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IMPLICATIONS OF PROMOTING ROAD RACE PARTICIPATION

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Abstract

In physical exercise, studying the incentives involved when a subject is developing within their activity has become one of the key concerns of sport and exercise psychology. The aim was to establish the predictive effects of commitment to running, competitive anxiety and perception of success in route races upon the reasons for participating in them. 1,795 long-distance runners took part (1,105 Spanish, 690 Mexicans). Of these, 85.65% were men with an average age of M = 38.98 (SD =10.45), and 14.35% were women, with an average age of M =37.88 (SD =9.80). The results showed that compared to the Spanish group, the Mexicans scored higher in all sub-scales of the MOMS-34, the CR-11, the POSQ and in the Self-confidence sub-scales of the CSAI-2R, but lower in Physical anxiety. There were no significant differences in terms of Cognitive anxiety.Finally, the seven predictive models based on regression analyzes were very similar when the two nationalities were compared in groups according to the participants' sex, producing some very high explanatory variance. But the predictive models were shown to be differential when men were compared with women.

Keywords: anxiety; self-confidence; commitment; ego; task

Introduction

In the practice of physical exercise, and where appropriate in sport, studying the motivational aspects involved in a subject carrying out an activity has become one of the fundamental topics of sports and exercise psychology. Gould (1980) already suggested the need to carry out studies that allow identifying the variety of motives and their relationships when getting involved in sports teams. Now, we must be aware that these starting reasons (Isorna, Rial, Vaquero-Cristóbal, & Sanmartín, 2012; López & Márquez, 2001) do not have to coincide with those alleged to continue (Castillo, Balaguer, & Duda , 2000; Isorna, Rial & Vaquero-Cristóbal, 2014; Martín-Albo, Núñez, & Navarro, 2003), to abandon (Allied Dunbar National Fitness Survey, 1992; Zamarripa, Ruiz-Juan, López, & Fernández, 2013) or for changing one sport for another (Martín-Albo & Núñez, 1999). Thus, it is alleged that those would be subject to evolution, depending on the time of practice, interacting both personal and situational aspects (Escartí & Brustad, 2000). From this perspective, a differentiating element of sports could be the evolution of motives throughout their practice; which would allow classifications to be carried out (Martín-Albo, Núñez, & Navarro, 1997). A differentiating element of sports could be the evolution of the motives throughout their practice; which would allow classifications to be carried out (Martín-Albo, Núñez, & Navarro, 1997). A differentiating element of sports could be the evolution of the motives throughout their practice; which would allow them to be classified (Martín-Albo, Núñez, & Navarro, 1997).

Previously Vanek and Cratty (1970) had made attempts to organize the various alleged motives from an evolutionary perspective throughout the sporting career, differentiating four phases: generalization, differentiation, specialization and involution. Later Martín-Albo and Núñez (1999) proposed an evolutionary

model also with four stages: initiation, maintenance, change and abandonment. It was in this context that a large number of classifications of motives emerged, especially for initiation into sports practice (Castillo *et al.*, 2000; Isorna *et al.*, 2014).

Crandall (1980) had called attention to the need to specifically study the reasons for practice in different sports. Analyzing the relationships between motivational antecedents and problems derived from exercise in runners, Fisher (2001) and Ogden, Veale and Summers (1997) suggested that the motivational and dependency characteristics presented by athletes in aerobic exercises could not be generalized to the population that carries out strength training. It was considered that different types of exercises have different objectives and motivational factors (Crandall, 1980; González-Badillo & Ribas, 2002; González-Badillo & Goristiagoa, 2002).

Therefore, when studying motivational aspects, it is advisable that interest focus specifically on the sport or exercise that is practiced. In this sense, Masters, Ogles and Jolton (1993) developed, for marathon tests, the *Motivations of Marathoners Scales (MOMS) instrument.*which assesses four general categories—psychological, achievement, social, and physical health motives—and nine more specific categories of motives—general health, weight, affiliation, recognition, competition, achievement of personal goals, psychological goals, self-esteem, and meaning. of the life-. In the case of long distance races, using this and other instruments, to know the reasons for participating in this type of tests, there is extensive literature on the Latin population (López de la Llave, Pérez-Llantada, & Buceta , 2002; Llopis & Llopis, 2006; 2008; Jaenes, 1994; Jaenes & Caracuel, 2005; Ruiz-Juan & Zarauz, 2011a; Ruiz-Juan & Zarauz, 2012a; Zarauz & Ruiz-Juan, 2013a; Zarauz

& Ruiz-Juan , 2014a) as Anglo-Saxon (Deaner, Masters, Ogles, & LaCaille, 2011; Doppelmayr & Molkenthin, 2004; Hall, Kerr, Kozub, & Finnie, 2007; Thornton & Scott, 1995).

Carmack and Martens (1979) classified the reasons for starting and maintaining continuous running *(jogging).*into eight categories: physical health, psychological health, goal achievement, tangible rewards, social influences, availability and various motives. For their part, Clough, Shepherd and Maughan (1989) analyzed the reasons for recreational marathon practice and grouped them into six categories: well-being, social, challenge, physical status/health and addiction. Now, it must be noted that both young people and adults participate in sport for very diverse reasons (Campbell, MacAulay, McCrum & Evans, 2001; Weiss & Ferrer-Caja, 2002; Williams, 2013). For their part, Doppelmayr & Molkenthin (2004) observed that adventure ultramarathon runners differed from marathon runners in a greater presence of natural motives (enjoyment of the natural environment, etc.), enjoyment of the sensation of living in a challenging environment,

A construct that has gained importance in the world of sports, and significantly in the specialty of long-distance running, is commitment *to running* (CC). This concept was equated by Carmack and Martens (1979) with that of *positive running addiction* (PCA). This came to be defined as a pleasant activity that causes extreme pleasure, even euphoria, with mental effects that make the experience as pleasant as it is addictive (Glasser, 1976); facing a *negative addiction to running*(ANC), which would present its most undesirable effects. Although Horton & Mack (2000) considered that there does not have to be an association between CC and ANC, others nevertheless understood that ANC used to be a consequence of CC (Dawson & Peco, 2004; Leedy, 2000).

Recently, the work of Zarauz and Ruiz-Juan (2012) has shown that, in both men and women, the facilitating motivations for CC, classified according to the MOMS- *34*,They were the meaning of life-self-esteem type. This scale was the one that reached scores higher than those reflected by the achievement of personal-competition goals, as previously shown by Ogles and Masters (2003). Along with the meaning of life-self-esteem, it was shown that psychological goals and health-related motives were predictors of a high positive commitment to running in men, being the second most valued variable among women. However, motivation related to exceeding personal-competition goals, although highly valued, was the variable that would predict 'super-adherence', the negative addiction to running in the men in the study by Zarauz and Ruiz-Juan (2012). .

Ruiz-Juan and Zarauz (2012b) and Zarauz and Ruiz-Juan (2011b) obtained that the two variables that best predicted a higher CC were the number of kilometers and the days trained per week, coinciding with what was reflected by Thornton and Scott (nineteen ninety five). The latter considered that the primary spheres of motivation in the *committed runner* were focused on *mastery* and competition. They established that the most prominent reasons for practice were: dominance, competition, weight regulation, concern for health and physical conditioning. Mastery and social recognition being good predictors of high addiction scores.

An especially important aspect in sports practice is the goal perspective that a person adopts in a specific environment and this will depend on a series of situational factors and personal differences in the propensity for different types of involvement (Duda, 1995; Biddle, 1997; Escartí & Cervelló, 1994). Thus, a positive correlation is observed between task orientation and the belief in

sporting success based on motivational factors and hard work (motivation-effort) and a negative correlation with the view that the ability to cheat and deceive the coach leads to to sporting triumph. While ego orientation correlates positively with the belief that being a more skilled athlete and having more talent led to success (Salinero, Ruiz, & Sánchez-Bañuelos, 2006),

On the other hand, the relationships between anxiety and motivation to practice exercise or sport have gained special relevance; placing special emphasis on its double cognitive and somatic variant (Davidson, Schwartz, & Goleman, 1978). It has been shown, on the one hand, that team athletes indicated lower levels of anxiety than individual athletes (Furst & Tenembaum, 1984; Ruiz-Juan & Zarauz, 2014) and, on the other, that the relationships showing levels of anxiety with the athlete's perception of success, came to indicate that greater anxiety was observed in athletes with a high ego orientation and low self-confidence (Voigh, Callaghan, & Ryska, 2000). For their part, Cervelló, Santos-Rosa, Jiménez,

In all this context, we seek to determine which variables will allow us to design a predictive model of the motivational factors alleged for the practice of long-distance running in a differential manner according to the cultural context and the sex of the runner. Keeping in mind, due to the importance that it has been showing in the literature, the motivational orientation and the results obtained in the evaluation of competitive anxiety and commitment to running. In this way and considering the suggestions of Deaner, Masters, Ogles and LaCaille (2011) when documenting differences due to sex and mediated by the type of sport, time periods and culture, new perspectives are opened in the expression of the various aspects motivational. Thus,

Method

Participants

The starting point was the total number of runners registered in the half marathons of Almería and Elche (Spain) and Guadalajara (Mexico) in 2010. To ensure that the sample was representative of the total of these races (error ±3%, confidence interval 95.5%) , a stratified sampling design was used by proportional allocation taking into account sex (86.65% of men and 13.35% of women) and age. A questionnaire was administered to 1,054 long-distance road runners who participated in the half marathons of Almería (01/30/2011), Elche (04/03/2011) and two editions of Guadalajara (02/20/2011; 02/19 /2012).

Additionally, through a Web page, voluntary responses were obtained from 741 questionnaires from marathon and half marathon runners from 03/01/11 to 03/20/13. Therefore, combining the random and voluntary samples, a total sample of 1,795 (1,105 Spanish, 690 Mexican) long-distance road runners was obtained, which was composed of 1,541 men (85.65%) with an age range of 18 to 76 years. (M=38.98; SD=10.45), and 254 women (14.35%) with an age range of 18 to 69 years (M=37.88; SD=9.80).

Procedure

In the races mentioned above, permission was requested from the race organization by means of a letter explaining the objectives of the research, how the study was going to be carried out, and accompanying a model of the instrument. The questionnaire was administered at a stand that was set up for this purpose during the collection of bib numbers from the participating athletes the day before the race.

To expand the sample and obtain the largest and most varied geographically in the Spanish territory, collaboration was requested from the webmaster of the

main athletics forum in Spain (El Atleta, sf), who was asked to publish the questionnaire in the runners section. route ((Challenges New Trends in Physical Education Sports and Recreation, sf).

In both cases, all subjects were informed of the objective of the study, of the voluntariness, absolute confidentiality of the responses and data management, that there were no right or wrong answers and they were asked to answer with maximum sincerity and honesty. Furthermore, if they had previously answered this questionnaire, they were asked not to do it again. This work has a favorable report from the Bioethics Commission of the University of Murcia.

Instruments

- *Motivations of Marathoners Scales-34 (MOMS-34)* by Ruiz-Juan and Zarauz (2011a), Spanish version of the *Motivations of Marathoners Scales (MOMS)* by Masters *et al.* (1993). It contains seven subscales with 34 items that are interested in the reasons for running: *Health orientation, weight, exceeding personal goals-competition, recognition, affiliation, psychological goals* and *meaning of life-self-esteem.* The responses are collected on a Likert-type scale from 1 (it *is not a reason to run)* to 7 (it is *a very important reason to run),* with an average total score on each scale between 1 (minimum motivation to run) and 7 (maximum motivation to run).
- *Commitment to Running Scale-11 (CR-11)* by Ruiz-Juan and Zarauz (2011b), Spanish version of the *Commitment to Running Scale (CR)* by Car-mack and Martens (1979). It contains eleven items to measure *commitment to running (CC)* scored from 1 *(do not agree at all)* to 5 *(completely agree),* which gives a total score between 11 (minimum CC) and 55 (maximum CC). .

- *Revised Competitive Anxiety Inventory-2*, Spanish version by Andrade, Lois and Arce (2007) of the *Revised Competitive State Anxiety Inventory-2 (CSAI-2R)* by Cox et al. (2003). It has three subscales: *cognitive anxiety, somatic anxiety* and *self-confidence*. The first and third contain five items scored from 1 *(not at all)* to 4 (*very much)* , giving a total score between 5 and 20. The second contains six items and offers scores between 6 and 24.
- *Perception of Success Questionnaire,* Spanish version by Cervelló (1996) of the *Perception of Success Questionnaire (POSQ)* by Roberts and Balagué (1991). It was developed to measure the orientation of achievement goals in the sports context. It consists of twelve items, six on *task* orientation and another six on *ego*. The initial question that heads the questionnaire is "I feel successful in sport when...". Responses are collected on a Likert-type scale that ranges from *completely disagree* (1) to *completely agree* (5).

Data analysis

Correlation between the subscales (Pearson coefficient), internal consistency (Cronbach's alpha), mean differences by country and sex *(* Student t) and multivariate linear regression were performed with SPSS 20.0.

Results

Descriptive statistics

With respect to the *MOMS-34,* it is worth noting that the Mexican sample of long-distance road runners presented, in all subscales and significantly, higher mean values than the Spanish sample. These differences were also seen in both men and women (Table 1). The differences between sexes in the same country indicate that the Spanish population is different in two of the subscales of

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the *MOMS-34*, in which men obtained higher scores, these being *weight* (t=3.34, p=0.001) and *personal-competition goals* (t=2.18, p=0.029). For its part, in the Mexican population, it was on the scale of *personal goals-competition*where men scored higher than women *(t* =3.40, p=0.001).

Tabla 1. Coeficiente Alfa, media, desviación típica, t y significación para compromiso para correr (CR-11), motivación (MOMS-34), ansiedad precompetitiva (CSAI-2R) y Percepción de éxito en el deporte (POSQ). Diferencias por sexos y países

	Total							España							México						
	España n=1105		México n=690		t	p	d	Hombres n=1007		Mujeres n=98		t	p	d	Hombres n=534		Mujeres n=156		t	p	d
	α	M±DT	α	M±DT				α	M±DT	α	M±DT				α	M±DT	α	M±DT			
CR-11	0.87	40.29±9.89	0.77	47.69±10.58	-22.91	0.000	-0.72	0.88	40.12±6.21	0.86	41.88±6.91	-2.67	0.008	-0.26	0.76	47.29±2.23	0.77	49.02±6.86	-2.66	0.008	-0.24
MOMS-34	0.92		0.93					0.92		0.90					0.93		0.92				
Orientación a la salud	0.82	4.92±1.69	0.76	6.05±1.95	-17.00	0.000	-0.61	0.82	4.94±1.41	0.83	4.20±1.50	1.66	0.097	0.16	0.78	6.02±1.28	0.73	6.15±1.20	-1.13	0.256	-0.10
Peso	0.83	3.64±1.72	0.80	4.49±1.94	-9.69	0.000	-0.46	0.85	3.69±1.71	0.80	3.08±1.68	3.34	0.001	0.35	0.80	4.44±1.94	0.79	4.64±1.93	-1.13	0.257	-0.10
Metas personales-competición	0.83	4.86±1.36	0.81	5.34±1.46	-6.96	0.000	-0.34	0.85	4.90±1.36	0.82	4.58±1.41	2.18	0.029	0.23	0.89	3.23±1.28	0.84	2.69±1.58	3.40	0.001	0.32
Reconocimiento	0.89	2.44±1.36	0.87	3.11±1.75	-8.94	0.000	-0.42	0.90	2.46±1.37	0.88	2.38±1.32	0.53	0.594	0.05	0.82	5.33±1.47	0.80	5.38±1.44	-0.35	0.723	0.10
Afiliación	0.87	3.92±1.52	0.83	4.64±1.64	-9.47	0.000	-0.45	0.88	3.90±1.52	0.87	4.11±1.59	-1.32	0.184	-0.13	0.85	4.68±1.65	0.80	4.49±1.58	1.25	0.209	0.11
Metas psicológicas	0.89	4.22±1.69	0.79	4.71±1.88	-5.72	0.000	-0.27	0.89	4.21±1.68	0.89	4.29±1.76	-0.45	0.651	-0.04	0.80	4.69±1.87	0.78	4.75±1.92	-0.35	0.722	-0.03
Significado de la vida-autoestima	0.82	5.43±1.13	0.80	5.95±1.20	-8.14	0.000	-0.44	0.84	5.42±1.14	0.79	5.51±1.10	-0.69	0.491	-0.08	0.82	5.92±1.20	0.78	6.02±1.20	-0.87	0.384	-0.08
CSAI-2R	0.76		0.75					0.78		0.72					0.78		0.74				
Ansiedad cognitiva	0.77	2.00±.68	0.72	1.95±.75	1.31	0.189	0.06	0.77	1.99±.67	0.76	2.10±.73	-1.56	0.119	-0.15	0.71	1.95±.74	0.73	1.94±.77	0.18	0.853	0.01
Ansiedad somática	0.81	2.25±.72	0.77	2.18±.78	2.03	0.042	0.09	0.84	2.25±.72	0.79	2.37±.72	-1.59	0.111	-0.16	0.78	2.18±.78	0.77	2.19±.77	-0.13	0.894	-0.01
Autoconfianza	0.81	3.13±.79	0.73	3.54±.89	-14.28	0.000	-0.48	0.79	3.14±.58	0.85	3.00±.71	2.20	0.028	0.21	0.72	3.56±.56	0.74	3.45±.63	2.06	0.039	0.18
POSQ								0.82		0.81					0.82		0.76				
Ego	0.83	3.05±.64	0.85	3.42±.77	-10.89	0.000	-0.52	0.83	3.05±.64	0.83	3.08±.58	-0.55	0.579	-0.02	0.84	3.42±.77	0.86	3.39±.74	0.48	0.630	0.03
Tarea	0.72	2.83±.70	0.77	3.22±.81	-10.64	0.000	-0.51	0.71	2.83±.70	0.74	2.82±.69	0.22	0.824	0.01	0.79	3.25±.84	0.71	3.11±.72	1.87	0.062	0.17

Fuente: elaboración propia

The total score of the *CR-11* was significantly higher than the mean of the scale, being considerably higher in the Mexican sample (t=22.91, p<0.000) (Table 1). When considered by country and sex, it was observed that both Spanish women *(t* =2.67, *p* =0.008) and Mexican women (*t* =2.66, *p* =.008) obtained higher scores than men from their respective countries.

Both the Spanish and Mexican runners presented values below the average in *cognitive anxiety and somatic anxiety*, and above in *self-confidence.* When considering both countries, it was possible to observe that differences were only present in the subscales of *somatic anxiety* (t=2.03, p=0.042) and *self-*

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confidence (t=14.28, p<0.000), where the Spanish were in the first and the Mexicans in the second subscale who scored above (Table 1). Taking gender by country into account, differences were only found in *self-confidence*, where Spanish men (t=2.20, p=0.028) and Mexican men (t=2.06, p=0.039) obtained higher scores than women.

Finally, regarding the perception of success in sport, both goal orientations were close to the average, although the Mexican runners presented higher and statistically significant means than the Spanish, both in ego (t=10.89, p<0.000) as in task (t=10.64, *p* <0.000). According to sex in each country, no statistically significant differences were observed between men and women (Table 1).

Relationships between the reasons for running and commitment, pre-competitive anxiety and perception of success in sport.

Health orientation positively and significantly correlated, in men from both countries, with CC, *cognitive anxiety*, *somatic anxiety*, *self-confidence*, *ego* and *task* (Table 2). In women from both countries, it was correlated with *CC*, *self-confidence*, *ego* and *task* (Table 3).

Tabla 2. *Correlaciones entre las subescalas de MOMS-34, CR-11, CSAI-2R y POSQ, de los hombres según países*

	Orientación a la salud		Peso		Metas Personales-competición		Reconocimiento		Afiliación		Metas psicológicas		Sign. de la vida-Autoestima	
	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534
CR-11 (CC)	0.19(**)	0.30(**)	0.08(**)	0.09(*)	0.12(**)	0.21(**)	0.10(**)	0.(10*)	0.09(**)	0.14(**)	0.15(**)	0.11(*)	0.27(**)	0.32(**)
CSAI-2R														
Ansiedad cognitiva	0.10(**)	(0.09)*	0.14(**)	0.22(**)	0.35(**)	0.23(**)	0.44(**)	0.36(**)	0.15(**)	0.22(**)	0.11(**)	0.12(**)	0.19(**)	0.12(**)
Ansiedad somática	0.12(**)	0.15(**)	0.15(**)	0.19(**)	0.22(**)	0.23(**)	0.26(**)	0.27(**)	0.19(**)	0.17(**)	0.16(**)	0.18(**)	0.16(**)	0.17(**)
Autoconfianza	0.12(**)	0.26(**)	-0.03	0.03	0.19(**)	0.26(**)	-0.01	0.02	0.13(**)	0.15(**)	0.09(**)	0.09(*)	0.27(**)	0.33(**)
POSQ														
Ego	0.20(**)	0.28(**)	0.18(**)	0.34(**)	0.41(**)	0.44(**)	0.47(**)	0.53(**)	0.21(**)	0.37(**)	0.23(**)	0.34(**)	0.34(**)	0.38(**)
Tarea	0.10(**)	0.25(**)	0.10(**)	0.26(**)	0.49(**)	0.45(**)	0.38(**)	0.48(**)	0.15(**)	0.36(**)	0.19(**)	0.32(**)	0.29(**)	0.37(**)

*(p<0.05), **(p<0.01)
Fuente: elaboración propia

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Tabla 3. *Correlaciones entre las subescalas de MOMS-34, CR-11, CSAI-2R y POSQ, de las mujeres según países*

	Orientación a la salud		Peso		Metas Personales-competición		Reconocimiento		Afiliación		Metas psicológicas		Sgn. de la vida-Autoestima	
	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156
CR-11 (CC)	0.20(*)	0.31(**)	0.08	0.13	0.19(*)	0.18(*)	0.07	-0.02	0.05	0.09	0.19	0.07	0.34(**)	0.36(**)
CSAI-2R										0				
Ansiedad cognitiva	0.06	0.06	0.18	0.09	0.31(**)	0.21(**)	0.23(*)	0.19(*)	-0.11	0.06	0.19	0.06	0.12	0.12
Ansiedad somática	0.01	0.01	0.16	0.07	0.13	0.12	-0.01	0.03	-0.09	-0.07	0.02	0.12	0.19	0.12
Autoconfianza	0.28(**)	0.27(**)	0.01	0.07	-0.05	0.28(**)	-.007	0.15	0.25(*)	0.25(**)	0.10	0.07	0.29(**)	0.31(**)
POSQ														
Ego	0.29(**)	0.29(**)	0.09	0.28(**)	0.27(**)	0.48(**)	0.35(**)	0.52(**)	(0.19)*	0.37(**)	0.23(*)	0.28(**)	0.21(*)	0.41(**)
Tarea	0.26(**)	0.25(**)	-0.01	0.21(**)	0.42(**)	0.47(**)	0.29(**)	0.49(**)	0.24(*)	0.46(**)	0.26(**)	0.25(**)	0.22(*)	0.32(**)

*(p<.05), **(p<.01)
Fuente: elaboración propia

Weight in men from both countries was positively and significantly correlated with *CC*, *cognitive anxiety*, *somatic anxiety*, *ego* and *task* (*Table* 2). Differences were observed in women, since in Spain it did not correlate with any variable, while in Mexico it did so only with *ego* and *task* (Table 2).

Personal-competition goals correlated positively and significantly with all subscales in men from both countries (Table 2). On the contrary, in Spanish and Mexican women, significant correlations were with *CC, cognitive anxiety, self-confidence* (only in Mexico), *ego* and *task* (Table 3).

In both Spanish and Mexican men, *recognition* was positively and significantly correlated with *CC, cognitive anxiety, somatic anxiety, ego,* and *task* (Table 2). However, for Spanish and Mexican women the correlation was with *cognitive anxiety*, *ego* and *task* (Table 3).

Affiliation correlated positively and significantly with all subscales *in* men from both countries (Table 2). On the contrary, in women from both countries, significant correlations occurred with *self-confidence, ego* and *task* (Table 3).

In both Spaniards and Mexicans, *psychological goals* correlated positively and significantly with all subscales (Table 2). In women, quite a few differences

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were observed since in both countries, it only correlated with *ego* and *task* (Table 3).

Finally, it should be noted that, in men from both countries, a positive and significant correlation of *meaning in life-self-esteem* was found with all subscales (Table 2). However, in women from both countries it was only correlated with *CC, self-confidence, ego* and *task* (Table 3).

Multivariate regressive analysis

A multivariate linear regression analysis was performed, trying to obtain models that explained as much of the variance as possible. The mean scores of the seven subscales of the MOMS-34 were taken as dependent variables . The predictor variables were *CC*, each of the precompetitive anxiety subscales *(cognitive anxiety, somatic anxiety* and *self-confidence)* and the perception of success in sport *(ego* and *task).* Sex and country were considered as selection variables.

The R^2 value was extracted to explain the variance, *Beta* to explain the prediction between variables, *F* to see if there is a relationship between selected variables and its significance (Table 4 and 5). Strong models were obtained, as they explained between forty and sixty percent of the variance in men and women from both countries.

TABLA 4. *Análisis regresivo lineal multivariado: modelos que predicen significativamente de la motivación de los maratonianos (MOMS-34), de los hombres por países, en función del compromiso a correr (CR-11), ansiedad precompetitiva (CSAI-2R) y percepción de éxito en el deporte (POSQ).*

	Orientación a la salud		Peso		Metas personales-competición		Reconocimiento		Afiliación		Metas psicológicas		Sign. de la vida-Autoestima	
	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534	España n=1007	México n=534
	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$	Beta$^{Sig.}$
CR-11 (CC)	0.17***	0.24***	0.10***	0.05	0.07*	0.14***	0.08**	0.12*	0.07*	0.13**	0.12***	0.15**	0.19***	0.24***
CSAI-2R														
Ansiedad cognitiva	0.02	0.01	0.04	0.02	0.18***	0.16***	0.29***	0.21***	0.03	0.00	-0.04	-0.02	0.05	0.07
Ansiedad somática	0.08*	0.10*	0.08**	0.12*	0.04	0.05	-0.01	-0.00	0.15***	0.16**	0.13***	0.11*	0.09**	0.11*
Autoconfianza	0.10**	0.13**	-0.04	-0.02	0.16***	0.14***	-0.02	-0.06	0.13***	0.12*	0.05	-0.00	0.23***	0.18***
POSQ														
Ego	0.22***	0.18**	0.21***	0.29***	0.13**	0.17**	0.34***	0.35***	0.15***	0.16**	0.15**	0.18***	0.21***	0.20***
Tarea	-0.11	0.02	-0.09	0.00	0.36***	0.20***	0.00	0.17**	-0.03	0.17**	0.04	0.15**	0.02	0.10
	R^2=0.405	R^2=0.423	R^2=0.462	R^2=0.473	R^2=0.559	R^2=0.548	R^2=0.548	R^2=0.595	R^2=0.498	R^2=0.435	R^2=0.496	R^2=0.471	R^2=0.508	R^2=0.535
	F=34.507	F=16.418	F=40.574	F=22.224	F=67.564	F=32.265	F=60.714	F=40.915	F=44.021	F=17.363	F=43.641	F=21.915	F=48.890	F=29.982

*(p<.05), **(p<.01), ***(p<.001)
Fuente: elaboración propia

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TABLA 5. *Análisis regresivo lineal multivariado: modelos que predicen significativamente de la motivación de los maratonianos (MOMS-34), de las mujeres por países, en función del compromiso a correr (CR-11), ansiedad precompetitiva (CSAI-2R) y percepción de éxito en el deporte (POSQ).*

	Orientación a la salud		Peso		Metas personales-competición		Reconocimiento		Afiliación		Metas psicológicas		Sign. de la vida-Autoestima	
	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156	España n=98	México n=156
	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign	BetaSign
CR-11 (CC)	0.18*	0.23**	0.06	0.12	0.10	0.04	0.04	-0.12	0.07	0.00	0.19	0.04	0.34***	0.29***
CSAI-2R														
Ansiedad cognitiva	-0.02	0.12	0.18	0.02	0.19*	0.23*	0.17	0.02	-0.19	0.12	0.16	-0.08	-0.04	0.09
Ansiedad somática	0.07	-0.02	0.07	0.02	0.05	-0.00	-0.14	-0.07	0.04	-0.16	-0.04	0.14	0.27**	0.19*
Autoconfianza	0.23*	0.19*	0.06	-0.01	-0.04	0.18*	-0.11	0.00	0.16	0.12	0.10	-0.02	0.29**	0.21**
POSQ														
Ego	0.14	0.11	0.13	0.21	-0.01	0.10	0.29*	0.42***	0.02	0.16	0.06	0.18	0.05	0.19
Tarea	0.17	0.07	-0.13	0.06	0.36**	0.25*	0.09	0.25**	0.27*	0.30*	0.15	0.15	0.12	0.09
	R2=0.448 F=3.267	R2=0.436 F=4.981	R2=0.506 F=4.279	R2=0.428 F=4.841	R2=0.504 F=4.345	R2=0.593 F=11.388	R2=0.437 F=3.105	R2=0.601 F=11.672	R2=0.468 F=3.249	R2=0.505 F=7.332	R2=0.478 F=3.244	R2=0.436 F=4.925	R2=0.541 F=5.314	R2=0.551 F=19.155

*(p<.05), **(p<.01), ***(p<.001)
Fuente. elaboración propia

The health orientation model in men from both countries was identical. It could be significantly predicted by scoring high in *CC, somatic anxiety, self-confidence and ego* (variance: 40.5% Spain, 42.3% Mexico). The model for women in both countries was also completely similar, but with differences with men. The prediction was by scoring high in *CC and self-confidence* (variance: 44.8% Spain, 43.6% Mexico).

In men from both countries, the *weight* pattern was very similar. It could be predicted by scoring high in *CC* (only in Spain), *somatic anxiety* and *ego* (variance: 46.2% Spain, 47.3% Mexico). In women from both countries, the model was the same, that is, it could be predicted by scoring low in *CC* (variance: 50.6% Spain, 42.8% Mexico).

The personal-competition goal model in men from both countries was also the same. It could be significantly predicted by scoring high in *CC, cognitive anxiety, self-confidence, ego* and *task* (variance: 55.9% Spain, 54.8% Mexico). The model was also almost similar in women from both countries but with differences with men. The prediction was by scoring high in *cognitive anxiety, self-confidence* (only in Mexico) and *task* (variance: 50.4% Spain, 59.3% Mexico).

In men from Spain and Mexico, the *recognition* model was quite similar. It could be predicted by scoring high in *CC, cognitive anxiety, ego and task* (only in Mexico) (variance: 54.8% Spain, 59.5% Mexico). In women from both countries, the model was almost the same, that is, it could be predicted by scoring high *ego and task* (only in Mexico) (variance: 43.7% Spain, 60.1% Mexico).

The Affiliation model , in men from both countries, was also practically the same. It could be significantly predicted by scoring high on *CC, somatic anxiety, self-confidence, ego and task* (only in Mexico) (variance: 49.8% Spain, 43.5% Mexico). The model in women from both countries was similar but with important differences with men. The prediction was by scoring high only in *homework* (variance: 46.8% Spain, 50.5% Mexico).

In men from both countries, the pattern of *psychological goals* was almost identical. It could be predicted by scoring high in *CC, somatic anxiety, ego and task* (only in Mexico) (variance: 49.6% Spain, 47.1% Mexico). In women from both countries the model was the same, but different from that of men, since it was not possible to predict it by any variable (variance: 47.8% Spain, 43.6% Mexico).

Finally, the *Meaning of Life-Self-Esteem* model was identical in men from both countries. It could be predicted by scoring high in *CC, somatic anxiety, self-confidence* and *ego* (variance: 50.8% Spain, 53.5% Mexico). In women from both countries, the model was the same, but different from that of men, that is, it could be predicted by scoring high in CC, somatic *anxiety and self-confidence* (variance: 54.1% Spain, 55.1% Mexico).

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Discussion

Keeping in mind the suggestion of Deaner, Masters, Ogles and LaCaille (2011), that the study and analysis of motives and motivational processes is enriched by considering differences due to sex, type of sport and culture, we have sought predictively determine the reasons for practicing road running, analyzing the possible existence of differentiating cultural influences in the contextualization of said models between Spanish and Mexican runners, mediated by their sex.

From the data provided, it is possible to verify that the cultural context marks important differences between the two nationalities. The group formed by participants with Mexican nationality left us with higher scores in all the subscales of the MOMS-34, in the CR-11, in the POSQ and in one of the three subscales of the CSAI-2R, in another they would score less. and in the third no differences would be indicated.

It is important to note that the assessment carried out for the positive addiction to running, obtained by passing the CR-11 test , indicates that the Mexican population showed higher scores, with both men and women indicating this. When considering sex within each country, the data supported what had already been shown in previous works (Ruiz-Juan & Zarauz, 2011b; Zarauz & Ruiz-Juan, 2011a; Zarauz & Ruiz-Juan, 2012; Zarauz & Ruiz-Juan, 2012; Juan, 2013c) finding that women show a greater commitment to running.

On the other hand, through the scores obtained in the CSAI-2R, it was observed that the populations of both countries did not differ in cognitive anxiety, but they did differ in somatic anxiety and self-confidence. In the case of the latter, it was the Mexican population that showed greater self-confidence but not greater somatic anxiety.This fact, according to Larumbe, Pérez-Llantada and López de la Llave (2009), can be explained because the runners with greater

self-confidence are those who perceive that they are better trained to face the race (Ruiz-Juan & Zarauz, 2013a; 2013b). , which is clear from the data of the significantly greater commitment obtained by the Mexicans, all of which also generates a significantly greater motivation to compete compared to the Spanish.

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