

Research article

Influence of the Coach's Method and Leadership Profile on the Positive Development of Young Players in Team Sports

Luis Rogério de Albuquerque ¹✉, Eduardo Mendonça Scheeren ², Gislaíne Cristina Vagetti ¹ and Valdomiro de Oliveira ¹

¹ Graduate Program in Education, Universidade Federal do Paraná, Curitiba, Brazil

² Graduate Program in Technology in Health, Pontifícia Universidade Católica do Paraná, Curitiba, Brazil

Abstract

In a time of instability caused by adolescence, sport may represent a resource to prevent future individual and social problems. Within the complex relationships developed in social sports contexts, the figure of the coach can be fundamental for the development of a beneficial environment. The objective of the research was to investigate the relationship between the teaching methods and leadership profile of the coach and outcomes on the perception of positive development of young people participating in an after school sports program. In total participated, 910 adolescents (14.0 ± 1.8 years) and 57 coaches (45.57 ± 7.25 years) in 37 public schools in the city of Curitiba, in the state of Paraná-Brazil. Ordinal logistic regression was used to verify the independent associations between the variables sex, category, sport, trainer methodology, perception of the coaches, and perception of the athletes with the tertiles of the scores of each developmental characteristic of the young athletes (personal and social skills, cognitive skills, goal setting, and initiative). Odds ratios (OR) were obtained with a 95% confidence interval (95%CI), adopting $p < 0.05$. The small sized games method were positively associated with cognitive skills and goal setting. Positive associations were also found between athletes' perceptions of the leadership profile of coaches with: personal and social skills (instructor, democratic behaviour, social support, and positive feedback), cognitive skills (instructor, democratic behaviour, and social support), goal setting (instructor, social support, and positive feedback), and initiative (instructor and positive feedback). In addition, the athletes' perception of the coaches' autocratic behaviour was inversely associated with personal and social skills and goal setting. For the evaluated program, the results suggest the choice, on the part of the coaches, of small sized games, combined with a democratic, affective, motivating leadership profile that provides instructions on technical skills and game strategies. The combination of the designated psych-pedagogical aspects is correlated to the positive development of young people through team sports.

Key words: Teaching methods; leadership; positive youth development; team sports.

Introduction

In the last decade, research on psychosocial factors related to youth participation in sporting contexts has intensified and become more skilled (Vella et al., 2013). Through the first systematic review of qualitative studies that underlie the positive youth development (PYD), Holt et al. (2017), established an important milestone in the consolidation of a new PYD model for sports. The new model highlights the fact that PYD can be provided both implicitly and explicitly. Implicitly, coaches can integrate PYD into their

“regular day-to-day interactions” with young athletes. The explicit path indicates the need for psychosocial benefits to be turned into life skills (Holt et al., 2017).

Sport provides young people with a unique social context with great potential for the promotion and development of psychological, social, and physical indicators (Vella et al., 2013; Weiss, 2008). In a time of instability, caused by adolescence, the sports environment can be a promoter of resources for the prevention of future individual and social problems (school dropout, abuse of substances harmful to health) (Bruner et al., 2017; Lerma-Cabrera et al., 2015; MacDonald et al., 2012).

The influence of adults (coaches, teachers) on the systematization, planning, and pedagogical organization of learning environments, will directly affect the context of practice and development of young people through sport (Côté and Hancock, 2016; Weiss, 2008). The choice of tasks by the trainer when planning the training is an important aspect of the teaching-learning process (Ticó, 2002).

Another related factor that should be considered is the profile and leadership style adopted by the coach (Vella et al., 2013). Leadership in sports environments tends to be discussed in an interactional way; both individual leadership traits and environmental influences must be taken into account (Weinberg and Gould, 2016). For this research, the Chelladurai and Saleh (1980) coach's multidimensional leadership model was chosen, the model was built specifically to assess sporting contexts and adapts to a large number of individual and collective sports (González-García et al., 2020). The model assesses the coach's self-perception of leadership, the athlete's perception and the athlete's preference in relation to the coach's leadership style. The model outlines five leadership behaviours of the coach: (training and instruction - leaders who seek to improve the performance of athletes by giving instructions on skills, techniques and strategies; democratic behaviour - leaders who allow athletes to participate in group decisions, objectives, methods training, tactics and game strategies; autocratic behaviour - leaders who emphasize personal authority and decision-making, regardless of the opinion of athletes; social support - leaders who demonstrate concern for well-being and seek to establish an affectionate relationship with athletes; positive feedback - leaders who recognize and value performance in the sports context) (Chelladurai and Saleh, 1980; Evangelho Hernandez and Voser, 2012).

Despite the intensification of studies on youth development through sports, little is known, specifically,

about the effects of coaches' pedagogical and psychological behaviour (Cronin and Allen, 2018; Renshaw et al., 2012; Vella et al., 2013). Other issues related to the positive development of young sportspeople, which should be investigated, are the differences in age, the time of experience in sports, the differences between young men and women, and the differences between practitioners of different sports (MacDonald et al., 2012).

Especially in Brazil, due to the Soccer World Cup (2014) and the Rio de Janeiro Olympic Games (2016), sports programs aimed at young people have grown a lot in the last decade (Reverdito et al., 2017). In the state of Paraná, there is an after school sports program, called "Specialized Sports Training Classes" (SSTC). Within this program, Physical Education teachers, from public schools, can allocate 20% of their weekly workload to dedicate themselves to sports training for young people. The program is educational and aims to extend the length of stay in school and the integral training of young people. However, schools registered with SSTC, are required to participate in the School Games of Paraná (PARANÁ, 2017).

Despite the study by González-García et al. (2019), have examined the relationship between different leadership profiles with burnout, coping and emotions, to date, no study has been conducted to identify the effects of teaching methods associated with different leadership profiles on the positive development of young. With respect to the model of positive youth development through sports, Holt et al. (2016), indicate that related research should generate useful theoretical proposals which are easy to apply in practice. It is important that the proposals reach the microsystems, but also go beyond this context and become part of the political structuring of sports programs (macro systems) (Bronfenbrenner, 2011).

This study seeks to investigate the relationship between the teaching methods and the leadership profile of the coach and the results in the perception of positive development of young people of different sexes, collective modalities and time of involvement in the sports context. Based on the literature (Cruz and Kim, 2017; González-García et al., 2019; 2020; Sánchez et al., 2018; Santos et al., 2018), we hypothesized that: (a) the use of small sized games is related to the positive development of practitioners; (b) training and instruction, democratic behaviour, social support and positive feedback, are the coach's leadership behaviour that are associated with positive development; (c) the coach's autocratic behaviour is inversely associated with positive development; and (d) There are differences in the positive development of young people of different sexes, sports and time of involvement in the context.

Methods

Participants

The study included 910 adolescents (9-19 years of age, 14.0 ± 1.80) practicing 4 sports in the shift opposite to regular school hours (Table 1) and 57 coaches (45.57 ± 7.25 years), from all 37 schools linked to the Specialized Sports Training Classes Program in the city of Curitiba in the state of Paraná.

The sports program outside school hours is called Specialized Sports Training Classes (SSTC). The main objective of the SSTC is to increase the length of stay in school, aiming at increasing learning opportunities and the integral formation of the young people enrolled in the institutions of the public state education network of the State of Paraná-BR. The program presents an educational sport proposal, where training and competition are means for young people to develop in a complete manner. Schools included in the program are required to participate in the School Games of Paraná, category B (12-14 years) and/or category A (15-17 years). Of the total number of participating athletes, 572 belonged to category B (62.86%) The mean training experience in category A was 3.26 ± 2.38 years and in category B 2.39 ± 2.38 years. As long as they are properly enrolled in the school, young people under 12 years of age or over 17 years can also participate in the training, although, in the case of students over 17 years of age, they cannot participate in the school games. The Paraná State School Games are organized in two phases, the regional phase and the state phase. The champion schools in the regional phase represent the region in the state phase. The state champion school will represent the state in the School Games in Brazil. (PARANÁ, 2017).

The participants described above represent the entire population of the SSTC program in the city of Curitiba-PR. The city of Curitiba, capital of the state of Paraná, is the 8th largest city in Brazil. It has an estimated population of 1,903,105 inhabitants; the age pyramid is concentrated between 15 and 49 years; the city ranks 30th in the country in terms of average wages for formal workers; it has a schooling rate of 97.6% between the ages of 6 to 14; and a high HDI of 0.823 (Brazil, 2010). In 2018, from a total of 64 state public schools in the city of Curitiba, 37 schools were registered in the SSTC program and provided collective sports for students. Students participating in the program underwent 2-hour training sessions twice a week during the 2018 school year.

Table 1. Relative and absolute frequency distribution for the categorical variables of athletes (n=910).

		n	%
Gender	Boys	640	70.33
	Girls	270	29.67
Sport	Futsal	538	58.12
	Volleyball	315	34.62
	Handball	33	3.63
	Basketball	24	2.64
Category	A	338	37.14
	B	572	62.86

Measures

Teaching methods

The model adopted to characterize and classify learning tasks in team sports was proposed by Ticó (2002). The model presents the following classification of tasks: (I) analytical tasks (decomposition of the formal game into technical elements); (II) Small sized game tasks (decomposition of the formal game into small sized games with restrictions on space, number of players, and rules - 3 attackers versus 1 defender 3 vs.1, 2 vs. 2); (III) global tasks (formal game - use of formal game, for example: futsal 5

forwards versus 5 defenders). For the present article, due to the number of teams and coaches, the observational instrument was adapted to a classificatory question, applied transversally. Each of the coaches classified the learning tasks in relation to their preference for application in training. The instrument showed an internal consistency (Cronbach's alpha) of 0.63.

Leadership profile

The Leadership Scale of Sports (LSS), developed by Chelladurai and Saleh (1980), was used. The version applied was validated by Rodrigues (2014), for the Brazilian reality. For the present study, the coach's self-perception and athlete's perception versions were used. In the self-perception version, the coaches responded with respect to their assessment of their own leadership behaviour. An example of an item; "As a coach, I ask the opinion of athletes on important training issues". In the perception version, the athletes responded about the leadership behaviour exhibited by their coach. An example of an item; "My coach asks the athletes' opinion on important training issues". Both scales consist of 40 items, comprising the 5 dimensions of the instrument: training and instruction (13 items); democratic behavior (9 items); autocratic behavior (5 items); social support (8 items); positive feedback (5 items). Responses to scale items are indicated on a five-point *Likert* scale (1=Never, 2=Rarely, 3=Occasionally, 4=Often, 5=Always). The instrument showed an internal consistency (Cronbach's alpha): 0.87 (training and instruction), 0.68 (democratic behaviour), 0.69 (autocratic behaviour), 0.71 (social support), 0.71 (positive feedback).

Positive youth development

The Portuguese version of the Youth Experience Survey for Sport (YES-S) was used, validated for the Brazilian reality (Rigoni, 2014). The Brazilian version of the YES-S was validated with 18 items, considered reliable, and which include only 4 positive dimensions from the original scale: personal and social skills, cognitive skills, goal setting, and initiative. Example items: (personal and social skills) "I learned how my emotions and attitudes affect others in the group"; (cognitive skills) "This activity increased my desire to stay in school"; (goal setting) "I set goals for myself in this activity"; (initiative) "I learned to focus my attention". Responses to YES-S items are indicated on a four-point *Likert* scale (1=not at all, 2=a little, 3=more or less, 4=definitely yes). The instrument showed an internal consistency (Cronbach's alpha): 0.83 (personal and social skills), 0.71 (cognitive skills), 0.71 (goal setting), 0.69 (initiative).

Procedure

Each school linked to the SSTC program was contacted in the first semester of 2018. All principals, of the 37 registered schools, agreed to participate in the study. With the agreement of the schools and the prior approval of the Paraná State Department of Education, the study was submitted to the Ethics Committee, from the health sciences sector of the Federal University of Paraná and, approved under protocol number 2.772.574.

In the second semester of 2018, the collection procedures were initiated in schools and respected the following order: (a) one week before the collection, the researchers went to the schools and explained the objectives of the study to coaches and athletes; (b) the athletes (if <18 years) were given a free and informed consent form to be signed by parents or guardians; (c) the free and informed consent form was also given to the coaches; (d) the following week, and at a time previously agreed with the coaches, the terms of consent were collected and data collection was carried out; (e) the athletes received a booklet containing the version of leadership perception LSS questionnaire and the YES-S; (f) the coaches received a booklet containing the questionnaire for classifying learning tasks and the self-perceived leadership LSS version;(g) verbal instructions were given to participants on how to correctly complete the questionnaires; (h) participants were told that their responses should be based on the experiences obtained in the SSTC program;(i) the anonymous questionnaires were answered by the athletes in a quiet room; (j) the coaches, also anonymously, responded to the questionnaires in a separate room; (k) the questionnaires took approximately 20 minutes to complete; (l) the completed questionnaires were collected and sealed for later tabulation and analysis.

Data analysis

For the description of the data, measures of central tendency, dispersion, and absolute and relative frequency were used. Ordinal logistic regression was used to verify the independent associations between the variables sex, category, modality, coach methodology, perception of the coaches, and perception of the athletes with the tertiles of the scores of each development characteristic of the young athletes. Odds ratios (OR) were obtained with a 95% confidence interval (95%CI). The variables were initially inserted by forced entry in each association model and were removed in the case of $p > 0.20$. The robust error model by clusters was used to minimize the bias given by the use of sampling in clusters (schools). The assumption of proportionality of the odds ratios was tested using the Brant test and none of the variables violated this assumption. The level of significance adopted was $p < 0.05$ and all analyzes were performed using the software STATA 14.1 MP.

Results

The present study obtained valid data from 910 athletes and 57 coaches participating in an after school sports program in Curitiba-PR. Among these athletes, 70.33% ($n = 640$) were boys, 58.12% ($n = 538$) practiced futsal, and 62.86% ($n = 572$) were in category B (Table 1).

Table 2 shows the mean and standard deviation values of the studied continuous variables. Participants presented a mean of 14.00 (± 1.80) years and mean developmental scores ranging from 2.88 \pm 0.70 (cognitive skills) to 3.43 \pm 0.74 (initiative). Regarding the coach's perception, the mean scores obtained by the questionnaire ranged from 2.43 \pm 0.61 (autocratic behaviour) to 4.52 \pm 0.45 (positive feedback). With respect to the scores obtained in the questionnaire of the athletes' perceptions of the

coaches' characteristics, the mean scores ranged from 2.39 ± 0.87 (autocratic behaviour) to 3.93 ± 0.89 (positive feedback).

Table 2. Mean and standard deviation values of the studied continuous variables.

	Mean \pm SD
Age (years)	14.00 \pm 1.80
Personal and social skills	3.04 \pm 0.69
Cognitive skills	2.88 \pm 0.70
Goal setting	3.14 \pm 0.76
Initiative	3.43 \pm 0.74
Coaches' Perception	
Training and instruction	4.35 \pm 0.40
Democratic behaviour	3.24 \pm 0.53
Autocratic behaviour	2.43 \pm 0.61
Social support	3.67 \pm 0.57
Positive feedback	4.52 \pm 0.45
Athletes' Perception	
Training and instruction	3.91 \pm 0.79
Democratic behaviour	3.04 \pm 0.78
Autocratic behaviour	2.39 \pm 0.87
Social support	3.27 \pm 0.85
Positive feedback	3.93 \pm 0.89

In total, 57 coaches with a mean age of 45.57 ± 7.25 responded to the closed and classificatory question about the learning tasks in team sports, of which 66.67% (n = 38) were male. The majority of coaches preferred analytical tasks (49.12%), followed by global tasks (26.32%), and finally, small sized game tasks (24.56%).

The results of the analysis of factors associated with the positive development of athletes are shown in Table 3. For the development of personal and social skills, it was found that category A athletes (OR = 1.59, 95%CI = 1.21-2.08), athletes with higher perception scores of the coaches' leadership in the training and instruction items (OR = 1.64, 95%CI = 1.31-2.04), democratic behaviour (OR = 1.50, 95%CI = 1.16-1.94), social support (OR = 1.38, 95%CI = 1.10-1.74), and positive feedback (OR = 1.44, 95%CI = 1.08-1.91), were more likely to present higher scores for these skills. On the other hand, athletes with a greater perception of leadership by coaches in the Autocratic aspect (OR = 0.82, 95%CI = 0.70-0.95), were less likely to present higher scores for personal and social skills.

Regarding the development of cognitive skills, it was found that athletes who had coaches who used the small sized games (OR = 1.32, 95%CI = 1.09-1.59), those with coaches with greater self-perception of leadership in the positive feedback aspect (OR = 1.76, 95%CI = 1.19-2.60), and with higher scores of perception of the leadership of the coaches in the aspects related to training and instruction (OR = 1.54, 95%CI = 1.25-1.91), democratic behaviour (OR = 1.54, 95%CI = 1.31-1.82) and social support (OR = 1.28, 95%CI = 1.02-1.67) were more likely to present higher scores for this ability. It was also found that athletes in the volleyball (OR = 0.79, 95%CI = 0.67-0.93), athletes who had coaches with greater self-perception of leadership in the items training and instruction (OR = 0.77, 95%CI = 0.54-0.98), and social support (OR = 0.76, 95%CI = 0.65-0.89) were less likely to present higher cognitive skills scores.

The analysis of factors associated with the development of goal setting indicated that female athletes (OR = 1.40, 95%CI = 1.07-1.84), athletes with coaches who used the small sized games (OR = 1.36, 95%CI = 1.07-1.69), athletes with higher scores of perception of the leadership of the coaches in the items training and instruction (OR = 1.77, 95%CI = 1.43-2.18), social support (OR = 1.63, 95%CI = 1.33-1.99), and positive feedback (OR = 1.34, 95%CI = 1.09-1.64), were more likely to present higher scores for goal setting. In addition, handball athletes (OR = 0.48, 95%CI = 0.35-0.66), athletes who had coaches with greater self-perception of leadership in the autocratic aspect (OR = 0.83, 95%CI = 0.59-0.99) and with a higher perception of leadership by coaches in the autocratic category (OR = 0.81, 95%CI = 0.69-0.94), were less likely to present higher scores in this development domain.

Finally, the results of the factors associated with the development domain of initiative indicated that female athletes (OR = 2.38, 95%CI = 1.71-3.33), category A (OR = 1.46, 95%CI = 1.08-1.97), and with higher scores for perception of leadership of the coaches in the items training and instruction (OR = 2.37, 95%CI = 1.77-3.17) and positive feedback (OR = 1.73, 95%CI = 1.27-2.35), were more likely to present higher scores in this development domain.

Discussion

This study sought to investigate the relationship between the teaching methods and leadership profile of the coach and outcomes in the perception of positive development of young people participating in an after school sports program. Some important and relevant results were found, which will be discussed according to the study dependent variables.

Personal and social skills represent, in personal terms, the skills of knowing how to deal with your emotions and being able to give and receive feedback from other people; in the social aspect this means the ability to make friends, work as a team, and share responsibilities (MacDonald et al., 2012). The results of the current study show that athletes with a longer time in the program, who perceive their coaches as democratic leaders, committed to teaching, who create a positive training atmosphere, demonstrate significant personal and social development indices. The length of stay of young people in a program is essential for the cultivation of human virtues and also for the positive impacts of the experience of playing sports to take effect (Walsh et al., 2010). Positive experiences interact with time of participation and trigger significant levels of social competence in participants (Reverdito et al., 2017).

The results of this research indicated that the democratic profile of the coach is significantly associated with personal and social development. Coaches with democratic behavior promote stronger ties and a sense of belonging among group members (Farias et al., 2015; Tobar, 2015). The study by González-García and Martinet. (2019), carried out with table tennis players, showed that the coach's democratic behavior was significantly related to coping with competitive stress and triggered pleasant emotions in athletes. Contrary to the results of the present study, the

Table 3. Odds ratio (OR) and 95% confidence interval (95%CI) of factors associated with the positive development of young people through team sports.

	Personal and social skills		Cognitive skills		Goal setting		Initiative	
	OR (95%CI)	p	OR (95%CI)	p	OR (95%CI)	p	OR (95%CI)	p
Gender								
Boys	-	-	-	-	1	-	1	-
Girls	-	-	-	-	1.40 (1.07-1.84)	0.013	2.38 (1.71-3.33)	0.001
Category								
B	1	-	-	-	1	-	1	-
A	1.59 (1.21-2.08)	0.001	-	-	1.35 (0.98-1.86)	0.068	1.46 (1.08-1.97)	0.001
Sport								
Futsal	1	-	1	-	1	-	-	-
Volleyball	0.81 (0.62-1.04)	0.106	0.79 (0.67-0.93)	0.005	0.99 (0.78-1.25)	0.934	-	-
Handball	0.79 (0.56-1.11)	0.175	0.73 (0.54-1.00)	0.050	0.48 (0.35-0.66)	0.001	-	-
Basketball	0.52 (0.25-1.06)	0.076	0.70 (0.48-1.02)	0.068	1.05 (0.53-2.08)	0.878	-	-
Coach methodology								
Global or Analytic	1	-	1	-	1	-	-	-
Small sized games	-	-	1.32 (1.09-1.59)	0.003	1.36 (1.07-1.69)	0.010	-	-
Perception of coaches								
Training and instruction	-	-	0.77 (0.54-0.98)	0.049	-	-	-	-
Democratic behaviour	-	-	-	-	-	-	-	-
Autocratic behaviour	-	-	-	-	0.83 (0.59-0.99)	0.049	-	-
Social support	-	-	0.76 (0.65-0.89)	0.001	-	-	-	-
Positive feedback	-	-	1.76 (1.19-2.60)	0.004	-	-	-	-
Perception of athletes								
Training and instruction	1.64 (1.31-2.04)	0.001	1.54 (1.25-1.91)	0.001	1.77 (1.43-2.18)	0.001	2.37 (1.77-3.17)	0.001
Democratic behaviour	1.50 (1.16-1.94)	0.002	1.54 (1.31-1.82)	0.001	-	-	-	-
Autocratic behaviour	0.82 (0.70-0.95)	0.011	-	-	0.81 (0.69-0.94)	0.008	-	-
Social support	1.38 (1.10-1.74)	0.005	1.28 (1.02-1.61)	0.030	1.63 (1.33-1.99)	0.001	-	-
Positive feedback	1.44 (1.08-1.91)	0.012	-	-	1.34 (1.09-1.64)	0.005	1.73 (1.27-2.35)	0.001

Results obtained through ordinal regression with robust error control by clusters. Variables with $p < 0.20$ were maintained in the model

research carried out by González-García et al. (2020), did not find significant effects on the profile of democratic leadership, which provides training and provides positive feedback on the personal ability to deal with emotions generated by competitive environments.

The results of the study also indicated significant relationships between the perceived profile of social support of the coach, with the personal and social development of the athletes. Environments where young people establish a good quality relationship with coaches and perceive a sense of belonging are associated with greater personal and social development (Bruner et al., 2017; Vella et al., 2013). Coaches who provide social support to athletes generate positive effects of prospective adaptation when dealing with the emotions of competitive sports environments (González-García et al., 2020).

The results of the present study also show that athletes who perceived an autocratic profile in their coaches, were less likely to develop personal and social skills. The study carried out on the preference of the coach's leadership, among young Badminton athletes, revealed that the autocratic profile is the least requested (Cruz and Kim, 2017). The study by González-García et al. (2020), carried out with young athletes of different collective and individual modalities, found significant associations between the autocratic profile and the emotions related to involvement unpleasant with the sport. The study by González-García et al. (2019), carried out with adult athletes of different modalities, found significant associations between the combination of autocratic behavior, training

and instruction, positive feedback and social support, with emotions related to happiness and seeking support.

Cognitive skills, according to MacDonald et al. (2012), are related to the fact that sport for young people can arouse curiosity, creativity, and a greater interest in staying in school and obtaining better academic performance. The results of the current study demonstrate that prioritization of small sized games, combined with a democratic leadership profile, motivating, affective and committed to teaching, and presented the best results in relation to cognitive development. Based on the study by González-García et al. (2019), it is important to highlight the leadership combinations, or the multiple dimensions of leadership, that arise mainly from the athletes' perception.

Recent research has shown that the use of small sized games, combined with a democratic teacher or trainer profile, motivating and committed to teaching, leads to significant gains in cognitive skills such as creativity, game intelligence, functionality in decision making, autonomy, metacognition, and strategic thought. All these searches, sought to compare the approaches based on small sized games with the analytical proposals (Chatzipanteli et al., 2016; Lemus et al., 2016; Sánchez et al., 2018; Santos et al., 2018). Small sized games provide learning in self-organizing environments that generate freedom to explore and adapt body movements with and without the ball.

The result of this variable presented some confusion, where volleyball athletes, athletes with coaches who perceive themselves as instructors and at the same time provide social support were less likely to develop

cognition. Cruz and Kim (2017) and Horn et al. (2011), suggest that, due to the interaction of numerous situational influences, the effects of the leadership profile, in sport contexts for young people, may present conflicting results.

Goal setting, according to MacDonald et al. (2012), is related to the ability to define and achieve goals. Sport is a conducive environment for setting goals, which is a fundamental skill to be developed by young individuals. The study results point out significant correlations between the use of small sized games, coupled with a leadership profile committed to teaching, motivating, and providing social support. Female athletes also demonstrated higher levels of skills in this regard. In approaches based on small sized games, instead of receiving ready responses from the coach, the players take responsibility for solving the problems of the proposed game. (Chow, 2013; Renshaw et al., 2012). Recent research by Cronin and Allen (2018), with young athletes from different individual and collective sports, showed that creating a training climate that allows decision making and constant positive feedback is correlated to the development of the skills to think for yourself and set goals. Likewise, the study by Vella et al. (2013), reported positive associations between coaches that intellectually motivate and stimulate their athletes, but found no differences between sexes.

The results demonstrate agreement between the autocratic profile perceived by the coach and the way the athletes perceive it. In this case, this agreement points to lower levels of development in the ability to set goals. Through an autocratic leadership profile, the coach directs athletes on what to do, how to do it, and when. Thus, the intrinsic richness of team sports, autonomy, creativity, teamwork, decision making, and problem solving is denied (Van Mullem et al., 2017).

Initiative, according to MacDonald et al. (2012), is linked to effort and attention, factors that concern the individual's intrinsic motivation. The results of the current study demonstrated that female athletes, category A athletes and athletes who perceive their coaches as positive motivators and committed to the sport's technical and tactical instructions, present higher initiative indices. The study by Reverdito et al. (2017), confirms that the time of participation in a sports program is directly associated with the development of positive experiences of initiative and persistence. Vella et al. (2013), found positive associations between the positive motivating profile of the coach and the development of the initiative of young athletes practicing soccer, but found no differences when comparing different sexes. Bortoli et al. (2012), conducted a research out with young soccer players, showed that reinforcing the competence perceived by adolescents can contribute to a positive experience in the sport and sustain their motivation. Perceiving the coach as a motivator directly influences the intrinsic motivation and initiative of young athletes.

From an applied perspective, the results of this research can help coaches to overcome an autocratic and linear psych-pedagogical approach. The training environment must be adjusted according to the needs and the level of sports development of young people. The environment is proposed by the trainer and self-organized by the

athletes. Practitioners must be at the center of decision-making, including being able to opine on emerging strategies and progressions in training environments. Therefore, it is important that the trainer tries to associate the method with the leadership profile during training. The implementation of the approach described above will require from the coach a great knowledge about the sport he works with and a democratic, sociable and motivating leadership profile. Therefore, we highlight the importance of constant diagnoses in sports programs aimed at young people. It is necessary to evaluate, identify problems, propose and discuss possible solutions and make the necessary adjustments. Universities and researchers must approach schools and trainers by developing partnerships and proposing programs for updating, research and exchange.

As in all research, the present study has some limitations that should be pointed out. The cross-sectional design does not allow establishment of causality between variables. An experimental follow-up study could better evaluate how human development indicators evolve, or not, over time. The research was carried out in a specific context; therefore, care should be taken with the generalization of the results and application in other studies. In addition, some dimensions evaluated showed an internal consistency (Cronbach's alpha) less than 0.70.

Conclusion

Despite the limitations, the results show the strength of small games in terms of developing cognitive skills and setting goals. Coaches, whom their athletes see as democratic, motivating, affective leaders and who provide accurate instructions, facilitate significant rates of positive development in almost all dimensions tested. On the other hand, coaches considered autocratic tend to generate lower rates of personal and social development and goal setting. Finally, there are differences in positive development in relation to sex, sports and time of involvement in the context. For the program evaluated, the results suggest the choice of small games, combined with a democratic, affective, motivating leadership profile that provides guidance on technical skills and game strategies. The present study shows the importance of associating the teaching method with the coach's leadership profile. Through an appropriate psycho-pedagogical profile, the adult influence exerted by the coach, can positively value the length of stay and promote the accumulation of skills for the lives of adolescents.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The study was submitted to the Ethics Committee, from the health sciences sector of the Federal University of Paraná and approved under protocol number 2.772.574. The authors have no conflict of interest to declare. The experiments comply with the current laws of the country in which they were performed.

References

- Bortoli, L., Messina, G., Zorba, M. and Robazza, C. (2012) Contextual and individual influences on antisocial behaviour and psychobiosocial states of youth soccer players. *Psychology of Sport and Exercise* **13**(4), 397-406.

- Brazil (Producer). (2010) *National Demographic Census performed in 2010*. Available from URL: <https://cidades.ibge.gov.br/brasil/pr/curitiba/panorama>
- Bronfenbrenner, U. (2011) *Making Human Beings Human: Bioecological Perspectives on Human Development*: Artmed Editora. (In Portugal)
- Bruner, M. W., Balish, S. M., Forrest, C., Brown, S., Webber, K., Gray, E., McGuckin, M., Keats, M. R., Rehman, L. and Shields, C. A. (2017) Ties that bond: youth sport as a vehicle for social identity and positive youth development. *Research Quarterly for Exercise and Sport* **88**(2), 209-214.
- Chatzipanteli, A., Digelidis, N., Karatzoglidis, C. and Dean, R. (2016) A tactical-game approach and enhancement of metacognitive behaviour in elementary school students. *Physical Education and Sport Pedagogy* **21**(2), 169-184.
- Chelladurai, P. and Saleh, S. (1980) Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport and Exercise Psychology* **2**(1), 34-45.
- Chow, J. Y. (2013) Nonlinear learning underpinning pedagogy: evidence, challenges, and implications. *Quest* **65**(4), 469-484.
- Côté, J. and Hancock, D. J. (2016) Evidence-based policies for youth sport programmes. *International Journal of Sport Policy and Politics* **8**(1), 51-65.
- Cronin, L. D. and Allen, J. (2018) Examining the relationships among the coaching climate, life skills development and well-being in sport. *International Journal of Sports Science & Coaching* **13**(6), 815-827.
- Cruz, A. B. and Kim, H.-D. (2017) Leadership preferences of adolescent players in sport: influence of coach gender. *Journal of Sports Science and Medicine* **16**(2), 172-179.
- Evangelho Hernandez, J. A. and Voser, R. d. C. (2012) Validation of the leadership scale for sport : version of preference of athletes. *Brasília, DF*. **32**(1), 142-156. (In Portugal).
- Farias, C. F., Mesquita, I. R. and Hastie, P. A. (2015) Game performance and understanding within a hybrid Sport Education season. *Journal of Teaching in Physical Education* **34**(3), 363-383.
- González-García, H. and Martinent, G. (2019) Relationships between perceived coach leadership, athletes' use of coping and emotions among competitive table tennis players. *European Journal of Sport Science* **20**(8), 1113-1123.
- González-García, H., Martinent, G. and Nicolas, M. (2020) Relationships between perceived coach leadership and athletes' affective states experienced during competition. *Journal of Sports Sciences*. 1-8. Online ahead of print.
- González-García, H., Martinent, G. and Trinidad, A. (2019) Perceived coach leadership profiles and relationship with burnout, coping and emotions. *Frontiers in Psychology* **10**, 1785.
- Holt, N. L., Deal, C. J. and Smyth, C. L. (2016) Future directions for positive youth development through sport. *Positive Youth Development Through Sport* **2**, 229-239.
- Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D., Strachan, L. and Tamminen, K. A. (2017) A grounded theory of positive youth development through sport based on results from a qualitative meta-study. *International Review of Sport and Exercise Psychology* **10**(1), 1-49.
- Horn, T. S., Bloom, P., Berglund, K. M. and Packard, S. (2011) Relationship between collegiate athletes' psychological characteristics and their preferences for different types of coaching behavior. *The Sport Psychologist* **25**(2), 190-211.
- Lemus, I. L., Práxedes, A. and del Villar, F. (2016) Effect of an intervention teaching program, based on TGFU model, on the cognitive and execution variables, in the physical education context. *European Journal of Human Movement* **37**, 88-108.
- Lerma-Cabrera, J. M., Steinebach, P., Carvajal, F., Ulloa, V., Cid-Parra, C. and Langer, A. I. (2015) Factores de riesgo asociados al consumo problemático de alcohol en la adolescencia: El rol preventivo de mindfulness. *Psychology, Society, & Education* **7**(1), 57-69.
- MacDonald, D. J., Côté, J., Eys, M. and Deakin, J. (2012) Psychometric properties of the youth experience survey with young athletes. *Psychology of Sport and Exercise* **13**(3), 332-340.
- PARANÁ. (2017) *Instrução N.º 15/2017-SUED/SEED*. Available from URL: http://www.educacao.pr.gov.br/sites/default/arquivos_restritos/files/documento/2020-01/instrucao032017sued_seed.pdf
- Renshaw, I., Oldham, A. R. and Bawden, M. (2012) Nonlinear pedagogy underpins intrinsic motivation in sports coaching. *The Open Sports Sciences Journal* **5**, 88-99.
- Reverdito, R. S., Carvalho, H. M., Galatti, L. R., Scaglia, A. J., Gonçalves, C. E. and Paes, R. R. (2017) Effects of youth participation in extra-curricular sport programs on perceived self-efficacy: a multilevel analysis. *Perceptual and Motor Skills* **124**(3), 569-583.
- Rigoni, P. A. G. (2014) A contribuição da experiência esportiva positiva, mediada pela motivação, no propósito de vida de jovens atletas brasileiros. Universidade Estadual de Maringá. PhD thesis in Portugal.
- Rodrigues, V. d. M. (2014) Liderança do treinador e satisfação de atletas escolares. Universidade Federal da Paraíba. PhD thesis in Portugal.
- Sánchez, J. A., Mendo, A. H., Martínez, I. M., Garrido, R. E. R. and Ríos, L. J. C. (2018) Effects of a small sided games program on decision making in adolescent girls. *Cuadernos de Psicología del Deporte* **18**(1), 21-30. (In Portugal).
- Santos, S., Coutinho, D., Gonçalves, B., Schöllhorn, W., Sampaio, J. and Leite, N. (2018) Differential learning as a key training approach to improve creative and tactical behavior in soccer. *Research Quarterly for Exercise and Sport* **89**(1), 11-24.
- Ticó, J. (2002) Tareas deportivas en los deportes colectivos: Una aplicación al baloncesto. *Novos horizontes para o treino do basketebol. Cruz Quebrada: Faculdade de Motricidade Humana*. In Portugal.
- Tobar, B. A. U. (2015) Análisis del liderazgo preferido, percibido y observado por técnicos y deportistas en fútbol formativo: un estudio de caso. *Cuadernos de Psicología del Deporte* **15**(1), 197-210.
- Van Mullem, P., Shimon, J. and Van Mullem, H. (2017) Building a Pedagogical Coaching Base: Pursuing Expertise in Teaching Sport. *Strategies* **30**(5), 25-32.
- Vella, S. A., Oades, L. G. and Crowe, T. P. (2013) The relationship between coach leadership, the coach-athlete relationship, team success, and the positive developmental experiences of adolescent soccer players. *Physical Education and Sport Pedagogy* **18**(5), 549-561.
- Walsh, D. S., Ozaeta, J. and Wright, P. M. (2010) Transference of responsibility model goals to the school environment: Exploring the impact of a coaching club program. *Physical Education and Sport Pedagogy* **15**(1), 15-28.
- Weinberg, R. S. and Gould, D. (2016) Fundamentos da psicologia do esporte e do exercício: Artmed editora.
- Weiss, M. R. (2008) 2007 CH McCloy Lecture: "Field of Dreams:" Sport as a Context for Youth Development. *Research Quarterly for Exercise and Sport* **79**(4), 434-449.

Key points

- The majority of coaches in the program prioritize the analytical method in their training. Contradictorily, the results show the strength of small sized games
- The way athletes perceive their coaches as leaders has greater strength than the coach's self-perception as a leader.
- Coaches who are perceived by their athletes as democratic leaders, motivators, affective and who provide precise instructions, facilitate significant rates of positive development in all dimensions tested.

AUTHOR BIOGRAPHY

Luís Rogério de ALBUQUERQUE
Employment

Assistant Professor at the Pontifical Catholic University of Paraná.

Degree

PhD

Research interests

Research in sport, education, cognition, learning and human development

E-mail: luis.albuquerque@pucpr.br


Eduardo Mendonça SCHEEREN
Employment

Professor of the Graduate Program in Health Technology at the Pontifical Catholic University of Paraná.

Degree

PhD

Research interests

Human Motricity Research

E-mail: eduardo.scheeren@pucpr.br


Gislaine Cristina VAGETTI
Employment

Adjunct Professor at Paraná State University.

Degree

PhD

Research interests

Research in sport, education, cognition, learning and human development

E-mail: gislainevagetti@hotmail.com


Valdomiro de OLIVEIRA
Employment

Associate Professor at the Department of Physical Education - UFPR

Degree

PhD

Research interests

Research in sport, education, cognition, learning and human development

E-mail: oliveirav457@gmail.com

 Luis Rogério de Albuquerque

Graduate Program in Education, Universidade Federal do Paraná, Curitiba, Brazil