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Goal orientation in elite volleyball player's motivation and motivational climate

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ABSTRACT: The purpose of this study was to evaluate the goal orientation on the motivation and motivational climate perceived by Iranian's elite female volleyball players. A sample was taken consisting of 63 players of ages ranging from 16 to 36 years. The instruments for data gathering were the Iranian 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, as IM, identified EM and interjected EM, as well as a mastery-oriented motivational climate.
Keywords: volleyball, high-level, achievement motivation, goal orientation.

INTRODUCTION

Orientation of sports activities at competitions and the realization of goals that are most often objectively measurable encourage athletes to continuously improve the performance of sports skills. It is not unusual that achievement-oriented motivation which is crucial in situations where an athlete competes with others, or when he or she tries to reach some of the standards of excellence, is one of the most frequently studied concepts in the last thirty years (Roberts, 2001; Roberts, Teasure, &Cornoy, 2007).

Motivation which is defined as a desire that mobilizes and directs human behavior (Tiryaki, 2000) is one of the oldest fields of study of psychology. The concept of motivation which has been dealt with from different points of view within the course of historical development has been recently examined within the framework of social cognitive theories. The theory of the goal of success is one of the fundamental approaches within the body of social cognitive theories that explain motivation for success in sports and exercise environments (Weinberg, Gould, 1995).

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-envolving motivational climate or competitive/execution climate and task-envolving 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; interjected regulation, showing the athlete who partially internalizes 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 instrinsically 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 in female elite volleyball 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.

METHOD

A total of 63 volleyball 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 Women's Volleyball Pro League, the most important competition for women's volleybal in Iran.*Perception of Success Questionnaire* (*POSQ*; Roberts and Balagué, 1991; Roberts, Treasure, and Balagué, 1998).

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 α = .88, and of Ego Orientation, α = .87.

Sport Motivation Scale questionnaire (SMS). In our study, 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, α = .76; Achievement as IM, α = .79; Stimulation as IM, α = .82; Identified EM, α = .71; Introjected EM, α = .67; External regulation EM, α = .75, and amotivation, α = .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 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 α = .81 and α = .90 for execution.

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.

The descriptive analyses consisting of the internal consistency of each subscale (Cronbach's alpha) and multivariate analysis (MANOVA 2x2) were carried out with SPSS 16.0.

RESULTS

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.

Table1. Alpha coefficients (α) and descriptive of the POSQ, SMS and PMCSQ-2 subscales.

Subscales	Kurtosis	*M*	*SD*	α	Asymmetry
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

Table2.Univaried goal orientation in the perceived Motivation and Motivational climate dimensions. Mean according to task and ego levels

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

Note. pis significant at <.05 level.

To examine the goal orientation in 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 one's own personal bests and stimulation and identified and introjected EM, as well as in the motivational climate and mastery (Table 2).

DISCUSSION AND CONCLUSIONS

The objective was set to determine of goal orientation in Iranian's elitefemale volleyball players on motivation and the perceived motivational climate during the training sessions. Univaried 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 volleyball 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 volleyball 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 study showed, 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, Cervello and Gonzalez- Cutre (2007), GraneroGallegos et al. (2012) and Gómez et al. (2013). Female athletes are this way encouraged to have fun during the training sessions and show more interest towards vollyball.

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 playvollyball 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, Gonzalez, Carmona, Arruza, Escarti and Balague (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 volleyball 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 Garcia-Merita, 2004; Garcia et al., 2005; Granero-Gallegos et al., 2012; Gomez-Lopez 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, Garcia, Jiménez, Moya and Cervello (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 an 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 Gonzalez Cutre, 2008; Newton et al., 2000; Pensgaard and Roberts, 2000).

REFERENCES

Balaguer I, Castillo I, Duda JL, Garcia-Merita ML.2011.Asociaciones entre la percepciondelclimamotivacionalcreadopor el entrenador, orientacionesdisposicionales de meta, formas de autorregulación y vitalidadsubjetiva en juvenesjugadoras 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 PsicologíadelDeporte, 20, 133-148.

Balaguer I, Castillo I, Duda JL.2007. Propiedadespsicométricas de la Escala de MotivaciónDeportivaen deportistasespanoles [Psychometric properties of the sports motivation scale in spanish athletes]. Revista Mexicana de Psicología, 24, 197-207.

Balaguer I, Givernau M, Duda JL, Crespo M.1997. Análisis de la validez de constructo y de la validezpredictiva del cuestionario de climamotivacionalpercibido en el deporte (PMCSQ-2) con tenistasespanoles de competición [Analysis of construct validity and

Balaguer I. 1994. Entrenamientopsicológicodeldeporte[Psychological sport training]. Valencia: Albatros.

Castillo I, Balaguer I, Duda JL, García-Merita ML.2004. Factorespsicosocialesasociados con la participacióndeportiva en la adolescencia [Psychosocial factors associated with sports participation in adolescence]RevistaLatinoamericana de Psicología, 36, 505- 515.

Castillo I, Balaguer I, Duda JL.2002. Las perspectivas de meta de los adolescentes en el contextodeportivo [Goals perspectives of adolescents in sport context]. Psicothema, 14, 280-287.

Cecchini JA, González C, Carmona A, Arruza J, Escartí A, 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 EM, Escartí A, Balagué G.1999. Relaciones entre la orientación de metadisposicional y la satisfacción con los resultadosdeportivos, lascreenciassobrelascausas de éxito en deporte y la diversión con la prácticadeportiva [Relationships between dispositional goal orientation and satisfaction with sports scores, believes about the causes of success in sport and fun with sports]. Revista de PsicologíadelDeporte, 8, 7-19.

Deci EL, Ryan RM. 1985. Intrinsic motivation and self-determination in human behaviour. New York: Plenum.

Deci EL, Ryan RM.2000. The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. Psychological Inquiry, 11, 227-268.

Duda JL, White SA.1992. The relationship of goal perspectives to beliefs about success among elite skiers. The Sport Psychologist, 6, 334-343.

Frederick CM, Ryan RM. 1995. Self-determination in sport: A review using cognitive evaluation theory. International Journal of Sport Psychology, 26, 5-23.

Garcia T, Cervello EM, Jimenez R, Iglesias D, Santos-Rosa FJ.2005. La implicacionmotivacional de jugadoresjovenes de futbol y surelacion con el estado de flow y la satisfaccion en competicion .Revista de PsicologjadelDeporte, 14, 21-42.

Gomez-Lopez M, Granero-Gallegos A, Abraldes JA, Rodriguez-Suárez N. 2013. Analysis of self-determined motivation in basketball players through goal orientations. Collegium Antropollogicum., 37, 707-715.

Granero-Gallegos A, Gomez-Lopez M, Baena-Extremera A, Abraldes JA, Rodríguez-Suárez N. 2012. La motivacionautodeterminada en el balonmano amateur. RevistaIberoamericana de Diagnostico y EvaluacionPsicológica, 33, 147-171.

Hanrahan SJ, 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, Roberts GC. 1993. Goal orientations and perceptions of the sport experience. Journal of Sport and Exercise Psychology, 15, 160-171.

Moreno JA, Cervello EM, González-Cutre D. 2007. Young athletes' motivational profiles. Journal of Sports Science and Medicine, 6, 172-179.

Moreno JA, Cervelló EM, 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 JL, Yin Z.2000. Examination of the psychometric properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a simple of female athletes. Journal of Sports Sciences, 18, 275-290.

Nicholls JG. 1984. Achievement Motivation: Conceptions of Ability, subjective experience, task choice, and performance. Psychological Review, 91, 328-346.

Nicholls JG. 1989. The competitive ethos and democratic education. Cambridge, MASS: Harvard University Press.

Nunez JL, Martín-Albo J, Navarro JG, Gonzalez VM.2006. Preliminary validation of a version of the Sport Motivation Scale. Perceptual and Motor Skills, 102, 919-930.

Nunez JL, Martin-Albo J, Navarro JG. 2007. Propiedadespsicometricas de la version espanola de la Escala de Motivación

Pelletier LG, Vallerand RJ, Green-Demers I, Brière NM, Blais MR.1995. Leisure and mental health: relationship between leisure involvement and psychological well-being. Canadian Journal of Behavioural Science, 27, 214-225.

Pensgaard AM, Roberts GC.2000. The relationship between motivational climate, perceived ability and sources of distress among elite athletes. Journal of Sports Sciences, 18, 191-200.

Roberts GC, Balague G.1991. The development and validation of the Perception of Success Questionnaire. Paper presented at the FEPSAC Congress, Cologne, Germany.

Roberts GC, Teasure DC, Cornoy DE.2007. Understanding the dynamics of motivation in sport and physical activity. In G. Tenenbaum, & R. C. Eklund (Eds.), Handbook of sport psychology (pp. 3-30). New Jersey: John Wiley & Sons, Inc.
Roberts GC, Treasure DC, Balague G. 1998. Achievement goals in sport: The development and validation of the Perception of Success Questionnaire. Journal of Sport Sciences, 16, 337-347.
Roberts GC, Treasure DC, 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 RM, Deci EL.2000. Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. American Psychologist, 55, 68-78.
Santos-Rosa FJ, García T, Jimrnez R, Moya M, Cervelló EM.2007. Predicción de la satisfacción con el rendimientodeportivo 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 IM, Ntoumanis N, 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.
Tiryaki Ş.2000. Spor Psychology: Concepts, Theories and Practise. Eylul Press: Ankara. Weinberg, R. S. ve Gould, D. (1995) Foundations of sport and exercise psychology. Champaign, IL: Human Kinetics.
Vallerand RJ, Blais MR, Brière NM, Pelletier LG.1989. Construction et validation de l´Échelle de Motivation en Éducation(EME). Canadian Journal of Behavioural Science, 21, 323-349.
White SA, Duda JL.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.