



ELSEVIER



CrossMark

Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 132 (2014) 434 – 440

Procedia
Social and Behavioral Sciences

6th International Conference on Intercultural Education “Education and Health: From a transcultural perspective”

Goal orientation effects on elite handball players motivation and motivational climate

Manuel Gómez-López^a, Antonio Granero-Gallegos^b, Antonio Baena-Extremera^a, J. Arturo Abraldes^a

^aUniversity of Murcia, Faculty of Sports Sciences, c/ Argentina s/n, Santiago de la Ribera (Murcia), 30720, Spain.

^bCuevas-Olula Center, Andalusian Ministry of Education, Culture and Sport, Avd. Atrales, s/n, Cuevas del Almanzora, 04610, Spain.

Abstract

The aim of the present study was to evaluate the goal orientation effects on the motivation and motivational climate perceived by elite female handball players. A sample was taken consisting of 63 players of ages ranging from 16 to 36 years. The instruments for data gathering were the Spanish versions of Perception of Success Questionnaire, Sport Motivation Scale and Perceived Motivational Climate in Sport Questionnaire. Data were statistically analyzed by descriptive and multivariate analyses (MANOVA 2x2). The main results show that high ego female players present a lower motivational climate for execution, and low ego ones an identified EM. On the other hand those with high task orientation show achievement as IM, stimulation as IM, identified EM and introjected EM, as well as a mastery-oriented motivational climate.

© 2014 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and peer-review under responsibility of HUM-665 Research Group “Research and Evaluation in Intercultural Education”.

Keywords: handball, high-level, achievement motivation, goal orientation.

1. Introduction

It is nowadays becoming more important gaining knowledge about social and personal factors involved in the athlete’s optimal development, since information regarding the above would be very helpful for this purpose (Balaguer, Castillo, Duda, and García-Merita, 2011). When we talk about sport, motivation refers to how personal, social and environmental variables interact and determine the final choice between one or another sporting activity and the intensity, persistence and performance devoted to that task (Balaguer, 1994). The two more widely used motivational theories for this context are: Achievement Goal Theory (Nicholls, 1989) and Self-Determination Theory (Deci and Ryan, 1985, 2000; Ryan and Deci, 2000).

Achievement Goal Theory's objective is the analysis of the various dispositional and environmental factors influencing the sportspeople's achievement motivation. For sportspeople sport is a very demanding context regarding goal achievement where the demonstration of skills and abilities is of great importance (Nicholls, 1984, 1989). According to this theory there are two types of achievement goal dispositions appearing due to social influence and reflect the criteria by which sportspeople judge their own competence and define success or failure in sport. Thus, we talk about task orientation when goal is geared towards learning and the sportsperson judges his or her own performance on the basis of a comparison with himself or herself, that is to say, success will be defined by personal improvement and mastery of the task, with the skill perception being self-referential and dependent on his/her personal progress. By contrast, competitiveness is the goal with regards to ego orientation and sportspeople judge their level of competence comparing with the others, therefore success will depend on this comparison's subjective assessment (García, Cervelló, Jiménez, Iglesias, and Santos-Rosa, 2005). It is related to the defeat of the opponents and the demonstration of greater skills (Nicholls, 1984), and even with the use of tricks to achieve a higher social status (Cervelló, Escartí, and Balagué, 1999). Problems in this type of sportspeople arise when they suffer their first personal failures as this leads to a motivation towards the sport practice (Lochbaum and Roberts, 1993). On the other hand, there also is a set of signals coming from family, friends, coach etc. perceived by the sportsperson in his/her environment and by which he/ she determines the keys to success and failure that Ames (1992) defined as motivational climate. Depending on the sportsperson's perception of the context two climate types could be differentiated that are the ego-involving motivational climate or competitive/execution climate and task-involving motivational climate or mastery-oriented climate (Ames, 1992; Newton, Duda, and Yin, 2000). It has been demonstrated that the perception of a mastery-oriented motivational climate favors sports performance and strengthens the sportsperson psychological well-being by improving confidence, self-esteem and anxiety reduction (Balaguer, Duda, Atienza, and Mayo, 2002). On the other hand, a sport execution climate would lead to lower levels of psychological well-being, higher levels of performance-related anxiety and a lower satisfaction degree with the sporting environment (Pensgaard and Roberts, 2000).

Self-Determination Theory focus on how intrinsic motivation influences sportspeople for self- development, persisting and, indeed, to compete (Frederick and Ryan, 1995). This theory can be understood as a continuum where various levels of self-determination are established; the sportsperson's behavior can be intrinsically motivated, extrinsically motivated or amotivated. The highest degree of self-determination is achieved when he or she is intrinsically motivated, leading to a commitment to the sport practice due to the pleasure and enjoyment obtained from it that becomes an end in itself (Deci and Ryan, 1985, 2000). There are three kinds of intrinsic motivation: intrinsic motivation for knowledge, in which the athlete is involved with the sport in order to learn new skills and methods for task improvement, achievement motivation, in order to get his best at a particular skill and the satisfaction obtained when a personal goal is reached while improving and intrinsic motivation for the stimulating experiences caused by the sport experience with the objective of experiencing sense-associated sensations (Vallerand, Blais, Brière, and Pelletier, 1989). At the other end we can find the extrinsic motivation that makes reference to the fact of committing acts for instrumental reasons or external sources. According to Deci and Ryan (1985, 2000), greater or lesser levels of self-determination can be distinguished: integrated regulation, where the athlete stops perceiving the coach behavior as external controls and thinks they are compatible with his own aspirations; identified regulation, where the athlete commits himself to an activity that is not interesting to him but a means to reach his goals; introjected regulation, showing the athlete who partially internalises a reason, he practices in order to please the coach, and external regulation, that is practicing in order to obtain a reward or avoid punishment. Finally there is the amotivation, the sportsperson is not intrinsically nor extrinsically motivated (Pelletier, Vallerand, Green-Demers, Brière, and Blais, 1995); that is to say, he or she has no intentions of doing anything and considers sport a waste of time (Ryan and Deci, 2000).

An important number of studies have demonstrated the existing relation between achievement goal dispositions and self-determination levels (White and Duda, 1994), finding that task orientation is positively related to intrinsic motivation.

Thus, on the basis of the above discussed the objective was set to determine the achievement goal orientation effects on female elite handball players in terms of motivation and the emotional climate perceived during the training sessions. It has been hypothesized that task orientation is positively related with both intrinsic motivation

as well as with the perception of a mastery-oriented motivational climate, and that ego orientation would do the same with the extrinsic motivation and amotivation and the sport execution motivational climate.

2. Method

2.1. Participants

A total of 63 handball players participated in the study. Their ages ranged from 16 to 36 ($M = 22.81$; $SD = 4.81$). All of the players participated in the División de Honor of women's handball, the most important competition for women's handball in Spain.

2.2. Instruments

Perception of Success Questionnaire (POSQ) (Roberts and Balagué, 1991; Roberts, Treasure, and Balagué, 1998). We used the version validated in the Spanish sports context (Cervelló, Escartí, and Balagué, 1999). This instrument was elaborated to measure the dispositional orientation of achievement goals in the sports context. The stem statement of the questionnaire is: When I practice sports, I feel successful when.... It has 12 items, 6 addressing Task Orientation and 6 addressing Ego Orientation. Responses are rated on a 5-point scale of polytomic items ranging from 1 (strongly disagree) to 5 (strongly agree). Responses are rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). In the present work, reliability of the Task Orientation subscale was $\alpha = .88$, and of Ego Orientation, $\alpha = .87$.

Sport Motivation Scale questionnaire (SMS). In our study, the validated Spanish version by Núñez, Martín-Albo, Navarro and González (2006), Núñez, Martín-Albo and Navarro (2007) and Balaguer, Castillo and Duda (2007) was applied. It consisted of 28 items measuring the different motivation degrees established by the self-determination theory (Deci and Ryan, 1985) suggesting a multidimensional explanation for motivation. Each player was asked: 'Why do you practice sport ...?' subjects had to answer using a Likert-type scale were options ranged from (1) does not correspond at all to (7) corresponds exactly; being the average (4), corresponds moderately. The internal coherence found by this study was: Knowledge as IM, $\alpha = .76$; Achievement as IM, $\alpha = .79$; Stimulation as IM, $\alpha = .82$; Identified EM, $\alpha = .71$; Introjected EM, $\alpha = .67$; External regulation EM, $\alpha = .75$, and amotivation, $\alpha = .73$. Although some of the factors obtained internal coherence scores lower than .70 (but between .69 and .70), they can be considered marginally acceptable (Taylor, Ntoumanis, and Standage, 2008) given the small number of items in the subscale.

Perceived Motivational Climate in Sport Questionnaire (PMCSQ-2) (Newton et al., 2000). To measure motivational climate, we used the Spanish version (Balaguer, Givernau, Duda, and Crespo, 1997) of this questionnaire. This scale is made up of 29 items divided into two dimensions that measure ego-involvement climate (14 items), called Performance, and task-involvement climate (15 items), called Mastery. Each item starts with the phrase, "On my team...". Responses are rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The mastery subscale's internal coherence found by this research was $\alpha = .81$ and $\alpha = .90$ for execution.

2.3. Procedure

Permission was sought from the various clubs by way of a letter in the objectives of the study and how it was to be carried out were explained, accompanied by a model of the instrument. The questionnaire was administered by the researchers during training sessions the day prior to competitive games. All of the players were informed of the objective of the study, the voluntary nature of their participation, the absolute confidential nature of the answers given and the data produced by the study and that there were no right or wrong answers. They were also asked to respond with the highest degree of sincerity and honesty.

2.4. Statistical analysis

The descriptive analyses consisting of the internal consistency of each subscale (Cronbach's alpha) and multivariate analysis (MANOVA 2x2) were carried out with SPSS 17.0.

3. Results

3.1. Descriptive analysis

Table 1 shows the descriptive values for each of the variables studied. The average score for task orientation is clearly superior to that for ego orientation. On the SMS scale the highest average values are for intrinsic motivation and the lowest for amotivation. Finally on the perceived motivational climate scale, Mastery had an average that was clearly higher for that of execution of the sport.

Table 1. Alpha coefficients (α) and descriptive of the POSQ, SMS and PMCSQ-2 subscales.

Subscales	<i>M</i>	<i>SD</i>	α	Asymmetry	Kurtosis
Ego orientation	3.12	1.01	.87	.09	-.59
Task orientation	4.47	.57	.88	-.85	.02
Knowledge as IM	4.76	1.31	.76	-.52	.86
Achievement as IM	5.12	1.23	.79	-.50	.69
Stimulation as IM	5.28	1.17	.82	-.92	1.33
Identified EM	4.34	1.22	.71	-.21	.08
Introjected EM	4.51	1.25	.67	-.14	.02
External reg. EM	2.69	1.39	.75	.68	-.19
Amotivation	2.48	1.40	.73	.67	-.67
Ego climate	3.08	1.07	.90	.06	-1.29
Task climate	3.99	.59	.81	-.44	-.66

3.2. Comparison in terms of ego orientation and task orientation

To examine the effect of goal orientation on the various dimensions of this present work the players classified into four groups, based on a division on the median in the subscales for Ego and Task. Players who scored over the mean in the ego-oriented subscale were categorized as high-ego group ($n = 32$); those scoring under the mean in this subscale were categorized as low-ego group ($n = 31$). Likewise, subjects who scored over the orientation scale mean were categorized as high-task ($n = 35$); those who scored below the median were categorized as the low task group ($n=28$). A MANOVA 2x2 was carried with the two levels of ego orientation (high and low) and the two levels of task orientation (high and low) as independent variables and the motivation and perceived motivational climate dimensions as dependent variables. The results showed that the multivariate effect of the action of ego on task in the dimensions of the SMS and PMCSQ-2 was not significant (Lambda de Wilks: .86; $F(9, 51) = .94$; $p = .496$). However, the analysis did reveal a principal significant multivariable effect for ego orientation (Lambda de Wilks = .69; $F(9, 51) = 2.58$; $p = .016$) and for the task orientation (Lambda de Wilks = .62; $F(9, 51) = 3.55$; $p = .002$). The following univariate results indicate that the players with higher ego levels have a significantly higher motivational climate for the execution of the sport and the lowest level of ego in the EM identified. For the task level the univariate analyses showed significant differences in five dimensions as the results showed a task orientation that was the highest in IM for beating ones own personal bests and stimulation and identified and introjected EM, as well as in the motivational climate and mastery (Table 2).

Table 2. Univariate effect of goal orientation in the perceived Motivation and Motivational climate dimensions. Mean (M) according to task and ego levels

Subscales	Ego Level				Task Level			
	High (M)	Low (M)	F	p	High (M)	Low (M)	F	p
Knowledge as IM	4.65	4.70	.21	.885	4.99	4.36	3.42	.070
Achievement as IM	4.78	5.18	1.92	.171	5.49	4.47	11.79	.001
Stimulation as IM	5.02	5.32	1.08	.302	5.64	4.70	10.47	.002
Identified EM	3.88	4.57	5.35	.024	4.70	3.75	10.12	.002
Introjected EM	4.30	4.39	.09	.759	4.81	3.88	9.76	.003
External reg. EM	2.58	2.69	.09	.768	2.62	2.64	.01	.951
Amotivation	2.26	2.71	1.44	.235	2.55	2.42	.13	.723
Ego climate	3.39	2.78	4.89	.031	2.90	3.27	1.85	.179
Task climate	3.91	4.00	.38	.538	4.15	3.76	6.92	.011

Note. *p* is significant at <.05 level

4. Discussion and conclusions

The objective was set to determine the effects of goal orientation of elite female handball players on motivation and the perceived motivational climate during the training sessions. Univariate analyses showed that high-ego-oriented players had a significantly greater motivational climate on execution, while the lowest ego level ones played with an identified EM, that is, they would practice handball in order to reach an objective but not as an interesting activity. On the other hand, at task level, results revealed that the high task orientation of some of the players was related to achievement as IM, experience stimulation as IM, identified EM identified and introjected EM as well as with the mastery-oriented motivational climate. That is, these players practice handball in order to improve and for personal accomplishment, just for the pleasant feeling experienced when playing, seeing this sport as a means to achieve a personal goal and please the coach. This shows this study's hypotheses were not completely demonstrated. In the studies carried out by Granero-Gallegos, Gómez-López, Baena-Extremera, Abalades and Rodríguez-Suárez (2012) and Gómez-López, Granero-Gallegos, Abalades and Rodríguez-Suárez (2013), ego orientation was positively and significantly related with both externally regulated extrinsic motivation and amotivation. This is a very interesting relationship as externally regulated extrinsic motivation considers the sportsperson's interest to practice the sport in order to win prizes or obtaining rewards, absolutely ego-oriented. These results are similar to those found by White and Duda (1994), who claimed that ego orientation was positively related to extrinsic reasons of practice.

Descriptive analysis results indicate that higher values correspond to intrinsic motivation dimensions and amotivation to the lowest ones. These results coincide with those obtained by Moreno, Cervelló and González-Cutre (2007), Granero-Gallegos et al. (2012) and Gómez-López et al. (2013). Female athletes are this way encouraged to have fun during the training sessions and show more interest towards handball.

Our results show that high-task orientation players practice sports for personal accomplishment purposes, and because of the experiences and sensations associated with this sport. Equally, we found that this group of women play handball because they know the importance of practicing sports and because of guilt feelings. It is possible that the latter group is the one formed by the youngest women, often introduced by the coach without them really wanting, having to accept new rules, friends and greater responsibility. Also, these task-oriented players feel a mastery-oriented climate which, according to Cecchini, González, Carmona, Arruza, Escartí and Balagué (2001), is positively associated with task orientation, enjoyment and satisfaction with the sport, interest, intrinsic motivation and sport commitment. This mastery-oriented climate also promotes the psychological well-being of

athletes through improved confidence, self-esteem and decreased anxiety, while increasing sports performance (Balaguer et al., 2002; Pensgaard and Roberts, 2000).

In contrast, high-ego-oriented players perceived a motivational climate for execution, which according to several studies, generates a lower psychological well-being, higher performance-related anxiety and dissatisfaction the team's sport environment (Pensgaard and Roberts, 2000). Also, low-ego players show an EM identified, that is, they play handball because they know the benefits and importance of practicing sport. This competitive environment is positively related to ego orientation, negative affectivity and feelings of pressure (Cecchini et al., 2001). Considering the obtained results and the ones provided by previous studies, it is interesting to highlight that team sports practitioners often have high task orientation levels (Castillo, Balaguer, and Duda, 2002; Castillo, Balaguer, Duda, and García-Merita, 2004; García et al., 2005; Granero-Gallegos et al., 2012; Gómez-López et al., 2013; Hanrahan and Cerin, 2009). This is possibly due to the fact that success in these sport disciplines not only depends on a particular player's personal effort but the team's altogether. These results encourage the promotion of sport, as these players judge their ability level through a comparison process with themselves, being their skill perception self-referential.

Roberts, Treasure and Kavussanu (1996) found that elite athletes with high task orientation levels and low-ego orientation tend to show higher levels of adaptive motivational patterns reflected in hard work, intrinsic interest, enjoyment and greater persistence in sport practice. This trend contradicts the results reported by Moreno et al. (2007) in which collective modalities practitioners showed higher levels of ego orientation than individual sports practitioners. On the other hand, Duda and White (1992) demonstrated that high-performance athletes often show high orientations to both ego and task, because despite considering victory very important and enjoyable they are convinced that it was the product of hard and regular work in training and competitions and the permanent personal improvement. Likewise Santos-Rosa, García, Jiménez, Moya and Cervelló (2007) explain that this occurs because competitive sports are constantly demanding a social comparison process between individuals, being this one of the essences of this sport category.

To conclude, it should be underlined that the analyzed female players stand out for being more task-oriented, perceiving a mastery-oriented motivational climate and being intrinsically motivated. Also, ego-oriented players perceive a execution motivational climate, while the task-oriented ones perceive a mastery-oriented motivational climate and are intrinsically and extrinsically motivated. Therefore, it is important that the coach favors a mastery-oriented motivational climate to enhance the athlete's psychological well-being, task orientation and self-determination. To achieve this, the coach must consider errors as part of the learning process and encourage effort, personal development, skill development and cooperation between team members (Balaguer et al., 2002; Moreno, Cervelló, and González-Cutre, 2008; Newton et al., 2000; Pensgaard and Roberts, 2000).

References

- Ames, C. (1992). Achievement goals, motivational climate, and motivational processes. In G.C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 161-176). Champaign, Ill.: Human Kinetics.
- Balaguer, I. (1994). *Entrenamiento psicológico del deporte [Psychological sport training]*. Valencia: Albatros.
- Balaguer, I., Castillo, I., and Duda, J. L. (2007). Propiedades psicométricas de la Escala de Motivación Deportiva en deportistas españoles [Psychometric properties of the sports motivation scale in spanish athletes]. *Revista Mexicana de Psicología*, 24, 197-207.
- Balaguer, I., Castillo, I., Duda, J. L., and García-Merita, M. L. (2011). Asociaciones entre la percepción del clima motivacional creado por el entrenador, orientaciones disposicionales de meta, formas de autorregulación y vitalidad subjetiva en jóvenes jugadoras de tenis [Associations between the perception of motivational climate created by coaches, dispositional goal orientations, forms of self-regulation and subjective vitality in young tennis players]. *Revista de Psicología del Deporte*, 20, 133-148.
- Balaguer, I., Duda, J. L., Atienza, F. L., and Mayo, C. (2002). Situational and dispositional goals as predictors of perceptions of individual and team improvement, satisfaction and coach ratings among elite female handball teams. *Psychology of Sport and Exercise*, 3, 293-308.
- Balaguer, I., Givernau, M., Duda, J. L., and Crespo, M. (1997). Análisis de la validez de constructo y de la validez predictiva del cuestionario de clima motivacional percibido en el deporte (PMCSQ-2) con tenistas españoles de competición [Analysis of construct validity and predictive validity of the Perceived Motivational Climate in Sport Questionnaire (PMCSQ-2) with Spanish tennis competition players]. *Revista de Psicología del Deporte*, 11, 41-58.
- Castillo, I., Balaguer, I., and Duda, J. L. (2002). Las perspectivas de meta de los adolescentes en el contexto deportivo [Goals perspectives of adolescents in sport context]. *Psicothema*, 14(2), 280-287.

- Castillo, I., Balaguer, I., Duda, J. L., and García-Merita, M. L. (2004). Factores psicosociales asociados con la participación deportiva en la adolescencia [Psychosocial factors associated with sports participation in adolescence] *Revista Latinoamericana de Psicología*, 36(3), 505-515.
- Cecchini, J. A., González, C., Carmona, A., Arruzo, J., Escartí, A., and Balagué, G. (2001). The influence of the Teacher of Physical Education on intrinsic motivation, self-confidence, anxiety, and pre- and post-competition mood states. *European Journal of Sport Science*, 1, 4-22.
- Cervelló, E. M., Escartí, A., and Balagué, G. (1999). Relaciones entre la orientación de meta disposicional y la satisfacción con los resultados deportivos, las creencias sobre las causas de éxito en deporte y la diversión con la práctica deportiva [Relationships between dispositional goal orientation and satisfaction with sports scores, beliefs about the causes of success in sport and fun with sports]. *Revista de Psicología del Deporte*, 8, 7-19.
- Deci, E. L., and Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Deci, E. L., and Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11, 227-268.
- Duda, J. L., and White, S. A. (1992). The relationship of goal perspectives to beliefs about success among elite skiers. *The Sport Psychologist*, 6, 334-343.
- Frederick, C. M., and Ryan, R. M. (1995). Self determination in sport: A review using cognitive evaluation theory. *International Journal of Sport Psychology*, 26, 5-23.
- García, T., Cervelló, E. M., Jiménez, R., Iglesias, D., and Santos-Rosa, F. J. (2005). La implicación motivacional de jugadores jóvenes de fútbol y su relación con el estado de flow y la satisfacción en competición. *Revista de Psicología del Deporte*, 14, 21-42.
- Gómez-López, M., Granero-Gallegos, A., Abalades, J. A., and Rodríguez-Suárez, N. (2013). Analysis of self-determined motivation in basketball players through goal orientations. *Collegium Antropolologicum*, 37(3), 707-715.
- Granero-Gallegos, A., Gómez-López, M., Baena-Extremera, A., Abalades, J. A., and Rodríguez-Suárez, N. (2012). La motivación autodeterminada en el balonmano amateur. *Revista Iberoamericana de Diagnóstico y Evaluación Psicológica*, 33, 147-171.
- Hanrahan, S. J., and Cerin, E. (2009). Gender, level of participation, and type of sport: differences in achievement goal orientation and attributional style. *Journal of Science and Medicine in Sport*, 12, 508-512.
- Lochbaum, M., and Roberts, G. C. (1993). Goal orientations and perceptions of the sport experience. *Journal of Sport and Exercise Psychology*, 15(2), 160-171.
- Moreno, J. A., Cervelló, E. M., and González-Cutre, D. (2007). Young athletes' motivational profiles. *Journal of Sports Science and Medicine*, 6, 172-179.
- Moreno, J. A., Cervelló, E. M., and González-Cutre, D. (2008). Relationships among Goal Orientations, Motivational Climate and Flow in Adolescent Athletes: Differences by Gender. *The Spanish Journal of Psychology*, 11, 181-191.
- Newton, M., Duda, J. L., and Yin, Z. (2000). Examination of the psychometric properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a sample of female athletes. *Journal of Sports Sciences*, 18, 275-290.
- Nicholls, J. G. (1984). Achievement Motivation: Conceptions of Ability, subjective experience, task choice, and performance. *Psychological Review*, 91(3), 328-346.
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MASS: Harvard University Press.
- Núñez, J. L., Martín-Albo, J., and Navarro, J. G. (2007). Propiedades psicométricas de la versión española de la Escala de Motivación Deportiva [Psychometric properties of the spanish version of the sport motivation scale]. *Revista de Psicología del Deporte*, 16, 211-223.
- Núñez, J. L., Martín-Albo, J., Navarro, J. G., and González, V. M. (2006). Preliminary validation of a Spanish version of the Sport Motivation Scale. *Perceptual and Motor Skills*, 102(3), 919-930.
- Pelletier, L. G., Vallerand, R. J., Green-Demers, I., Brière, N. M., and Blais, M. R. (1995). Leisure and mental health: relationship between leisure involvement and psychological well-being. *Canadian Journal of Behavioural Science*, 27, 214-225.
- Pensgaard, A. M., and Roberts, G. C. (2000). The relationship between motivational climate, perceived ability and sources of distress among elite athletes. *Journal of Sports Sciences*, 18, 191-200.
- Roberts, G. C., and Balagué, G. (1991). The development and validation of the Perception of Success Questionnaire. *Paper presented at the FEPSAC Congress*, Cologne, Germany.
- Roberts, G. C., Treasure, D. C., and Balagué, G. (1998). Achievement goals in sport: The development and validation of the Perception of Success Questionnaire. *Journal of Sport Sciences*, 16, 337-347.
- Roberts, G. C., Treasure, D. C., and Kavussanu, M. (1996). Orthogonality of achievement goals and its relationship to beliefs about success and satisfaction in sport. *The Sport Psychologist*, 10, 398-408.
- Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, 68-78.
- Santos-Rosa, F. J., García, T., Jiménez, R., Moya, M., and Cervelló, E. M. (2007). Predicción de la satisfacción con el rendimiento deportivo en jugadores de tenis: efecto de las claves situacionales [Predicting satisfaction with athletic performance in tennis players: effect of situational clues]. *Motricidad. European Journal of Human Movement*, 18, 41-60.
- Taylor, I. M., Ntoumanis, N., and Standage, M. (2008). A Self-determination Theory Approach to Understanding the Antecedents of Teachers' Motivational Strategies in Physical Education. *Journal of Sport and Exercise Psychology*, 30, 75-94.
- Vallerand, R. J., Blais, M. R., Brière, N. M., and Pelletier, L. G. (1989). Construction et validation de l'Échelle de Motivation en Éducation (EME). *Canadian Journal of Behavioural Science*, 21, 323-349.
- White, S. A., and Duda, J. L. (1994). The relationship of gender, level of sport involvement, and participation motivation to task and ego orientation. *International Journal of Sport Psychology*, 25, 4-18.