

## PSYCHOLOGICAL WELL-BEING, PERSONALITY AND PHYSICAL ACTIVITY. ONE LIFE STYLE FOR THE ADULT LIFE

## BIENESTAR PSICOLÓGICO, PERSONALIDAD Y ACTIVIDAD FÍSICA. UN ESTILO DE VIDA PARA LA VIDA ADULTA

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### Abstract

Practice of physical activity is increasingly important for people both as a recreational activity as a health activity. Although it is difficult to find human behaviors that do not have any influence on the health and well-being, it's possible to show conduct that are among the most important risk factors of major health problems today such as consumption alcohol, obesity and snuff. Regular healthy physical exercise following programmes or frequent and regular autonomous activities improves

mental health, autonomy, memory, speed, body image and the feeling of wellbeing, while producing personal stability characterised by optimism, emotional clarity and mental flexibility, leading to a longer life and better health. This model of psychological wellbeing based on the development of human potential and physical exercise, indicates that some aspects of psychological wellbeing are perceived as being more important than others (e.g., self-acceptance, personal growth or life purpose) when studied in relation to autonomy or coping strategies. This study picks perceptions of subjective well-being of adults (N = 482) aged between 24 and 46 years using Scale psychological welfare Ryff's, *self-*

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*efficacy indicators* and persistence questionnaire, all corresponding to the Spanish population. The data analysis suggests a positive correspondence between the indices of psychological well-being perceived with the way personal of to orient and perceive their physical activity. We see the importance of pedagogical transmission of physical activity as a model of psychological well-being as a basis for healthy behaviors in adulthood.

**Keywords:** physical activity; personality; well-being; perseverance.

## Resumen

La práctica de la actividad física es cada vez más importante para las personas tanto como actividad recreativa, como actividad de salud. Aunque es difícil encontrar comportamientos humanos que no tienen ninguna influencia en la salud y el bienestar, es posible señalar conductas entre los factores de riesgo más importantes de los principales problemas de salud como el consumo de alcohol, la obesidad y el tabaco. Programas de ejercicio físico saludable regular o actividades autónomas regulares y frecuentes, mejoran la salud mental, la autonomía, la memoria, la velocidad, la imagen corporal y la sensación de bienestar, produciendo una estabilidad personal caracterizada por el optimismo, la claridad emocional y la flexibilidad mental, llevando a una vida más larga y con mejor salud. Este modelo de bienestar psicológico basado en el desarrollo del potencial humano y el ejercicio físico, indica que algunos aspectos del bienestar psicológico son percibidos como más importantes que otros (por ejemplo, la autoaceptación, el crecimiento personal o el propósito de la vida) cuando se estudian en relación con la autonomía o estrategias de afrontamiento. Este estudio recoge las percepciones del bienestar subjetivo de los adultos (N = 482) de entre 24 y 46 años utilizando la escala de bienestar psicológico de Ryff, los indicadores de autoeficacia y el cuestionario de persistencia, todos ellos correspondientes a la población española. El análisis de los datos sugiere una correspondencia positiva entre los índices de bienestar psicológico percibidos, con la forma personal de orientar y percibir su acti-

vidad física. Vemos la importancia de la transmisión pedagógica de la actividad física como un modelo de bienestar psicológico y favorecedor de comportamientos saludables en la edad adulta.

**Palabras clave:** actividad física; personalidad; bienestar; perseverancia.

## Introduction

Relating physical or sports activity to physical and mental wellbeing is an area of great interest for researchers, and there is a growing number of papers on the subject.

Psychological variables of importance intervene in all areas of study pertaining to physical activity as they affect the adaptation process toward wellbeing: *persistence* (Sheard & Golby, 2010; García-Calvo, Sánchez Miguel, Leo Marcos, Sánchez Oliva, & Amado, 2011), *self-efficacy and attention* (Infante, Goñi, & Villarroel, 2011), *stress and anxiety* (González & Garcés de los Fayos, 2014), *moods* (Fry et al., 2012), *self-control and self-regulation* (Vieira et al., 2013), *sociability* (Boyd, Kim, Ensari, & Yin, 2014; Esnaola & Revuelta, 2009), *interpersonal skills* (Chen, 2001), *self-confidence* (Ries, Castañeda, Campos, & Del Castillo, 2012), or *emotional adjustment* (Carver & Scheier, 2012).

Knowledge and manipulation of these variables, can therefore contribute to individuals who practice physical exercise optimising their performance, and so enhance their possibilities of achieving better results or fitness and reduce the levels of variables that might affect their continuing to practice sport and physical exercise, in the medium and long term. Internal resources such as self-efficacy, gratitude, optimism, self-esteem, hope, and resilience have been identified as psychological strengths (Bandura, 2012; Sivi-Cetinkaya 2013). Human functioning has its foundation in the social environment and self-influences, in which self-efficacy is a constituent, concerning people's beliefs about their capabilities to exercise control over their functioning (Lightsey et al., 2014).

Previous research was primarily univariate, examining the relationship of individual traits with psychological wellbeing (Baudin, Aluja, Rolland, & Blanch, 2011; DeNeve & Cooper, 1998). Previous research was primarily univariate, examining the relationship of individual traits with psychological wellbeing (Baudin et al., 2011; DeNeve & Cooper, 1998; Romero, García-Mas, & Brustad, 2009). In particular, relations into personality and wellbeing have been explain like neuroticism (Lyubomirsky, Sheldon, & Schkade, 2005; Steel, Schmidt, & Shultz, 2008) or impulsivness are similars to negative affect, and positive affect to extraversion or openness (Eid, Riemann, Angleitner, & Borneman, 2003; Pawlowski, Breuer, & Leyva, 2011; Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002; Yik & Russell, 2001). Persistence has been related to the voluntary regular maintenance of the efforts, that allow to reach objectives or other elements associated with the welfare –social support, conscience, maturity...– (Rivas et al., 2012; Wilson, Longley, Muon, Rodgers, & Murray, 2006).

The literature has many empirical studies on adults and the practice of physical exercise and the changes that take place during the lives of all individuals. These prove that continuous coherent exercise favour structures and resources for a stable and balanced life (Candel, Olmedilla, & Blas, 2008; Suárez-Colorado, 2012; Thompson Coon et al., 2011).

Regular healthy physical exercise following programmes or frequent and regular autonomous activities improves mental health, autonomy, memory, speed, body image and the feeling of wellbeing, while producing personal stability characterised by optimism, emotional clarity and mental flexibility, leading to a longer life and better health (Garrido, Gupegui, & Jiménez, 2011).

From a wider perspective, psychological wellbeing is considered to be the result of one's personal perception that life is being lived well and properly and in the awareness of the appropriate development of one's potential (Thompson Coon et al., 2011). This model of psychological wellbeing based on the development of human potential and physical exercise (orientacion vital

prospective or eudaimonic), indicates that some aspects of psychological wellbeing are perceived as being more important than others (e.g., self-acceptance, personal growth or life purpose) when studied in relation to autonomy or coping strategies (Infante et al., 2011; Ryff, 1989).

Similar studies (Butson et al., 2014; Juan-Llamas & García, 2014) suggest that social support and personal resources affect people's mental and physical health and produce the need to consider personal "intention" as a decision-making process that should have consequences with regard to the healthy practice of motivated behavior (Harley et al., 2014).

When speaking of psychological wellbeing one should also consider the general and emotional health of, in this case, women who do physical activity or sports. At the same time, the benefits physical activity supposes for psychological, socio-cultural and cognitive wellbeing have also set off a large number of procedures aimed at modifying behaviours and attitudes people have about physical activity and sports (Annesi & Tennant, 2014; Cuadra-Martínez, Georgudis-Mendoza, & Alfaro-Rivera, 2012).

So, a coherent persevering approach in line with one's motives and goals can be considered to act as a moderator and predictor of health perceptions and the individual wellbeing of those practising sports (André & Dishman, 2012; Sansinea et al, 2008) or sedentaries behaviours (Mackay, Schofield, & Oliver, 2011), and these lead to better performance and better quality of life.

The positive relation between high coherence in the efforts made (Sheldon, 2001) and the subjective perception of wellbeing has been treated by researchers as a way of explaining how to cope with illnesses (Klusmann, Evers, Schwarzer, & Heuser, 2012) and quality of life (Julkunen & Ahlström, 2006). According to Eriksson & Lindström (2006), there is a strong relation between psychological wellbeing and a sense of coherence, which is even stronger and more direct than between this and physical health.

On the other hand, the perception of wellbeing have been determined by will or motivation (García, Archer, Moradi, & Andersson-Arntén, 2012; Salanova, Martínez, Bresó, Llorens, & Grau, 2005), perseverance (Blázquez Corte-Real, Dias, & Fonseca, 2009), self-esteem (Cavallera, Passerini, & Pepe, 2013; González, Garcés de los Fayos, & Ortega-Toro, 2014; Gucciardi, Mahoney, Jalleh, Donovan, & Parkes, 2012; Hampson & Friedman, 2008; Sheard & Golby, 2010) and rational approaches (Cervelló et al., 2014; Delgado, 2007).

And the regular physical exercise and associated conducts (balanced diet, regular sleep and proper hygiene which favor strong healthy bodies) have been related to long healthy lives have been studied in general populations (Aittasalo, Miilunpalo, Ståhl, & Kukkonen-Harjula, 2007), adult women (Aparicio-Ting, Farris, Courneya, Schiller, & Friedenreich, 2015; Juan-Llamas & García, 2014; Klusmann et al, 2012), the elderly (Luccidi, Grano, Barbaranelli, & Violani, 2006; McAuley et al, 2007; Schutzer & Graves, 2004), young people (Lacy et al, 2012; Duda et al., 2014), or in populations suffering illness (Alexandratos, Barnett, & Thomas, 2012; Courneya et al., 2012; Courneya et al., 2014; Pomp, Fleig, Schwarzer, & Lippke, 2013; Sylvia et al., 2013; Van der Heijden, Van Dooren, Pop, & Pouwer, 2013).

The methodology proposed here seeks to establish relations between the practice of physical exercise and psychological wellbeing in order to find distinguishing and causal explanations that take into account individual character variables of adult women. The starting hypothesis is that adults who do physical exercise regularly improve their levels of psychological wellbeing through perseverance in acquiring and maintaining commitments and efforts to the activity they perform).

## Methodology

A descriptive study relating variables (differential and correlational) is used for a random sample (N = 482). A 43.98 % was men (n = 212) and 55.87 % women (n = 262) who practise sport on a regular basis at private sports centres and in public installations.

Participants either attended sports centres or gymnasiums (64.5 %) or practised sport on their own (35.5 %). The average age was 37.62 years (DT = 7.834).

The mean weekly frequency of sports practice was 4.26 times (DT = 1.204). The involvement of the participants was valued as being indicative of their dedication to the exercise performed. The valuation of the exercise performed is 3.19 (DT = .716), and of the behaviour used in performing the physical exercise it is 3.16 (DT = .720), and capacity to surpass oneself is 3.13 (DT = .716).

## Instruments

*Sociodemographic questionnaire.* A sociodemographic questionnaire was administered. The questionnaire took into account age, reasons for doing physical activity, the number of days devoted to exercise, the most frequent type of exercise, the importance given to the exercise, the behaviour involved in performing the exercise and the ability to surpass oneself.

*Persistence.* We used the *TCI-R Questionnaire* (Mateos & De la Gandara, 2001; Spanish version of the Questionnaire on persistence and character, prepared by Cloninger, 1999). Questionnaire uses a Likert scale ranging from 1 (false) to 5 (true) for the following items: *persistence in effort* (8, 60, 94, 114, 134, 189, 197, 200, 240), *persistence in work* (5, 22, 45, 111, 140, 163, 173, 228), *persistence in ambition* (37, 62, 72, 117, 126, 153, 191, 202, 207, 238), *persistence in perfectionism* (55, 76, 119, 129, 137, 146, 158, 229) and an index for *overall persistence*. For psychometric application and data reliability some items are scored inversely (134, 189, 140, 153, 129, 146). Tool has proved to be reliable with an internal consistency Cronbach alpha of .848.

*Psychological wellbeing. PWBS.* (Spanish version of the Ryff's Weellbeing Scales; Díaz et al., 2006 Psychological WellBeing Scales). Psychological wellbeing focuses on the development of capacities and personal growth, both of which are held to be the main indicators of positive functioning. Likert scales ranging from 1 (totally disagree) to 6 (totally agree) are applied to six groups of questions aimed at providing a complete vision

of subjective wellbeing: self-acceptance (“when I review my life I am happy with how things have turned out”), positive relations (“I often feel lonely because I have few close friends to share my concerns with”), autonomy (“I tend to worry about what others think of me”), environmental mastery (“I find it difficult to direct my life in a way that satisfies me”), personal growth (“in general, as time goes by I feel I am learning more about myself”), and purpose in life (“I enjoy making plans and working to make them come true”). The tool has proved to be reliable with an internal consistency Cronbach alpha of .725.

*Self-efficacy.* Three questions were asked so that participants could score behaviour (“Valuation of my behaviour in successfully performing the physical exercise I do”); their ability to surpass themselves (“Valuation of my capacity to surpass myself when performing physical exercise”); and an overall valuation (“Valuation of the physical exercise I do”). These were on a scale of 0 (nil) to 5 (unimprovable). The internal reliability was .789.

### Procedure

Data were collected using a transversal and incidental design from various places according to accessibility, proximity and familiarity. Some participants of similar characteristics were made aware of the study and volunteered to participate. All participants signed a written informed consent form (Asociación Médica Mundial, 2014) regarding ethical compliance and data protection, so guaranteeing the rigorous nature of the research. The researcher also explained the questionnaire and remained with the interviewee throughout to solve any doubts.

### Statistical Analysis of the Data

In terms of type of physical exercise (Table 1), a comparative study of the simple reveals significant differences for persistence towards perfectionism ( $t_{2,480} = 2.693, p = .008$ ) and the reason for feeling active

Table 1.

*Discriminant analysis according to the variable type of exercise.*

MOTIVES						
Type of exercise	Clases with monitor (N=258)	Free exercise (N=224)	(λ)	F	X <sup>2</sup> (p)	CE (Sig.)
Lose weight	(M=2.96,DT=1.55)	(M=2.89,DT=1.57)			.461 (.62)	
Feel active	(M=2.94,DT=1.30)	(M=2.57,DT=1.28)	.624	3.821	4.056 (.70)	3.753*(.012)
Enhanced Life Qual.	(M=2.54,DT=1.39)	(M=2.37,DT=1.29)			4.994 (.03*)	
Strong and vigorous	(M=3.59,DT=1.36)	(M=3.78,DT=1.29)	.874	5.832	4.475 (.56)	2.854*(.017)
Mood	(M=2.97,DT=1.26)	(M=3.43,DT=1.14)	.969	4.857	15.242 (.04*)	-4.406*(.029)
PERSISTENCE						
Effort	(M=27.84,DT=4.88)	(M=28.44,DT=4.95)				
Work	(M=23.13,DT=3.43)	(M=23.19,DT=3.87)				
Ambition	(M=31.59,DT=5.93)	(M=30.78,DT=7.08)				
Perfectionism	(M=20.29,DT=3.13)	(M=18.78,DT=3.59)	.954	7.253		-.139**(.008)
Persistence	(M=102.85,DT=14.34)	(M=101.19,DT=15.66)				
PSYCHOLOGICAL WELLBEING						
Self-acceptance	(M=4.03,DT=.42)	(M=4.16,DT=.50)				
Positive relations	(M=3.13,DT=.70)	(M=3.26,DT=.69)				
Autonomy	(M=4.03,DT=.76)	(M=4.15,DT=.75)				
Mastery environ.	(M=4.03,DT=.54)	(M=4.07,DT=.55)				
Personal Growth	(M=4.02,DT=.52)	(M=4.04,DT=.48)				
Life Purpose	(M=4.39,DT=1.23)	(M=4.26,DT=.67)				
N= 482. gl1(1); gl2(150)						

Note. \* p significant <.05; significant \*\* p <. 01.



( $t_{2,480} = 3.162, p = .012$ ) in favour of those attending classes. Similarly, reasons for improved mood ( $t_{2,480} = -2.204, p = .029$ ) favoured those doing free exercise and feeling strong and vigorous ( $t_{2,480} = 3.412, p = .017$ ). No significant differences were found for the remaining variables.

Table 2 shows the two-way relations between the variables. The significant relations observed pose interesting questions.

The more effort employed, the higher the indicators of self-acceptance ( $r = .419, p = .003$ ), autonomy ( $r = .672, p = .034$ ) and personal growth ( $r = .738, p = .003$ ). As work increases, so does self-acceptance ( $r = .509, p = .030$ ) and purpose in life ( $r = .237, p = .006$ ). With higher ambition comes higher self-acceptance ( $r = .643, p = .047$ ), personal growth ( $r = .538, p = .027$ ) and purpose in life ( $r = .748, p = .043$ ). An increasing search for perfectionism, for constantly surpassing oneself leads to increased personal growth ( $r = .645, p = .015$ ) and purpose in life ( $r = .742, p = .008$ ). Greater general persistence correlates with

higher self-acceptance ( $r = .743, p = .004$ ), personal growth ( $r = .862, p = .008$ ) and purpose in life ( $r = .758, p = .047$ ).

As for reasons for taking up sport, the higher one's self-acceptance the higher the reason for practising it is feeling strong and vigorous ( $r = .588, p = .027$ ); the increase in positive relations ( $r = -.699, p = .031$ ) and personal growth ( $r = -.628, p = .017$ ) lead to a decrease in the influence of feeling strong and vigorous, which receives a negative score, in the search for psychological wellbeing from the sport practiced. As perceived quality of life increases so does the perception of personal growth ( $r = -.490, p = .022$ ), and the same occurs with purpose in life and the motive of improving one's life quality ( $r = .470, p = .042$ ). Finally, practising physical exercise leads to a high positive relation with autonomy ( $r = .743, p = .004$ ) and with the desire to increase life quality ( $r = .862, p = .006$ ), and valuing the exercise one performs is directly related with self-acceptance ( $r = .672, p = .039$ ).

Table 2.

*Correlations between the variables.*

N = 482	Enhance Life Quality	Strong and vigorous	Self-acceptance	Autonomy	Mastery Environment	Personal Growth	Life Purpose
Lose weight							
EF Evaluation			.672* (.039)				
Feel active	.862** (.006)			.743** (.004)			
Enhance Life Qual.						.490* (.022)	.470* (.042)
Strong and vigorous						-.628* (.014)	-.699* (.031)
Mood							
Effort		.588* (.027)	.419** (.003)	.672* (.034)		.738** (.003)	
Work			.509* (.030)				.237** (.006)
Ambition			.643* (.047)			.538* (.027)	.748* (.043)
Perfectionism						.164* (.015)	.166** (.008)
Persistence			.743** (.004)			.205* (.041)	.758** (.047)
Self-acceptance							
Positive Relations							
Autonomy							
Mastery Environ.							
Personal Growth							
Life Purpose							

Note.  $p$  significative <.05; significant \*\*  $p$  <. 01.

Table 3

Predictive linear regression relations.

Dependent variable	Predictive	R <sup>2</sup>	β(p)
Self-acceptance	AF Frequency	.426	.465** (.010)
Life purpose		.513	.562* (.014)
Self-acceptance	Persistence effort	.832	.735* (.016)
		.671	.678** (.002)
Autonomy	Persistence work	.571	.613** (.006)
	AF Frequency	.489	-.675** (.003)

Note. p significant <.05; significant p <. 01.

The predictive relations of the frequency with which physical activity is performed, perseverance and reasons regarding psychological wellbeing (Table 3) provide interesting evidence that frequency of physical exercise positively predicts self-acceptance ( $\beta = .465, p = .010$ ) and life orientation in what one does ( $\beta = .562, p = .014$ ) with an explained variance of 42% and 51% respectively. Likewise, self-acceptance ( $\beta = .735, p = .016$ ) and purpose in life ( $\beta = .678, p = .002$ ) are positively related to persistence in effort -83 % and 61 % explained variance respectively.

However, autonomy is the variable that is most influenced by the other variables, since an increase in practising physical activity positively predicts an increase in autonomy ( $\beta = .613, p = .006$ ), with an explained variance of 57 %, although the relation with per-

sisting in work is negative ( $\beta = -.675, p = .003$ ), with 49 % explained variance.

In slightly more detail and taking into account the influence of the most stable variables, the moderating force of the perseverance indicators on the predictive relations mentioned shows that practising physical activity predicts autonomy positively ( $p = .01$ , interact = .551) when persistence in work is low, with an explained variance of 71% ( $R^2 = .708$ ). In the same way, increasing of practice of physical activity predicts self-acceptance positively ( $p = .00$ , interact = .65) when persistence in effort is high, and negatively when persistence in effort is low ( $p = .02$ , interact =  $-.58$ ), with an explained variance of 67 % ( $R^2 = .668$ ).

### Discussion

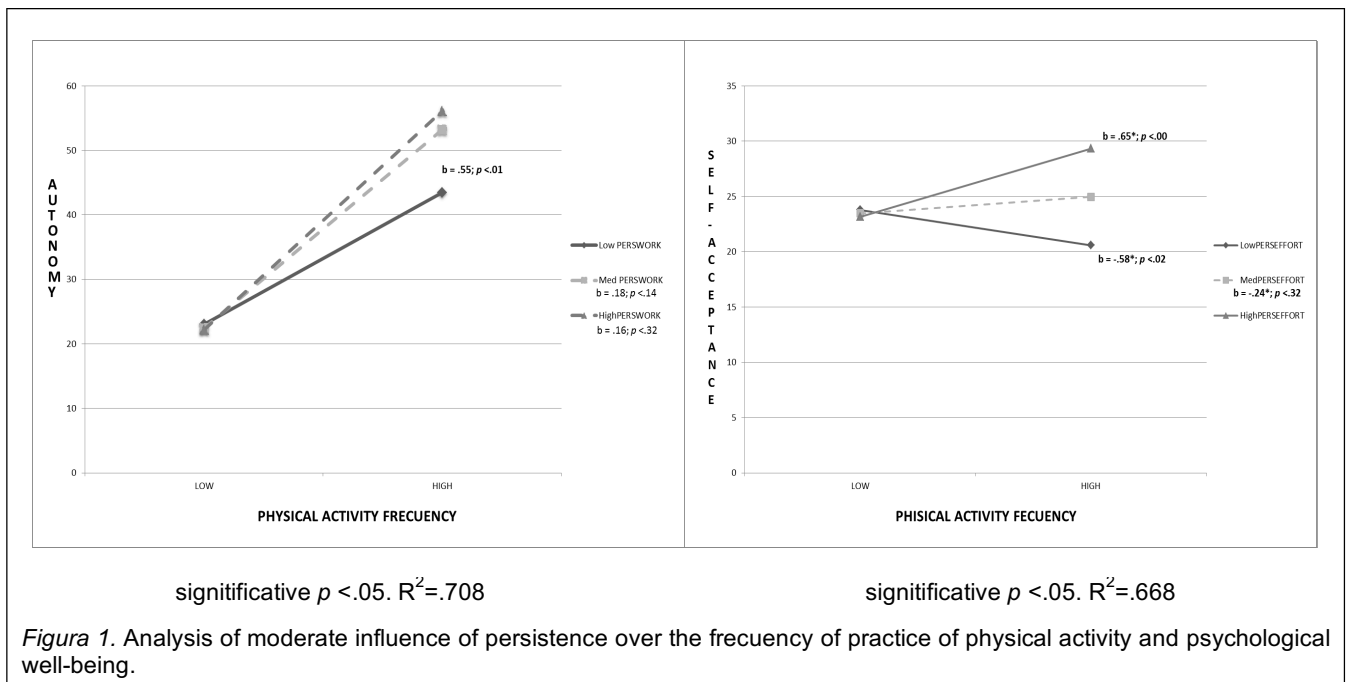


Figura 1. Analysis of moderate influence of persistence over the frequency of practice of physical activity and psychological well-being.

The results are in line with those of other studies (Chen, 2001; Esnaola & Revuelta, 2009; Infante et al., 2011; Reigal et al., 2014; Ríes et al., 2012), confirming that women who do physical exercise optimize their performance and so increase their chances, so achieving better results or physical wellbeing. This has a positive effect on personal issues which allows them to continue to practice sport and physical activity in the medium and long term (persistence indicators).

There are important positive relations between the persistence indicators and psychological wellbeing and self-efficacy. Effort, work, ambition and perfectionism correlate positively with perception of wellbeing (Blázquez-Garcés et al., 2014; Hampson & Friedman, 2008), mainly self-acceptance, personal growth and purpose in life. As indicated in other studies (Esnaola & Revuelta, 2009; González et al., 2014), participation in activities requiring effort, like physical exercise, offers people the chance to develop individual characteristics that help them to become more perseverant, dynamic and stable, especially in the case of women (Courneya et al., 2012; Salehi, Harris, Coyne, & Sebar, 2016).

Even so, high levels of persistence in effort affect fit in the perception of wellbeing when the physical activity increases, which is important in terms of the valuation, quantification and adaptation of the activity performed. The perception of psychological wellbeing favours self-esteem and decision making in the physical activity or when practising sport, although if the persistence element of the individual (character) is not taken into consideration and it is out of adjustment to the point to point low acceptance of themselves.

Within the relation between psychological wellbeing and self-esteem, it is considered that those who practice sport see themselves as more autonomous and therefore do more physical exercise (Duda et al., 2014; Mackay et al., 2011), although this relation is only predictive when perseverance character is low. Given these indicators, character decides the order of usefulness in what one performs and whether an increase of physical activity is useful or not for autonomy.

Besides, when a person consciously identifies with the action they perform or the value it expresses, improving life quality is the motive that most relates with wellbeing in middle-aged women, who recognize that autonomous physical activity gives their life more coherence, (Vieira et al., 2013). The adults in the sample made significant life changes when they identified with the exercise they were performing, since this is related to the usefulness of what they are doing, and to the performance and effort that spring from their intentions. Furthermore, it is aimed at achieving goals, in the search, along with the effort employed, to enhance life quality, which some researchers have associated with unattained goals in the past (Lacy et al., 2012; Juan-Llamas & García, 2014).

## Conclusions

Rigorous scientific observation and analysis of the data shows that knowledge of basic aspects of the human being is important when handling any process of psychological change aimed at enhancing sports abilities through planning and proper ordering of the different levels of physical exercise, either through attention to the reasons behind practising physical exercise, or through actions aimed at modifying perceptions of self-efficacy and persistence that favor psychological wellbeing (Harley et al., 2014).

This combination allows people to grow through the physical exercise they perform and to feel continuous satisfaction about the effort they are making. Middle aged people who firmly believe in and are aware of their capacities are maintained with high effort to the goals and challenges they set themselves, they are driven by positive motives, lasting intense efforts and perseverance that enable them to overcome the problem. They are resilient to failure and focus their attention and efforts on overcoming obstacles that demand greatest effort. They see their physical and sporting goals as being reachable, inspiring and challenging.

A coherent approach to physical activity and aims means one is able to experience oneself, regulate oneself, observe oneself, adjust and, in short, these tools, driven by the instinctive desire to live, enable one to grow as an



individual and find order and sense in life (Caprara, 2013).

The sense of psychological wellbeing enhances the development of self-esteem, favors decision making when practising physical activity or sport. Within the relation between psychological wellbeing and self-esteem it is likewise envisaged that doing physical exercise and more frequently makes individuals perceive themselves as more capable, although it is important to highlight that without a coherent balance between the motive and purpose, the motives for the capacity and awareness of driving oneself, the perception of psychological wellbeing changes and can generate misfits and so alter the perception of capability and wellbeing.

Future research should look at physical exercise in men and then seek a relation between men and women so as to be able to adapt physical exercises to the demands of each.

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