The Coach-Created Motivational Climate, Young Athletes’ Well-Being, and Intentions to Continue Participation

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Drawing from the theories of self-determination (SDT; Ryan & Deci, 2000) achievement goals (AGT; Nicholls, 1989), and, in particular, Vallerand’s four-stage casual sequence embedded in his hierarchical model of intrinsic and extrinsic motivation (HMIEM; Vallerand, 1997, 2001), this study tested a motivational model in the sport context via structural equation modeling (SEM). Based on the responses of 370 young male soccer players (M age = 14.77), the path analysis results offered overall support for the proposed model. A perceived task-involving climate emerged as a positive predictor of the satisfaction of the three psychological needs, while a perceived ego-involving climate was a negative predictor of relatedness satisfaction. The results also support positive paths between satisfaction of the three psychological needs and intrinsic motivation, while intrinsic motivation was positively linked to subjective vitality and future intention to participate. The implications of the coach-created motivational climate are discussed in the light of its implications for the quality and potential maintenance of sport involvement among young athletes.

Keywords: motivational climate, psychological needs, intrinsic motivation, well-being, future intention to participate

Understanding and promoting sport engagement in young people has attracted a great deal of research attention in recent years. One central issue has been the investigation of the processes that determine children’s and teenagers’ intentions to participate in sport (e.g., Biddle, Soos, & Chatzisarantis, 1999; Hagger, Chatzisarantis, Culverhouse, & Biddle, 2003; Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002). Another concern for researchers is how to optimize the psychological well-being of young people in sport settings (e.g., Adie, Duda, & Ntoumanis, 2008;
Climate, Sport Practice Intention, and Vitality

167

Balaguer, Castillo, & Duda, 2008; Gagné, Ryan, & Bargmann, 2003; Reinboth & Duda, 2006; Reinboth, Duda, & Ntoumanis, 2004). It has been suggested that sport engagement must result in a quality experience for the athlete in order for this participation to positively contribute to his or her welfare (Duda, 2001).

Motivation is an important variable predicting intentions regarding sport participation (Biddle et al., 1999; Pelletier et al., 1995; Sarrazin et al., 2002) and psychological well-being (Balaguer et al., 2008; Gagné et al., 2003). Two theoretical approaches that offer insight into the motivation of children and teenagers to engage in sport are the achievement goal theory (AGT; e.g., Nicholls, 1989) and the self-determination theory (SDT; Ryan & Deci, 2000, 2002). Both theories have their roots in the development of human potential and place emphasis on the meaning of the activity (Why is the person participating? What does she/he want to achieve?). Both frameworks also postulate that the influence of the social context (as created by significant others such as the coach) is relevant to variability in athletes’ motivation and to the implications of such motivational differences for the quality of sport engagement and the desire to continue participation (Duda, 2001; Ryan & Deci, 2000).

SDT proposes a continuum of self-determination where intrinsic motivation is at the highest level of self-determination (Ryan & Connell, 1989). Intrinsic motivation refers to engaging in an activity for the inherent pleasure and satisfaction of the activity itself (Deci & Ryan, 1985) and is recognized to be associated with the most positive experiences and outcomes (Ryan & Deci, 2000).

In the sport context, coach behavior is one factor expected to influence the level and quality of athletes’ motivation (Duda & Balaguer, 2007; Vallerand & Losier, 1999). Coaches design practice sessions and interact with athletes in training and competition to provide instruction and feedback and to help “motivate” their players. They create a psychological environment or climate (Ames, 1992) that could have an important impact on the athletes’ intrinsic interest, enjoyment, and continued engagement in the sport. AGT proposes two climate dimensions that are assumed to hold important and differential implications for motivation and achievement-related cognitions, behaviors, and affective responses in the sport context (Ames, 1992; Nicholls, 1989), namely, the task- and ego-involving features of the environment. When a coach (a) emphasizes effort and athletes’ personal improvement, (b) helps the players feel that they have an important role in the team, and (c) fosters cooperation among the team members, he or she is creating a more task-involving climate. In contrast, when a coach’s attention (a) is differentially allotted on the basis of the ability level of team members (with the most talented players receiving most notice), (b) is punitive in response to mistakes, and (c) cultivates rivalry among the players on the same team, he or she is creating a more ego-involving climate (Newton, Duda, & Yin, 2000). To date, sport studies conducted on the concomitants of a perceived motivational climate created by the coach have found that a perceived task-involving climate is positively correlated with intrinsic motivation, whereas a perceived ego-involving climate either is not correlated or is negatively correlated with intrinsic motivation (see Duda & Balaguer, 2007; Ntoumanis & Biddle, 1999, for reviews).

SDT also assumes that the impact of social factors on intrinsic motivation does not occur automatically. Rather, this theory holds that satisfaction of the basic psychological needs is pertinent to a participant’s level of self-determination
Alvarez et al. (Ryan & Deci, 2000, 2002). According to SDT, individuals are more likely to be intrinsically motivated when they feel competent, autonomous, and related to others. Perceived competence refers to feeling that one is efficacious and can meet the demands marking an achievement domain. Perceived autonomy reflects having the possibility of choice, the opportunity to voice one’s views, and to act according to personal volition. Perceived relatedness refers to feeling that one is securely connected to, cared about, and understood by relevant others in the context at hand. According to SDT, the satisfaction of these needs mediates the impact of the social environment on intrinsic motivation (as well as more extrinsic reasons for sport engagement). That is, the atmosphere created by the coach is expected to have important effects on athletes’ intrinsic interest in an activity through its influence on satisfaction of athletes’ needs for competence, autonomy, and relatedness (Ryan & Deci, 2000).

Several studies (see Ryan, 1995; Vallerand, 1997; Vallerand & Rousseau, 2001, for reviews) have shown that intrinsic motivation is positively associated with favorable consequences in school, work, and leisure contexts (e.g., reports of greater interest, greater exerted effort). In the sport domain, intrinsic motivation has been associated with athletes’ intention to practice sport in the future (Pelletier et al., 1995). SDT also proposes that the psychological well-being of athletes should be a desirable outcome associated with more intrinsic reasons for participation. More specifically, it is assumed that intrinsic motivation should be positively correlated with indicators of eudaimonic well-being, which is defined as “the degree to which a person is fully functioning” (Ryan & Deci, 2001, p. 141). One of the variables commonly employed to assess feelings of optimal functioning in SDT-based research is subjective vitality. Subjective vitality is conceptualized as one’s conscious experience of possessing energy and aliveness (Ryan & Frederick, 1997) and thus allows us to capture a sense of eudaemonic well-being from an integrative psychological and physical perspective.

Based upon the tenets of SDT (Deci & Ryan, 1985, 1991), Vallerand (1997, 2001) proposed a hierarchical model of intrinsic and extrinsic motivation (HMIEM) that operates at three levels of generality: global (or personality), contextual (or life domain), and situational (or state) level. For each level, Vallerand proposed the following sequence: social factors → need satisfaction (key mediators of subsequent motivation and associated outcomes) → types of motivation regulation → consequences. In the current study, we were interested in testing the proposed motivational sequence at the contextual level, which pertains to the determinants and consequences of one’s usual motivational orientation within a distinct context, such as sport.

A few studies to date have examined the relationships between perceptions of the motivational climate (i.e., the task- and ego-involving features) created by the coach and the degree of satisfaction of the three psychological needs proposed by SDT. For example, Reinboth and Duda (2006) found that increases in the satisfaction of the needs for autonomy, competence, and relatedness in university athletes were all positively predicted by perceptions of the coach’s emphasis on task-involving climate structures throughout the season. They also found that changes in perceptions of an ego-involving motivational climate emerged as a negative predictor of changes in satisfaction of the need for relatedness. The expected association between the three psychological needs and intrinsic motivation has also been supported in
past sport research. Specifically, in an investigation involving university athletes, Hollembeak and Amorose (2005) found that satisfaction of the needs for autonomy, competence, and relatedness were positively related to intrinsic motivation.

Past work in the sport domain has also tested the assumed relationships between intrinsic motivation and positive cognitive, affective, and behavioral outcomes in the case of sport participants. Intrinsic motivation has been associated with athletes’ intentions to practice sport in the future among both university athletes (Pelletier et al., 1995) and adult recreational sport participants (Tsorbatzoudis, Alexandris, Zahariadis, & Grouios, 2006). Moreover, with respect to indices of eudaimonic well-being, there is evidence indicating that intrinsic motivation for training leads to increased subjective vitality in female gymnasts (Gagné et al., 2003).

Empirical validation for the complete motivational sequence postulated by Vallerand (1997, 2001) was offered by Sarrazin et al. (2002) in their study of elite young female handball players. Sarrazin and colleagues tested a model, via structural equation modeling, hypothesizing relationships between the two dimensions of the motivational climate, the satisfaction of psychological needs (competence, autonomy, and relatedness), self-determined motivation, and the intention to drop out of handball. It was found that a task-involving climate was positively correlated with each of the basic psychological needs, while an ego-involving climate was negatively correlated with the need for autonomy. In turn, when the athletes felt more competent, autonomous, and related, they reported more self-determined motivation. Lower levels of autonomous motivation were associated with greater intentions to dropout, which in turn, predicted the dropout behavior.

Based upon previous theoretical and empirical findings, we hypothesized that perceptions of a task-involving climate created by the coach would be predictive of greater satisfaction of needs for competence, autonomy, and relatedness. In contrast, we expected perceptions of an ego-involving climate to be negatively related with satisfaction of the three psychological needs. In turn, perceptions of competence, autonomy, and relatedness were predicted to be positively associated with intrinsic motivation toward soccer engagement. Finally, it was hypothesized that intrinsic motivation would be positively related to future intentions to play soccer and reported feelings of subjective vitality in a sample of young male soccer players.

**Method**

**Participants and Procedure**

A total of 370 male soccer players from 32 soccer schools in the Valencian Community of Spain, ranging in age from 12 to 16 years ($M = 14.77; SD = 0.72$), participated in this study.

Soccer club directors and coaches of the teams recruited received a letter explaining the purpose of the study and agreed to take part in the research. All players received informed consent forms that were signed by their parents/guardians and indicated their personal consent by agreeing to complete the questionnaire. Participation in the study was voluntary and players were informed that they could cease involvement at any time without penalty.

Before one of the training sessions, the players anonymously completed a battery of questionnaires (taking approximately 20 min) at their training schools. At
all meetings, instructions on how to fill in the questionnaire were provided by the first author, emphasizing that they do so as honestly as possible, that there were no right or wrong answers, and that their responses would be kept confidential. Since the information was collected within the 2 months before the end of the season, the players had enough time to develop their views regarding the prevailing coach-created motivational climate manifested on their respective teams.

**Measures**

**Perceived Motivational Climate.** To assess the perceived motivational climate created by the coach, the participants completed the Spanish version (Balaguer, Mayo, Atienza, & Duda, 1997) of the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2; Newton et al., 2000), which had been adapted to the sport of soccer (Balaguer, Castillo, & Duda, 2003). The PMCSQ-2 assesses players’ perceptions of the degree to which the motivational climate of their respective teams is characterized in terms of two higher order dimensions (task- and ego-involving climate). The participants responded to the 29 items that ask them to rate what the environment is like on their team in general, on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The stem for each question was “In my soccer team . . . .” An example of a task-involving dimension item is “The coach encourages players to help each other.” An example of an item reflecting an ego-involving dimension is “Only the top players ‘get noticed’ by the coach.” Previous studies have confirmed adequate internal reliability and factorial validity for this scale (e.g., Balaguer et al., 2003; Newton et al., 2000; Reinboth & Duda, 2006).

**Basic Psychological Needs.** The satisfaction of the need for competence was assessed by the Spanish version (Balaguer et al., 2008) of the 5-item Perceived Competence Subscale of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989). Responses were indicated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item is, “I am pretty skilled at soccer.” Previous studies have provided evidence for the internal reliability of this scale (Balaguer et al., 2008; McAuley et al., 1989). The satisfaction of the need for autonomy was assessed using the Spanish version (Balaguer et al., 2008) of the 10 items selected by Reinboth and Duda (2006) to assess the internal perceived locus of autonomy (e.g., “In soccer, I feel that my choices and actions are based on my true interests and values”) and the choice/decision-making facets of perceived autonomy (e.g., “I feel I can give a lot of input to deciding how the practice/training is being carried out”). Responses were indicated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Previous studies have supported the internal reliability of this scale (Balaguer et al., 2008; Reinboth & Duda, 2006). The Acceptance Subscale of the Need for Relatedness Scale (Richer & Vallerand, 1998) adapted to soccer and translated to a Spanish version (Balaguer et al., 2008) was used to assess players’ perceptions of their sense of experienced relatedness on the team. The item “When I play soccer I feel . . . .” is followed by five items such as understood, valued, supported, listened to, and safe, to which the participants responded on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Previous studies have supported the internal reliability of this scale (Balaguer et al., 2008; Richer & Vallerand, 1998).
**Intrinsic Motivation.** Intrinsic motivation (IM) was assessed by using the corresponding subscales from the Spanish validation (Balaguer, Castillo, & Duda, 2007) of the Sport Motivation Scale (SMS; Pelletier et al., 1995). Specifically, participants responded to the items assessing IM to know (4 items), IM to accomplish (4 items), and IM to experience stimulation (4 items). The three IM subscales of the SMS ask the athletes to indicate why they are presently practicing their sport (e.g., “For the excitement I feel when I am really involved in the activity” in the case of IM to experience stimulation; “For the satisfaction I experience while I am perfecting my abilities” in the case of IM to accomplish; and “For the pleasure of discovering new training techniques” in the case of IM to know). The response options range from 1 (*does not correspond at all*) to 7 (*corresponds exactly*). Higher scores reflect greater IM. The average score of the 12 items was used as the indicator of the athletes’ overall IM for their sport engagement. The measure has demonstrated acceptable reliability and factorial validity in previous studies of athletes (Balaguer et al., 2007; Pelletier et al., 1995; Vallerand & Fortier, 1998). Support for combining the three forms of IM into a single composite measure has been provided in the sport psychology literature (e.g., Balaguer et al., 2007; Hollembeak & Amorose, 2005; Li & Harmer, 1996).

**Well-Being Outcomes.** To measure perceived levels of subjective vitality, a Spanish version (Balaguer, Castillo, García-Merita, & Mars, 2005) of the Subjective Vitality Scale (SVS; Ryan & Frederick, 1997) was used. The six items from the scale (e.g., “I feel alive and vital”) assess the athletes’ subjective feelings of vitality on a 5-point Likert scale ranging from 1 (*not at all*) to 7 (*extremely*). Previous investigations have confirmed adequate internal reliability for this scale (Balaguer et al., 2005; Ryan & Frederick, 1997).

**Future Sport Intentions.** Intentions to play soccer during the following season (in 5 months) were assessed with three adapted items from the work of Chatzisarantis, Biddle, and Meek (1997). Specifically, the participants responded to three items (“I am determined to play soccer the next season,” “I intend to play soccer the next season,” and “I plan to play soccer the next season”). Responses were indicated on a 7-point Likert scale ranging from 1 (*very unlikely*) to 7 (*very likely*). Previous work has suggested acceptable internal reliability of this scale in the case of young adolescents in the physical education context (Chatzisarantis et al., 1997; Standage, Duda, & Ntoumanis, 2003).

**Results**

**Descriptive Statistics and Scale Reliabilities**

Given that the Spanish version of the future sport intentions scale was specifically translated and adapted for this study, we tested the factorial validity of the measure using an exploratory factor analysis. The results revealed initial support for the unidimensional structure of the scale, with the single factor explaining 81.5% of the variance. The factor loading for the items ranged from 0.89 to 0.93.

The descriptive statistics and alpha coefficients for all the measures are presented in Table 1. The participants considered their motivational climate to be moderate in its task-involving features and relatively low in ego-involving features.
On average, the soccer players’ needs for competence, autonomy, and relatedness were moderately satisfied. On average, soccer players reported moderate levels of intrinsic motivation and subjective vitality and tended to have positive intentions to play soccer during the following season. Levels of skewness indicated that the data were not strictly normal, but did approach normality (range = –1.15 to 0.04). The measures employed were also marked by acceptable levels of internal reliability, with alphas ranging from 0.74 to 0.90.

Test of the Four-Stage Causal Sequence

Structural equation modeling (SEM) methods, as implemented via LISREL 8.54 (Jöreskog & Sörbom, 2003), were used to test the hypothesized model (i.e., Vallemiand’s four-stage causal sequence), using the robust Maximum Likelihood (ML) method of estimation (Bentler, 1995) and the Normal Theory $\chi^2$ test statistic (the default in version 8.54 of LISREL). The observed correlation and the asymptotic covariance matrices were used as the input for the analyses. Multiple fit indices including the chi-square index ($\chi^2$), goodness of fit index (GFI), nonnormed fit index (NNFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) were employed to assess the adequacy of the models. The fit of the model was acceptable, $\chi^2 (13) = 41.59, p < .01$, GFI = 0.96; NNFI = 0.91; CFI = 0.96; RMSEA = 0.06. However, the path from ego-involving climate to competence and autonomy need satisfaction was nonsignificant. The model was reestimated after removing the nonsignificant regression paths and produced a similar and acceptable fit to the data: $\chi^2 (15) = 39.87, p < .01$, GFI = 0.96; NNFI = 0.93; CFI = 0.96; RMSEA = 0.06. Although the overall chi-square fit was significant, the supplemental fit indices indicated that the model was acceptable.

As illustrated in Figure 1, perceptions of task- and ego-involving climates were negatively and moderately related, suggesting that the two constructs were not inversely redundant and therefore reflected two ends of one continuum (Duda, 2001). In line with the proposed model, there were significant and positive paths between perceptions of task climate and satisfaction of the needs for competence, autonomy, and relatedness. By contrast, there was a significant and negative path
between perceptions of an ego-involving climate and the need for relatedness. The satisfaction of each of the three psychological needs was a significant positive predictor of intrinsic motivation. Finally, intrinsic motivation was a strong positive predictor of subjective vitality and the future intention to participate in soccer.

The standardized indirect effects indicated that a perceived task-involving climate was positively linked to intrinsic motivation ($\beta = 20, p < .01$) through need satisfaction. Task climate also positively predicted subjective vitality ($\beta = 12, p < .01$) and future intention to play soccer ($\beta = 10, p < .01$) through need satisfaction and intrinsic motivation. Moreover, competence ($\beta = 13, p < .01$), autonomy ($\beta = 19, p < .01$), and relatedness ($\beta = 07, p < .05$) need satisfaction positively predicted subjective vitality through intrinsic motivation. Finally, satisfaction of the needs for competence ($\beta = 11, p < .01$), autonomy ($\beta = 16, p < .01$), and relatedness ($\beta = 06, p < .05$) positively predicted intention to play soccer through intrinsic motivation.

**Discussion**

The purpose of this study, which is grounded in the achievement goal (AGT; Nicholls, 1989) and self-determination (SDT; Ryan & Deci, 2000, 2002) theoretical frameworks, was to test a motivational model in youth sport. More specifically, this model considered the four-stage casual sequence proposed by the HMIEM (Vallerand 1997, 2001) with an eye toward explaining variability in reported eudaemonic well-being (an indicator of optimal functioning) and intentions to continue involvement in the case of young adolescent age male soccer players. This model posited that the motivational climate created by the coach would predict young soccer players’ satisfaction of the needs for competence, autonomy, and relatedness. Specifically, a more task-involving motivational climate offered by the coach was expected to correspond to greater satisfaction of the players’ needs for competence, relatedness, and autonomy. By contrast, when the coach-created climate was deemed to be more ego-involving, lower levels of psychological need satisfaction were expected. In turn, satisfaction of each of the needs for competence, relatedness, and autonomy was predicted to be positively associated with intrinsic motivation toward soccer engagement. Finally, high levels of intrinsic motivation were hypothesized to positively predict athletes’ feelings of vitality and reported intentions to participate in soccer the next season.
The findings of the current study provided overall support for the proposed model. With respect to the first part of the hypothesized sequence, the result revealed soccer players’ perceptions of a task-involving climate to be positively related to their satisfaction of the needs for competence, autonomy, and relatedness. These findings are in line with our hypothesis and with previous research involving university athletes (Reinboth & Duda, 2006) and young female handball players (Sarrazin et al., 2002). The observed positive relationship between perceptions of a task-involving climate and competence is consonant with AGT (Nicholls, 1989). This theory holds that in the psychological environments in which improvement and effort are valued, it is more likely that the sources of competence evaluation are more internal and controllable. As a result, it is more likely for these individuals to feel good about their level of ability within those achievement contexts (Duda, 2001). The observed significant association between soccer players’ perceptions of a task-involving climate and their satisfaction of the need for autonomy also makes sense when one considers that an atmosphere centered on self-referenced achievement should facilitate athletes’ feelings of personal control. That is, in such a psychological environment, we would expect athletes to feel more like the originators of their own behavior. Finally, with respect to explicating the observed positive relationship between a perceived task involving climate and relatedness satisfaction, it is important to keep in mind that in such environments, coaches are deemed to promote cooperative learning. Moreover, the more task-involving coach tends to facilitate each player feeling like he or she has a role to play on the team. In such a climate, therefore, it is not surprising that feelings of belonging will likely be cultivated.

In contrast to the observed positive pattern of relationships between a perceived task-involving environment and need satisfaction, perceiving the coach to accentuate an ego-involving climate was negatively correlated with satisfaction of the need for team relatedness. Evidently, when young soccer players view an atmosphere in which intrateam rivalry, outdoing others, and recognizing only the most talented players are emphasized, it is more likely that feelings of closeness between and sense of belongingness among members of the team will be diminished. What is implied, in light of these findings, is that an ego-involving atmosphere in a team may not be amenable to young athletes’ feeling especially understood, appreciated, and accepted by significant others in that sporting environment.

On the other hand, and contrary to our hypotheses grounded in AGT, a perceived coach-created ego-involving climate was unrelated to satisfaction of the needs for competence and autonomy. This result, however, is consonant with the findings reported by Reinboth and Duda (2006) in their study of university athletes. An explanation for the absence of a significant link between an ego-involving climate and satisfaction of the need for competence could be the theoretically assumed moderating role of perceived competence. AGT assumes that levels of perceived competence serve as a moderator of the interrelationships between an ego goal emphasis and corresponding achievement-related behavior, cognition, and affect (Nicholls, 1989). That is, for players who are currently confident in their abilities, participating in a more ego-involving climate would not be expected to have a negative effect on satisfaction of the need for competence at that point in time. Likewise, in a strongly ego-involving climate, the more competent players on a team could enjoy greater autonomy (e.g., freedom to act, assume responsibilities...
in the game) because of the confidence that the coach possibly places in them. It would be interesting to test the proposed moderating effect of perceived competence on the relationship between a perceived ego-involving climate and young athletes’ feelings of competence and autonomy in future research.

In the second part of the sequence assumed in Vallerand’s model (1997, 2001), which focused on the expected interplay between satisfaction of basic psychological needs and more self-determined reasons for engagement, the results indicate that satisfaction of the three needs (competence, autonomy, and relatedness) was significantly and positively related to intrinsic motivation. These results are aligned with previous research revealing the three needs as significant predictors of intrinsic motivation specifically or a self-determined motivation index considering athletes’ scores on more autonomous and controlling motivation regulations (e.g., Balaguer et al., 2008; Hollembeak & Amorose, 2005; Sarrazin et al., 2002).

Thus, based on the present findings, it appears that when young male soccer players feel confident and more secure in their sport, perceive they have some choice and input into decisions, and have a sense that they are connected and integrated in their sport environment, their motivation to play soccer is more intrinsic. In other words, when satisfaction of the basic psychological needs prevails, the reasons for participating in youth sport are more likely to be the inherent pleasure and satisfaction that the activity provides. In the current study, the path that held more weight in the relationship to intrinsic interest was the observed association between the satisfaction of the need for autonomy and intrinsic motivation. This significant path was followed by the satisfaction of the need for competence, and finally by the satisfaction of the need for relatedness, in terms of predicting intrinsic motivation for participation in youth soccer. This pattern of findings supports the tenets of SDT (Ryan & Deci, 2000), which emphasizes that the need for autonomy is the most important of the three needs in the development of more autonomous motivation.

Also in agreement with SDT, and in accordance with our expectations, the observed indirect effects indicated that a perceived task-involving climate positively predicted intrinsic motivation through satisfaction of the three needs. SDT assumes that the effect of the environment on behavior regulations is not direct and occurs as a result of the implications of that environment on psychological needs satisfaction. An examination of the indirect effects also suggested that perceptions of a task-involving environment predicted subjective vitality and future intention to play soccer via need satisfaction and intrinsic motivation. Moreover, satisfaction of the three needs (competence, autonomy, and relatedness) positively predicted subjective vitality and intention to play soccer through intrinsic motivation.

Taken in their totality, the observed indirect effects are supportive of the hypothesized motivation sequence (Vallerand, 1997, 2001), which depicts the processes by which psychological environments can lead to differential consequences. Overall, our findings are consonant with previous studies conducted in the sport and physical education domains. This work has revealed that environments perceived as high in task-involving features are associated with a wide range of positive outcomes, for example, with more self-determined behavior regulations for engagement (e.g., Standage et al., 2003), higher subjective vitality (e.g., Balaguer, Castillo, Duda, & García-Merita, 2011; Reinboth & Duda, 2006), higher self-esteem (e.g., Balaguer et al., 2011; López-Valle, Balaguer, Castillo, & Tristán, 2011), and future intentions to continue being active (e.g., Sarrazin et al., 2002).
Finally, with respect to the final sequence embedded in Vallerand’s model (1997, 2001), we found that the higher the intrinsic motivation reported, the greater subjective vitality and intention to continue practicing soccer the next season exhibited by the targeted sample of young soccer players. With regard to the latter relationship between intrinsic motivation and intentions to continue playing soccer, the results of this study of young adolescent boys are aligned with those reported by Tsorbatzoudis and colleagues (2006) in their study of adult recreational athletes and Pelletier and colleagues (1995) in their research involving university athletes. It is interesting to consider the implications that the intention to maintain future participation can have for the players’ future soccer engagement, since it has been demonstrated that intention to drop out is a positive predictor of sport dropout (Sarrazin et al., 2002). Moreover, similar to previous studies that have found positive relationships between intrinsic motivation and subjective vitality with young female gymnasts (Gagné et al., 2003) and with young female tennis players (Balaguer et al., 2011), this present research indicates that intrinsic interest among boys involved in the sport of youth soccer is also tied to an indicator of positive eudaemonic well-being and optimal functioning.

It should be noted that one of the limitations of this study is that it is cross-sectional in design. The present results should be corroborated with samples similar to ours in longitudinal investigations testing the social environment-need satisfaction-motivation regulations-consequence sequence in youth sport. Moreover, this investigation was limited to male soccer players at a regional level of competition. The extent to which these results can be generalized to female soccer players, to elite athletes, and to other sporting activities should be empirically determined.

**Conclusion**

The results of the present work highlight the potential role that the coach-created climate plays in young athletes’ motivation for engaging in their sport. Our findings also indicate that the degree to which the environment manifested on the team is more task- and/or ego-involving, is relevant to observed variability in the psychological well-being (subjective vitality) reported by male youth sport participants as well as for their intention to maintain engagement in the sport in the future. In other words, the motivational climate prevailing among youth sport teams appears pertinent to whether sport participation is more health-promoting or health-compromising in the case of young athletes (Duda, 2001). The results also suggest that the coach-created motivational climate contributes to the likelihood of young soccer players continuing with their sport.

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**References**


