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A EXPERIÊNCIA E PERCURSO DA FORMAÇÃO ESPORTIVA DOS JOVENS ATLETAS DO ESTADO DE MATO GROSSO: ESTUDO LONGITUDINAL E MULTIDIMENSIONAL [View project](#)

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## EFFECTS OF THREE COMPETITIVE SETTINGS ON YOUTH MALE SOCCER ATHLETES' ASSETS AND SPORT ATTITUDES ACROSS A COMPETITIVE SEASON

### VPLIVI TREH TEKMOVALNIH OKOLIJ NA VREDNOTE IN ŠPORTNI ODNOS MLADIH NOGOMETASEV V TEKMOVALNI SEZONI

#### ABSTRACT

The aim of the study is to analyse the effects of competitive level and demography on development assets and attitudes of young soccer athletes in three club settings, across a competitive season. One hundred and twenty five male soccer players aged 12 - 18 years (15.3 + 1.6) from three different contexts participated in the study: professional club (n=45), urban amateur club (n=46), rural amateur club (n=44). The Developmental Assets Profile and the Sport Attitudes Questionnaire were applied at the beginning and at the end of a competitive season. Contextual effects were assessed using multilevel modeling.

Rural Amateur Club athletes showed higher levels of social and family assets compared to the athletes from professional and urban amateur clubs. Professional club athletes showed lower positive attitudes, suggesting a potential negative influence of professional club contexts for positive development. A negative effect of competitive season exposure was observed on athletes' sport attitudes. The athletes' experiences seem dependent of the ecology of practice and are relevant for their enjoyment and continuity in sport.

The findings are important for coaches' education, but also for the clubs and communities, which should promote programs to foster the development of assets and positive attitudes.

*Keywords:* youth; soccer; context; assets; attitudes

#### IZVLEČEK

Cilj raziskave je analizirati vplive tekmovalne ravni in demografskih danosti na razvojne vrednote in športen odnos mladih nogometašev v treh klubskih okoljih v tekmovalni sezoni. V raziskavi je sodelovalo 125 nogometašev, starih od 12 do 18 let (15,3 + 1,6), iz treh različnih okolij: profesionalni klub (n = 45), mestni ljubiteljski klub (n = 46) in podeželski ljubiteljski klub (n = 44). Na začetku in koncu sezone smo uporabili Vprašalnik o profilu razvojnih vrednot in športnega odnosa. Vplive okolja smo ocenili z modeliranjem na več ravneh.

Nogometaši iz podeželskih ljubiteljskih klubov so pokazali višjo raven družbenih in družinskih vrednot v primerjavi z nogometaši iz profesionalnih in mestnih ljubiteljskih klubov. Profesionalni klubski nogometaši so pokazali nižjo raven pozitivnega odnosa, kar nakazuje na potencialen negativen vpliv profesionalnega klubskega okolja na pozitiven razvoj. Negativen vpliv tekmovalne sezone se je pokazal v športnem odnosu nogometašev. Videti je, da so izkušnje športnikov odvisne od konkretnih praks ter vplivajo na njihovo uživanje in vztrajanje v športu.

Ugotovitve so pomembne za izobraževanje trenerjev, prav tako pa tudi za klube in skupnosti, ki bi morali promovirati programe za spodbujanje razvoja vrednot in pozitivnega odnosa.

*Ključne besede:* mladina, nogomet, okolje, vrednote, odnos

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## INTRODUCTION

Growing recognition of the situated nature of sport participation has highlighted the important influence exerted by socio-cultural ecologies on the development of young athletes. The particularities of contexts, such as demography and the culture of the sport or club, are believed to affect the way young people engage in, perceive and enjoy sport. Parents and athletes associated to sport are exposed to a range of personal and social developmental benefits (Holt, Kingsley, Tink, & Scherer, 2011). Moreover, available data highlight the benefits of sport involvement in health, personal and social development (Holt, 2008).

The bioecological theory (Bronfenbrenner, 1999) provides a framework to explore the interaction of the individual with the context where he is inserted. This framework embraces the consistence or the changes of the subject characteristics and of the environment where he lives, through time. This model has been successfully used to examine aspects of physical activity participation among low-income youth (Holt et al., 2011) and sport participation (Holt, 2008). Moreover, it has been considered an appropriate model to examine the involvement of children and adolescents in sport as a developmental process (Bengoechea & Johnson, 2001; Santos, Domingues, & Gonçalves, 2011).

Interestingly, the measures of positive youth development available have increased in recent years (Johnston, Harwood, & Minniti, 2013). The positive development is critical to establish “positive” guidepost to help promoting successful adulthood, instead of a typical set of “negative” indicators, which fail to delineate what is desirable for the human development. The development assets theory (Benson, 2002) provides a good framework to build programs that aim to increase adaptive behaviours. The theoretical model identifies forty developmental assets or building blocks of success that help young people be healthy, caring, responsible and productive (Scales, Benson, Roehlkepartain, Sesma, & van Dulmen, 2006). Thus, the framework provides a personal and contextual overview where it is possible to verify which factors are the most beneficial to promote positive development.

The Sports Attitudes Questionnaire (SAQ), composed of 23 items, that intend to identify the respondents’ opinion about how they play their main sport activity. The instrument encompasses a four-factor model, two of which factors are socially positive (Commitment and Convention) and the other two socially negative (Cheating and Gamesmanship).

In Europe, sport programs are mostly implemented by sport clubs, which have contextual specificities (e.g. local identity, demography). Previous observations showed contextual effects related to birthplace and community insertion of the youth athlete (Fraser-Thomas, Côté, & MacDonald, 2010; MacDonald, Cheung, Côté, & Abernethy, 2009). Particularly, small communities (under 50,000 inhabitants), with supportive environments, revealed positive correlations with the attainment of elite levels. Soccer, a sport with extreme levels of professionalization, offers a heterogeneous landscape of clubs, from the high structured academy, ran by a professional organization, to smaller, even very small, clubs that provide opportunities for amateur practice in urban or rural areas. The clubs participating in the study were representative of the three settings. The professional organization was a long time member of the Portuguese professional league, and the other two clubs were chosen because they participated in organized soccer competitions for more than 10 years and were located in an urban and a rural area, classified by demographic criteria of the National Statistics Agency (INE).

Accepting that values, attitudes and behaviours adopted in sport context can be transferred to daily life (Shields & Bredemeier, 2009), it seems important to identify the best settings to promote a healthy, positive development. And considering the popularity of soccer among youngsters, we argue that is an adequate setting to observe the development of assets and sport attitudes of young athletes engaged in formal training programs. Thus, the aim of the present study is to analyse the effects of competitive level and demography on development assets and attitudes of young soccer athletes in three club settings, across a competitive season.

## METHODS

### Study design and participants

This study adopted a pre-post parallel groups design, considering measurements performed at pre- and post-competitive 10-month season. One hundred and twenty five male soccer players aged 12 to 18 years ( $15.3 + 1.6$ ) from clubs representing three different contexts (professional club; amateur clubs from a rural area; amateur clubs from an urban area) within the central region of Portugal participated in the study. Participation in the study was voluntary. Informed and signed consent was obtained from athletes and parents. The study was approved by the scientific committee of the Faculty of Sport Sciences of the University of Coimbra.

### Measures

*Development Assets Profile (DAP)*. The questionnaire is composed by 58 items which are preceded by an introduction (Institute, 2005). Statements in the DAP are rated from 1 - “not at all or rarely”, 2 - “Somewhat or Sometimes”, 3 - “Very Often” or 4 - “Extremely or almost always”. The Portuguese version (Santos & Gonçalves, 2012) measures external and internal factors from a personal perspective, related to school, family, community and social boundaries. The Portuguese version presents good reliability.

*Sport Attitudes Questionnaire (SAQ-2)*. The SAQ-2 (Lee, 1996) has 23 items, in a five point Likert scale (1=totally disagree, 2=disagree, 3= don't agree or disagree, 4=agree, 5= totally agree), that measure *cheating, gamesmanship, commitment to sport and respect for conventions*. The Portuguese version revealed good reliability.

### Data analysis

Descriptive statistics for development assets and sport attitudes dimensions at the beginning and the end of the competitive season were calculated. The first main step of the analysis was to examine changes on developmental assets and sport attitudes dimensions as a consequence of the competitive season using multilevel modeling, based on a pre- and post-season design (unconditional linear model). Full information maximum likelihood was used. Each participant's successive measurements over time were defined as individual response change and random error (level 1). Differences in response change between groups of individuals were examined (level 2). To allow inferences about the true (population) values of the effect of the awareness intervention we calculated the 95% confidence limits for each effect.

The second step of the analysis was to explore the influence of age on differences in participants' initial status and changes in responses to the season exposure on the dependent variable; inter-individual variation in age was added as predictors (level 2) in conditional linear models. All parameters were fixed with the exception of the constant (intercept term) and changes in

responses across the season (slope) parameters, which were allowed to vary randomly at level 2 (between individuals). Interaction term between age with response change with intervention (cross level interaction) were explored as level 2 predictors, but no effect was found (data not presented).

The final step of the analysis was to explore the influence of the players' club context, adding to the step 2 models a dummy variable as fixed term at level 2 (dummy variable: 0 for professional club; 1 for urban amateur club; 2 for rural amateur club).

Deviance values (-2 restricted log-likelihood), Akaike information criterion (AIC), as well as visual inspection of residual plots were used to determine the final models' validity.

## RESULTS

Changes in development assets and sport attitudes between pre- and post-season are summarized in Table 1. *School* assets showed a significant increase across the season ( $p < 0.05$ ), but the magnitude of the effect was moderate at best. *Cheating* had a significant increase and *commitment* had a significant decrease across the competitive season ( $p < 0.01$ ), indicating a probably negative effect of a competitive season exposure in the young soccer players.

Table 1. Mean changes on composite scores in Developmental Assets and Sport Attitudes as a consequence of training in the young soccer players

	Pre-training	Post-training	Changes in mean (95% CL)	p
<i>Assets</i>				
Social	33.82 (4.35)	33.91 (4.65)	0.09 (-0.80 to 0.97)	0.849
Family	35.31 (3.99)	35.25 (4.28)	-0.06 (-0.78 to 0.67)	0.880
School	31.50 (6.39)	32.34 (5.64)	1.34 (0.14 to 2.55)	0.030
Community	27.17 (6.87)	26.38 (6.79)	-0.79 (-2.05 to 0.47)	0.218
<i>Attitudes</i>				
Cheating	2.69 (1.29)	3.01 (1.15)	0.33 (0.09 to 0.56)	0.006
Gamesmanship	3.34 (1.08)	3.31 (0.90)	-0.02 (-0.24 to 0.19)	0.823
Convention	4.06 (0.95)	3.91 (0.88)	-0.15 (-0.31 to 0.01)	0.061
Commitment	4.44 (0.56)	4.29 (0.63)	-0.16 (-0.27 to -0.05)	0.005

Age had a significant negative effect on *commitment* ( $p < 0.05$ ), *convention* ( $p < 0.01$ ), *family* ( $p < 0.05$ ), *school* ( $p < 0.01$ ) and *community* ( $p < 0.01$ ) scores, indicating that older players had lower values in each of the variables. When considering the club context, the multilevel models showed positive significant exponents for the rural and urban amateur clubs on *commitment* and *convention*. Since no interaction exponents were present, the results indicate that both amateur clubs' players had higher scores of *commitment* and *convention* compared to the professional club players. As for *social* assets, the rural amateur club players had significantly higher values compared to their peers from the other club contexts. Both amateur club contexts had significantly higher values of *family* assets than professional club players, and urban amateur club players had lower values of *community* assets compared to the other club contexts. No interactions between club context and changes across the season were found.

Table 2. Multilevel regression analysis for Sport Attitudes variables to training in the young soccer players

	Cheating	Gamesmanship	Convention	Commitment
<i>Fixed Explanatory Variables</i>				
<i>Exponent value (standard error)</i>				
Constant	2.76 (0.16)**	3.37 (0.14)**	6.14 (0.55)**	5.10 (0.37)**
Season changes	0.31 (0.20)	-0.07 (0.19)	-0.16 (0.13)	-0.20 (0.09)*
Age	-	-	-0.16 (0.04)**	-0.06 (0.02)*
<i>Club Context (reference category: Professional)</i>				
Urban amateur club	-0.23 (0.23)	-0.25 (0.20)	0.47 (0.16)**	0.32 (0.11)**
Rural amateur club	0.02 (0.23)	0.13 (0.20)	0.79 (0.16)**	0.31 (0.11)**
<i>Club Context – Season changes interaction (reference category: Professional)</i>				
Urban amateur club	0.26 (0.29)	0.21 (0.26)	0.19 (0.19)	0.25 (0.13)
Rural amateur club	-0.19 (0.28)	-0.06 (0.26)	-0.18 (0.19)	-0.11 (0.13)
<i>Variance-Covariance Matrix of Random Variables</i>				
<i>Level 1 (within individuals)</i>				
Residuals	0.64 (0.13)**	0.67 (0.11)**	0.25 (0.06)**	0.13 (0.03)**
<i>Level 2 (between individuals)</i>				
Residuals	0.56 (0.12)**	0.20 (0.08)**	0.29 (0.06)**	0.12 (0.03)**
-2 Restricted Log Likelihood	844.735	750.821	630.729	423.916
Akaike's Information Criterion	860.735	766.821	648.729	441.916

\*\* p &lt; 0.01; \* p &lt; 0.05

Table 3. Multilevel regression analysis for Developmental Assets contextual variables to training in the young soccer players

	Social	Family	School	Community
<i>Fixed Explanatory Variables</i>				
<i>Exponent value (standard error)</i>				
Constant	32.67 (0.60)**	39.70 (2.68)**	42.25 (3.82)**	45.09 (4.23)**
Season changes	0.28 (0.77)	0.17 (0.62)	1.16 (1.04)	-1.16 (1.05)
Age	-	-0.36 (0.17)*	-0.73 (0.25)**	-1.07 (0.28)**
<i>Club Context (reference category: Professional)</i>				
Urban amateur club	1.61 (0.86)	1.57 (0.75)*	-0.10 (1.16)	-4.30 (1.22)**
Rural amateur club	1.86 (0.85)*	1.95 (0.74)**	1.12 (1.15)	-0.27 (1.21)
<i>Club Context – Season changes interaction (reference category: Professional)</i>				
Urban amateur club	0.39 (1.09)	0.40 (0.89)	0.23 (1.48)	1.53 (1.50)
Rural amateur club	-0.94 (1.08)	-1.04 (0.88)	0.33 (1.46)	-0.39 (1.48)
<i>Variance-Covariance Matrix of Random Variables</i>				
<i>Level 1 (within individuals)</i>				
Residuals	10.04 (1.86)**	5.08 (1.23)**	19.12 (3.46)**	17.01 (3.52)**
<i>Level 2 (between individuals)</i>				
Residuals	6.26 (1.59)**	7.35 (1.39)**	10.47 (2.85)**	15.93 (3.44)**
-2 Restricted Log Likelihood	1548.522	1475.929	1708.634	1739.887
Akaike's Information Criterion	1564.522	1493.929	1726.634	1757.887

\*\* p &lt; 0.01; \* p &lt; 0.05

## DISCUSSION

The present study has important implications for soccer programs as pedagogical tools, because sport programs have a potential role on positive youth development (Holt, 2008). The study aimed to describe the developmental assets and sport attitudes variables in three different youth competitive sport settings. It also aimed to analyse the effects of a season-long exposure to different environments on the developmental assets and attitudes in sport variables.

It was hypothesized that a professional context, a demanding environment, more oriented to performance, with higher expectations of a professional career in sport, and more strict evaluations would present a less favourable context to youth positive development. We also hypothesized that rural amateur club athletes would present higher levels of development assets, since the lower demographic densities provide a good environment for the development of social networks and supportive relationships.

Age is an important variable that affects the young players' assets and positive attitudes. Previous studies observed a decrease in development assets scores as the athletes become older (Institute, 2005). Specific meso- and micro-system variables (e.g. changes in family, school, or other community activities, changes of team, coach, or competitive level) alongside with growth and maturation effects, can explain this apparently negative trend.

After a season long involvement the athletes expressed lower levels of commitment. Even if the magnitude of the changes is not high, we can speculate that this can be an outcome of a long period of involvement in practice and in competition. The competitive seasons in soccer are very long (10 months) and the frequency of competitions is stressful and time-consuming, namely during weekends. Soccer organizations should consider reducing the length of the season, giving the present evidences. At the same time, coaches should be aware of the potential negative effects of monotony on commitment.

The lack of differences in gamesmanship suggests that there are implicit accepted norms of conduct and behaviours in soccer. However, it is concerning the increase in cheating scores. It has been suggested that athletic involvement fails to inhibit male violence and that there is a strong relationship between contact sport and violence (Kreager, 2007). However, in adolescent athletes from a variety of sports no evidence of a negative influence of sport on attitudes (Gonçalves, Silva, Cruz, Torregrosa, & Cumming, 2010). Maybe the specific context of soccer, with higher levels of competitiveness and expectations of a professional career lead the youngster to consider winning as the most important value.

The analysis of context allows important inferences. The amateur clubs can be considered as proper environments for the development of youth positive relationships and behaviours. The *social* assets are defined as the social relationships with one or more people outside the family, such as friendships, positive peer and adult role models (Institute, 2005). The diversity of interactions experienced by young athletes can foster coping processes to resist to others' pressures, resolve conflicts in a peacefully way and be sensitive to other persons. It seems that the athletes from rural areas benefit from the lower demographic density to establish stronger relationships. The present rural amateur club is the only one in the region that provides youth soccer, and the players are easily recognizable as athletes of the local club. Competitive sport has an important role for the rural communities since it offers an opportunity to social interaction and engagement

(Tonts, 2005). The sport club activity, practices and matches can foster the athletes' social capital, alongside with feelings of loyalty and community identity.

At the same time, it seems that the involvement in a professional club is a limiting factor to the development of close relationships. The majority of the club athletes come from different places, which raises some difficulties to establish friendship relationships among peers or with significant others. Another consideration about the lower scores in *social* assets for youth professional club athletes have been considered (Gonçalves, Diogo, & Carvalho, 2014). Time spent during the competitive season in practice sessions, travels and matches consumes most of the time that should be dedicated to family or friends (Gonçalves et al., 2014).

The *family* assets reflect a "positive family communication and support, clear family rules, quality time at home, advice and encouragement from parents, and feeling safe at home" (Institute, 2005). Therefore, the lower levels presented by the players from the professional club may reflect a lack of time from the parents to follow the youngsters' practice and life. The family dynamics at particular moments in time has an important factor to improve sport competence (Côté, 1999).

Similarly to American developmental assets scores (Institute, 2005), the present sample also follow the age trend to decreasing scores in *school* assets. The high scores for *school* assets are interesting since they may reflect a major influence of the Portuguese education system. At the same time, it seems that the clubs make an effort to avoid interferences with the athletes' school schedules, running all the practice sessions after school time.

The findings regarding *community* assets are consistent with previous observations (MacDonald et al., 2009) considering the need for larger centres to create conditions similar to small communities where the athletes' sport schedule does not conflicts with the participation in other activities. People who are involved in community activities might well be more prone to overcome obstacles and to involve positively with other people (Scales et al., 2006). Therefore, the timetable of practice periods and matches should pay attention to the athletes' needs to engage in other volunteer activities.

The present results reinforces the suggestion that small communities emphasize recreational and personal skills development, while in larger cities the focus tends to be on performance outcomes (Fraser-Thomas et al., 2010). It was observed that the amateur clubs are more oriented to youth development and recreation than the professional one. However, it has been noted that small sporting communities facilitate talent development, participation in different sports and athletic success (Balish & Côté, 2014). The size of the community seems to play a major role, but the subjective conditions for performance are topic for future research.

However, one must not idealize the environment of amateur clubs, urban or rural. Usually there are small organizations, ran by volunteers with poor resources and structures. In this study we did not analyse the quality of the coaches and of the support staff, the safety, content or climate in practice or competition. In the case of the rural club, it is plausible to assume that the small number of players is a cause of low competitiveness or of lack of discipline. These players are also the more vulnerable to bad practices.

The findings suggest that the professional environment favours what is needed to compete well: adult support, team spirit and commitment with sport, neglecting the positive features associated with youth sport: respect for conventions and for opponents, and character development. Some of



the negative attitudes expressed by the professional club players are well accepted in competition and are seen as sign of will to compete and to win. These characteristics are helpful to succeed in a soccer career but can be morally problematic for those who do not reach the elite level. Therefore, sport programs that wish to increase the quality of their athletes' experiences should consider building an environment that fosters the development of assets and positive attitudes (Turnnidge, Côté, & Hancock, 2014). Follow-up studies with a longitudinal design are crucial in order to understand the long-term effects of soccer organized, competitive participation.

## CONCLUSION

The present study provides valuable information for the implementation of youth soccer programs, showing that the main source of influences on assets and attitudes is the context. Competitive level and demographic situation shape the expression of assets and attitudes and their evolution across a competitive season. The findings can help managers, coaches and significant others to identify the factors that can foster or undermine positive youth development. The apparent social advantages of the amateur clubs are hard to replicate in a professional setting, where performance and winning are the key to success. But, as we understand better the effects of such important factors in the lives of young athletes, and how the context matters, the promotion of positive climates can be manipulated in a pro-social, community-oriented direction.

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