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Nascimento, José Roberto Andrade do; Silva, Adson Alves; Granja, Carla Thamires Laranjeira; Oliveira, Daniel Vicentini de; Fortes, Leonardo de Sousa

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Do sporting experiences predict team cohesion in youth athletes?

¿Las experiencias deportivas predicen la cohesión del equipo en atletas jóvenes?

As experiências esportivas predizem a coesão da equipe em jovens atletas?

Nascimento Junior, José Roberto Andrade do[1], Silva, Adson Alves[1], Granja, Carla Thamires Laranjeira[1], Oliveira, Daniel Vicentini de[2], Fortes, Leonardo de Sousa[3]

Federal University of Vale do São Francisco[1]; Metropolitan College of Maringá[2]; Federal University of Paraíba[3].

ABSTRACT

This cross-sectional study aimed to examine the association between sporting experiences and the perception of team cohesion according to sex among youth Brazilian recreational athletes. Participants were 253 youth athletes with age average of 12.97 ± 0.98 years. Athletes represented the following sports: Indoor soccer (n=20); basketball (n=62); handball (n=123) and; volleyball (n=48). The instruments used were the Youth Experience Survey for Sport (P-YES-S) and the Youth Sport Environment Questionnaire (P-YSEQ). Independent sample t-test revealed significant difference between sexes in the dimensions of Personal Skills (p=0.02) (d= 0,31) and Task Cohesion (p=0.02) (d= 0,34). The following significant correlations were found for girls: Task Cohesion with Personal Skills (r=0.48), Initiative Experiences (r=0.37); and Social Cohesion with Personal Skills (r=0.41), Cognitive Skills (r=0.43) and Initiative Experiences (r=0.32). For boys, it was found the following correlations: Task Cohesion with Personal Skills (r=0.19), Initiative Experiences (r=0.42) and Negative Experiences (r=-0.22); and Social cohesion with Personal Skills (r=0.18) and Initiative Experiences (r=0.30). Multiple regression analysis indicated that sports experiences are significant predictors of task (R^2=0.21; F=17.838; p<0.01) and social cohesion (R^2=0.10; F=7.440; p<0.01). It can be concluded that positive sporting experiences may predict social and task cohesion among youth athletes.
Keywords: Group environment; Youth development; Adolescents; Sport.

RESUMEN

Este estudio transversal tuvo como objetivo examinar la asociación entre las experiencias deportivas y la percepción de cohesión del equipo según el sexo entre los jóvenes atletas recreativos brasileños. Los participantes fueron 253 atletas jóvenes con una edad promedio de 12.97 ± 0.98 años. Los atletas representaron los siguientes deportes: fútbol sala (n = 20); baloncesto (n = 62); balonmano (n = 123) y; Voleibol (n = 48). Los instrumentos utilizados fueron la Encuesta de Experiencia Juvenil para el Deporte (P-YES-S) y el Cuestionario sobre el Ambiente del Deporte Juvenil (P-YSEQ). La prueba t de muestra independiente reveló una diferencia significativa entre los sexos en las dimensiones de las habilidades personales (p = 0.02) (d= 0,31) y la cohesión de tareas (p = 0.02) (d= 0,34). Se encontraron las siguientes correlaciones significativas para las niñas: cohesión de tareas con habilidades personales (r = 0,48), experiencias de iniciativa (r = 0,37); y cohesión social con habilidades personales (r = 0,41), habilidades

Correspondence to **Jose Roberto Andrade do Nascimento Junior** Postal Address: Colegiado de Educação Física (CEFIS), Universidade Federal do Vale do São Francisco (Univasf), Av. José de Sá Maniçoba, S/N – Centro, CEP: 56304-917 - Petrolina/PE. Tel: +55 (87) 21016856. Email: joseroberto.nascimentojunior@univasf.edu.br

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cognitivas (r = 0,43) y experiencias de iniciativa (r = 0,32). Para los niños, se encontraron las siguientes correlaciones: Cohesión de la tarea con habilidades personales (r = 0.19), Experiencias de la iniciativa (r = 0.42) y Experiencias negativas (r = -0.22); y Cohesión social con habilidades personales (r = 0.18) y experiencias de iniciativa (r = 0.30). El análisis de regresión múltiple indicó que las experiencias deportivas son factores predictivos significativos de la tarea (R^2 = 0.21; F = 17.838; p <0.01) y la cohesión social (R^2 = 0.10; F = 7.440; p <0.01). Se puede concluir que las experiencias deportivas positivas pueden predecir la cohesión social y de tareas entre los atletas jóvenes.
Palabras clave: ambiente grupal; Desarrollo juvenil; Adolescentes; Deporte.

RESUMO

Este estudo transversal teve como objetivo analisar a associação entre experiências esportivas e a percepção da coesão da equipe por sexo entre jovens atletas recreativos brasileiros. Os participantes foram 253 jovens atletas com média de idade de 12,97 ± 0,98 anos. Os atletas representaram os seguintes esportes: futebol de salão (n = 20); basquetebol (n = 62); handebol (n = 123) e; vôlei (n = 48). Os instrumentos utilizados foram o Youth Experience Survey for Sport (P-YES-S) e o Youth Sport Environment Questionnaire (P-YSEQ). O teste t para amostras independentes revelou diferença significativa entre os sexos nas dimensões de Habilidades Pessoais (p = 0,02) (d=0,31) e Coesão da Tarefa (p = 0,02) (d= 0,34). As seguintes correlações significativas foram encontradas para as meninas: Coesão da Tarefa com Habilidades Pessoais (r = 0,48), Iniciativa Experiências (r = 0,37); e Coesão Social com Competências Pessoais (r = 0,41), Competências Cognitivas (r = 0,43) e Iniciativa Experiências (r = 0,32). Para os meninos, foram encontradas as seguintes correlações: Coesão da Tarefa com Habilidades Pessoais (r = 0,19), Experiências Iniciais (r = 0,42) e Experiências Negativas (r = -0,22); e coesão social com habilidades pessoais (r = 0,18) e experiências de iniciativa (r = 0,30). A análise de regressão múltipla indicou que as experiências esportivas são preditores significativos da tarefa (R^2 = 0,21; F = 17,838; p <0,01) e coesão social (R^2 = 0,10; F = 7,440; p <0,01). Pode-se concluir que experiências esportivas positivas podem predizer a coesão social e de tarefas entre atletas jovens.

Palavras-chave: Ambiente de grupo; Desenvolvimento da juventude; Adolescentes; Esporte.

INTRODUCTION

Positive Youth Development (PYD) has been considered a key component to be inserted in interventions among youth, and a potential construct for the transition to a successful adult life (Santos et al., 2017; Holt et al., 2016; Newman, Howells & Fletcher, 2016). PYD structure is composed of five essential characteristics, the "Five Cs": competence, confidence, connection, caring and character (Esperança et al., 2013; Lerner et al., 2012). Competence reflects the skill level of the athletes in a given sport; confidence refers to athletes' belief in their ability to succeed in a particular sport; connection is a comprehensive term that encompasses quality relationships in a sporting environment (e.g. coaches, teammates, etc.); and character and caring refers to respect, responsibility, engaging in pro-social behaviors and avoiding antisocial behaviors (Vierimaa, Bruner & Côté, 2018; Geldhof, Bowers, Boyd et al., 2014). It is considered a great measure of mental motivation and well-being (Franco & Rodrigues, 2014). Lerner, Almerigi, Theokas and Lerner (2005) suggest that youth and adult interaction, youth empowerment activities, opportunities for participation and leadership of youth in community work are needed for PYD. Such actions may promote the development of the "Five Cs" that make up the PYD structure, given that the development of the "Five Cs" is a sign of evolution in youth people (Lerner, Eye, Lerner, Lewin-Bizan & Bowers, 2010). Development opportunities are powerful and positive, as young people today will be leaders of groups in communities and society in the future (Senna & Dessen, 2012)

The environment of sports practice represents a favorable scenario for its popularity among young people and for its notorious socializing, recreational and inclusive power, making it a very useful tool in stimulating skills such as: reach goals, environment and teamwork (Santos, Camiré & Campos, 2018; Gea-García.,2016). In this context, the environment of sports practice emerges as an ideal place to stimulate and guide healthy development (Guèvremont, Findlay & Kohen, 2008). Among the many positive experiences experienced in sports are: satisfaction

with life, leadership skills, educational achievement, character formation, developing identity, and peer relationships (Rizzo et at., 2014; Balaguer et al.,2015). On the other hand, Mayer et al. (2014) and Nixdorf, Frank & Beckmann (2016) reports some negative experiences in the sport, which are reflected in complaints about excess training, injuries, problems of relationship in the group and bullying. Given this scenario, in order for sports experiences to provide PYD, it is necessary to take into account not only physical factors, but also interpersonal relationships, such as a good relationship with coaches and teammates (Vella, Oades, Crowe, 2013; Macdonald, Côté, Deakin, 2010). Whereas, as adolescent athletes feel supported and respected by leaders and members of a group, they become an important part of that group and develop not only social but also personal and psychosocial aspects (Santos, Côrte-Real, Regueiras, Dias & Fonseca, 2016; Olmedilla et al.,2018).

Thus, studies about these interpersonal relationships in sport have been given mainly for the team cohesion construct (Bruner et al., 2017; Eyes, Loughead, Bray & Carron, 2009; Spaccarotella, 2017), which aims to evaluate and understand the group environment in sports (Kleinert et al., 2012; Carron, Hausenblas & Eys, 2005; Borrego, Silva & Gerrero, 2012). Martin, Carron, Eys, and Loughead (2012) report cohesion as a dynamic process that would reflect the group's tendency to unite and remain united in pursuit of their goals and/or to satisfy the affective needs of their members. Eys and Brawley (2018) point out that team cohesion can be evaluated among youth athlete through two dimensions: 1) task cohesion, that refers to how much the group can unite to accomplish the tasks and; and 2) social cohesion, which refers to how much the team is consolidated in social life. It is a consensus in the literature that to the extent that member of sports teams develop greater attraction and interaction with each other, greater the possibility of staying in it, regardless of their sporting results (Silveira & Oliveira, 2017; Erikstad, Martin, Haugen & Høigaard, 2018).

In the literature, we can find a variety studies about team cohesion interacting with basic psychological needs (Silveira & Oliveira, 2017), motivation (Eys et al., 2013), coach-athlete relationship (Alzate & Lázaro,2007) and sport performance (Benson, Šiška, Eys, Priklerova, & Slepička, 2016). Further, we can find the PYD interacting with variables such as ideal development (Franco & Rodrigues, 2014), coaches' role (Vierimaa, Bruner & Côté, 2018; Santos, Côrte-Real, Regueiras, Dias & Fonseca, 2016) and sports experience (Cairney et al., 2018). However, we found only two studies investigating the association between team cohesion and PYD. Taylor and Bruner (2012) investigated the association between team cohesion and the dimensions of athletic experiences among youth soccer athletes, verifying positive associations between task cohesion and positive experiences during the sports practice. Another study analyzed the prediction of team cohesion through sports experiences among youth athletes, verifying that athletes with higher levels of social cohesion reported more negative experiences, while athletes with a higher level of task cohesion had experiences that are more positive. Nevertheless, these results suggest that youth athletes who experienced positive practices in both task and social relationships tend to have a high degree of PYD (Bruner, Eys, Wilson & Côté, 2014).

Considering this theoretical framework, this study intends to fill this gap in the literature and proposes an advance in the field research, investigating the association between sporting experiences and the perception of team cohesion according to sex among youth Brazilian athletes of sports teams. This research becomes relevant in that it can help coaches and sports professionals to realize the importance of positive experiences during sports practice for the involvement of youth athletes with tasks and for the development of social relationships. In addition, the findings of this study may provide relevant information for coaches and physical education professionals to stimulate positive experiences in the social context of the sport environment, because in this way they will lead youth athletes to enhance their potentialities for a healthy and promising development. The hypothesis is that positive experiences will positively predict both social and task cohesion, while negative experiences will predict negatively both dimensions of cohesion.

METHOD

Study design

In order to carry out this investigation and give an answer to the established objectives, it was used a cross-sectional design and methodological investigation (Ato, López-García, & Benavente, 2013).

Participants

Subjects were 253 youth recreational athletes, with age average of 12.97 ± 0.98 years, participating of School Games of Petrolina, Pernambuco, Brazil. The sample selection was non-probabilistic, adopting convenience technique since the access to the sample was due to the cooperation of different schools in a disinterested and altruist way. The athletes reported an average of practice starting of 10.65 ± 2.68 years and the average of time at the team was 17.98 ± 18.95 months. Participants represented the following sports: Indoor soccer (n=20); basketball (n=62); handball (n=123); and volleyball (n=48). The inclusion criteria for the research were as follows: 1) to have participated in some regional/state level competition during the 2016/2017 seasons; and 2) participate in School Games 2018. Only the athletes who had the Consent Term signed by the coaches (legal responsible for the athletes in the event) and who verbally expressed their desire to voluntarily participate in the study were selected.

Instruments

Youth Experience Survey for Sport (P-YES-S). The YES-S is an adaptation performed by MacDonald, Côté, Eys and Deakin (2012) for the sport context from a general scale called Youth Experience Survey 2.0 (YES 2.0), which evaluates as the form of an alternative to diverse environments. Rigoni et al. (2018) performed the cross-cultural adaptation to the Portuguese language (P-YES-S) with youth Brazilian athletes, showing acceptable results in content analysis, reliability ($\alpha>0.70$), construct validity [$X^2/df = 1.54$; GFI = 0.93; CFI = 0.92; AGFI = 0.92; TLI = 0.91; RMSEA = 0.04, p = 0.03] and temporal stability (ICC>0.70). It is important to mention that the scale was reduced to 22 items across four dimensions in contrast to the original 37 items. These 22 items are distributed in four subscales: personal and social skills, cognitive skills, goal setting/initiative and negative experiences. A 4-point Likert-type scale on a continuum answers the items from 1 (No way) to 4 (Definitely yes). To check the factor structure of the instrument for the study sample, a confirmatory factor analysis (CFA) was conducted, revealing that all items saturated satisfactorily (factor loading >0.50). The scale showed acceptable fit for the sample of this study [$X^2/df=1.69$; CFI=0.91; GFI=0.90; TLI=0.89; RMSEA=0.06; P(rmsea<0.05)=0.070].

Youth Sport Environment Questionnaire (P-YSEQ). This instrument was developed by Eys et al.[19] and validated for Brazilian context by (Nascimento Junior et al, 2018). The YSEQ assesses team cohesion in youth between the ages of 13 to 17 years and consists of 16 items that evaluate task and social cohesion, and 2 spurious items that do not enter in the analysis, totaling 18 items. Task cohesion contains eight items and a sample item is "We all share the same commitment to our team's goals". Social cohesion contains eight items and a sample item is "I spend time with my teammates". All items are scored on a 9-point Likert-type scale anchored at the extremes of 1 (strongly disagree) and 9 (strongly agree). Therefore, higher scores reflect stronger perceptions of cohesion. The psychometric properties of the study conducted by Nascimento Junior et al. (2018) revealed a two-factor structure [$X^2/df = 2.98$; CFI = .971; TLI= .959; RMSEA = .068 CI [.059, .078]], corroborating with the original scale, with desirable consistency indices ($0.86\leq\alpha\leq0.89$). The model showed acceptable factorial structure for the sample of this study [$X^2(385)=545.11$;p=0.001; $X^2/df=1.42$; CFI=0.90; GFI=0.88; TLI=0.90; RMSEA=0.05; P(rmsea<0.05)=0.637].

Procedures

The study is part of an institutional project approved by the Research Ethics Committee of the Federal University of Vale do São Francisco (Report No. 1.648.086). Initially, contact was made with the Sports Secretariat of Pernambuco State to request the authorization for data collection with the athletes. The collections were held at the hotels and accommodation venues of the teams in the city where it was made. The questionnaires were applied collectively in a private room, with the absence of the coaches, and the completion of the questionnaires lasted approximately 30 minutes. The order of the questionnaires was randomized among participants.

Data Analysis

Data analysis was conducted through descriptive and inferential statistics. Independent sample t-test was used to test sex differences in team cohesion and sporting experience. The effect size (d) was also calculated using the model proposed by Cohen (1991), or differences in the values of two independent groups. According to Cohen's criteria, a value up to d = 0.30 represents small effect size; d = 0.50, medium; and d = 0.80, large. Pearson Correlation was used to investigate the relationship between team cohesion and sporting experience of student-athletes. Multiple Regression Analysis was used to determine whether the sporting experience might predict the perception of team cohesion. Two models were conducted using the backward method to enter the variables (removal criterion F=0.10) to investigate the prediction of sporting experiences dimensions (Personal Skills, Cognitive Skills, Initiative Experiences and Negative Experiences) (independent variables) on scores of team cohesion (dependent variable): Task Cohesion (Model 1); and Social Cohesion (Model 2). All independent variables were included together in the model in the same block. Data was screened to ensure that assumptions of normality, linearity, multicollinearity, and homogeneity of variance–covariance matrices were met (Tabachnick & Fidell, 2001). Data showed normal distribution and variances were equal. There were no sufficiently strong correlations between variables that indicate problems with multicollinearity (Variance Inflation Factors <5.0). All analysis were performed at SPSS v.22.0.

RESUTS

Descriptive statistics

The findings in Table 1 revealed that the values of sports experiences dimensions ranged from 1.00 to 4.00, and symmetry and kurtosis between -1.15 and 2.05, respectively. Team cohesion dimensions scored ranged between 1.00 and 9.00, and the skewness and kurtosis achieved between -0.77 and 0.04, respectively.

Table 1. Descriptive values (minimum, maximum, average, standard deviation, skewness and kurtosis) and data distribution of the variables.

Variables	Min.	Max.	M (Sd)	Sk.	Ku.	K-S
Sporting Experience						
Personal and social Skills	1.00	4.00	3.21 (0.76)	-1.15	0.73	0.080
Cognitive Skills	1.00	4.00	2.91 (0.63)	-0.38	-0.16	0.061
Initiative Experiences	1.25	4.00	3.46 (0.48)	-1.33	2.05	0.079
Negative Experiences	1.00	4.00	1.56 (0.64)	1.48	1.90	0.088
Team Cohesion						
Task Cohesion	1.00	9.00	6.66 (1.68)	-0.77	0.04	0.092
Social Cohesion	1.00	9.00	5.56 (1.55)	-0.18	-0.15	0.200

Note: Min = Minimun; Max = Maximum; M = Mean; Sd = Standard deviation; Sk = Skewness; Ku = Kurtosis; K-S = Kolmogorov-Smirnov.

Sex differences in Sporting Experience and Team Cohesion

There was significant difference between groups in Personal and Social Skills (p=0.02) (d=0,031) and Task Cohesion (p=0.02) (d=0,034) (Table 2). Female athletes showed higher level of Task Cohesion (x=7.09) and Personal and Social Skills (x=3.38) when compared to male athletes (x=6.52 and 3.15, respectively). Cohen's effect sizes (d) for the difference in Personal and Social Skills was 0.31 and Task Cohesion was 0.34, revealing a weak effect size. The other variables did not show a statistically significant difference: Cognitive skills (p=0.88), Initiative Experiences (p=0.15), Negative Experiences (p=0.11) and Social Cohesion (p=0.51).

Table 2. Sex Differences in Sporting Experience and Team Cohesion.

VARIABLES	Male (n=190)		Female (n=63)		t	p	d
	M	Sd	M	Sd			
Sporting Experience							
Personal and Social Skills	3.15	0.80	3.38	0.60	-2.32	**0.02***	0.31
Cognitive Skills	2.90	0.65	2.92	0.56	-0.14	0.88	0.03

Initiative Experiences	3.43	0.50	3.53	0.44	-1.42	0.15	0.21
Negative Experiences	1.60	0.66	1.45	0.57	1.57	0.11	0.24
Team Cohesion							
Task Cohesion	6.52	1.72	7.09	1.48	-2.33	**0.02***	0.34
Social Cohesion	5.52	1.58	5.67	1.47	-0.65	0.51	0.10

*Significant difference (p<0.05). Note: M = Mean; Sd = Standard deviation; d = effect size.

Correlations between Sporting Experience and Team Cohesion

Pearson Correlation Analysis (Table 3) indicated the following significant correlations (p<0.05) for male athletes: Task Cohesion with Personal Skills (r=0.19), Initiative Experiences (r=0.42) and Negative Experiences (r=-0.22); Social Cohesion with Personal and Social Skills (r=0.18) and Initiative Experiences (=0.30). For female athletes, it was found the following significant correlations (p<0.05): Task Cohesion with Per Personal and Social Skills (r=0.48) and Initiative Experiences (r=0.37); Social Cohesion with Personal and Social Skills (r=0.41), Cognitive Skills (r=0.43) and Initiative Experiences (=0.32).

Table 3. Correlation between Sporting Experience and Team Cohesion.

Sporting Experience	**Team Cohesion**			
	Task Cohesion		Social Cohesion	
	Male (n=190)	Female (n=63)	Male (n=190)	Female (n=63)
Personal and Social Skills	**0.19***	**0.48***	**0.18***	**0.41***
Cognitive Skills	0.11	0.23	0.12	**0.43***
Initiative Experiences	**0.42***	**0.37***	**0.30***	**0.32***
Negative Experiences	**-0.22***	-0.18	-0.09	0.08

*Significant correlation (p<0.05).

Role of Sporting Experiences in Predicting Team Cohesion

Multiple Regression Analysis (Tables 4 and 5) was used to determine the role of athletes' Sport Experiences in predicting Team Cohesion. Results revealed that Model 1[b] showed greater percentage explanation of task Cohesion (Table 3). Personal and Social Skills, Initiative Experiences and negative Experiences (R=0.47; R^2=0.21; F=17.838; p<0.01) were significant predictors of Task Cohesion, explaining 21% of its variance. The relationship of Personal and Social Skills β=0.13; p<0.05) and Initiative Experiences (β=0.35; p<0.01) with Task Cohesion was positive, but the relationship between Negative Experiences and Task Cohesion (β=-0.20; p<0.01) was negative. Durbin-Watson (DW = 1.47) and

Table 4. Multiple Regression Analysis using subscales of Sporting Experiences as predictors of Task Cohesion.

Models	**Stand. β**	**Adj. R^2**	**p**	**VIF**	**DW**
Model 1[a]					
Personal and Social Skills	0.15		0.022*	1.39	
Cognitive Skills	-0.05		0.430	1.51	
Initiative Experiences	0.36	0.21	0.001*	1.28	
Negative Experiences	-0.19		0.001*	1.07	
					1.47
Model 1[b]					
Personal and Social Skills	0.13		0.030*	1.16	
Initiative Experiences	0.35	0.21	0.001*	1.17	
Negative Experiences	-0.20		0.001*	1.01	

*Significant Association (p < 0.05) - Multiple Regression Analysis. Note: VIF = Variance Inflation Factors; DW – Durbin-Watson.

Results revealed that Model 2[c] showed greater percentage explanation of Social Cohesion (Table 5). Personal and Social Skills and Initiative Experiences (R=0.33; R^2=0.10; F=7.440; p<0.01) were significant predictors of Social Cohesion, explaining 10% of its variance. The relationship of Personal and Social Skills (β=0.13; p=0.05) and Initiative Experiences (β=0.21; p<0.01) with Social Cohesion was positive and weak.

Table 5. Multiple Regression Analysis using subscales of Sporting Experiences as predictors of Social Cohesion.

Models	Stand. β	Adj. R^2	p	VIF	DW
Model 2[a]					
Personal and Social Skills	0.11		0.115	1.39	
Cognitive Skills	0.04		0.557	1.51	
Initiative Experiences	0.25	0.10	0.001*	1.29	
Negative Experiences	-0.05		0.432	1.09	
Modelo 2[b]					
Personal and Social Skills	0.13		0.047*	1.17	1.66
Initiative Experiences	0.26	0.10	0.001*	1.18	
Negative Experiences	-0.04		0.504	1.02	
Modelo 2[c]					
Personal and Social Skills	0.13		0.048*	1.16	
Initiative Experiences	0.21	0.10	0.001*	1.16	

*Significant Association ($p<0.05$) - Multiple Regression Analysis. Note: VIF = Variance Inflation Factors; DW – Durbin-Watson.

DISCUSSION

To the best of our knowledge, this is the first study to analyze the role of sporting experiences in predicting team cohesion among youth athletes. Our results confirmed partially the initial hypothesis that positive experiences would positively predict both social and task cohesion, while negative experiences would negatively predict team cohesion (Tables 3, 4 and 5). Further, female athletes showed higher level of task cohesion and personal skills when compared to male athlete (Table 2). These results are presented in accordance with the essence of the PYD theory, which preaches the development of the pro-social behavior to the detriment of behaviors and experiences that compromise the health and progression of young people in society as negative experiences (Lerner et al., 2010; Jones et al., 2011).

Regarding the role of sporting experiences in predicting team cohesion (Tables 4 and 5), it can be seen that sports experiences related to initiative and personal skills are predictors of both task and social cohesion. However, negative experiences seem to be a harmful factor for task cohesion (Table 4). The association of the positive sports experiences with social and task cohesion seems to reveal parameters that support the characteristics inherent to the PYD in sport. This finding indicates that experiences during sports practice directly influence the youth's involvement with the goals and tasks proposed by the team, besides being associated with the social relations provided by the sports practice (Rigoni, Belem, & Vieira, 2017).

Specifically, it should be noted that the more youth athletes develop skills related to leadership, emotions, interpersonal relationships, responsibilities, attention and improvement of physical/athletic skills (MacDonald, Côté, Eys & Deakin, 2012), plus they feel competent, confident and connected, they develop the character and care "FiveCs" and commit to team and interact with teammates. According to PYD theory (Lerner et al., 2012), insofar as young athletes achieve personal and social benefits, more they will be influenced positively by increasing the likelihood of success in general (Jones et al., 2005).

These results reveal the importance of stimulating positive development during sports practice in childhood and adolescence, since positive experiences help teamwork (Vierimaa, Bruner & Côté, 2018), which is important for sport and for adult life in general (Turnnidge, Côté & Hancock, 2014). In this context, Fraser-Thomas, Côté and Deakin (2008) emphasize the importance of sports programs that take into account the open communication between coaches and parents, the social support and the general positive influences of social peers to develop an adequate environment group. It is important because adolescents live a delicate phase ("adolescence") of life and need to develop healthy relationships with peers and important people in their daily lives. Martin, Bruner, Eys & Spink (2014) point out the importance of understanding the social environment, since social interactions result in the groups formation, which will be subject to personal and interpersonal demands, such as: personal satisfaction, social identity, role in the group and conflicts.

Bruner, Eys, Wilson & Côté (2014) found similar findings in concluding that task cohesion was the greatest predictor of personal and social skills, initiative experiences and goal setting among team sport athletes. Further, authors found that task cohesion showed a strong and inverse association with negative experiences. Taylor and Bruner (2012) observed a positive association between satisfaction of

basic psychological needs (BPN) and task cohesion among youth soccer athletes. It corroborates the findings of the present study, considering that the constructs of PYD are interconnected to the constructs that compose BPN such as autonomy with confidence, competence with competence and social relationship with connection (Fernandes, & Vasconcelos-Raposo, 2015).

Personal and social skills and initiative experiences were positively associated with task and social cohesion in both sexes (Table 3). For boys, negative experiences may negatively interfere in task cohesion. Taylor and Bruner (2012) found in a study with youth soccer players that task cohesion correlated positively with emotion regulation, goal setting, and negatively with social exclusion. Similar findings were found in this research, where task cohesion was positively associated with personal skills (regulation of emotions), initiative skills (goal setting), and negatively with negative experiences (social exclusion).

When analyzing the difference between the sexes in the dimensions of sports experience (Table 2), girls reported experiencing more situations that favor the development of personal and social skills during sports practice. It is noticed that girls have more assets for positive development. PYD theory predicts that it is necessary to develop competence, confidence and character for young people to develop in a positive way (Lerner et al., 2012). Matos, Santos, Goméz-Baya & Marques (2018). observed higher scores in the psychological capacities of resilience, self-regulation and positive development for girls in a sample of non-athletes. Specifically, these authors verified that female schoolchildren presented higher scores on caring and character dimensions of PYD, which are related to the sports experiences of personal and social skills.

Another interesting finding of this study was that the girls perceived greater involvement of the peers in reaching the goals and objectives of the team in comparison to the boys (Table 2). Eys et al. (2015) carried out an investigation about team cohesion and performance with male and female sports teams and showed that coaches perceive a greater need for girls to be in harmony to reach the objectives and goals proposed to the team.

The findings should be interpreted by considering the limitations of the research. Firstly, this is a cross-sectional study, which means that no conclusion about cause-effect can be drawn. Secondly, the sample of this study consisted of adolescent athletes from only four sport branches (indoor football, basketball, volleyball and handball) of one city of Brazil. That's why the findings could not be generalized to other sports groups and regions of Brazil. Thirdly, year of sports experiences of athletes are not considered in this study sport. By considering these limitations, future studies could investigate the role of sporting experiences in determining team cohesion in different age groups, sport experiences, sports (including tennis, football, swimming, gymnastics, etc), different competitive and skill level (experienced, novice) and different settings (exercisers, athletes, coaches, fitness leaders). Furthermore, future researches should investigate the relationship of personality, anxiety, motivation and perceived success with sporting experience and team cohesion. These types of future investigations could tell us how individual differences affect sporting experience and team cohesion.

Based on the findings, it can be concluded that sports experiences may predict social and task cohesion among youth athletes. Specifically, positive experiences may predict positively both task and social cohesion, while negative experiences may be considered a negative predictor for task cohesion. From a practical standpoint, these findings may encourage coaches and sports professionals to propose activities and practices based on PYD, such as activities that stimulate identity experiences (that allow knowing the members characteristics), develop basic skills, positive relationships and teamwork. Moreover, it is important to avoid practices that develop stress, negative influence, social exclusion, negative group dynamics and disapproval.

CONCLUSIONS

Based on the findings, it can be concluded that sports experiences may predict social and task cohesion among youth athletes. Specifically, positive experiences may predict positively both task and social cohesion, while negative experiences may be considered a negative predictor for task cohesion.

PRACTICAL APPLICATIONS

From a practical standpoint, these findings may encourage coaches and sports professionals to propose

activities and practices based on PYD, such as activities that stimulate identity experiences (that allow knowing the members characteristics), develop basic skills, positive relationships and teamwork. Moreover, it is important to avoid practices that develop stress, negative influence, social exclusion, negative group dynamics and disapproval.

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