

## The Influence of Parents on Achievement Orientation and Motivation for Sport of Adolescent Athletes with and without Disabilities

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### Abstract

The purpose was three-fold. First, to analyze the psychometric properties of scales used. Second, to test the relationship among athletes' perceptions of parents' goal orientation and their own goal orientation and intrinsic motivation. Third, to compare athletes with and without disabilities with respect to the influence of parents on athletes' achievement orientation and motivation for sport. Participants were 173 amateur athletes (80 with disabilities, 93 without disabilities). Structural equation models revealed that for the athletes with disabilities, task orientation and the perceptions of parents' task orientation were related to athletes' interest-enjoyment and effort-importance. For the athletes without disabilities, ego orientations showed a negative relationship to interest-enjoyment and a positive relation to tension-pressure, and task orientation was related to interest-enjoyment, perceived competence and effort-importance.

**KEYWORDS:** *Adapted sports, amateur sport, significant others, intrinsic motivation*

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For the past two decades, research has consistently linked sports participation to a variety of physical and psychosocial benefits such as quality of life and emotional well-being (Donaldson & Ronan, 2006; Giacobbi, Stancil, Hardin, & Bryant, 2008; Mactavish, Mackay, Betteridge, & Iwasaki, 2007), and it has been identified as an important factor in reducing the risk of many health problems including cardiovascular disease, high blood pressure, and obesity (Blair, 2009; Moliner-Urdiales et al., 2010). However, despite the evidence regarding the benefits of sport, youth participation rates are low, both for persons with and without disabilities (Kristén, Patrikson, & Fridlund, 2003; Ortega et al., 2010; USDHHS, 2003).

To help more youth reap the potential benefits of sport participation, more needs to be known about what influences motivation in sports (Stuntz & Weiss, 2009). Thus, identifying the mechanisms associated with sport motivation in the general population, and in particular for persons with disabilities, has become an important area of research (Driver, 2006; McAuley & Blissmer, 2000).

From the beginning of the “adapted” sports movement in the mid-1930s, the participation of people with disabilities in sports activities has been promoted mainly as a therapeutic activity, designed both for the functional recovery of the individual and as an aid toward social integration, regarding adapted sports as a means toward a utilitarian end (DePauw, 2000). As noted by Bedini and Anderson (2005), Causgrove Dunn and Dunn (2006) and Kosma, Cardinal and Rintala (2002), the benefits of physical activity among individuals with disabilities have been well documented; however, very few people with disabilities are physically active compared to people without disabilities. One reason for this situation might be low motivation to participate in sports, therefore it is of paramount importance to carry out further research in order to identify optimal strategies to increase motivation among individuals with disabilities toward sport practices and healthy, active lifestyles, including an examination of the roles parents can play with regard to motivation.

Therefore, the purpose of our research was three-fold: (a) To analyze the psychometric properties of the Spanish version of measures to assess athletes' goal orientations, athletes' perceptions of parents' goal orientations, and athletes' intrinsic motivation. (b) To study the relationship among athletes' perceptions of their parents' goal orientations and their own goal orientations and intrinsic motivation when engaged in sports. (c) To examine if there are differences between athletes with and without disabilities with respect to the influence of parents on athletes' achievement orientation and motivation for sport.

## Literature review

### Achievement Goal Orientations

Achievement goal theory is a widespread theoretical perspective for studying motivation in sport (Bortoli, Bertollo, & Robazza, 2009). Two constructs of the theory have received special attention in sport literature, namely task orientation and ego orientation (Roberts, Treasure, & Conroy, 2007). A central theme in goal perspective theory is that an individual uses task- and/or ego-oriented criteria to evaluate success and competence (Nicholls, 1989; Roberts, 2001). For example,

success and competence for the individual high in task orientation is determined by employing self-referenced criteria. That is, the individual focuses on learning something new, personal improvement, and/or meeting the demands of the task (Duda, 2005; Roberts, 2001). In fact, the person high in task orientation feels most successful when he or she has exerted high levels of effort and observed mastery of a skill. The ego-oriented individual judges feelings of competence and adequacy by employing normative or other-referenced criteria, and therefore defines success in terms of whether he or she won and how superior his/her ability was in comparison to that of others (White, 1998). Although a dominant predisposition to be either task- and/or ego-oriented has been identified, due to the orthogonal nature of goal orientations, it may be possible to be high or low in both (Roberts, 2001; White, 1998). In fact, it is considered ideal to be high in both, because an individual who is high in both task and ego goal orientation has two sources of success and several reasons to continue his or her participation in the activity (Roberts, 2001).

Whether or not a certain achievement goal is adopted will depend on the importance this goal has for the individual, the perceptions of the salient goals in the situation, and the influence of significant others (such as parents, coaches, and peers) who reinforce or emphasize one goal perspective or the other (Causgrove Dunn, 2000). Individual differences in the disposition to be ego- or task-oriented may result from socialization through task- or ego-involving contexts at home, in the classroom, or the sports activities experienced (Ames, 1992; Duda, 2005), but the most influential variable is the individual's perception of the situation rather than the situation itself (White, 1996, 1998).

### **Differences in Goal Orientations Based on Age, Gender, Level of Participation and Type of Sport**

The development of an ego-involved conception of success and competence in children involves the capacity to differentiate between the concepts of effort and ability (Nicholls, 1989). Children go through stages in their understanding of hard work and ability and their interdependence (Fry & Duda, 1997). Specifically, most youth prior to the age of 12 either do not recognize the difference between trying hard and being able to do something or they think that effort is the primary determinant of success or failure in sport. With maturity, children acquire an understanding of ability as current capacity. That is, by the time they are 11 or 12 years of age, most children can comprehend that outcomes are influenced by level of ability and how hard one works. Children, by the time they move to adolescence, also recognize the sobering reality that effort can only get someone so far if he or she does not possess the requisite ability or talent. As a result of such differences in processing ability and effort, and their interplay, young athletes cannot be truly ego-involved until they possess a mature understanding of competence. Moreover, because of such cognitive developmental factors, younger children are inclined to be task-involved (McArdle & Duda, 2002). However, while many studies have shown that younger athletes tend to be more task-oriented than older athletes (Weiss & Ferrer-Caja, 2002), other studies have failed to identify age differences in task- and ego-orientation (Chin, Khoo, & Low, 2009).

Although there appears to be a tendency to find males higher in ego orientation than females, there is a lack of consensus concerning gender differences in goal orientations. For example, Li, Harmer, and Acock (1996) found males scored significantly higher on ego orientation, and no significant gender differences in task orientation, while Hanrahan and Biddle (2002) did find that females scored significantly higher than males on task orientation, but there was no significant difference between males and females on ego orientation. Additionally, White and Duda (1994) found that athletes who were involved at the highest competitive level were significantly higher in ego orientation than their adult counterparts who participated in recreational activities or athletes at a lower level of sport involvement, and there was no significant effect of competitive level on task orientation scores.

Differences in achievement goal orientations may also occur for athletes participating in different types of sports. For instance, Hanrahan and Biddle (2002) found that athletes from track and field scored significantly higher than squash and football players on task orientation, possibly because track and field orients athletes to think of success in terms of personal bests (e.g., times or distances). This finding suggests that closed-skilled sports may promote a stronger task orientation than open-skilled sports. Individual sport athletes may perceive themselves to have greater control and responsibility for their performances than do team sport athletes because they are not directly interacting with or relying on teammates. Potentially this could result in individual sport athletes making more internal and controllable attributions for their performances compared to team sport athletes (Hanrahan & Cerin, 2009).

## **Achievement Orientations and Intrinsic Motivation**

Adoption of an achievement goal perspective by the athletes should generate insight into the variability in intrinsic motivation observed in sport contexts (Duda, 2005). Studies have suggested that intrinsic motivation provides the subjects with satisfaction derived from the activity, effort, and persistence. It is presumed that task involvement will be positively associated with intrinsic motivation, while ego involvement is more likely to correspond to decreased intrinsic motivation (Duda, 2005; Roberts, 2001). A negative relationship between ego involvement and intrinsic motivation is expected because one engages in sport as a means to an end, when ego-involved (Papaioannou, Ampatzoglou, Kalogiannis, & Sagovits, 2008; Roberts et al., 2007; Stuntz & Weiss, 2009).

Maladaptive behaviors, such as choosing very easy or very difficult tasks and failing when one encounters obstacles, are predicted in the case of the ego-oriented athlete, who has low perceptions of ability. In contrast, adaptive motivational patterns such as choosing challenging activities, applying effort, and persisting in the face of difficulty are predicted when someone is task-oriented or when one is ego-oriented and is convinced of his or her high ability (White, Kavussanu, & Guest, 1998; Papaioannou, et al., 2008).

Although an ego orientation has at times been linked to high levels of achievement, it also has a number of less desirable correlates, such as inconsistent effort, higher levels of performance anxiety, reduced persistence or withdrawal in the face

of failure, decreased intrinsic motivation for sport involvement, and a willingness to use deception and illegal methods in order to win (Duda, 2005; Lemyre, Roberts, & Ommundsen, 2002; Sage & Kavussanu, 2008; Smith, Smoll, & Cumming, 2009). Nevertheless, although being high in ego orientation is usually associated with discounting effort as a cause of success, when high ego individuals also are high in task orientation, this is sufficient to mediate this belief among high ego-oriented individuals. In fact, Roberts, Treasure and Kavussanu (1996) found that high ego/high task-oriented individuals exhibited the same adaptive beliefs as the high task/low ego-oriented individuals.

### **Parents as Socializing Agents**

Within a sports context, an individual's attitudes and behaviors toward participation may be influenced by a variety of social agents such as parents, coaches, peers and friends (Anderson, Wozencroft, & Bedini, 2008; Martin, 2006; Ruddell & Shinew, 2006). Consequently, social influences are considered one of the most important constructs in predicting sport behavior (Litwin, 2003; Stuntz & Weiss, 2009). While parents of athletes with and without disabilities have been found to be among the primary sport socializers (Brustad & Partridge, 2002; Fredricks & Eccles, 2005; Horn & Horn, 2007), family support is especially important for the development of adolescents with disabilities (Blum, 1998).

A large number of authors have concluded that the beliefs, values, and success criteria of significant others such as parents can influence athletes' participation and motivation in sports (e.g., Collins & Barber, 2005; Duda & Hom, 1993; Escartí, Roberts, Cervelló, & Guzmán, 1999; Fredricks & Eccles, 2004; White, et al., 1998). This statement is equally valid for athletes with disabilities and for those without disabilities (Duncan, 2001; Martin, 2006; Page, O'Connor, & Peterson, 2001; Ruddell & Shinew, 2006). However, with regard to persons with disabilities, Kosma et al. (2002) have highlighted that their families do not stimulate them toward the practice of physical activity. Furthermore, people with disabilities frequently suffer incidents of discrimination by sports technicians, organizers, and others like peers, friends or coaches, by offering different treatment, ignoring their presence and providing low expectations about their sport practices. Negative attitudes toward persons with disabilities create a significant barrier to participation in community recreation activities. Some studies suggest that society's perception of persons with disabilities is the most influential factor in understanding why they do not participate in sport activities. Along these lines, Duncan (2001) stated that "the real problem is social rather than physical" (pg. 1). The way society views persons with disabilities and the institutionalization of these views is the source of the stigma which inhibits participation in sports. People with disabilities become 'nonpersons' when they are relegated to careless ableist stereotypes that rob them of their human rights (Bedini, 2000).

Several authors have examined the role of adults in the sport socialization process of children and adolescents (e.g., Dorsch, Smith, & McDonough, 2009; Greendorfer, 2002; Gutiérrez & Escartí, 2006; Papaioannou et al., 2008; Shannon, 2006; White et al., 1998), and have indicated that significant others such as coaches, peers and parents may play an important role as socializing agents in the de-

velopment of athletes' goal orientations. A number of studies in the sport domain have illustrated a strong link between parental influence in the form of attitudes, beliefs, expectancies, and behaviors and children's self-perceptions, self-reported motivation, and levels of activity involvement (Brustad & Partridge, 2002). Specifically, Duda and Hom (1993), White (1998), and McArdle and Duda, (2002), examining the relationship between parent and child self-reported goal orientation, found that children's goal orientations were significantly related to those of their parents. Children who were higher in task orientation perceived their significant parent to be higher in task orientation; the same held for ego orientation.

The influence of parents on the development of children's and young adolescents' achievement motivation has been also examined in multiple studies (e.g., Dorsch et al., 2009; Fredricks & Eccles, 2005). In relation to this, Duda and Hom (1993), Duda, Chi, Newton, Walling, & Catley (1995), Escartí et al. (1999), and White et al. (1998) showed that children's valuation of parents' expectations of them influence the intrinsic motivation of the participants when engaged in sports, and that the belief a person holds about what is valued in a certain achievement context could influence his or her intrinsic motivation.

### **Comparison between Athletes with and without Disabilities**

It could be assumed that people with disabilities derive the same satisfaction and benefit from sport participation, and that their motives for such participation are the same as those for athletes without disabilities. However, several researchers have compared people with and without disabilities in the context of achievement orientation and motivation for sport, and have found differing results.

On the one hand, analyzing the motivational orientations of athletes that practice amateur sports, Brasile, Kleiber, and Harnisch (1991) found an overall similarity in the relative importance of various reasons for participation among the athletes with and without disabilities. However, Gutiérrez and Caus (2006) found that athletes with disabilities were more ego-oriented than athletes without disabilities, and that athletes with disabilities scored higher in social integration incentives and social affective incentives than athletes without disabilities. Similar results have been obtained by Skordilis, Koutsouki, Asonitou, Evans, and Jensen (2002) who found in their work that wheelchair athletes scored higher than able-bodied athletes on the subscales of competitiveness and ego orientation.

On the other hand, in a study analyzing the motivational orientations of athletes that practice highly competitive amateur and professional sports, Pensgaard, Roberts, and Ursin (1999) found that Paralympic and Olympic athletes had similar motivational profiles, but the Paralympic athletes perceived a more task-oriented climate, and were also significantly more satisfied with effort and results. In contrast, Cervelló, Fuentes, and Sanz (1999) found that tennis players showed higher task and higher ego orientations than wheelchair tennis players. In a study conducted by Skordilis, Gavriilidis, Charitou, and Asonitou (2003), the authors concluded that their subjects, professional basketball players, were more win-oriented than amateur and wheelchair basketball athletes, and that the wheelchair and amateur athletes possessed similar sport-achievement orientations when competing in basketball.

## The Present Study

There are disparate findings when comparing goal orientations between people with and without disabilities in the area of sports. This, along with socio-cultural aspects that characterize sport for people with disabilities, and a scarcity of studies on athletes with disabilities carried out in the Spanish context, suggest the need to delve more deeply into goal orientations and motivation toward practicing sports in different cultures. The average age at which Spanish people with disabilities begin sport participation is higher than for people without disabilities (Pérez, 2009), and opportunities to participate in sport are quite low for people with disabilities compared to the opportunities available for people without disabilities (Caus, 2004; King et al., 2009; Law, Petrenchik, King, & Hurley, 2007).

Furthermore, the Spanish educational system did not begin to formally address the unique issues and needs of students with disabilities until the late 1980s (Giné & Carbó, 2007), and today there are still different ways of understanding disability in social terms (e.g., the medical rehabilitation model, the social minority model, and disability as a social construct) (Pérez, 2006). In Spain, the more traditional medical rehabilitation model prevails to a higher degree than in other countries, therefore people with disabilities are more likely to start participating for rehabilitation purposes rather than for social integration (Gómez, Verdugo, & González, 2007; Ruiz, 2007). Thus, with regard to sport, a number of physical, economic, and social barriers persist in the Spanish context, which force athletes with disabilities to be more dependent on their parents and relatives (Pérez, 2009). Many of these barriers are similar to those noted by Law et al. (2007) and Hunter (2009) in other first-world countries, including architectural barriers, inaccessible exercise equipment, overprotectiveness by family members, discrimination, and antiquated medical advice relating to the benefits and risks of physical activity participation for individuals with disabilities.

In light of the points made above, the purpose of the present study was three-fold. First, to provide psychometric evidence of the factorial validity and reliability of the Spanish version of established measures to assess athletes' goal orientations, athletes' perceptions of parents' goal orientations, and athletes' intrinsic motivation. Second, to test the relationships among athletes' perceptions of parents' goal orientations, athletes' goal orientations, and athletes' intrinsic motivation for sport practices. Third, to see if there are differences between athletes with and without disabilities with respect to the influence of parents on athletes' achievement orientation and motivation for sport.

Consistent with achievement orientation theory and based upon previous research (e.g., Duda & Hom, 1993; Escartí et al., 1999; White et al., 1998), our general hypothesis was that the athletes' perceptions of their parents' goal orientation would be related to their own goal orientations, which in turn would be related to intrinsic motivation in their sports participation. More precisely, we hypothesized that athletes' perceptions of their parents' goal orientations related to task would favor their task orientation and increase intrinsic motivation, whereas athletes' perceptions of their parents' goal orientations related to ego would favor their ego orientation and diminish intrinsic motivation. Further, we hypothesized that the influence of parents on the motivation of athletes with disabilities would be dif-

ferent when compared to the influence of parents on the motivation of athletes without disabilities (see Figure 1).

## Methods

### Participants

A sample of 173 participants (108 male and 65 female), 93 able-bodied and 80 athletes with disabilities, was recruited from different Spanish amateur sports clubs. Participants ranged in age from 14 to 20 years. The two subsamples were significantly different in age ( $t = 9.7, p < .001$ ), with a mean age of  $17.5 \pm 2.2$  years for the athletes with disabilities; and  $15.0 \pm 1.1$  years for the athletes without disabilities. There also were significant gender differences in both subsamples ( $\chi^2_1 = 14.4, p < .001$ ), 77% of athletes with disabilities were males compared to 49.5% of athletes without disabilities. All of the participants practiced swimming and, additionally, other individual sports (athletics, boccia, gymnastics, and slalom). Among the 80 athletes with a functional disability (43 with cerebral palsy and 37 with physical disabilities), 20% were affected at a low level, 39% at a medium level, and 41% had a high degree of disability, in accordance with the *International Paralympics Committee Classification Manual* (2003). None of them had cognitive impairments that would limit their understanding of the instruments administered. In 66% of the cases within the subsample of athletes with disabilities, the mother was the parent most involved in the children's sport practice compared to 52% for athletes without disabilities.

### Instruments

**Athletes' goal orientations.** The Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992) was used to assess the athletes' dispositional goal orientation. This questionnaire requires participants to think about when they have felt successful at sports and then indicate their agreement with items reflecting task-oriented (e.g., "I feel most successful at sports when I work really hard") or ego-oriented (e.g., "I feel most successful at sports when others can't do as well as I can") criteria. Responses are made on a five-point Likert-type scale ranging from (1) strongly disagree, to (5) strongly agree. In this study, a Spanish version was used. The TEOSQ has demonstrated factorial validity and internal consistency in its original English version for people without disabilities ( $\alpha_{\text{task}} = .79, \alpha_{\text{ego}} = .81$ ; Duda & Hom, 1993), as well as for people with disabilities ( $\alpha_{\text{task}} = .74, \alpha_{\text{ego}} = .75$ ; White & Duda, 1993).

**Athletes' perceptions of parent's goal orientations.** The TEOSQ (Duda & Nicholls, 1992) was also designed to measure the athletes' perceptions of the goal perspective of the parent who is most involved in and responsible for their sport participation, according to the instructions by Duda and Hom (1993). The stem for each item was "My father/mother feels I am really successful in my sport when..." (for example, I'm the best). Responses were indicated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The internal reliabilities obtained by Duda and Hom (1993) were:  $\alpha_{\text{task}} = .78$ , and  $\alpha_{\text{ego}} = .87$ .

**Athletes' intrinsic motivation.** The Intrinsic Motivation Inventory (IMI; McAuley, Duncan, & Tamm, 1989) measures overall levels of intrinsic motivation and is comprised of four subscales assessing the degree to which an activity is deemed enjoyable and interesting, perceived competence, perceived exerted effort in and the importance placed on the activity, as well as the reported tension and pressure experienced while participating. The first three dimensions are considered positive indices of intrinsic motivation while the fourth dimension is scored as a negative indicator (Duda, et al., 1995). In the present study, a Spanish version of the IMI was used, and the questions were related to the sports context (e.g., "I enjoy sports very much," "I think I am pretty good at sports," "I put a lot of effort into sports practice," "I feel tense while playing sports."). Responses are made on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). McAuley et al. (1989) have provided evidence showing the validity and reliability of the IMI when applied to sport and exercise settings. Alpha coefficients for each of the subscales were: interest-enjoyment ( $\alpha = .78$ ), perceived competence ( $\alpha = .80$ ), effort-importance ( $\alpha = .84$ ), and tension-pressure ( $\alpha = .68$ ).

### Procedures

Data were collected in different amateur Spanish athletics, gymnastics, swimming, and adapted sports clubs at the end of the 2007 season. First, the governing group from each sports club was contacted in order to explain the objectives of the study and the instruments that would be used. Later, meetings were held with the athletes at their training sites (30 minutes before beginning each workout session). After having the characteristics of each questionnaire explained to them, the athletes answered the questionnaires individually. The order of application of the questionnaires was counterbalanced among participants. The athletes who needed help in filling in the questionnaires were provided with alternative communication systems (computer means adapted for persons with disabilities). All of the athletes participated voluntarily in the study after receiving information about the objectives proposed by the researchers.

### Data Analysis

The data were examined at four levels. First, Confirmatory Factor Analyses (CFA) were carried out to examine the factorial structure of the TEOSQ and the IMI, which were designed to measure athletes' goal orientations, athletes' perceptions of parents' goal orientations, and athletes' intrinsic motivation, in order to determine whether the structure of our data matched the previously tested structure. The Cronbach alpha coefficients were also calculated for each of the dimensions obtained. Second, bivariate correlation analyses were performed to determine the relationship of goal orientations to the scales of the IMI for athletes with and without disabilities, separately. Third, Structural Equation Modelling (SEM) with observed variables was conducted to explore the pattern of relationships within the data set. Confirmatory factor analyses and path analyses were estimated within the EQS 6.1 program (Bentler, 2005) using maximum likelihood estimation with Satorra-Bentler's corrections in standard errors and fit indices, due to the non-normality of the variables (Finney & DiStefano, 2006). For the assessment of

model fit, a selection of the better performing indices (Hu & Bentler, 1999) were used: Comparative Fit Index (CFI) and Goodness-of-Fit Index (GFI), with values of about 0.9 considered adequate; and Root Mean Square Error of Approximation (RMSEA) should approximate or be less than 0.08 to be indicative of adequate fit of the model to the data (Kaplan, 2000; Tabachnick & Fidell, 2007). Although the samples are not very large (80 athletes with disabilities, and 93 athletes without disabilities), simulation studies have shown that even smaller samples can work well in SEM (Marsh, Balla, & McDonald, 1988). Fourth, t-tests were conducted to determine whether there were differences in goal orientations and indices of intrinsic motivation between athletes with and without disabilities.

## Results

### Validity and Reliability of the Instruments

**TEOSQ.** The initial CFA of the TEOSQ showed good fit indices, both in the athletes' perceptions of parents' goal orientations ( $\chi^2_{\text{robust}, 64} = 111.48, p = 0.0002$ ;  $\text{CFI}_{\text{robust}} = 0.94$ ;  $\text{GFI} = 0.91$ , and  $\text{RMSEA}_{\text{robust}} = 0.06$ ), and the athletes' goal orientations ( $\chi^2_{\text{robust}, 64} = 107.40, p = 0.0005$ ;  $\text{CFI}_{\text{robust}} = 0.94$ ;  $\text{GFI} = 0.91$ , and  $\text{RMSEA}_{\text{robust}} = 0.06$ ). Consistent with the factor structure and pattern of item loadings of the original scale (Duda & Nicholls, 1992), six items loaded on the factor reflecting ego orientation, and seven items loaded on the factor reflecting task orientation. As can be seen in Table 1, the structure of the TEOSQ is the same for the two administrations, although the factor loadings vary slightly in each of them.

Internal reliability of the task and ego orientation subscales was calculated using Cronbach's coefficient alpha. Satisfactory internal consistency coefficients were obtained for both the task and ego orientation subscales in the two administrations (athletes' goal orientations:  $\alpha_{\text{task}} = .78$ ,  $\alpha_{\text{ego}} = .85$ ; and athletes' perceptions of parents' goal orientations:  $\alpha_{\text{task}} = .82$ ,  $\alpha_{\text{ego}} = .85$ ) (see Table 1).

**IMI.** To analyse the factorial validity of the IMI, two CFAs were conducted based on the structure reported by McAuley et al. (1989). The first CFA revealed poor fit indices ( $\chi^2_{\text{robust}, 129} = 207.11, p < 0.0001$ ;  $\text{CFI}_{\text{robust}} = 0.87$ ;  $\text{GFI} = 0.87$ , and  $\text{RMSEA}_{\text{robust}} = 0.05$ ), two items showed a low standardized solution (item #12 = -.213; item #17 = -.219), and the fourth factor was independent from the other three factors. Accordingly, items 12 and 17 were deleted and a second CFA was specified. This CFA showed a reasonable fit:  $\chi^2_{\text{robust}, 101} = 155.64, p = 0.0004$ ;  $\text{CFI}_{\text{robust}} = 0.90$ ;  $\text{GFI} = 0.90$ ; and  $\text{RMSEA}_{\text{robust}} = 0.05$ ). Again, there were significant correlations among the first three factors:  $F1-F2 = .643$ ,  $F1-F3 = .851$ ,  $F2-F3 = .771$ .

As can be seen in Table 2, four factors were obtained: interest-enjoyment ( $\alpha = .76$ ), perceived competence ( $\alpha = .78$ ), effort-importance ( $\alpha = .70$ ), and tension-pressure ( $\alpha = .69$ ). One alpha coefficient was lower than .70 recommended by Nunnally and Bernstein (1994), perhaps due to the number of items this factor has (4). In spite of this, we decided to retain this subscale with alpha below .70 in the analyses because their standardized factor loadings were satisfactory (e.g.,  $>.40$ ).

Table 1

*Standardized Factor Loadings for Task and Ego Orientation in Sport Questionnaire*

<b>Items</b>	<b>Ego Orientations</b>		<b>Task Orientations</b>	
	<b>APPGO</b>	<b>AGO</b>	<b>APPGO</b>	<b>AGO</b>
1. I'm the only one who can do a play or skill	.565	.714		
3. I can do better than my friends	.760	.682		
4. The others can't do as well as me	.658	.631		
6. Others mess up and I don't	.455	.600		
9. I score the most points/goals/hits/etc.	.823	.869		
11. I'm the best	.835	.811		
2. I learn a new skill and it makes me want to go to practice more			.588	.638
5. I learn something that is fun to do			.534	.561
7. I learn a new skill by trying hard			.643	.731
8. I work really hard			.560	.656
10. Something I learn makes me want to practice more			.714	.656
12. A skill I learn really feels right			.718	.735
13. I do my very best			.529	.658
Cronbach Alphas	.85	.85	.78	.82

APPGO: Athletes' Perceptions of Parents' Goal Orientations; AGO: Athletes' Goal Orientations

### Correlations among the Observed Variables

Pearson correlations between all the observed variables used in the study are presented in Table 3 with the results of the athletes with and without disabilities shown separately. For the sample of athletes with disabilities, the data show a significant correlation ( $p<0.01$ ) among the athletes' perceptions of parents' ego orientation and athletes' ego orientation, as well as among the athletes' perceptions of parents' task orientation and athletes' task orientation, interest-enjoyment, perceived competence, and effort-importance. Additionally, athletes' task orientation was positively correlated with interest-enjoyment and effort-importance. For the sample of athletes without disabilities, the correlations found were similar to the case of athletes with disabilities. The only difference was the positive correlation among athletes' goal orientation and perceived competence (see Table 3).

Table 2

*Standardized Factor Loadings for Intrinsic Motivation Inventory (IMI)*

<b>Items</b>	<b>Interest</b>	<b>Compet</b>	<b>Effort</b>	<b>Tension</b>
1. I enjoyed sport very much	.762			
7. Playing sport was fun	.645			
8. I would describe sport as very interesting	.462			
13. While playing sport, I was thinking about how much I enjoy it	.523			
2. I think I am pretty good at sport		.527		
9. I am satisfied with my performance at sport		.755		
14. After playing sport for a while, I felt pretty competent		.537		
16. I am pretty skilled at sport		.671		
18. I couldn't play sports very well		-.434		
3. I put a lot of effort into sport practice			.703	
4. It was important to me to do well at sport			.520	
6. I tried very hard while playing sport			.608	
5. I felt tense while doing sport				.698
10. I felt pressured while playing sport				.612
11. I was anxious while playing sport				.663
15. I was very relaxed while playing sport				-.535
Cronbach alphas	.76	.78	.70	.69

Table 3

*Bivariate Correlations among the Observed Variables*

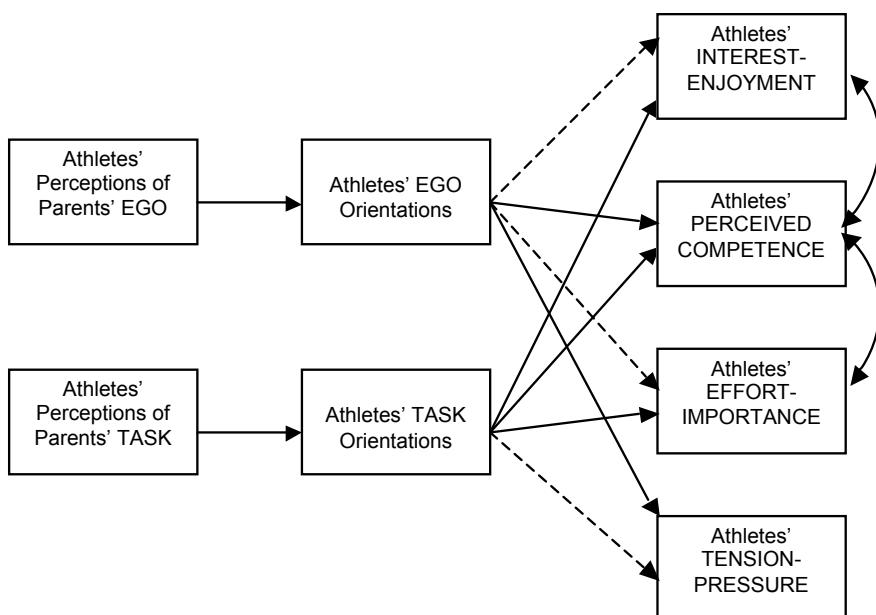
<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<i>TEOSQ scales</i>								
1. Athl.' Perc. Parents' Ego Or.	---	.04	.32*	.16	.03	-.02	.08	.16
2. Athl.' Perc. Parents' Task Or.	-.02	---	.16	.48*	.56*	.29*	.48*	-.14
3. Athletes' Ego Orientation	.46*	-.14	---	.03	.01	-.03	.08	-.05
4. Athletes' Task Orientation	-.05	.51*	-.10	---	.39*	.06	.29*	-.01
<i>IMI scales</i>								
5. Athletes' Interest-Enjoyment	-.19	.34*	-.29	.32*	---	.38*	.66*	-.19
6. Athletes' Perceived Competence	-.07	.43*	-.19	.40*	.44*	---	.49*	-.03
7. Athletes' Effort-Importance	-.10	.30*	-.11	.36*	.51*	.49*	---	-.05
8. Athletes' Tension-Pressure	.10	.02	.20	-.08	-.20	-.28*	.01	---

\* $p < .01$ . Elements in the upper triangle represent correlations among the variables for the athletes with disabilities sample. Elements in the lower triangle represent correlations among the variables for the athletes without disabilities sample.

## **Relationships among Goal Orientations and Athletes' Intrinsic Motivation**

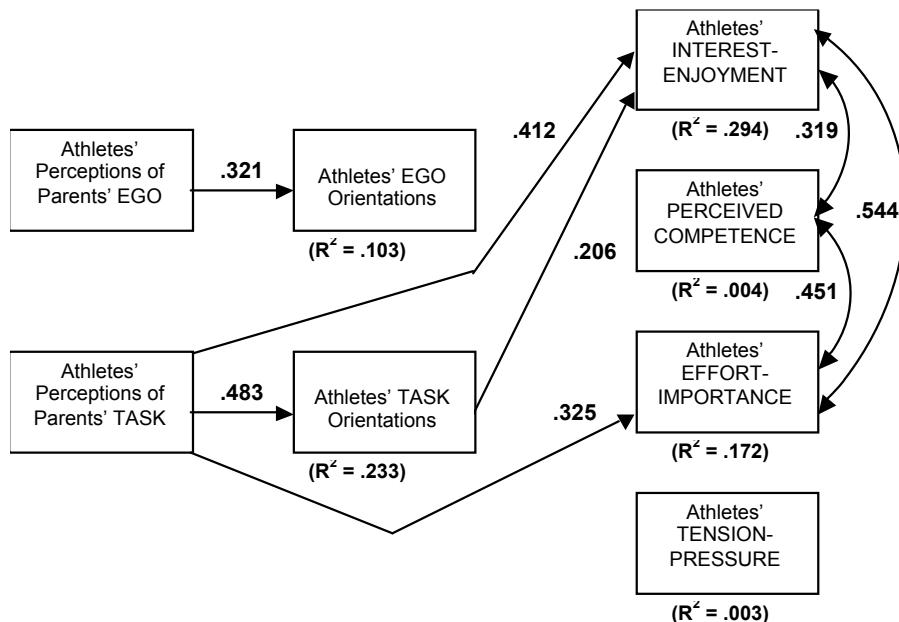
A theoretical model (see Figure 1) was proposed to simultaneously predict the four factors from the IMI (interest-enjoyment, perceived competence, effort-importance, and tension-pressure). This model was tested by means of SEM with observed variables (path analysis). Correlations among IMI dimensions were included due to results in the CFA model.

First, the model was calculated for the athletes with disabilities ( $n = 80$ ). The a-priori model did not fit the data well ( $\chi^2_{\text{robust}, 15} = 31.29, p = 0.2751$ ;  $\text{CFI}_{\text{robust}} = 0.64$ ;  $\text{GFI} = 0.90$ , and  $\text{RMSEA}_{\text{robust}} = 0.12$ ). Therefore, modifications were needed in order to achieve a good model fit. These modifications were: a) to delete relationships which were very close to zero and statistically nonsignificant, and b) to use the Lagrange Multiplier (LM) test to add statistically significant relationships (Bollen, 1989). Only two parameters have been added accordingly to LM test indices. These two modifications were athletes' perceptions of parents' task affecting athletes' interest-enjoyment, and athletes' perceptions of parents' task affecting athletes' effort-importance. With these modifications, the model fit the data well ( $\chi^2_{\text{robust}, 17} = 21.15, p = 0.2193$ ;  $\text{CFI}_{\text{robust}} = 0.91$ ;  $\text{GFI} = 0.94$ , and  $\text{RMSEA}_{\text{robust}} = 0.05$ ). Statistically significant correlations among the first three factors of the IMI scale were also found for the sample of athletes with disabilities (see Figure 2).



*Figure 1. Hypothesized Global Model of Relationships among the Variables.*

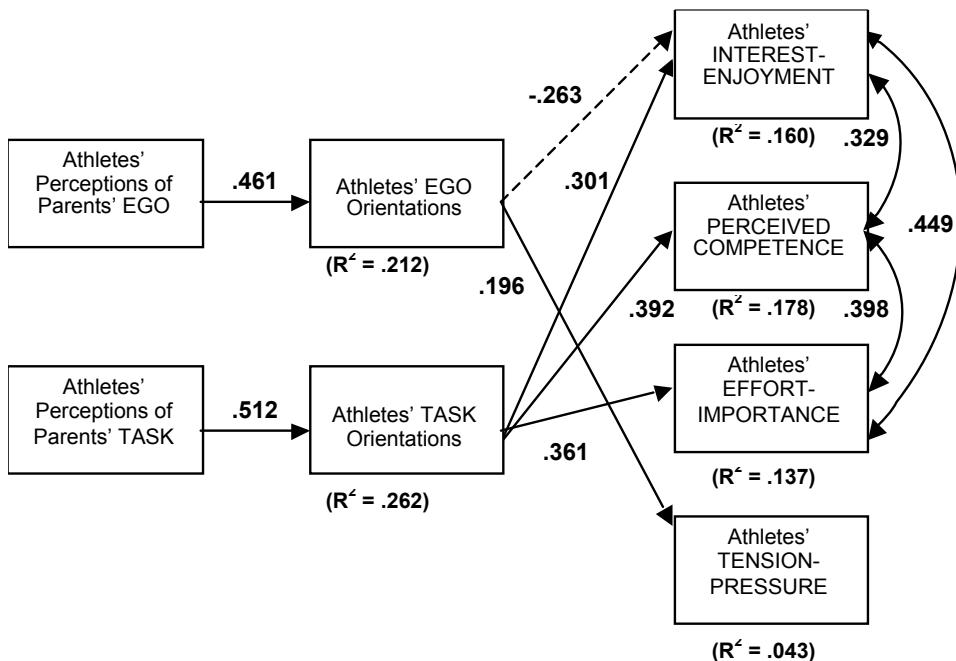
Note: Continuous lines indicate positive relationships; discontinuous lines indicate negative relationships. Correlations among IMI dimensions were included due to results in the CFA model.



**Figure 2.** Prediction of the Intrinsic Motivation of the Athletes with Disabilities.  
Notes: All structural relationships are statistically significant ( $p < .01$ ). Non-significant relationships not shown for the sake of clarity.

The main results showed that the goal orientations of the athletes with disabilities would depend on the perceptions they had of the success criteria of their parents. An ego orientation was related to perceptions of the same orientation in the parents ( $\beta = .321$ ), and a task orientation was related to perceptions that the parents were oriented toward the task ( $\beta = .483$ ). It should be pointed out that the goal orientations of the athletes with disabilities only presented a significant relationship between athletes' task orientation and athletes' interest-enjoyment ( $\beta = .206$ ). However, the perceptions of the parents' task-oriented success criteria were directly related to athletes' interest-enjoyment ( $\beta = .412$ ), and effort importance ( $\beta = .325$ ) (see Figure 2).

For the athletes without disabilities ( $n = 93$ ), the hypothetical model adequately fit the data ( $\chi^2_{\text{robust}, 15} = 22.08$ ,  $p = 0.1053$ ;  $\text{CFI}_{\text{robust}} = 0.95$ ;  $\text{GFI} = 0.95$ , and  $\text{RMSEA}_{\text{robust}} = 0.07$ ). As a first result, the correlations already found in the CFA of the IMI among the first three factors were also statistically significant in the SEM structural model (see Figure 3). The results of this model showed that for this group, the perceptions of the parents' ego orientation had a positive relationship with the athletes' ego orientations ( $\beta = .461$ ), and this was positively related to tension-pressure ( $\beta = .196$ ), and negatively to interest-enjoyment ( $\beta = -.263$ ). On the other hand, the perceptions of the parents' task orientation showed a positive relation with the athletes' task orientations ( $\beta = .512$ ), and this had a positive



*Figure 3.* Prediction of the Intrinsic Motivation of the Athletes without Disabilities.  
Notes: All structural relationships are statistically significant ( $p < .01$ ). Non-significant relationships not shown for the sake of clarity.

relation with interest-enjoyment ( $\beta = .301$ ), perceived competence ( $\beta = .392$ ), and effort-importance ( $\beta = .361$ ) (see Figure 3).

### **Differences in Goal Orientations and Intrinsic Motivation among Athletes with and without Disabilities**

A mean score was calculated for each of the subscales. The means and standard deviations for the TEOSQ and the IMI subscales are presented in Table 4. Follow-up t-tests indicated that athletes with disabilities scored higher in perceptions of parents' ego orientation, ego orientation, task orientation, interest-enjoyment, perceived competence, and tension-pressure than athletes without disabilities (effect sizes range from .03 to .07). Cohen (1987) characterizes the effect size as small ( $\eta^2 = .01$ ), medium ( $\eta^2 = .06$ ), and large ( $\eta^2 = .13$ ).

Although the literature indicates that dispositional goal orientations are related to age (Fry & Duda, 1997; McArdle & Duda, 2002), we did not find differences in this variable based on age of the participants, neither between athletes with and without disabilities nor within each subsample.

Table 4

*Differences among Athletes with and without Disabilities*

	<b>Total</b>		<b>With Disabilities</b>		<b>Without Disabilities</b>		<b><i>t</i>-value</b>
	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>	
<b>TEOSQ scales</b>							
Athl.' Perc. Parents' Ego Or.	2.78	1.0	3.04	1.0	2.56	0.9	3.06**
Athl.' Perc. Parents' Task Or.	4.36	0.5	4.42	0.6	4.30	0.5	1.42
Athletes' Ego Orientation	2.82	1.0	3.02	1.0	2.64	1.0	2.39*
Athletes' Task Orientation	4.46	0.5	4.60	0.5	4.33	0.5	3.38**
<b>IMI scales</b>							
Interest-Enjoyment	4.49	0.6	4.63	0.5	4.37	0.6	2.98**
Perceived Competence	3.90	0.7	4.05	0.6	3.77	0.7	2.68**
Effort-Importance	4.37	0.6	4.40	0.6	4.34	0.6	0.62
Tension-Pressure	2.45	0.9	2.64	1.1	2.30	0.8	2.38*

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

## Discussion

The first purpose of this study was to test the psychometric properties of the TEOSQ and the IMI scales. The results obtained suggest that the TEOSQ has satisfactory psychometric properties when assessing athletes' goal orientations and athletes' perceptions of parents' goal orientations in Spanish samples of athletes with and without disabilities. CFA reported satisfactory data fit of the two factor model (ego, task) reported by Duda and Nicholls (1992). Its reliability indices were also satisfactory for the two administrations, with coefficient alphas from .78 to .85.

With regard to the IMI scale, the results obtained in this study coincide with the four factor structure proposed by McAuley et al. (1989) (interest-enjoyment, perceived competence, effort-importance, and tension-pressure). The only difference was the fact that it includes two items (#12, #17) less than the original scale. The reliability was acceptable for three of the subscales, while the tension-pressure factor only obtained  $\alpha = .69$ , so new revisions for this subscale are suggested. However, we decided to retain this subscale in the analyses because its factor loadings were satisfactory (from .53 to .69). We have indicated above that the tension-pressure factor was not related to the other three factors of the IMI in our study. The same result was obtained by Duda et al. (1995), who concluded that "the tension-pressure dimension is a negative indicator of intrinsic motivation." Nevertheless, in other investigations the results were different. For example, Goudas (1998) found that tension-pressure was only related with effort-importance ( $r = 0.33$ ), and in the study conducted by Kim, Williams, and Gill (2003) the tension-pressure fac-

tor was only related with perceived competence in a sample of American athletes ( $r = 0.26$ ), while it was significantly related with the other three factors of the IMI in a sample of Korean athletes. As Kim et al. (2003) argued, these differences could be explained by the cultural-influence perspective, which suggests that divergent motivational processes exist due to differences among cultures. Another reason could be the different level of athletes' sport involvement in the different sport contexts (recreational sports, amateur sports, high competition sports).

The second purpose of this study was to analyze the relationships between the athletes' perceptions of their parents' goal orientations and their own goal orientations and intrinsic motivation. The model tested was based on achievement goal theory (Ames, 1992; Duda, 2005; Nicholls, 1989), and intrinsic motivation (Carr & Weigand, 2002; Deci & Ryan, 1985; Roberts, 2001). We hypothesized that perceptions of parents' goal orientations related to task would favor athletes' task orientation and increase intrinsic motivation, whereas perceptions of parents' goal orientations related to ego would favor athletes' ego orientation and diminish intrinsic motivation. We also hypothesized that the influence of parents on the motivation of athletes with disabilities may be different from the influence of parents on the motivation for sport of athletes without disabilities.

In predicting the intrinsic motivation of athletes with disabilities, the athletes' perception of a dispositional ego orientation on the part of the parents was associated with the athletes' ego orientation, just as the perception of parents' task orientation was associated with the athletes' task orientation. These results coincide with those found by Duda and Hom (1993) when they studied interrelationships between young athletes' and parents' personal and perceived goal orientations in sport. Their results revealed that athletes' goal orientation was significantly related to their views concerning the goal orientation adopted by their parents: the athletes' task orientation was positively correlated with their perceptions of their parent's degree of task orientation, and athletes who scored high in ego orientation were likely to believe that their significant parent was also ego-oriented.

Our findings also support those obtained by White et al. (1998) when they analyzed the relationship between goal orientation and perceptions of the motivational climate created by significant others among young athletes. They found that task orientation was related to perceptions of a task involving climate created by both parents while ego orientation, on the other hand, corresponded to the perception of an ego involving climate in sport.

However, the most striking result was that for the athletes with disabilities, their perception of their parents' task orientation was directly related to interest-enjoyment and effort-importance, while their own ego goal orientation was not related to their intrinsic motivation, and their own task orientation was only related to their interest-enjoyment. That is, for the athletes with disabilities, the perception of the parents' opinion about the success of their children in sports could be more important than the goal orientation of the athletes themselves with regard to fostering intrinsic motivation for sport. This finding seems especially relevant and may be due to the high degree of parent involvement in their children's sport, because of the functional disability of the athletes. Many athletes with disabilities depend on their parents when doing everyday tasks (changing

their clothes, personal hygiene) and in many aspects of the game itself, so it could explain the importance given to the perception of the parents' orientation about the success in sports activity (Kristén et al., 2003).

The direct relationship between the perception of the parents' opinions and the athletes' goal orientations suggests the special care parents must take when manifesting dispositional goal orientations when their children carry out their sports activity. If parents have a direct influence on interest-enjoyment as well as on their children's effort-importance, it is probable that if parents pay more attention to the expression of task involved motivational orientations, they will promote lower tension and pressure in the athletes. This interpretation is based on the information provided by Kosma et al. (2002), who noted that if students with movement difficulties are task oriented, they will prefer a task climate demonstrating high-perceived competence and so too may exhibit high intrinsic motivation to participate in physical activity. On the other hand, ego-oriented individuals may experience high-perceived competence as long as they compare well socially. In sum, high perceived performance climates nurturing ego perspectives in sports might result in low perceived competence and eventual dropout.

The goal orientations of athletes without disabilities were also significantly related to their perception of their parents' goal orientations, as in the case of athletes with disabilities, but the two subsamples differed in the prediction of intrinsic motivation based on their own goal orientations (see Figures 2 and 3). In the case of able-bodied athletes, their goal orientations were directly related to intrinsic motivation, and the perceptions of their parents' goal orientations were not directly related to motivation, its relationship was only indirect, mediated by their own goal orientation. In contrast, for the subsample of athletes with disabilities, the perceptions of parents' goal orientations were directly related to two of the four variables of their intrinsic motivation (interest-enjoyment, effort-importance). This is consistent with the point made by Burstein, Bryant, and Chao (2005) that as athletes with disabilities transition from childhood to adolescence, their parents' criteria of success in the sport context is more important to them than for athletes without disabilities who typically acquire their independence earlier. Furthermore, due to the later autonomy and independence, athletes with disabilities weight the opinions of their parents more than their own opinions.

For the subsample of athletes without disabilities, our study indicates that those who perceived task-oriented motivational goals in their parents were task-oriented themselves, had greater interest-enjoyment, greater perceived competence and greater effort-importance in sports activities. Those who perceived ego orientation in their parents, on the contrary, had lower interest-enjoyment and felt tenser and more pressured when practicing sports. These results suggest the effect of the dispositional orientation expressed by parents in the athlete's environment on the athlete's motivational orientation in a sport context. These results are in line with those found by Duda et al. (1995), Duda and Hom (1993), and White et al. (1998). Duda et al. (1995), who, while examining the interdependencies between goal perspectives and intrinsic motivation in the sport domain, found that athletes who scored high in task orientation tended to enjoy their sport more and find the sport more interesting. In contrast, a negative relationship was found

with respect to ego orientation and scores on the enjoyment and interest subscales. Ego orientation was not significantly related to scores for effort-importance.

The findings of our study lend only partial support to our general hypothesis: athletes' perceptions of their parents' goal orientation would determine the athletes' goal orientations, which in turn would influence intrinsic motivation in their sports participation. This occurred to a greater degree in the case of athletes without disabilities, and did not occur in the case of athletes with disabilities, because the relationships between the athletes' perceptions of parents' goal orientations and athletes' intrinsic motivation were direct and not mediated by their own goal orientations. Our findings, as well as those in other studies on the topic (Brustad & Partridge, 2002; Duda et al., 1995; Duda & Hom, 1993; Escartí et al., 1999; Greendorfer, 2002; White et al., 1998), suggest that parents can play an important role as socializing agents for adolescents' goal orientations in sport contexts.

In summary, we can conclude that, for the two groups, there was a clear relationship between athletes' perceptions of their parents' goal orientation and their own goal orientation. On the other hand, as can be seen in Figures 2 and 3, the results of this study support the argument that intrinsic motivation increases when athletes without disabilities are task-oriented, and that this orientation appears when they perceive the same type of dispositional goal orientation in their parents. Athletes are more likely to exhibit adaptive behaviors when sheltered by a task-oriented motivational climate. Furthermore, as has already been clearly described by previous research (Causgrove Dunn & Dunn, 2006; Duda & Hom, 1993; Escartí et al., 1999; White et al., 1998), the perception of the motivational orientation expressed by significant others (such as parents) is the variable that could have the greatest influence on athletes' goal orientation and motivation. These effects are much more accentuated for athletes with disabilities, as the relationship with their parents is usually more intense, due, among other things, to the needs that arise in everyday life (e.g., assistance for personal hygiene, for changing their clothes, for feeding, for displacement) (Burstein et al., 2005; Kristén et al., 2003). In light of the findings, it is not enough for parents to provide a certain dispositional goal orientation; they must also make sure this orientation has been perceived in the appropriate way by their children. This may be very important as parents do play an important role in the development of their children's overall achievement-related perceptions of the sport domain (White, 1998). Therefore, parents need to be careful about how and what they say to them when discussing skill development and/or athletic performance.

The third purpose of the present study was to analyze the differences between athletes with and without disabilities. Considering disability as an independent variable, the results showed that athletes with disabilities perceived their parents as more ego-oriented than athletes without disabilities. Moreover, athletes with disabilities were more task- and more ego-oriented than athletes without disabilities. It could be because parents of athletes with disabilities live the sport experience of their children as a way to socially countersign their capability. These results contrast with those by Cervelló et al. (1999) and Skordilis et al. (2003), that found higher task and higher ego orientation in able-bodied tennis players than in wheelchair tennis players, and partially coincide with those by Gutiérrez

and Caus (2006) and Skordilis et al. (2002), that demonstrated athletes with disabilities scored higher in ego orientation than athletes without disabilities. These differences may be due to the different characteristics of the samples analyzed, as Cervelló et al. (1999) examined a sample of top class tennis players, Gutiérrez and Caus (2006) focused on a sample of amateur sport practitioners, and Skordilis et al. (2002) studied a sample of recreational basketball players. Furthermore, our study revealed that athletes with disabilities scored higher in interest-enjoyment and perceived competence, and higher in tension-pressure than athletes without disabilities. Our results also are related to those of Martin (2006) who found that youth with disabilities who participate in sport reported high levels of sport commitment, sport enjoyment, perceived physical ability and sport friendship quality. Participants in the same study also reported that participation in sports allowed them to feel physically capable and perceive that their parents were very supportive of their participation in sport. Hence, it is perhaps not surprising that athletes with disabilities scored higher than athletes without disabilities, as athletes with disabilities have a strong need to demonstrate their ability to themselves as well as to their parents and others. The findings are also in line with Kirby's (1995) who identified fun or enjoyment as an important motivating factor for becoming involved or practicing an adapted sport.

These arguments are very important because, although internal reasons, task-incentives, or intrinsic motivation are often invoked by athletes with a disability to explain their participation, this does not mean that external reasons, ego-incentives, or extrinsic motivation are not important when trying to understand why such individuals play or compete in adapted sport (Perrault & Vallerand, 2007). Moreover, we cannot forget that participation of young athletes with disabilities in sports depends greatly on their parents' support and involvement, so the parents' goal orientation is crucial to understanding the motivation of people with disabilities.

### **Limitations to the Study and Future Research**

Certain limitations have possibly influenced the present findings, and results can only be generalized with caution. The data utilized in this study are cross-sectional, and no conclusions regarding causal relationships can be drawn. Furthermore, these data are based on athletes' self-reports. Future studies should also include parents' self-reports about their criteria of success with regard to their children' sport practices. Additionally, athletes with disabilities were older than athletes without disabilities, and this might be a problem comparing them. Researchers have indicated the importance of age and experience in formulating psychological profiles of athletes with disabilities (Skordilis et al., 2002).

Since we only controlled for disability in the present study as a moderate variable, age and gender may be used as main effect and covariates to control for differences among groups. The use of HLM (Hierarchical Linear Modeling) as a statistical aid, given the multilevel nature of the data, could be considered as a future line of research. The formation of the athletes' dispositional goal orientations is not exclusively based on the influence of parents. Future studies should also include the perceptions of additional 'significant others' such as coaches, friends or

siblings (Rudell & Shinew, 2006). Recommendations for research also include taking into consideration a comparison between individual sports and team sports. Finally, it could be important to analyze the differences among the parents' influences on the athletes' goal orientations depending on the gender of the parents and athletes, especially for athletes with disabilities as so often the mother is the primary caregiver. Finally, as also expressed by Duda and Hom (1993), it would be interesting to determine the sources of young athletes' views concerning their parents' motivational perspective. That is, what parental behaviors, cognitive responses, and affective reactions do children use in interpreting how their mothers and fathers define success in the sports domain?

### **Implications**

It seems to be generally assumed that the motivational climate created by parents can play a role in children's and adolescents' motivational orientation in sports. The way parents value and conceive sports participation influences their children's goal orientations when practicing sports. However, the socialization process into and through sports can differ between people with and without disabilities.

This research study reveals practical implications, especially for parents of children with physical disabilities. According to Burstein et al. (2005) and Kris-tén et al. (2003), parents of children with disabilities have an important role in strengthening and supporting their children in everyday life, because children and adolescents with physical disabilities do not ordinarily have natural access to club activities, nor do they receive the same support for physical activities as their peers without disabilities. As noted by Kosma et al. (2002), disability is socially constructed within the realm of constantly changing sociocultural principles, ideas, and expectations. Thus, in order to enhance motivation for persons with disabilities, scholars and practitioners in the area of adapted physical activity and sports should strive to establish task-oriented motivational climates, which nurture task-oriented individuals in order to increase their perceived competence, intrinsic motivation, and physical activity adherence, and decrease attrition.

It should be noted that parents are not the only group whose goal orientations influence the sport practices of people with disabilities. Page et al. (2001) suggested that teachers and coaches may also wish to provide athletes with disabilities with a balanced and highly organized array of sport opportunities (e.g., competitive and cooperative sports, team and individual sports) that emphasize all of the different aspects of goal setting and competition. This is best accomplished in an atmosphere that recognizes the individual skill improvement of all of the participants, and challenges participants to go beyond their current levels of performance. Individuals should be encouraged to pursue activities that make them feel competent and proficient rather than special or brave.

Our findings suggested the importance of paying attention to athletes with disabilities' perceptions of their parents' goal orientations, because according to White (1998), the most influential variable is the individual's perception of the situation rather than the situation itself. These findings note the necessity of considering a global model that implicates parents, coaches and peers, to establish

the way sports practices of people with disabilities should be conducted. All these agents could work together to transmit the appropriate orientation for the sports to accomplish the physiological and psychosocial benefits that are assumed for athletes with disabilities. If our major concern is that of maximizing young athletes' involvement in sport, however, it appears that there is a need for mothers and fathers to talk to their children and attempt to understand how they construe success as well as failure in sports contexts. Athletes might also benefit from speaking with their parents about how their parents construe sport achievement.

As explained in the theoretical framework, a lingering and pervasive problem in Spanish society and within many Spanish families is a failure to recognize the full value of sport practice for people with disabilities beyond medical rehabilitation. Furthermore, our outcomes highlight the major importance of parents' goal orientations for young athletes with disabilities. We propose that efforts to change the social perception of disability should target parents. If more parents of children with disabilities come to appreciate the full range of benefits associated with sports participation, they are more likely to shift their own perspective from the rehabilitation model to the social inclusion model and become facilitators of autonomy as well as personal and social wellness for their children. As more individuals and families adopt and advocate for such a position, they can exert influence at the community level to break down social barriers that currently limit the level of physical activity and sport participation among people with disabilities.

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