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Abstract

Background: The purpose of this study was to investigate a large number of determinants of sport dropout among French adolescents, in order to reveal proximal and distal factors of dropout.

Methods: 261 current and 106 dropout athletes (M = 14.6) participated to the study. The data were collected by a questionnaire assessing demographic information, athletes' perceptions on their experience, their parents, teammates and coach.

Results: t-tests revealed that current and former athletes were distinct on numerous variables. A discriminant function analysis showed three proximal predictors of sport dropout (perceived value of the activity, satisfaction, parents' investment). Subsequent regression analyses showed that perceived value was positively predicted by perceived competence, the value of the activity for teammates, coach's investment, and negatively by conflicts of interest and goal conflict with teammates; satisfaction was positively predicted by the coach's mastery climate, but negatively predicted by conflicts of interest and goal conflict with teammates and with the coach; parents investment was negatively predicted by the goal conflicts with them.

Conclusions: This study permitted to discriminate between proximal and more distal psychological antecedents of the dropout behaviour. It brings information relative to the possible targets of interventions aiming at preventing dropout from organized sport.

Key-words: Psychology, public health, motivation, athletes.

Introduction

Regular physical activity (PA) has been shown to lead to numerous physical and psychosocial outcomes, particularly among youth. For example, it is well established that PA has a positive impact on several biological functions and helps to prevent certain troubles like overweight or obesity (Goran, Reynolds, & Lindquist, 1999). Moreover, regular PA has been positively linked to physical self-perceptions and social acceptance (Brustad, Babkes, & Smith, 2001). Experts groups have recommended 60 minutes per day of moderate to vigorous physical activity for youth (e.g., Cavill, Biddle, & Sallis, 2001). This quantity can be reached by two sources: energy expenditure through daily activities and leisure activities like sport. Unfortunately, in most Western countries, the lifestyle tends to be more and more sedentary, and adolescence is a period of high dropout from organized sports (e.g., Wankel & Mummery, 1996). France does not constitute an exception to this general observation. Numerous sport organizations report important dropout rates between the ages of 12 and 15 years old. In the same vein, a national survey conducted among a representative sample suggested that French people tend to be less and less active with age, since the average time of physical activity decreases constantly during adolescence and at the beginning of adulthood (French Minister for Youth and Sport, 2001).

Regarding the benefits of PA, understanding the reasons of such an evolution seems a challenging social issue. This preoccupation is particularly relevant during adolescence, because of the importance of early experience for future practice during adulthood. Indeed, several studies demonstrated a significant link between current and past level of physical activity (Perkins, Jacobs, Barber, & Eccles, 2004). Previous research on sport involvement (see, Gould, 1987; Kremer, Trew, & Ogle, 1997; Sarrazin & Guillet, 2001; for reviews) or on correlates of PA (e.g., Sallis, Prochaska, & Taylor, 2000) revealed that numerous factors could account for the quantity and duration of physical practice, such as, (1) demographic or

biological characteristics (e.g., sex, age, BMI), (2) psychological or cognitive attributes (e.g., motivation, perceived competence, intentions of participation), (3) social and cultural factors (e.g., social support) and/or (4) environmental contingencies (e.g., opportunities to exercise, equipment available). Sport participation, as well as PA, seem to depend on a wide range of variables that interact within a very complex causal web (Titze, Stronegger, & Owen, 2005), and some authors argue that such behaviours are too complex to be encompassed by a single theory (Sallis et al., 2000). One major perspective in this area of research is now to clearly distinguish between all correlates of PA, the most proximal predictors (i.e., mediators), potential confounders, as well as the more distal antecedents of sport or PA behaviours. This distinction would give information on the elements that should constitute a priority for interventions. This work has already been considered regarding the PA context (e.g., Bauman et al., 2002). However, no previous study aimed at addressing this issue in the context of organized sport to our knowledge.

The purpose of this study was precisely to examine simultaneously several potential determinants of sport dropout or persistence, in order to have a broad perspective on this phenomenon. Because those factors were sometimes found to be correlated, we aimed at evaluating their relative place within the process leading to sport dropout (i.e., proximal versus distal versus confounding factors). We also aimed at examining the role of different members of the social environment identified as important for young athletes, namely parents, teammates and coach. Indeed, previous research on sport dropout is characterised by a focus on the coach (e.g., Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002), or on parental influence (e.g., Fredricks & Eccles, 2005). The group of peers remains a relatively unexplored "actor" in this domain. It is however recognised as an increased source of influence for adolescents, and has been shown to participate to the quality of the sport experience (Smith, 2003). In order to reach those goals, a cross-sectional study was carried out to compare

samples of current and former athletes. The theoretical frameworks we retained among contemporary frameworks were chosen based on their relevance with regard to behavioural involvement, and because they were previously applied to the athletic area. The key variables of those models were selected, so as to investigate simultaneously a broad range of demographical, biological, psychological and social characteristics. We took into account the fact that some constructs might be very close conceptually from one framework to another and in some cases we deliberately assessed them only once. The set of variables retained is listed at the end of this section.

First, some variables were drawn from the Sport Commitment Model (SCM; e.g., Scanlan, Scanlan, Simons, & Lobel, 1993). This model supposes that individuals' psychological commitment and thus their behavioural persistence is positively predicted by 3 elements: (1) their degree of satisfaction toward the activity (i.e., positive affective experience); (2) the absence of attractive alternative activities (e.g., other leisure activities); (3) the forces that retain him/her in the activity, such as the resources already invested (time, money), or the social pressure to pursue it. The first two variables were significantly linked to persistence in sport; hence, a high degree of satisfaction, and a low level of conflict of interest with other activities, may prevent from sport dropout. On the other hand, the last prediction received less empirical support. Indeed, no significant bound appeared between personal investment and commitment (Guillet, Sarrazin, Carpenter, Trouilloud, & Cury, 2002), and money, time, or distance are sometimes advances as barriers to exercise (Bauman et al., 2002). On the other hand, social constraints appeared as a positive (rather than negative) predictor of dropout (Guillet et al., 2002). The tenets of this model would thus deserve to be tested again in the sport context.

Next, the central components of Eccles' Expectancy-Value Model (e.g., Eccles, Freedman, Frome, Jacobs, & Yoon, 2000) were considered. This paradigm focuses on the

mechanisms underlying children and adolescents' choices and investment in various life domains. Basically, the model states that a young individual is likely to maintain his/her involvement in a domain as long as his/her expectations of success in the activity - or perceived competence - and the value he/she attaches to it, are high. Moreover, the model highlights the role of parents in gauging such perceptions. A recent review of the literature deriving from this model in the sport area confirms (a) the links between young individuals' perceptions and their behaviour, including the dropout behaviour (e.g., Guillet, Sarrazin, Fontayne & Brustad, 2006) and (b) the significant role played by parents (Bois & Sarrazin, 2006).

Third, we assessed the key concepts from Self-Determination Theory (SDT; Deci & Ryan, 2000). This comprehensive framework distinguishes different types of motivation that can be ordered along a continuum of self-determination, including intrinsic motivation, self-determined and controlled forms of extrinsic motivation, and amotivation. The more self-determined the motivation, the more positive the outcomes should be, especially behavioral persistence (Vallerand, 2001). Besides, SDT enhances the importance of three basic needs – autonomy (i.e., feeling like the 'origin' and not the 'pawn' of one's actions), competence (i.e., feeling effective in one's ongoing interactions), and relatedness (i.e., feeling connected to others, to caring for and being cared for by those others) – that may be more or less sustained by the social environment. A review of the studies conducted in sport within this theoretical framework supports the role played by the motivations and psychological needs mentioned above to predict dropout (Sarrazin, Boiché & Pelletier, 2007).

Achievement Goal Theory (AGT; see Duda, 2001 for a review) was also mobilized for the purpose of the present study. This model proposes that the motivational climate provided may impact the goal pursued by individuals and hence their persistence. Indeed, AGT opposes a mastery or task-oriented climate (i.e., emphasizing learning processes and

progress), that may favour self-referenced evaluations and persistence, to a more competitive or ego-oriented climate (i.e., were the result and social comparison are emphasized), that may damage the implication of certain individuals. Past research in the sport dropout literature suggests that the perception of a mastery climate from the coach is associated with persistence, whereas a competitive climate is associated with dropout (Sarrazin et al., 2002).

A different way of considering coaching was developed by Chelladurai (1993) in his work on leadership, who sustains that athletes vary in their preferred coaching style, and that an important distortion between the preferred and perceived coaching could be at the origin of athletes' dissatisfaction. This proposition was sustained by empirical data (Chelladurai & Saleh, 1978), supporting the idea that the degree of coherence between the view of the athlete and the one of his/her social environment could impact the quality of sport experience. On the other hand, perceiving goal conflicts with one's social environment might lead to higher rates of sport dropout.

In the present study, we assessed the key constructs presented above, as well as certain atheoretical characteristics that were found to related to PA behaviours (Sallis et al., 2000), that can be categorized into three groups of variables: (1) demographical or biological characteristics (e.g., time dedicated to the activity, BMI); (2) psychological perceptions within the sport context (motivation, value, psychological needs, satisfaction, perceived conflict with other activities); (3) perceptions of the social environment (value, investment, climate, goal conflict with the coach/ parents/peers).

Methods

Participants and Procedure

The sample comprised 261 adolescents (86 girls, 175 boys) practicing one of the most popular activities among teenagers in France, namely soccer, basketball, handball, rugby, skiing, judo, gymnastics, horse riding, cycling, climbing, tennis and table tennis, and 106

adolescents (53 girls, 53 boys) that had ceased their participation in those activities one year earlier. The mean age of the participants was 14.60 years old (*SD* = 4.19).

The data collection was done by questionnaire. The questionnaires were delivered and collected directly in clubs proposing such activities, for current athletes. They were mailed to dropout athletes (i.e., athletes who did not come back to their club) with a letter explaining the purpose of the study, and a stamped envelope for the return. Their addresses were communicated by clubs and local committees. The questionnaires were identical for current and former athletes, except for the tenses used. For example, one instruction for current athletes was: "In this part, we are interested in the way you *perceive* your coach when you *practice* your activity", whereas it was "In this part, we are interested in the way you *perceived* your coach when you *were practising* your activity", for dropout athletes.

Measures

The questionnaire was built based on validated tools from the concerned theoretical frameworks (e.g., SDT for motivation and needs). For certain subscales, minor changes were made, regarding the number of items and/or the answer scale used, in order to simplify the data collection process, and to lighten the questionnaire. All the subscales had a 6-point Likert type answer scale ranging from 1 ("*do not agree at all"*) to 6 ("*completely agree"*).

Demographic information.

The participants were asked to give their weight and high, as well as the time they spent weekly for their activity, the amount of money it cost a year, and the distance between their home and the place where the activity took place.

Athletes' perceptions of their sport experience.

First, the French version of the Sport Motivation Scale was used in order to assess the participants' motivations toward their activity (Brière, Vallerand, Blais, & Pelletier, 1995). Grounded within SDT, this tool measures the reasons for being involved in sport, including

intrinsic motivation (e.g., "Because it provides me pleasant sensations"), identified (e.g., "Because it is a good way to make friends"), introjected (e.g., "Because I would feel guilty if I did not take the time to do it"), and external regulation sub-scales (e.g. "Because some people put pressure on me so that I do it"). The score for each sub-scale – 3 items each – was weighted, depending on its theoretical level of self-determination. The weighted scores were then added to calculate a self-determination index, according to the following formula: $2 \times$ Intrinsic Motivation + Identified Regulation – Introjected Regulation – $2 \times$ External Regulation.

Next, the questionnaire evaluated the value athletes accorded to their activity, with a 3-item version of the Value Scale of Fredericks and Eccles (2002) (e.g., "This activity is really important for me"). Two 2-item subscales of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989) were used to assess the athletes' perceptions of competence (e.g., "I think I am pretty good at this activity") and autonomy (e.g., "I feel responsible for my actions"). A 3-itemsub-scale adapted from the 'Echelle de Satisfaction de Vie' (Blais, Vallerand, Pelletier, & Brière, 1989) estimated the level of satisfaction toward the activity (e.g., "I am really happy about the way this activity goes"). Finally, the level of conflict of interest with alternative activities was assessed with a 6-item scale from the Passion Scale (Vallerand & Miquelon, 2007): "Sometimes conflicts arise between my sport and other activities".

Athletes' perceptions about of their parents.

This part contained questions about the value parents placed in sport thanks to the 4-item Value Scale of Fredericks and Eccles (2002 (e.g., "For my parents, sport is more important than other leisure activities"). Based on previous work about parental influence in sport (Lee & MacLean, 1997), a 4-item scale evaluating parents' investment in their child's activity was included (e.g., "My parents regularly watch my trainings"). Finally, a 3-item scale was added

in order to investigate the potential conflicts between the athletes' goals and their parents' priorities (e.g., "I sometimes feel that my parents tend to impose me their goals in this activity").

Athletes' perceptions of their teammates.

The same perceptions were assessed concerning teammates. In other words, it was asked to the athletes to evaluate the value that their teammates placed in the activity, the investment they put in it, as well as possible goal conflicts with them.

Athletes' perceptions of their coach.

The athletes' perception of their coach investment was assessed both regarding trainings and competition (e.g., "My coach is present at every competition") thanks to an abridged 4-item subscale from the Leadership Scale for Sports (Chelladurai & Saleh, 1978). Based on the Perceived Motivational Climate in Sport Questionnaire (Walling, Duda, & Chi, 1993), the mastery climate established by the coach (4 items; e.g., "My coach helps me to make progress on my weaknesses"), as well as the competitive climate (3 items; e.g., "My coach shows greater concern for the best athletes"), were estimated. The degree of goal conflict with the coach was also assessed thanks to a 4-item scale (e.g., "My coach absolutely wants good performances even though having fun is the most important for me"). Finally, the quality of the interpersonal relationship with the coach was evaluated (3 items; e.g., "I get along well with my coach") (Baard, Deci, & Ryan, 2004).

Data analysis

In order to distinguish between proximal predictors, confounder variables, and distal antecedents of dropout, a three-step strategy based on the classical procedure recommended for mediation tests with regression analyses (Kenny, Kashy, & Bolger, 1998) was adopted. First, t-tests were conducted to examine which variables differed among the two samples. This first series of univariate tests permitted us to point out which variables were related to

our variable of interest, that is, the dropout behaviour. Next, a discriminant function analysis was carried out, entering the previously identified variables as predictors of group membership (i.e., dropout versus current participants). This analysis enabled us to distinguish between proximal (or mediators) and distal antecedents of dropout, the former being the significant variables of the discriminant function. Finally, multiple regression analyses were conducted in order to predict the significant variables identified by the discriminant analysis, with the remaining variables as independent variables. The variables which did not predict the mediators can be considered as confounders.

Results

Descriptive Statistics

The mean, standard-deviation, and Cronbach alpha coefficients, are presented in Table 1, as well as the mean scores for each group (current *versus* dropout athletes) and the *p* values of the *t*-tests.

T-tests

A series of *t*-tests was conducted on the assessed variables, entering the status (current *versus* former sport participant) as independent variable. No significant difference was found for Body Mass Index. Regarding the demographical variables, the analysis revealed significant differences for some characteristics of the sport experience. More particularly, current participants devoted more time for the activity, and they declared living further from the place where they practiced it. On the other hand, the financial cost was not found to be significantly different between the two groups. Concerning athletes' perceptions about their sport experience, the analyses showed that current participants reported higher scores for competence and autonomy, they put more value in the activity, and they were more satisfied. On the other hand, they reported lower levels of conflicts with alternative activities. Self-determined motivation was not found to be significantly different between the two groups.

Concerning social perceptions, current participants reported a greater investment of their parents, and perceived less goal conflicts with them. There was no difference for the value the athletes thought their parents placed in their activity. Current athletes also reported greater scores for their teammates' investment, the value they put in the activity and lower scores for goal conflicts with them. Finally, current participants showed greater scores for their coach's investment, and the mastery climate he/she established, they reported a better interpersonal relationship with him/her, and less goal conflicts with him/her. There was no difference concerning the competitive dimension of the climate.

Discriminant Function Analysis

The goal of discriminant function analysis is to predict group membership from a set of predictors (Tabachnick & Fidell, 2001). The demographic information (i.e., time and distance) were not utilized, because the sense of the observed difference between participants does not suggest that those factors could account for the dropout behaviour. Indeed, former participants were found to spend less time and to live closer from the place where their activity takes place. The other variables for which a significant difference appeared were entered in the analysis as independent variables. It is usually recommended that the total sample size is at least three times the number of variables entered in the analysis. This condition was respected here, since the sample size was 327 and the number of independent variables 14.

Globally, the analysis was significant: Wilk's Lambda = .77, $F(14, 327) = 6.91$, $p < .001$. Three variables were found to significantly discriminate between current and former athletes, since they contributed to increase significantly the value of Wilk's Lambda ($p<.05$): the value accorded to the activity, the athletes' level of satisfaction, and the investment they perceived from their parents. The model permitted to predict a participant's group with a correct percentage of 38.7% for dropout athletes and 94.4% for current athletes.

Multiple Regressions

All the psychological variables that were found to be statistically different between current and former athletes and that were directly linked to their sport experience were entered in a multiple regression analysis as independent variables to predict the value accorded to the activity. The model was globally significant: $F(10, 334) = 17.1$, $p<.001$. All the results are presented on Figure 1. Value was positively predicted by perceived competence ($\beta = .16$), the value of the activity for teammates ($\beta = .29$), the coach's investment ($\beta = .25$), and negatively predicted by conflicts of interest ($\beta = -.15$) and the goal conflicts experienced with teammates ($\beta = -.15$). The same variables were used in order to predict the level of satisfaction with the activity. Globally, the model was significant: $F(10, 334) = 23.6$, $p<.001$. Satisfaction was positively predicted by the coach's mastery climate ($\beta = .25$) but negatively predicted by conflicts of interest ($\beta = -.20$) and the goal conflicts experienced with teammates ($\beta = -.11$) and with the coach ($\beta = -.13$). A third analysis was carried out to predict perceived parents' investment in the activity. Goal conflict with the parents was entered as independent variable. Globally, the model was significant: $F(1, 363) = 144.1$, $p<.001$. Goal conflict predicted negatively parents' investment ($\beta = -.53$).

Discussion

The purpose of this study was twofold. First, we intended to investigate various demographic, psychological, and interpersonal variables in order to distinguish between proximal and distal factors of dropout behaviour. The choice of the variables was made based on previous research on sport dropout and several relevant theoretical frameworks on this topic. Next, we were interested in evaluating simultaneously the role of several social agents in this phenomenon.

The first step of analysis underlined variables that could account for dropout and to not further consider those that could not (see Table 1). Interestingly, the time spent for the

activity, and the distance between home and the site where it took place, were greater for current participants, compared to dropout athletes. In other words, the amount of time devoted to the activity, or the distance from home to the site where it took place, were not causes for dropping out in this study. This result contrasts with past literature where "lack of time" emerged as one of the more important reasons invoked to justify dropout (Salguero, Gonzales-Boto, Tuero, & Márquez, 2003; Weiss & Chaumeton, 1992). In the same vein, this result contradicts the hypothesis of a geographic barrier to PA (Brawley, Martin, & Gyurcsik, 1998). Conversely, the hypothesis of SCM relatively to personal investments as a factor of adherence is supported here.

The second step of analysis allowed us to locate the elements that discriminated the most the members of the two groups of participants. Two variables characterizing the sport experience, satisfaction and value, as well as one parental variable, investment, emerged from the discriminant function analysis. They can thus be considered as some of the most proximal factors of sport dropout in our study. This result is consistent with certain theoretical models applied to the sport setting. For example, the sport commitment model posits that the athlete's commitment toward his/her activity will derive directly from the amount of satisfaction he/she retires from it (Carpenter et al., 1993). Satisfaction and commitment were found to be positive antecedents of sport persistence in previous research (Guillet et al., 2002). Moreover, the expectancy-value model developed by Eccles and her collaborators emphasizes the value placed in an activity to predict subsequent behaviour among children and adolescents (Eccles et al., 2000). It also proposes that parents play a fundamental role in the socialization process, in particular through the opportunities they tend to provide to their child so that he/she can develop his/her experience in certain domains. Parental support, as well as the value accorded to sport, were related positively to children sport perceptions or participation in the past (Fredericks & Eccles, 2005; Eccles & Harold, 1991).

In conclusion, the results of our analyses suggest that athletes' level of satisfaction within the activity, and the value they put in it, as well as their parents' investment, should be considered in order to prevent dropout from organized sport. This study also highlights some of the variables likely to influence those perceptions, and that consequently constitute possible targets for interventions. Several positive factors appeared in our analyses. First, perceived competence was positively related to the value of the activity. Perceived competence was found to lead to maintained sport participation in the past, whereas a lack of competence was invoked to justify sport dropout (Salguero et al., 2003). As it was outlined by some authors, any action that permits to promote the individual's sense of competence is likely to encourage him/her to persist in the activity (Deci & Ryan, 2000). Logically, the value accorded to the activity was also facilitated by the perception that teammates themselves valued the activity. In line with the fact parents' investment was found as a proximal variable, coach's investment was found to be important as well, since it had a positive relationship with perceived value. Finally, the mastery climate was found to be related to the athletes' satisfaction, which confirms past research carried out in the sport context (see Duda, 2001).

On the other hand, certain perceptions seem to influence negatively the observed proximal antecedents of sport persistence. One consistent result is relative to the concept of goal conflict, which was found as a significant distal factor of dropout. Indeed, assessed in regard with parents, teammates and coach, this variable was negatively linked to at least one proximal factor. These results are rather innovative concerning teammates and parents, but they are consistent with previous research on coaching, for example (Chelladurai, 1993). The perception of the athlete that his/her priorities in the activity differ from the goals valued by the social environment is likely to undermine his/her sport experience. Finally, the perception of conflicts between sport and other activities was a significant predictor of value and

satisfaction. This result is in line with sport commitment model (e.g., Scanlan et al., 1993) and past descriptive work on sport dropout (e.g., Salguero et al., 2002) that emphasized the role of "conflicts of interest" in the teenagers' dropout phenomenon.

Limitations and Perspectives

This study conducted among current and former athletes permitted to discriminate between proximal and distal factors of sport dropout behaviour. Among all biological, demographic, psychological, and interpersonal variables considered, three elements appeared as proximal factors: the value accorded to the activity, the athlete's level of satisfaction, and the perceived parental investment. Some other psycho-social variables emerged as more distal factors, including perceived competence, conflicts of interest, and several variables relative to the environment, in particular goal conflicts. These results may be partly linked to the characteristics of other samples and need to be replicated in other samples to evaluate their external validity.

Furthermore, the fact that the discriminant analysis allowed to predict a lower percentage of participant's group for dropout athletes suggests that this kind of behaviour cannot be considered as a unified variable. On the contrary, several types of dropout can be distinguished (e.g., Gould, 1987; Sarrazin & Guillet, 2001). Some athletes may voluntarily stop their sport participation because they are not satisfied by the activity, because they do not consider it as important anymore, because they became less motivated, or perceive too little progress. They should consequently show a psychological profile different from the one of persistent athletes, and we may assume that those dropout athletes have been correctly classified in the study. On the other hand, some athletes might feel satisfied and still value their activity, but have the obligation to cease their sport involvement, because of certain social contingencies (e.g., linked to school or interpersonal relationships), or because they can materially or physically no longer participate (e.g., severe injuries, moving, disappearance of

a team). In the case of such unintentional dropouts, the psycho-social profile should be close from the one of a persistent athlete, and this could explain why a considerable percentage of dropout athletes were incorrectly classified in the study. As a consequence, future research would benefit from a more subtle categorization of the different types of dropout, in particular in order to analyze separately freely assumed *versus* uncontrolled dropouts.

Finally, research perspectives could concern interventions aimed at preventing dropout among adolescents, by taking into consideration those antecedents, in order to foster a positive sport experience. The social environment obviously plays an important role in this phenomenon, and one should consider involving parents in such a project to maximize the effects of the intervention.

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Figure list

Figure 1: Results of the multiple regression analyses

Table list

Table 1: Descriptive Statistics and Results from *t* tests

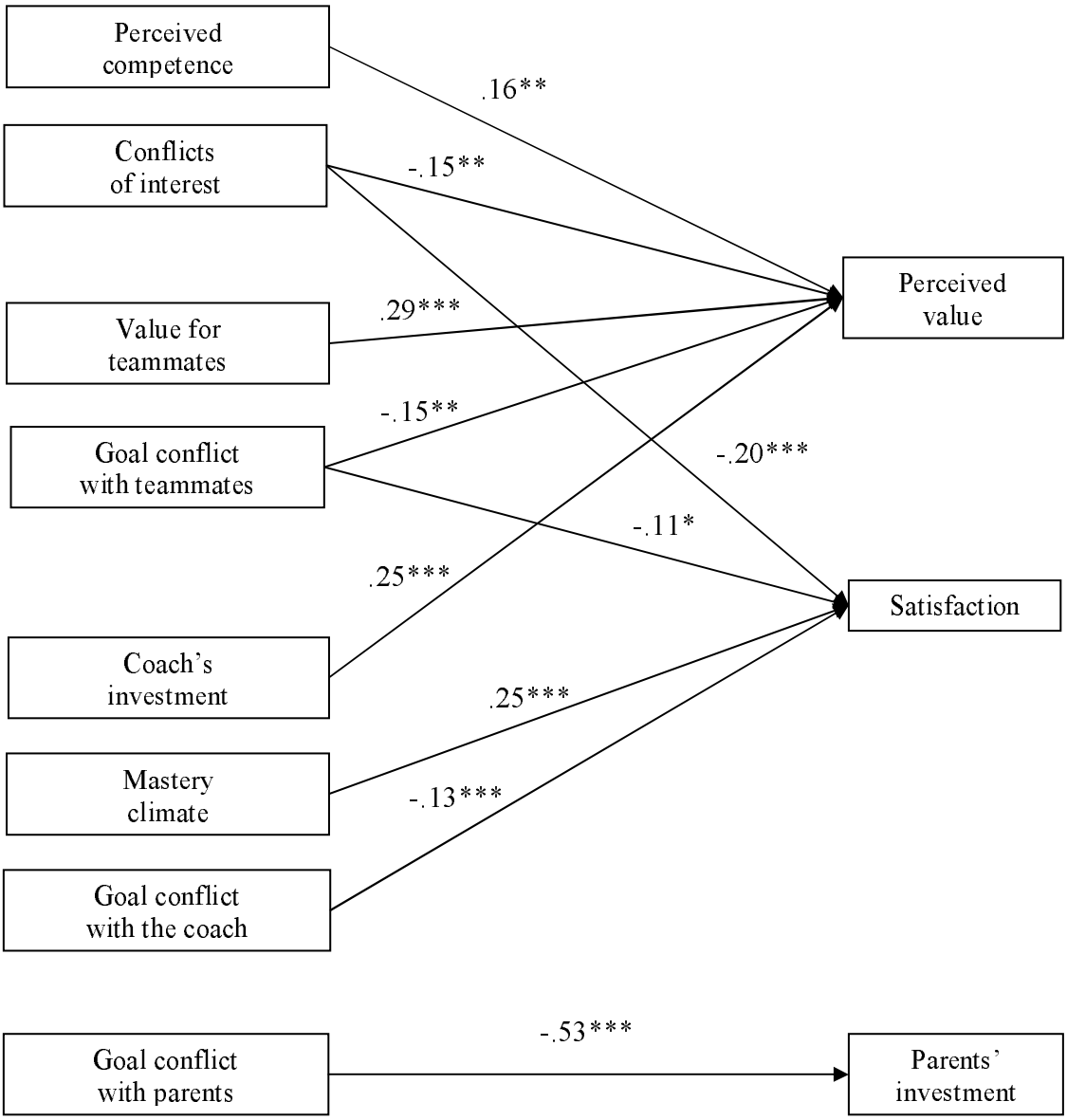
Figure legend

* p<.05; ** p<.01; *** p<.001

Table 1: Descriptive Statistics and Results from *t* tests

	M	SD	α	M Practice	M Dropout	p
Body Mass Index	19.84	3.41	-	19.79	19.98	.642
Week Time of Practice (hours)	4.31	3.37	-	4.84	2.98	.001
Annual Cost of the Activity (euros)	116.67	168.38	-	126.24	92.71	.085
Distance to the Activity (km)	10.49	22.90	-	12.39	5.74	.012
Self-determined Motivation	6.79	2.52	.66	6.92	6.49	.144
Perceived Competence	4.17	0.96	.67	4.26	3.92	.002
Perceived Autonomy	4.65	1.24	.81	4.75	4.39	.011
Value of the Activity	4.82	1.10	.80	5.06	4.24	.000
Satisfaction toward the Activity	5.02	1.04	.84	5.29	4.36	.000
Conflicts of interests	2.54	0.92	.67	2.46	2.72	.015
Value of the Activity for Parents	4.46	1.11	.72	4.45	4.50	.703
Parents' Investment	4.04	1.28	.75	4.22	3.58	.001
Goal Conflict with Parents	2.61	1.45	.54	3.29	2.36	.000
Value of the Activity for Teammates	4.22	1.12	.81	4.34	3.96	.006
Teammates' Investment	4.59	1.07	.67	4.71	4.28	.001
Goal Conflict with Teammates	3.01	1.01	.51	2.90	3.30	.000
Coach's Investment	4.82	1.02	.67	4.96	4.52	.001
Coach's Mastery Climate	5.07	1.02	.78	5.20	4.74	.000
Coach's Competitive Climate	2.55	1.55	.76	2.55	2.54	.955
Goal Conflict with the Coach	1.97	1.16	.67	1.84	2.30	.001
Relationship with the Coach	4.55	1.21	.66	4.68	4.22	.001

Figure 1: Results of the multiple regression analyses


Perceived competence
Conflicts of interest
Value for teammates
Goal conflict with teammates
Coach's investment
Mastery climate
Goal conflict with the coach
Goal conflict with parents
Perceived value
Satisfaction
Parents' investment
.16**
-.15**
.29***
-.15**
-.20***
-.11*
.25***
.25***
-.13***
-.53***

(* p<.05; ** p<.01; *** p<.001)