behavior [42]. If the intention to be physically active is related to the levels of physical activity performed [43–45] and dedication to sports is a predictor of exercise addiction [25], then the following hypothesis may be formulated (H2): Exercise addiction is a precursor to the intention to partake in LTPA.

The literature on services in general and sports services in particular has highlighted the relationship between satisfaction with the sports service received and loyalty, understood as the intention to repurchase or reuse the service [46,47]. However, whether or not there is a relationship between satisfaction with the sports service and the sports activity performed and the intention to continue to perform physical activity over time has yet to be studied. As a result, the following hypothesis can be formulated (H3): Satisfaction with the physical activity performed and with the sports service can be an antecedent of the intention to partake in LTPA.

Upon completion of the literature review, the objective of this study was to determine whether exercise addiction can be an antecedent of satisfaction with the service received, an antecedent of satisfaction with the physical activity performed, and/or an antecedent of the intention to continue to perform LTPA at fitness centers either directly or indirectly through satisfaction with the service received (Figure 1).



**Figure 1.** Model of the relationships between exercise addiction, satisfaction with the fitness center, and intention to partake in leisure-time physical activity (LTPA).

## 2. Materials and Methods

### 2.1. Participants

All users at several fitness centers were invited to participate in the study, provided they had been enrolled at their center for more than three months ( $N = 4857$ ). In the end, 361 users completed the questionnaire successfully, resulting in a margin of error of 5% and a 95% confidence level. Their ages ranged from 18 to 64 years old, with the mean age being  $29.05 \pm 11.40$ . A total of 39.9% of the participants were women. The majority of participants had completed secondary education (50.6%). Their mean frequency of physical activity was  $3.63 \pm 1.27$  sessions per week, while the mean time per session was  $90.49 \pm 27.38$  min.

### 2.2. Measures

Several instruments were used to conduct this study. The first one was the Spanish version of the Exercise Addiction Inventory (EAI) [48]. This scale is made up of 6 items. Once the data had been collected, reliability, as measured with Cronbach's alpha, was 0.708. Higher scores indicate greater symptoms of exercise addiction.

The second instrument used was the Sports Organizations Perception Scale, version 2 (EPOD2) [49]. This is a scale for measuring the satisfaction of users of sports services. Reliability, as measured with Cronbach's alpha, was 0.943. Finally, the Spanish version of the questionnaire Intention to Partake in Leisure-Time Physical Activity [50] was used. This is a 3-item scale for measuring intentions of carrying out physical activity during leisure time. Reliability, as measured with Cronbach's alpha, was 0.969. In both cases, higher scores indicate greater satisfaction and greater intention to engage in LTPA.

Respondents were instructed to rate their level of agreement with each item using a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Additional questions were added to the scales: age, gender, level of education, number of physical activity sessions per week, and mean time per session (Table 1).

**Table 1.** Descriptive statistics.

Instrument	Items	Mean	SD	Skewness	Kurtosis
Satisfaction (EPOD2)	Joining this institution was a good decision.	4.22	0.79	−0.728	−0.025
	I am glad I joined this club.	4.31	0.75	−0.876	0.400
	It was a good decision to engage in sports activities in this club.	4.20	0.78	−0.690	0.032
Exercise Addiction Inventory (EAI)	I am pleased to be enrolled in this activity.	4.32	0.75	−0.906	0.418
	Exercise is the most important thing in my life.	2.93	1.13	−0.062	−0.575
	Conflicts have arisen between me and my family and/or my partner about the amount of exercise I do.	1.68	1.10	1.456	1.298
	I use exercise as a way of changing my mood.	3.58	1.21	−0.681	−0.188
	Over time I have increased the amount of exercise I do in a day.	3.54	1.09	−0.471	−0.326
	If I have to miss an exercise session, I feel moody and irritable.	2.42	1.30	0.473	−0.827
	If I cut down the amount of exercise I do, and then start again, I always end up exercising as often as I did before.	2.99	1.24	.005	−0.936
Intention to partake in leisure-time physical activity	I intend to do physical exercise at least three times a week next month.	4.62	0.77	−1.417	1.172
	I am planning to do physical exercise at least three times a week next month.	4.54	0.78	−1.070	1.645
	I have decided to do physical exercise at least three times a week next month.	4.58	0.78	−1.192	1.013

Note: SD: Standard Deviation.

### 2.3. Procedure

The present study met the established safety and ethical standards and was approved by the Research Ethics Committee of the Andalusian Regional Government (Andalusia, Spain). The heads of the participating organizations were informed about the objectives and purpose of the study, which was conducted once their approval was obtained. The confidentiality of the data and the anonymity of the participants were preserved in compliance with the Spanish Organic Law 3/2018 on Personal Data Protection and Guarantee of Digital Rights. The fundamental principles established in the Declaration of Helsinki (2013, Brazilian revision) were also observed at all times. All participants gave their informed consent prior to data collection, which was carried out using a self-administered questionnaire in the presence of a researcher.

### 2.4. Data Analysis

Initially, using the software Statistical Package for the Social Sciences, version 22.0 (IBM, Armonk, NY, USA), descriptive statistics (means and standard deviations), skewness, kurtosis, the correlations between the latent variables under study, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha were calculated. Subsequently, the model relating exercise addiction, satisfaction with the service received, and intention to partake in LTPA in the overall sample (model 0) was then tested using a Confirmatory Factor Analysis (CFA). The analysis was performed using the maximum likelihood method, following Thompson's recommendation (2004). The adjustment of the model was assessed by examining various indices: the Comparative Fit Index (CFI), the Goodness of Fit Index (GFI), the Root Mean Square Error of Approximation (RMSEA), the Root Mean Residual (RMR), and the Expected Cross-Validation Index (ECVI). The  $\chi^2$  value (CMIN) and the  $\chi^2$  value/degrees of freedom (CMIN/DF) were also used.

A multi-group analysis was carried out to verify the invariance of the factorial structure [51]. The group was divided by gender. The aim was to check that there were no significant differences, in each of the variables studied, between a model without invariance and different models with restrictions in some parameters. The fit indices used were

the same as those used for the CFA of the model. Finally, the standardized regression coefficients were calculated for the relationships in the model based on the gender of fitness center users.

### 3. Results

The intention to partake in LTPA yielded a mean value higher than that of satisfaction with the sports and fitness service received (Table 2). Exercise addiction scored 17 points on average, with the result that this population may be considered to be symptomatic. Differences between men and women were observed only in men's intention to engage in physical activity.

**Table 2.** Means, standard deviations, ANOVA, and significance levels. Correlations, Cronbach's alpha on the diagonal, Average Variance Extracted (AVE), and Composite Reliability (CR).

	Mean	Men	Women	1	2	3	AVE	CR
1. Satisfaction	4.26 ± 0.71	4.22	4.33	(0.943)	0.321 **	0.282 **	0.855	0.959
2. Intention-LTPA	4.58 ± 0.76	4.68 *	4.42 *		(0.963)	0.359 **	0.942	0.980
3. Exercise addiction	17.17 ± 4.53	17.46	16.74			(0.708)	0.643	0.804

Note: \*\*  $p < 0.01$ ; \*  $p < 0.05$ .

Internal consistency was assessed for each research construct. The results of the CR test revealed that all values were greater than 0.6. The calculation of the AVE suggests convergent validity, since the resulting AVE values for the research constructs were close to or above the recommended value of 0.5. The discriminant validity of the data was verified by calculating the correlation matrix between the factors. As can be observed, there was a significant positive correlation between the factors that make up the study.

The validity of the factor structure of the model relating the EAI, satisfaction, and intention-LTPA was checked using a set of goodness-of-fit indices, yielding adequate values (Table 3; model 0). The model revealed relationships between the EAI and satisfaction, between satisfaction and intention-LTPA, as well as between the EAI and intention-LTPA (Table 5).

**Table 3.** Assessment of the measurement invariance of the model.

Model	CMIN	DF	CMIN/DF	CFI	RMSEA	RMR	GFI	ECVI
0	68.809	50	1.376	0.996	0.032	0.033	0.970	0.347
1	184.920	122	1.516	0.986	0.038	0.049	0.930	0.849
2	199.458	132	1.511	0.985	0.038	0.061	0.926	0.834
3	201.177	135	1.490	0.985	0.037	0.065	0.925	0.822
4	209.550	138	1.518	0.984	0.038	0.075	0.922	0.829
5	277.566	152	1.826	0.972	0.048	0.074	0.900	0.940

Note: Model 0 indicates fit indices for the overall sample; model 1 indicates no parameters constrained to be equal across groups; model 2, factor loadings constrained to be equal; model 3, structural weights and factor loadings constrained to be equal; model 4, structural residuals, structural weights, and factor loadings constrained to be equal; model 5, measurement residuals, structural residuals, structural weights, and factor loadings constrained to be equal.

After the factor structure of the model was verified, factor invariance tests were performed in order to compare the model based on the users' gender. When taking into account the differences in CMIN/DF between the model without restrictions (model 1) and the rest of the models with restrictions (models 2–4), no differences were observed. However, differences were found between model 1 and model 5 (Table 4). Using model 2 as correct, Table 4 shows the presence of differences with model 5. Model 3 differs from model 4 and model 5. Although the differences in  $\chi^2$  do not support the hypothesis of invariance, the rest of the indices contradict this conclusion. The CFI values in the models were found to be similar, with a difference between them of  $-0.01$ , except for the value in

model 5. The RMSEA values in the models were also found to be similar except for the value in model 5, which was 0.01. Similarly, when observing the ECVI index, differences in adjustments are minimal, except for model 5, which indicates that the different models have very similar values. All of this points to the factorial invariance of the model (Table 3).

**Table 4.** Comparison between models using measurement invariance procedures.

	Model	Dif. DF	Dif. CMIN	p	Dif. CFI	Dif. RMSEA
Assuming model 1 to be correct	2	10	14.538	0.150	−0.001	0.000
	3	13	16.257	0.236	−0.001	−0.001
	4	16	24.630	0.077	−0.002	0.000
	5	30	92.646	0.000	−0.014	0.01
Assuming model 2 to be correct	3	3	1.718	0.633	0.000	−0.001
	4	6	10.092	0.121	−0.001	0.000
	5	20	78.108	0.000	−0.013	0.01
Assuming model 3 to be correct	4	3	8.374	0.039	−0.001	0.001
	5	17	76.390	0.000	−0.013	0.012
Assuming model 4 to be correct	5	14	68.016	0.000	−0.012	0.01

Note: Model 1 indicates no parameters constrained to be equal across groups; model 2, factor loadings constrained to be equal; model 3, structural weights and factor loadings constrained to be equal; model 4, structural residuals, structural weights, and factor loadings constrained to be equal; model 5, measurement residuals, structural residuals, structural weights, and factor loadings constrained to be equal. Dif. CMIN = difference between model and the other models; Dif. DF = difference between model and the other models; p = significance level between models; Dif. CFI = difference between model and the other models; Dif. RMSEA = difference between model and the other models.

Model 1 obtained adequate values in all indices. Moreover, its values were all positive and were very similar to the rest of the models. Therefore, this model was considered to be suitable for comparing the two groups based on gender.

Values in Table 5 show that exercise addiction was directly and significantly related to satisfaction in the overall sample. Regarding gender, the  $\beta$ -value was higher in the female group than in the male group. Exercise addiction was an antecedent of the intention to engage in LTPA among fitness center users. Women showed a slightly higher  $\beta$ -value. Similarly, satisfaction is an antecedent of intentions to engage in LTPA in the overall sample and across genders. The  $\beta$ -values were slightly higher in men than in women.

**Table 5.** Standardized regression weights. Direct and indirect effects of the initial model and of the models according to gender. Hypothesis testing.

				Overall Sample		Male		Female	
				Direct Effects	Indirect Effects	Direct Effects	Indirect Effects	Direct Effects	Indirect Effects
Hypothesis				$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
H. 1	SATIS	←	EAI	0.325 **	—	0.271 **	—	0.418 **	—
H. 2	IPLTPA	←	EAI	0.378 **	0.069 **	0.344 **	0.067 **	0.374 **	0.087 **
H. 3	IPLTPA	←	SATIS	0.211 **	—	0.247 **	—	0.209 *	—

Note: \*\*  $p < 0.01$ ; \*  $p < 0.05$ . EAI = Exercise Addiction Inventory; SATIS = Satisfaction; IPLTPA = Intention to partake in leisure-time physical activity.

#### 4. Discussion

The objective of this study was to determine whether exercise addiction can be an antecedent of satisfaction with the service received, an antecedent of satisfaction with the physical activity performed, and/or an antecedent of the intention to continue to perform LTPA at fitness centers. Three hypotheses were formulated: H1, addiction to



physical exercise among fitness center users is an antecedent of satisfaction with the sports service and with the physical activity performed; H2, exercise addiction is a precursor to the intention to partake in LTPA; H3, satisfaction with the physical activity performed and with the sports service can be an antecedent of the intention to partake in LTPA. The study confirmed that the three latent variables are related, with exercise addiction being an antecedent of both satisfaction and the intention to perform physical activity among fitness center users. These results are relevant both for those responsible for fitness center marketing strategies and for professionals working on or researching exercise addiction.

In order to evaluate the suitability of the model being tested, a group of indices was jointly assessed. The CFI and GFI values were 0.996 and 0.970, respectively, representing an excellent result [52]. The RMSEA value, 0.032, indicated a good model fit [52]. The RMR value was 0.033, which is deemed to be acceptable [53]. The ratio between  $\chi^2$  and the number of degrees of freedom, which was 1.376, may be considered acceptable [52,54,55]. The original model's set of fit indices may be considered to be acceptable, so the model is deemed suitable for this population.

A multi-group analysis was carried out to verify the invariance of the factorial structure [51]. The group was divided by gender. The aim was to check that there were no significant differences, in each of the variables studied, between a model without invariance and different models with restrictions in some parameters.

When taking into account the differences in CMIN/DF between the model without restrictions (model 1) and the rest of the models with restrictions (models 2–4), no statistically significant differences were found. No significant differences in  $\chi^2$  between the unrestricted model (model 1) and the rest of the models (2–4) were found. However, differences were found between model 1 and model 5 and between model 2 and model 5. These results could represent grounds for rejecting the invariance of the model. Nevertheless, because the CMIN/DF coefficient is sensitive to sample size, the criterion established by [56] was also used, whereby  $\Delta$ CFI values lower than or equal to 0.01 indicate that the null hypothesis of invariance cannot be rejected. The  $\Delta$ CFI values found in this study when comparing the unrestricted model with the rest of the models suggest the invariance of the factor structure of the scale. In addition, the set of indices for each of the models is adequate, prompting the invariance of the model based on gender to be confirmed.

Once the invariance of the model had been verified, it was necessary to analyze the mean values obtained in the constructs under study. Firstly, satisfaction with the service received shows an acceptable value, with no differences between men and women. This result is consonant with several studies that do not report differences in satisfaction by gender in users of a mean age similar to that of the present paper [49,57]. By contrast, such differences have been found in studies with mean ages above 30 years old [58,59]. Sociodemographic data should be regarded as an important variable in future studies that include the satisfaction variable.

Secondly, in this study, differences emerged between men and women in terms of the intention to engage in LTPA at fitness centers, with men showing a greater intention to engage in physical activity. Similar results have been reported in other studies [60], although these have not covered fitness centers despite their high exercise addiction rates. The gender differences observed may be due to women's dissatisfaction with their body image [61], their concern about weight control [62], or the belief that physical activity has no health benefits [63]. Further studies are thus necessary to continue to explore this relationship in different contexts.

Finally, no differences were observed in exercise addiction by gender, in line with other research [20]. However, there seems to be evidence that exercise addiction in female fitness center users influences their subsequent assessments and behaviors, which reinforces the need for further studies [22].

The purpose of this paper was to explore the relationships between the constructs of addiction, satisfaction, and intention. The results of the structural equation model show that exercise addiction, for the general population, is a precursor of satisfaction with

the service and, to a greater extent, of the intention to partake in LTPA. This result was expected, since the very concept of addiction implies the willingness to engage in more physical activity, as pointed out by other studies [5]. The role of the sports service, in this case assessed through satisfaction, may be characterized as a moderator, since it limits or reduces the intention to do more LTPA. This moderation of the relationship between addiction and intention, through satisfaction with the service, may be leveraged both by healthcare professionals and by those in charge of fitness centers as a working tool for their different objectives.

When analyzing differences in relationships by gender, it should first be noted that the ways in which men and women understand and experience physical activity and sports are completely divergent. In the case of women, they are influenced by the aesthetics and health dyad, while in the case of men, the focus is on a quest for improved performance and competitiveness, although aesthetic values also play a role [62,64–66]. The concept of aesthetics in women is related to self-perception of body image and acceptance of body weight [67–69], two very powerful variables influencing women's behavior [70]. The present study shows  $\beta$ -values that are much higher among women than among men in the relationship between exercise addiction and satisfaction with the service received. Although we failed to find similar studies including the satisfaction variable, we did find one study where female users of low-cost centers displayed a higher value in perceived quality, with perceived quality being an antecedent of satisfaction [71].

When considering the relationship between addiction and intention to partake in LTPA, the  $\beta$ -value was also higher in women, although the difference between men and women was much smaller than in the previous relationship. These results show that, when it comes to physical activity among female fitness center users, addiction is a more important variable than in men. This may be explained by the very purpose of fitness centers, which reflect women's expectations to a greater extent with their focus on body image [72].

Therefore, this study shows that the addiction factor in women has a greater effect on satisfaction with the service received and that women are more willing to continue to engage in physical activity than men. However, when the addiction variable is not considered and satisfaction with the sports service and the intention of engaging in LTPA are related, the  $\beta$ -value obtained is higher in men than in women [73,74]. This could be explained by satisfaction being an antecedent of loyalty, understood as, among other things, the intention to repeat or repurchase a service, which is influenced by the user's experience [75,76]. Men are the most experienced users in the field of sports services, given that studies confirm that women have lower levels of physical activity and leisure-time exercise than men [77]. Even the intention to be physically active is lower in women than in men [78], which could explain a higher  $\beta$ -value among men.

It is important to emphasize that these results should not only be found in women addicted to exercise, who are far from the majority of women attending fitness centers [20]. Sports centers should attempt to ensure that women who are not addicted to exercise also display high levels of these variables. They could achieve this by using their facilities, special promotions, activities, sales, etc. to improve customer satisfaction [79].

One major limitation of this study is the size of the participant population. The model should be tested in larger sample groups, which would make it possible to confirm the relationships between the constructs. Another limitation of this study lies in the lack of knowledge available about the motivational factors shaping individuals' engagement in fitness activities, so it is also important to understand how different degrees of engagement can alter the model. All material and human factors affecting satisfaction and the way in which sports services are delivered should be taken into consideration.



## 5. Conclusions

Exercise addiction is an antecedent of satisfaction with the service received and of the intention to engage in physical activity among fitness center users, displaying significant positive correlations between these latent variables.

The results regarding the relationships between the variables of addiction, satisfaction, and intention show significant differences between men and women. The values obtained for the relationships between addiction and satisfaction and between addiction and intention are higher in women. However, when it comes to the relationship between satisfaction and intention, men obtain higher values than women. Addiction to physical exercise is a more significant variable in women than in men.

These results can be used by fitness center professionals to achieve higher levels of satisfaction among users; satisfaction can become a potentially significant mediating variable in the relationship between addiction and intention to partake in LTPA.

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**Institutional Review Board Statement:** The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research Ethics Committee of the Andalusian Regional Government (Andalusia, Spain)

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Abbreviations

LTPA	Leisure-time physical activity
EAI	Exercise Addiction Inventory
EPOD2	Sports Organizations Perception Scale: version 2
AVE	Average Variance Extracted
CR	Composite Reliability
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
GFI	Goodness of Fit Index
RMSEA	Root Mean Square Error of Approximation
RMR	Root Mean Residual
ECVI	Expected Cross Validation Index
CMIN	chi-squared
CMIN/DF	chi-squared/degrees of freedom
SD	Standard Deviations
ANOVA	Analysis of Variance

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