

# Physical self-concept differences in young male mexican athletes and non-athletes

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**Abstract:** The object of this study consists of determining the differences and similarities in the physical self-concept between two groups, male high school Mexican students who practice a sport on a regular basis and those who do not. A total sample of 385 male students, aged 13-19 years participated in this study; 173 of them practice a sport and participate regularly in tournaments and/or competitions. A quantitative approach with a descriptive and transversal survey design was used. All the participants completed the Physical Self-Description Questionnaire. The results of the one-way multivariate analysis of variance, followed by the one-way univariate analyses of variance, show that students who do not participate in a sport regularly are the ones who obtained lower scores in the health, coordination, activity, sports competence, strength, flexibility, endurance, global physical self-concept, and global self-esteem subscales. However, in the appearance subscale, no statistically significant differences were found. Further research should reply these findings in larger samples.

**Keywords:** Physical Self-Concept, Student's Beliefs, Physical Activity, Self-perception

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## 1. Introduction

The main psychological theories claim that the self-concept plays a key role in personality development. A positive self-concept lies at the core of a sound personal, social, and professional performance. In addition, personal satisfaction and being at ease with oneself depend on it to a great extent. The physical self-concept in particular is a reliable indicator of mental health and life adjustment [1-3], since feeling good about one's body, helps generate positive feelings. Therefore, a positive self-concept achievement is one of the top-ranked priorities in numerous psychological (educational, clinical, community, civic...) programs seeking improvement strategies and resources [4].

Furthermore, there is a direct relationship between a low physical self-concept and the risk of developing eating disorders; thence, a low physical self-concept is a warning diagnostic sign of eating disorders [5]. Moreover, teenagers with a low physical self-concept are more prone to experience cultural pressure in favor of a thinner and more attractive body. They also show higher anxiety levels. On the other hand, individuals with a sound physical self-concept

rate higher on subjective psychological well-being, they feel more fulfilled about their life and consider their mood more positive [5].

In addition, a series of studies has shown that engaging in physical exercise is related to a positive body image [6-8]. There is also evidence indicating that more active people have a more positive attitude toward their own body than sedentary individuals [9, 10], and that physical activity and sports are means to improve health and prevent obesity [11-13]; besides, physical activity and sports have a positive effect on the physical aspect and the pleasure derived from their continued practice [14].

On the other hand, the ideal thin-weight and worries about weight come from a cultural idea, that even nowadays is considered esthetic, it is just a fashion and it is not necessarily healthy or accessible, which might have negative consequences that generate anxiety such as a great worry about weight and having good physical shape which could be shown as body dissatisfaction that reveals how individuals value or despise their own bodies, and/or their body distortion, which is the lack of precision in determining the body size [15].

The body image and the esthetic norms that actually rule the occidental world can affect the physiological development in men as well as in women, but are pre-adolescent and adolescent women who present a higher tendency on having problems doing the body image elaboration linked to development problems on alimentary behaviors [16, 17]. The previous information is because the “beauty and thinness” standards are especially strict for them [18].

Raich [19] says that in a society that glorifies beauty is not strange that youth and health increase the concern of physical appearance. In fact every year millions of pesos are spend on improving physical appearance. But excessive worry might be highly perturbing and even incapacitating for a lot of people.

Most of the investigators [20-24] on alimentary behavior disorders, agree that these come from several unplanned situations, highlighting the worry for body shape and getting on diets, but most of all losing weight, which specialists consider risky these kind of behaviors [21, 22, 25].

This descriptive study aims at comparing physical self-concept profiles of junior-high and high-school male Mexican athletes and non-athletes, taking into consideration the vast boom that the physical self-concept has experienced in modern societies during the past few years. Some of these societies have created a subculture based on the ideal image perception and importance [26].

This applied research project focuses on providing information, which translates into a higher quality educational practice in the context of diversity. The purpose of this paper is to shed some light on the elements of a whole human development model from a pedagogical perspective, led by the belief that educational efforts ought to focus on increasing students’ feeling of self-worth and competence, thus enhancing their self-esteem and self-concept which in turn will motivate achievement, interpersonal relations, and the individual’s overall performance of various tasks and challenges.

## 2. Method

### 2.1. Participants

A sample of 385 male, high school Mexican students, aged 13-19 years ( $M = 15.32$ ;  $SD = 1.56$ ) participated in the present study; 173 of them practice a sport and participate regularly in tournaments and/or competitions. A convenience sampling approach was used to include representative subjects from the various school levels.

### 2.2. Instrument

**Physical Self-Description Questionnaire.** This questionnaire consists of 70 items that measure nine specific components of the physical self-concept (health, coordination, body fat, activity, sports competence, appearance, strength, flexibility, and endurance) and two global components (global physical self-concept and global self-esteem). The

questionnaire’s response format is based on a 6-point true/false, Likert-type scale (higher scores indicating higher physical self-concept). The items have both positively and negatively worded questions. All negatively worded items (21 in total) are reversely scored and summarized with other correspondent scale scores. The PSDQ was translated into Spanish, followed by a back-translation procedure widely described in the literature [27].

### 2.3. Design

A quantitative approach with a descriptive and transversal survey design was used [28]. The independent variable was sports practice (athletes and non-athletes), and the dependent variables were the scores on physical self-concept subscales.

### 2.4. Procedure

The high school Mexican students invited to participate in the present study were fully informed about all the features of the project. Then, all the students that had agreed to participate were asked to sign a written informed consent. After the students’ approvals were obtained, participants completed the above mentioned questionnaire by means of the instrument module administrator of the Scales Editor Version 2.0 [29].

Participants completed the questionnaire in the computer labs at their schools during a class meeting session. At the beginning of the session the researchers gave a general introduction about the importance of the research and how to access the questionnaire through the software. When the participants went into the editor, the instructions on how to fill out the questionnaire correctly appeared before the instrument. Additionally, the participants were advised to ask for help if confused concerning either the instructions or the clarity of a particular item. Completion of the entire questionnaire took approximately 40 minutes. At the end of the session, the students’ participation was welcomed. Afterwards, when all the participants had completed the questionnaire, the data were collected by means of the results generator module of the Scales Editor Version 2.0 [29].

### 2.5. Data Analysis

Descriptive statistics (mean and standard deviations) were calculated for all the variables. Subsequently, after verifying that the data met the parametric statistical analyses assumptions, a one-way multivariate analysis of variance (MANOVA), followed by the one-way univariate analysis of variance (ANOVA), were used to examine the differences between the athletes and non-athletes on the reported physical self-concept scores. Moreover, the effect size was estimated using the eta-squared ( $\eta^2$ ). All statistical analyses were performed using the SPSS version 20.0 for Windows (IBM® SPSS® Statistics 20). The statistical significance level was set at  $p < .05$ .

## 3. Results

Table 1 shows the physical self-concept subscale variables

mean values and standard deviations, as well as the results of the MANOVA and the follow-up univariate ANOVAs. The MANOVA results indicate overall significant statistical differences between athletes and non-athletes on the physical self-concept scores (Wilks'  $\lambda = .761$ ;  $p < .001$ ;  $\eta^2 = .239$ ). Subsequently, the follow-up ANOVAs showed that compared with the athletes, the non-athletes obtained lower scores on the health, coordination, activity, sports competence, strength, flexibility, endurance, global physical self-concept, and global self-esteem subscales, and higher scores on body fat. However, in the appearance subscale, significant statistical differences were not found ( $p > .05$ ).

## 4. Discussion and Conclusions

Results show that in most physical self-concept areas, students who regularly participate in any sports activity perceive themselves better than those participants who do not regularly participate in sports; hence, the later have a less developed physical self-concept. These findings agree with

Moreno and Cervelló [30], and Gastélum's [31] results in the sense that active students have a better body image than sedentary students who are more prone to developing eating disorders. There is evidence indicating that individuals with a poor physical self-concept are more vulnerable to cultural pressure in favor of a thinner body [1, 5, 32].

Findings point in the direction of likely benefits derived from physical-athletic activity to improve teenagers' health. Therefore, it is noteworthy to see physical-athletic practice as a positive element on one's health, since it may foster positive effects on the physical self-concept [6, 13].

This study also suggests that exercise ought to be explored as a preventive measure against the development of a negative body image or a higher degree of physical dissatisfaction; however, it is quite important to establish by which means and features (type, intensity, frequency, etc.) exercise enhances the physical self-concept [6].

Moreover, results highlight the need of further research on the topic in México.

**Table 1.** MANOVA results for the sports practice differences on the physical self-concept eleven subscales.

	Non-athletes (n = 326)	Athletes (n = 270)	F	p	$\eta^2$
			10.626	<.001	.239
health	3.64 (0.78)	3.91 (0.71)	11.870	<.01	.030
coordination	3.02 (1.07)	3.59 (0.89)	30.832	<.001	.075
body fat	3.54 (1.23)	4.02 (1.09)	16.381	<.001	.041
activity	2.82 (1.26)	3.73 (1.00)	59.047	<.001	.134
sports competence	2.70 (1.28)	3.68 (0.98)	68.375	<.001	.151
appearance	3.15 (1.07)	3.22 (1.04)	0.321	.571	.001
strength	2.98 (1.05)	3.27 (0.97)	7.758	<.01	.020
flexibility	2.75 (1.05)	3.08 (1.03)	9.176	<.001	.023
endurance	2.51 (1.15)	3.16 (1.11)	30.825	<.001	.074
global physical self-concept	3.65 (1.20)	4.25 (0.81)	30.380	<.001	.073
global self-esteem	3.73 (0.76)	4.05 (0.66)	18.024	<.001	.045

Note. Descriptive values are reported as mean (standard deviation)

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