Original Article

Self-concept, sport, and physical activity practice in university students

AURELIO OLMEDILLA[1], ENRIQUE ORTEGA TORO[1], LUCIA ABENZA[2]

[1] *University of Murcia, Spain*

[2] *University Catholic of San Anthonio, Spain*

ABSTRACT

The purpose of this study was to investigate the relationship between being physically active and participating in sport (or not) and self-concept in Spanish university students. The sample consisted of 372 female university students. The instruments used were the *Autoconcepto Forma 5* questionnaire and an *ad hoc* questionnaire to collect demographic data and data related to physical activity. The results showed that the groups of university students who are physically active and/or participate in sport had higher levels of physical and emotional self-concept compared to the groups of university students who were not physically active and did not participate in sport. It is concluded that college students who exercise or practice sport have better physical and emotional self-concept than those who do not. **Key words:** SELF-CONCEPT, PHYSICAL ACTIVITY, SPORT, UNIVERSITY STUDENTS

Corresponding author. *University of Murcia, Spain*
E-mail: eortega@um.es
Submitted for publication December 2015
Accepted for publication September 2016
JOURNAL OF HUMAN SPORT & EXERCISE ISSN 1988-5202

doi:10.14198/jhse.2016.114.02

INTRODUCTION

Historically, self-concept has been a complex term, possibly due to the difficulty in separating it from other terms that are conceptually similar and have occasionally been utilised as synonyms, such as self-esteem (Shavelson, Hubner & Stanton, 1976). However, it is necessary to differentiate the two concepts. According to Guillén and Ramírez (2011), self-concept refers to the descriptors or labels that a subject attributes to himself or herself, often related to physical attributes, behaviours, and emotions, where these self-attributes possess a descriptive and evaluative nature. Self-esteem refers to how a person perceives and evaluates himself or herself in experiential and environmental contexts (Shavelson et al., 1976), which could be considered the general value that a person places on himself or herself (Ciccolo, Santabarbara, Dunsinger, Busch & Bartholomew, 2015; Harter, 1999).

At first, self-concept was considered to be one-dimensional, but toward the end of the 1970´s, it began to be defined within the framework of a hierarchical and multidimensional model (Shavelson et al., 1976; Lyons, Kaufman, & Rima, 2015). As these authors claim, people have an overall self-evaluation of themselves, but at the same time, they have specific self-evaluations. The development of this model made it possible for it to be conceived as the result of perceptions of oneself in different subordinate dominions in later years (Marsh & Shavelson, 1985). Self-concept presents various related constructs with their own identity (García, Musitu, & Veiga, 2006; Tomás & Oliver, 2004) and these constructs can have different relationships in different environments, e.g. academic, work, social, emotional (Palacios & Zabala, 2007).

Therefore, self-concept is a multidimensional, complex construct that is subject to interpretation (Ortega, Mínguez & Rodes, 2000). In general, it is interpreted as a subject´s conceptualisation of himself or herself, which is constructed through interaction with the environment and is accompanied by important affective and evaluative connotations. Self-concept can be understood as a construct that represents the concept that one has of himself or herself as a physical, social, and spiritual being (García & Musitu, 2001). Its theoretical five-factor model was recently validated (García, Musitu, Riquelme & Riquelme, 2011), where self-esteem is an affective-evaluative component, expressed in the degree of one´s personal satisfaction with himself or herself, and self-efficacy is the behavioural component (Ramírez, 1997). Further, as indicated by Shavelson et al. (1976), the behavioural, cognitive, affective, and social functioning may be explained by the perception, organization, and integration of the subject´s experiences; thus, self-concept could be considered a predictor of psychological wellbeing (Mruk, 2006).

Self-concept as a multidimensional construct has resulted in richer research by analysing its various dimensions and its relationships with different aspects of human behaviour. However, not all the dimensions of self-concept demonstrate consistent results; although the familiar, academic, and emotional dimensions of self-concept seem to consistently relate to criminal behaviours (Jiménez, Murgui, Estévez & Musitu, 2007), drug use (Cava, Murgui & Musitu, 2008), familiar socialisation of children (García & Gracia, 2009; Martínez & García, 2008), academic performance (Guay, Pantano & Boivin, 2003), and emotional instability (Garaigordobil, Durá & Pérez, 2005), the social and physical dimensions of self-concept are less consistent (Cava et al., 2008; Cumming, Sherar, Gammon, Standage & Malina, 2012; Jiménez et al., 2007; Levy, 1997; Moreno, Moreno & Cervelló, 2009; Téllez, Cote, Savogal, Martínez & Cruz, 2003).

The research that relates exercise practice and self-concept has been focused on two lines, one that attempts to establish the effect of physical self-concept on sport practice (Guérin, Marsh & Famose, 2004) and another that analyses the effect of sport practice on self-concept (Guillén & Sánchez, 2003; Moreno, Cervelló & Moreno, 2008). Along these lines, carrying out programs of physical activity appears to positively impact self-

concept, especially the physical dimension (Contreras, Fernández, García, Palou & Ponseti, 2010; Moreno & Cervelló, 2005; Reigal-Garrido & Videra-García, 2011), although it also affects other dimensions such as the social (Candel, Olmedilla & Blas, 2008) and academic dimensions (Pastor & Balaguer, 2001).

Goñi, Fernández-Zabala, and Infante (2012) state that personal self-concept seems to develop differently according to factors such as sex and age, and there does not appear to be a common pattern for all its dimensions, although the lowest point may be in adolescence, especially for women´s general personal self-concept and the autonomy dimension of self-perception. Further, a high body mass index and a low aerobic capacity are associated with lower self-concept (García-Sánchez, Burgueño-Menjibar, López-Blanco & Ortega, 2013). Along these lines, it is believed that self-concept is strengthened during adolescence and tends to stabilise (Harter, 1999). One of the aspects that seem to affect the development of self-concept, especially during adolescence, is the physical aspect. Given that, with regard to sport practice, this stage of life is characterised by progressive drop-out, especially among females, it is important to determine whether continuing to practice sport is related to differences in the various dimensions of self-concept and optimism (Ramsay, et al., 2015).

The aim of this study was to determine whether the practice of physical activity and sport, according to four conditions (practicing club sport, practicing non-club sport or physical activity, not currently practicing physical activity but having done so previously, or not having practiced any physical activity ever), discriminates the groups of university students with regard to self-concept, and especially with regard to the academic, emotional, familiar, physical, and social dimensions of self-concept.

METHOD

Participants

Three hundred and seventy-two female undergraduate university students were analysed. They had a mean age of 21 years (SD = 5), with a range from 17 to 52 years. Twenty-six percent (n = 99) were studying sport sciences, 54.03% (N = 201) were studying nursing, 5.64% (n = 21) were studying occupational therapy, 3.22% (n = 12) were studying nutrition, and 10.48% (n = 39) were studying pedagogy. The majority of these students were in their first or second year (42.9% and 41.8%, respectively), while 11.1%, 4%, and 0.3% were in their third, fourth, and fifth years, respectively. Half (49.9%) resided in the capital city, while the rest were in the metropolitan city.

Instruments

Self-concept was evaluated through the *Autoconcepto Forma 5* [Self-concept form 5, AF5] (García & Musitu, 2001) questionnaire. The AF5 measures self-concept with a Likert-type scale ranging from 1 (completely disagree) to 99 (completely agree), which confers a high discriminant validity. It consists of 30 items grouped into 5 dimensions: academic self-concept, social self-concept, emotional self-concept, familiar self-concept, and physical self-concept. Its internal consistency, evaluated by Cronbach´s alpha, is very satisfactory. It was 0.81 for the entire questionnaire, 0.88 for academic self-concept, 0.73 for emotional self-concept, 0.76 for familiar self-concept, 0.74 for physical self-concept, and 0.69 for social self-concept.

The data of the Cronbach´s alpha that were obtained in the present study included: 0.83 for the entire questionnaire, 0.91 for academic self-concept, 0.75 for emotional self-concept, 0.79 for familiar self-concept, 0.75 for physical self-concept, and 0.71 for social self-concept.

The sociodemographic data and the data referring to sport practice were acquired from the questionnaire

utilised by Candel et al. (2008). This is a self-completed questionnaire composed of 21 items, of which the first eleven informed about personal and sociodemographics and the other ten informed about the sport and physical activity practice that the students carry out. All responses were closed.

Procedure

Professors from the various faculties were contacted, and the research study was explained to them. Their permission was requested to utilise some of their classes. The professors set a date for the researchers to explain the research study to their students. Confidentiality and anonymity of the data were explained to all subjects who voluntarily decided to participate in the study. Informed consent was provided, and an explanation of the questionnaires was given. Subjects filled out the questionnaires in the classrooms of the various faculties.

Statistical Analysis

For the data analysis, the sample of students was divided into four groups according to their level of practice of physical activity and sport: a) currently practices and is a club-sport athlete, b) currently practices a sport or physical activity but does not compete with a club, c) does not currently practice any physical activity but has in the past, or d) does not currently practice any physical activity and has never practiced. Later, a discriminant analysis was utilised to find those indicators of self-concept that best discriminate students that do and do not practice physical activity. In accordance with Tabachnick and Fidell (2001), the standardised coefficients that were greater than or equal to 0.30 were considered relevant for the interpretation of the linear vectors. Finally, a one-factor ANOVA with a post hoc Scheffe was carried out. Significance was set at $p \leq .05$ for all the statistical analyses.

RESULTS

For the discriminant analysis, the independent variables were the values of physical, emotional, social, familiar, and academic self-concept, and the grouping variable was belonging to the group of students that practiced physical activity (competing in a club sport and competing in a non-club sport or other physical activity were combined) or belonging to the group of students that did not practice physical activity (not practicing currently but having practiced in the past was joined with not having practiced ever).

Table 1 demonstrates that the discriminant function that was obtained was statistically significant ($\chi 2$ (5) = 72,974, $p < .001$) and correctly classified 70.6% of the cases. The variables that discriminated the two groups were physical self-concept (SC=.786) and emotional self-concept (SC =.460).

Table 1. Standardised coefficients (SC) of the discriminant analysis of the self-concept variables between students that were physically active and those that were not

Self-concept	Students who were physically active and those who were not	
Physical self-concept	.786	*
Emotional self-concept	.460	*
Social self-concept	-.184	

Familial self-concept	-.122
Academic self-concept	.053
Eigenvalue	.225
Wilks' Lambda	.891
Canonical correlation	.429
Chi-square	72.974
Significance	<.001
Re-classification	70.6%

In table 2, the means and standard deviation of the study´s variables are presented, according to physical activity practice. Specifically, the scoring differences for emotional and physical self-concept between the two groups (i.e. those that practice exercise and those that do not) can be seen (p<.05).

Table 2. One-factor ANOVA. Mean scores for the factors of self-concept according to physical activity practice

	Yes, I currently compete with a club		Yes, I am currently physically active but I do not compete with a club		I do not practice any sport or physical activity, but I have in the past.		I have never been physically active.		p value
	M	SD	M	SD	M	SD	M	SD	
Academic	7.31	2.01	7.06	.92	7.17	2.64	6.95	1.79	.774
Social	6.39	1.01	6.55	.87	6.56	.92	6.74	1.15	.140
Emotional	5.69	1.91	5.50	2.00	4.65	2.18	4.87	2.00	.001
Familiar	6.39	.87	6.48	.63	6.50	.88	6.57	1.23	.766

Physical	6.76	1.70	7.13	1.23	5.75	1.69	5.09	1.47	.001

DISCUSSION

The aim of the present study was to determine whether the practice of physical activity discriminates groups of university students with regard to self-concept, specifically with regard to the academic, emotional, familiar, physical, and social dimensions of self-concept. The results indicate that the discriminant function that was obtained was statistically significant. The physical and emotional dimensions of self-concept were the variables that discriminated the groups. Thus, the group of university students that were physically active had higher levels of physical and emotional self-concept.

Given the results from the present study, it seems that the practice of exercise and sport is positively related to physical self-concept. Along these lines, and in accordance with the study by Infante, Goñi and Villaroel (2011), carried out with adults, those that believe they are active have higher levels of physical self-concept, and on the other hand, decreased self-concept as one gets older is less prominent for people who claim to be active.

If we look specifically at the female sample from this study, it is interesting to take into consideration the study by Esnaola, Infante, and Goñi (2011) that revealed that physical conditioning and physical attractiveness, which are subcategories of physical self-concept, are significantly related to adult women´s perceived health status. Taking these results into consideration, if the students that are physically active have higher levels of physical self-concept, they may also perceive a higher degree of good health when compared to those who are not physically active and who obtained lower levels of physical self-concept. Further, higher scores in physical self-concept seem to be associated with lower levels of diastolic blood pressure (Urdampilleta, González, Infante y Goñi, 2011), possibly because, as Lurbe (2001) claims, they, both men and women who carry out regular physical activity, increase the vascularisation in muscle, increasing the peripheral capilarisation and reducing the peripheral resistance.

We also found results that were congruent with studies that have assessed the relationship between regular sport practice and physical self-concept in other age groups. This is the case among adolescents, where subjects who regularly practice a sport demonstrate higher perceptions of their physical self-concept when compared to others who do not regularly practice (Álvarez, Cuevas, Lara, & González,2015; Fernández, Contreras, García, & González-Villora, 2010; Molero, Ortega, Valiente, & Zagalaz, 2010). On the other hand, there are some variables, such as the frequency and duration of practice, the years of dedication to the sport, and the degree of satisfaction with the athletic practice that are also positively related to physical self-concept (Contreras et al., 2010). There are other significant variables such as family´s sport climate, which was studied by Revuelta and Esnaola (2011), in which it was found that a favourable sport climate by the family is related to a higher physical self-concept and to a higher frequency of physical and sport activities by the adolescents. They highlight that there are gender differences, as females perceived less favourable climates than males and that the most unfavourable perceptions were held by females who only had sisters or who had no siblings. This aspect is very important from a social intervention point-of-view, demonstrating the need for sport policies that favour participation by females.

However, when we look beyond the practice of physical activity and sport and beyond the perception of being active or sedentary, and we look at physical conditioning (with the understanding that it is a product that results from practicing physical activity or sport) and its relationship with self-concept, the results are not as

consistent. Guillén and Ramírez (2011) carried out a study with children from 10 to 13 years of age and utilised the Piers-Harris Children´s Self-Concept Scale. They partially confirm the relationship between physical conditioning (evaluated with specific physical aptitude tests) and self-concept. The subjects from that study who obtained higher scores for abdominal exercises also scored higher in the dimensions of behaviour and happiness. Likewise, subjects who scored higher in agility demonstrated better intellectual self-concept.

On the other hand, according to the results from the present study, the female university students who practice exercise have a greater emotional self-concept in comparison with those who do not practice. In other words, they perceive a greater control over their emotions and believe that they respond adequately to the different situations in daily life. This finding is novel within the current Spanish scientific situation, where the majority of studies assess physical self-concept and its relationship with the practice of physical activity and sport (Aróstegi, Goñi, Zubillaga & Infante, 2013; González, & Sandoval, 2015; Méndez-Giménez, Fernández-Río & Cecchini, 2013; Reche, Martínez, & Ortin, 2015) and are derived from the consideration of self-concept as a multidimensional construct (Ortega et al., 2000). Therefore, it would be interesting for future research to continue utilising the AF5 instrument by García and Musitu (2001) to evaluate the conception that a person (active or sedentary) has of himself or herself, not only as a physical being but also as a social and spiritual one. Along these lines, studies such as that by Polo-Sánchez and López-Justicia (2012), in which the self-concept of male and female university students with and without visual, auditory, and motor disabilities was compared, have demonstrated that students with disabilities had lower academic and emotional dimensions of self-concept, but there were no differences with regard to the type of disability. Given the lower competence that these youth have in these areas as well as its repercussion in their personal and academic lives, the research regarding and the attention to students with disabilities should be highlighted. It would be very interesting to carry out studies with samples of people with disabilities to be able to assess the possible effect of exercise on their self-concept. These aspects have been assessed in part, in studies such as that by Martin and Whalen (2012), where subjects with disabilities train with weights, and not only athletes with disabilities, which helps in the development of general and physical self-concept.

Finally, it seems necessary to continue evaluating the relationship between self-concept and other variables related to physical activity and sport, such as the type of sport practiced and the frequency and intensity of practice. One such study is that by Aleksandra and Abraham (2012) which assessed male and female adolescents and found that physical activity of a certain intensity is related to a better physical self-concept, and it would seem to be because of increasing one´s physical capabilities. Other relevant variables could include the centre where the exercise is practiced (Hagger, Hein, & Chatzisarantis, 2011), assessing the relationship between self-concept and motives to exercise, and studying the relationship between self-concept and healthy habits, where, in addition to the practice of physical activity and sport, food, alcohol, and tobacco consumption is given consideration. Last, another variable to study would be the processes of adaptation in the development and maturation of female adolescents (Cumming et al., 2011).

Some of the limitations present in this study include not analysing the relationship between self-concept and other variables related to physical activity and sport, such as the type practiced, the frequency or intensity of practice, the centre where the exercise or sport is done, the motives for the exercise, one´s healthy habits, such as food consumption, as well as the consumption of substances such as alcohol and tobacco, or the processes of adaptation in the development and maturation of female adolescents. All these aspects should be assessed in future studies.

CONCLUSIONS

The measurement of hydration status in a field setting is important to exercise physiologists and coaching Given the findings of the present study, some conclusions can be made. First, the practice of physical activity and sport is positively related to physical self-concept in female university students. Secondly, female university students who practice physical activity have a greater emotional self-concept in comparison with those who are not active, and thus, they perceive greater control over their emotions and their responses to the various daily situations, which in this case are adaptive.

From these conclusions, certain plans for action can be derived from an applied perspective. Given the university environment of this study, it is important for the sport services of the different universities to promote healthy lifestyles for their students with specific programs, and specifically for the female students who believe that exercise and sports practice is one of the keys of action.

REFERENCES

1. Aleksandra, L. & Abraham, C. (2012). Reciprocal relationships between three aspects of physical self-concept, vigorous physical activity, and lung function: A longitudinal study among late adolescents. *Psychology of Sport and Exercise, 13*(5), 640-648.
2. Álvarez, L., Cuevas, R., Lara, A., & González, J. (2015). Diferencias del autoconcepto físico en practicantes y no practicantes de actividad física en estudiantes universitarios. Cuadernos de Psicología del Deporte, 15(2), 27-34.
3. Aróstegi, B., Goñi, A., Zubillaga, A., & Infante, G. (2013). El autoconcepto físico de jóvenes futbolistas de alto rendimiento. *Cuadernos de Psicología del Deporte, 13*(1), 9-14.
4. Candel, N., Olmedilla, A., & Blas, A. (2008). Relaciones entre la práctica de actividad física y el autoconcepto, la ansiedad y la depresión en chicas adolescentes. *Cuadernos de Psicología del Deporte, 8*(1), 61-77.
5. Cava, M.J., Murgui, S., & Musitu, G. (2008). Diferencias en factores de protección del consumo de sustancias en la adolescencia temprana y media. *Psicothema, 20*, 389-395.
6. Ciccolo, J. T., SantaBarbara, N. J., Dunsiger, S. I., Busch, A. M., & Bartholomew, J. B. (2015). Muscular strength is associated with self-esteem in college men but not women. *Journal of health psychology*. DOI: 10.1177/1359105315592051
7. Contreras, O.R., Fernández, J.G., García, L.M., Palou, P., & Ponseti, J. (2010). El autoconcepto físico y su relación con la práctica deportiva en estudiantes adolescentes. *Revista de Psicología del Deporte, 19*(1), 23-39.
8. Cumming, S.P., Sherar, L.B., Gammon, C., Standage, M., & Malina, R.M. (2012). Physical activity and physical self-concept in adolescence: A comparison of girls at the extremes of the biological maturation continuum. *Journal of Research on Adolescence, 22*, 746-757.
9. Cumming, S.P., Standage, M., Loney, T., Gammon, C., Neville, H., Sherar, L.B., & Malina, R.M. (2011). The mediating role of physical self-concept on relations between biological maturity status and physical activity in adolescent females. *Journal of Adolescence, 34*(3), 465-473.
10. Esnaola, I., Infante, G., Rodríguez, A., & Goñi, E. (2011). Relación entre variables psicosociales y la salud percibida. *Revista de Psicología del Deporte, 20*(2), 413-427.
11. Fernández, J.G., Contreras, O.R., García, L.M., & González-Villora, S. (2010). Autoconcepto físico según la actividad físico-deportiva realizada y la motivación hacia esta. *Revista Latinoamericana de Psicología, 42*(2), 251-264.

12. Garaigordobil, M., Durá, A., & Pérez, J.I. (2005). Psychopathological symptoms, behavioural problems and self-concept/self-esteem: A study of adolescents aged 14 to 17 years old. *Annuary of Clinical and Health Psychology, 1*, 53-63.
13. Reche, C, Martínez, A., & Ortin, F.J. (2015). Dependencia al ejercicio físico e indicadores del estado de ánimo en deportistas universitarios. *Cuadernos de Psicología del Deporte, 15*(2), 21-26.
14. García, F., & Musitu, G. (2001). *AF5: Autoconcepto Forma 5*. Madrid: TEA.
15. García, F., Musitu, G., & Veiga, F. (2006). Autoconcepto en adultos de España y Portugal. *Psicothema, 18*, 551-556.
16. García, F., & Gracia, E. (2009). Is always authoritative the optimum parenting style? Evidence from Spanish families. *Adolescence, 44(173),* 101-131.
17. García, J.F., Musitu, G., Riquelme, E., & Riquelme, P. (2011). A confirmatory factor analysis of the "Autoconcepto Forma 5" questionnaire in young adults from Spain and Chile. *Spanish Journal of Psychology, 14*(2), 648- 660.
18. García-Sánchez, A., Burgueño-Menjibar, R., López-Blanco, D., & Ortega, F.B. (2013). Condición física, adiposidad y autoconcepto en adolescentes. Estudio piloto. *Revista de Psicología del Deporte, 22*(2), 453-461.
19. González, J., & Sandoval, J. M. (2015). Estrategias de afrontamiento y personalidad en la adaptacio n de jo venes a su pra ctica deportiva. Diferencias de ge nero. *Sportk, 4*(1), 57-62.
20. Goñi, E., Fernández-Zabala, A., & Infante, G. (2012). El autoconcepto personal: Diferencias asociadas a la edad y al sexo. *Aula Abierta, 40*(1), 39-50.
21. Guay, F., Pantano, H., & Boivin, M. (2003). Autoconcepto académico y logro académico: Perspectivas del desarrollo sobre su ordenamiento causal. *Diario de Psicología Educativa, 95*, 124-136.
22. Guérin, F., Marsh, H.W., & Famose, J.P. (2004). Generalizability of the PSDQ and its relationship to physical fitness: The European French connection. *Journal of Sport and Exercise Psychology, 26,* 19-38.
23. Guillén, F., & Ramírez, M. (2011). Relación entre el autoconcepto y la condición física en alumnos del Tercer Ciclo de Primaria. *Revista de Psicología del Deporte, 20*(1), 45-59.
24. Guillén, F., & Sánchez, R. (2003). Autoconcepto en jóvenes sedentarios y practicantes deportivos. *Edupsykhé, 2*(2)*,* 259-272.
25. Hagger, M.S., Hein, V., & Chatzisarantis, N.L.D. (2011). Achievement goals, physical self-concept, and social physique anxiety in a physical activity context. *Journal of Applied Social Psychology, 41*(6), 1299-1339
26. Harter, S. (1999). *The construction of self: A developmental perspective.* New York: Guilford.
27. Infante, G., Goñi, E., & Villaroel, J.D. (2011). Actividad física y autoconcepto, físico y general, a lo largo de la edad adulta. *Revista de Psicología del Deporte, 20*(2), 429-444.
28. Jiménez, T.I., Murgui, S., Estévez, E., & Musitu, G. (2007). Family communication and delinquent behavior among Spanish adolescents: The mediating role of self-esteem. *Revista Latinoamericana de Psicología, 39*, 473-485.
29. Levy, K. (1997). The contribution of self-concept in the etiology of adolescent delinquent. *Adolescence, 32*(127), 671-686.
30. Lyons, C., Kaufman A.R., &Rima, B. (2015). Implicit theories of the body among college women: Implications for physical activity. *Journal of health psychology, 20*(9), 1142-1153.
31. Lurbe, E., Torró, I., & Cremades B. (2001). Hipertensión arterial en niños y adolescentes. In A. Delgado (Ed.) *Protocolos diagnósticos y terapéuticos en pediatría Tomo 3*. Bilbao: Asociación Española de Pediatría, D.L.

32. Marsh, H.W., & Shavelson, R. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist*, *20*(3), 107-122.
33. Martin, J.J., & Whalen, L. (2012). Self-concept and physical activity in athletes with physical disabilities. *Disability and Health Journal, 5*(3), 197-200.
34. Martínez, I., & García, J.F. (2008). Internalization of values and self-esteem among Brazilian teenagers from authoritative, indulgent, authoritarian and neglectful homes. *Adolescence, 43*(169), 13-29.
35. Méndez-Giménez, A., Fernández-Río, J., & Cecchini, J.A, (2013). Papel importante del alumnado, necesidades psicológicas básicas, regulaciones motivacionales y autoconcepto físico en educación física. *Cuadernos de Psicología del Deporte, 13*(1), 71-82.
36. Molero, D., Ortega, F., Valiente, I., & Zagalaz, M.L. (2010). Estudio comparativo del autoconcepto físico en adolescentes en función del género y del nivel de actividad físico-deportiva. *Retos: Nuevas tendencias en educación física, deporte y recreación, 17*, 38-41.
37. Moreno, J.A., & Cervelló, E. (2005). Physical self-perception in Spanish adolescents: Effects of gender and involvement in physical activity. *Journal of Human Movement Studies, 48*, 291-311.
38. Moreno, J.A., Cervelló, E., & Moreno, R. (2008). Importancia de la práctica físico-deportiva y del sexo en el autoconcepto físico de los 9 a los 23 años. *International Journal of Clinical and Health Psychology, 8*(1), 171-183.
39. Moreno, J.A., Moreno, R., & Cervelló, E. (2009). Relación del autoconcepto físico con las conductas de consumo de alcohol y tabaco en adolescentes. *Adicciones, 21*, 147-154.
40. Mruk, C.J. (2006). *Self-esteem research, theory and practice: Toward a positive psychology of self-esteem*. New York: Springer.
41. Ortega, P., Mínguez, R., & Rodes, M. L. (2000). Autoestima: Un nuevo concepto y medida. *Teoría de la Educación. Revista Interuniversitaria, 12*, 45-66.
42. Palacios, E.G., & Zabala, A.F. (2007). Los dominios social y personal del autoconcepto. *Revista de Psicodidáctica, 12*, 179-194.
43. Pastor, Y., & Balaguer, I. (2001). Relaciones entre autoconcepto, deporte y competición deportiva en los adolescentes valencianos. Retrieved from http://www.psicologia-online.com/ciopa2001/actividades/57/index.html
44. Polo-Sánchez, M.T., & López-Justicia, M.D. (2012). Autoconcepto de estudiantes universitarios con discapacidad visual, auditiva y motora. *Revista Latinoamericana de Psicología, 44*(2), 87- 99.
45. Ramírez, M.I. (1997). *La adaptación como factor de rendimiento de la población escolar de la comunidad musulmana ceutí.* Madrid: UNED.
46. Ramsay, J. E., Yang, F., Pang, J. S., Lai, C. M., Ho, R. C., & Mak, K. K. (2013). Divergent pathways to influence: Cognition and behavior differentially mediate the effects of optimism on physical and mental quality of life in Chinese university students. *Journal of health psychology*, 20(7), 963-973.
47. Reigal-Garrido, R.E., & Videra-García, A. (2011). Frecuencia de práctica física y autoconcepto físico multidimensional en la adolescencia. *Apunts, Educación Física y Deportes, 105*(3), 28-34.
48. Revuelta, L., & Esnaola, I. (2011). Clima familiar deportivo y autoconcepto físico en la adolescencia. *European Journal of Education and Psychology, 4*(1), 19-31.
49. Shavelson, R.J., Hubner, J.J., & Stanton, G.C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research, 46*, 407-441.
50. Tabachnick, B.G. & Fidell, L.S. (2001). *Using multivariate statistics (4th ed.).* Boston: Allyn and Bacon.
51. Téllez, J., Cote, M., Savogal, F., Martínez, E., & Cruz, U. (2003). Identificación de factores protectores en el uso de sustancias psicoactivas en estudiantes universitarios. *Revista de la Facultad de Medicina de la Universidad Nacional de Colombia, 51*, 15-24.

52. Tomás, J.M., & Oliver, A. (2004). Confirmatory factor analysis of a Spanish multidimensional scale of self-concept. *Revista Interamericana de Psicología, 38*, 285-293.
53. Urdampilleta, A., González, J., Infante, G., & Goñi, A. (2011). La tensión arterial sistémica y el autoconcepto físico en la adolescencia. *Cuadernos de Psicología del Deporte, 11*(2), 25-33.