Do Both Coaches and Parents Contribute to Youth Soccer Players' Motivation and Engagement? An Examination of Their Unique (De)Motivating Roles

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Do Both Coaches and Parents Contribute to Youth Soccer Players' Motivation and Engagement? An Examination of Their Unique (De)Motivating Roles

Although much is known about the motivating effects of coaching and parenting, the unique contribution of coaches and parents to youth athletes' motivational functioning received far less attention. While a few studies did look into the simultaneous role of constructive (i.e., need-supportive) coaching and parenting, no study to date simultaneously addressed the undermining role of dysfunctional (i.e., need-thwarting) coaching and parenting practices in athletes' motivation. Therefore, the present study examined associations between both need-supportive and need-thwarting coaching and parenting behaviours and athletes' motivation and engagement, using a cross-sectional design among 255 BLINDED FOR REVIEW youth soccer players (M_{age} = 13.72). Examined separately, coaching and parenting showed a similar pattern of associations, with need-supportive styles being positively associated with autonomous motivation and engagement and with need-thwarting styles relating positively to amotivation and disengagement. When considered in combination, need-supportive coaching, but not parenting, related positively to soccer players' autonomous motivation and engagement, whereas need-thwarting coaching and parenting related uniquely and positively to amotivation. These findings testify to the importance of distinguishing between need-supportive and need-thwarting styles when examining the unique roles of coaches and parents in athletes' motivation and engagement.

Keywords: sport motivation, need thwarting, need support, self-determination theory

Introduction

"*So, how was today's training session?*" or "*How did you experience the game yourself?*" are questions that both parents and coaches often ask to infer youth athletes' motivation for competitive sport participation. Supporting youth athletes' motivation for sports is important for athletes' enduring sport participation (Pelletier, Fortier, Vallerand, & Briere, 2001), with both coaches and parents having a potential impact on athletes' motivation, for better and for worse (Gaudreau et al., 2016). However, the question whether they both uniquely contribute to youth athletes' motivation and engagement by adopting both need-supportive and need-thwarting behaviours has been rarely addressed (but see O'Rourke, Smith, Smoll, & Cumming, 2014). Grounded in Self-Determination Theory (SDT; Ryan & Deci, 2017; Vansteenkiste, Ryan, & Soenens, 2020), the present study among youth soccer players aims to fill this gap in the literature.

SDT, one of the leading motivational frameworks in the context of sports (Hagger & Chatzisarntis, 2007), attends to the quality of athletes' motives by differentiating between autonomous and controlled forms of motivation (Deci & Ryan, 2000). In the case of autonomous motivation, athletes' regulation of behaviour is characterised by experiences of volition, psychological freedom and reflective self-endorsement, such that the behaviour is characterised by an internal perceived locus of causality (Vansteenkiste, Niemiec, & Soenens, 2010). Specifically, autonomous motivation entails the execution of an activity because it is inherently enjoying, challenging or interesting (intrinsic motivation), or personally relevant (identified regulation). Controlled motivation, on the other hand, involves the regulation of behaviour on the basis of pressured reasons. Athletes then feel coerced to think, feel, or act in particular ways, such that their behaviour is characterised by an external perceived locus of causality (Vansteenkiste et al., 2010). Controlled motivation entails the regulation of behaviour by internal pressures, such as feelings of shame, guilt and pride (introjected regulation), and

external pressures, such as punishments or rewards (external regulation). In contrast to controlled and autonomous motivation, amotivation reflects a total lack of intentionality. It might result from feeling incapable, not valuing the activity at hand, or from not believing that the activity will result in desired outcomes (Deci & Ryan, 2000; Vansteenkiste et al., 2010). Previous research has found amotivation and autonomous motivation to yield, respectively, the poorest and best outcomes, while the correlates for controlled motivation fall in-between. Such pattern of findings has emerged for outcomes in the sports context as diverse as experiences of positive affect and vitality (e.g., Assor, Vansteenkiste, & Kaplan, 2009; Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008), negative affect and depressive feelings (e.g., Assor et al., 2009), boredom (e.g., Amado, Sanchez-Oliva, Gonzalez-Ponce, Pulido-Gonzalez, & Sanchez-Miguel, 2015), moral behaviour (e.g., Hodge & Lonsdale, 2011; Ntoumanis & Standage, 2009), performance (e.g., Gillet, Berjot, & Gobance, 2009), and enduring sport participation (e.g., Pelletier et al., 2001).

Athletes' quality of motivation is closely intertwined with their level of engagement (Vink & Raudsepp, 2018; Podlog et al., 2015). Engagement is the most easily observable indicator of athletes' functioning within training and competition (Lee & Reeve, 2012; Tessier, Sarrazin, & Ntoumanis, 2010). It reflects individuals' active involvement in an activity (Christenson, Reschly, & Wylie, 2012) and encompasses four dimensions. First, emotional engagement refers to the display of emotions signifying motivated involvement such as interest and enjoyment (Skinner, Kindermann, & Furrer, 2009). Second, behavioural engagement refers to athletes' working attitude, effort, and persistence when participating in activities (Skinner et al., 2009). Third, cognitive engagement encompasses employing sophisticated learning strategies and self-regulation strategies (Wolters, 2004). Fourth, agentic engagement refers to athletes' constructive contribution into the flow of instruction they receive by, amongst others, offering suggestions, asking questions, and communicating likes and dislikes (Reeve & Tseng,

2011). In contrast to being engaged, athletes can also be disengaged, as indicated by athletes feeling discouraged, bored, nervous or frustrated (emotional disengagement) or their motivated withdrawal from activities and lack of effort while on the pitch (behavioural disengagement). Like autonomous motivation, engagement has been found to be related to positive outcomes such as autonomous motivation (Vink, & Raudsepp, 2018), physical self-worth (Kosmidou, 2013), and flow (Hodge, Lonsdale, & Jackson, 2009). Because both high-quality motivation and engagement represent key resources for athletes' positive sports experience, it is important that athletes receive contextual support for these resources.

In order to provide youth with positive and lifelong sport experiences, socialization figures face the task of fuelling youth athletes' autonomous motivation and engagement, while reducing controlled motivation, amotivation, and disengagement. For youth athletes, coaches and parents are prominent socialization figures (Wylleman, Alfermann & Lavallee, 2004). Although the specific roles of coaches (e.g., organizing training sessions) and parents (e.g., providing tangible and emotional support) may differ, within each of these roles coaches and parents can be more or less supportive of athletes' autonomous motivation and engagement. From the SDT-perspective, taking up a motivating role implies supporting athletes' basic psychological needs for autonomy (i.e., experience of volition), competence (i.e., experience of mastery) and relatedness (i.e., experience of connection) (Ryan & Deci, 2017). A need-supportive style then involves the provision of autonomy-support, structure, and relational support, with each of these motivating styles involving a set of motivating practices (Mageau & Vallerand, 2003; Soenens, Deci, & Vansteenkiste, 2017; Vansteenkiste & Soenens, 2015). Conversely, demotivating styles thwart these psychological needs and give rise to experiences of pressure (autonomy frustration), inadequacy and failure (competence frustration), and social alienation (relatedness frustration) (Bartholomew, Ntoumanis, Ryan, Bosch, & Thogersen-Ntoumani, 2011; Vansteenkiste & Ryan, 2013). In line with the distinction between the three

needs, the dimensions of a need-thwarting style include a controlling style, chaos, and rejection or uninvolvement (Ryan & Deci, 2017; Vansteenkiste et al., 2020).

Grounded in a basic attitude of curiosity and receptivity, autonomy-supportive socializing agents try to nurture a sense of volition and initiative during sport participation. They can do so by taking into account athletes' preferences, building in choice, offering a rationale for boring or difficult activities, acknowledging athletes' resistance and negative affect, and making use of an inviting communication style (Delrue et al., 2019; Haerens, Kirk, Cardon, De Bourdeaudhuij, & Vansteenkiste, 2010; Holt, Tamminen, Black, Mandigo, & Fox, 2009). The need-thwarting counterpart of autonomy support is control, which involves the use of various pressuring strategies such that athletes feel forced to act, think, and feel in prescribed ways. Such pressure can be conveyed through the use of contingent rewards or punishments, guilt induction, suppression of athletes' preference and negative affect, and the use of forceful and threatening language (Bartholomew et al., 2011; Soenens & Vansteenkiste, 2010). Secondly, provision of structure starts with a process-oriented attitude aimed at fostering athletes' sense of effectiveness. Prior to an activity, structure implies the provision of an overview of the activities and clear guidelines, so that athletes know what is expected, as well as the affirmation of athletes' ability to meet these expectations. During activity engagement, structuring socializing agents monitor athletes' functioning in a process-focused way, thereby providing help and scaffolding, encouragement, corrective and positive feedback, while also promoting athletes' self-reflection afterwards (Haerens et al., 2013; Reeve, 2006). The counterpart of structure involves chaos, which is reflected in behaviours that hinder athletes to achieve desired outcomes, such as the absence of rules and guidance, the lack of feedback or only stressing what went wrong (Delrue et al., 2019). Finally, relatedness support, which is far less examined compared to autonomy support and structure, originates from respect and caring for athletes as persons. It encompasses the expression of affection and unconditional regard,

and being emotionally available and supportive (Skinner, Johnson, & Snyder 2005; Sparks, Dimmock, Lonsdale, & Jackson, 2016). In contrast, relational rejection is apparent in behaviours that neglect or even thwart athletes' need for relatedness by displaying a cold and distant attitude, hostility, and harshness (Rocchi, Pelletier, Cheung, Baxter, & Beaudry, 2017).

As coaches play a central role in youth soccer players' sport participation, the role of need-supportive coaching has been examined extensively. These studies show that perceived need-supportive coaching relates positively to athletes' autonomous sport motivation (e.g., Mageau & Vallerand, 2003), subsequent performance (e.g., Freeman, Rees, & Hardy, 2009; Haerens et al., 2018) and positive affect (e.g., Mouratidis et al., 2008). It should be noted, however, that the percentage of variance in psychological variables accounted for by coach behaviours is rather small (Black & Weiss, 1992). This observation suggests that other socializing agents, such as parents, might also contribute to youth athletes' sport experiences. Yet, the number of SDT-grounded studies that focused on the role of parents in athletes' motivation is much more limited. Gagné, Ryan, and Bargmann (2003) found that gymnasts' perceived autonomy-supportive parenting contributed positively to their autonomous motivation. Conversely, parental pressure in both team and individual sports related negatively to adolescent athletes' psychological need satisfaction and intrinsic motivation (e.g., Amado et al., 2015) and positively to athletes' feelings of burn-out (e.g., Aunola, Sorkkila, Viljaranta, Tolvanen, & Ryba, 2018).

While the contribution of parents' and (especially) coaches' motivating styles have been intensively studied in isolation, only a few studies have considered them in combination. Amorose, Anderson-Butcher, Newman, Fraina, and Iachini (2016) found that perceived coach and parental need-supportive behaviours are positively correlated. As such, the observed contribution of coach or parent need-supportive behaviour, when studied in isolation, may have been spurious. That is, a significant relation between coach behaviour and desirable outcomes

may drop to non-significance when partialling out the variance with parent behaviour and vice versa. Yet, the limited studies available show that perceived parental and coach autonomy support yield unique positive relationships with athletes' autonomous motivation (e.g., Amorose et al., 2016, Gaudreau et al., 2016; Hein & Jõesaar, 2015). While these studies begin to suggest that both coaches and parents may matter in athletes' motivation, they focused specifically on autonomy-support instead of using a more encompassing assessment of need-support. More importantly, these studies did not address the so-called dark side of socialization style, that is, coaches' and parents' engagement in need-thwarting behaviours. As such, it remains unclear to date whether coaches and parents play a unique role in undermining athletes' motivation and engagement.

The Present Study

The current study aimed to examine the unique associations of perceived coach and parental need support and need thwarting with youth soccer players' motivation (i.e., autonomous, controlled, amotivation) and (dis)engagement. The inclusion of a need-thwarting style constitutes a significant advancement compared to past SDT-work that focused on both socialization figures simultaneously, as these studies only included indicators of need-support. The following two hypotheses are proposed. First, congruent with SDT, when studying coaching and parental behaviours in isolation, it is hypothesised that perceived coach and parental need support will relate primarily to autonomous motivation and engagement (Hypothesis 1a), while perceived need thwarting will relate primarily to controlled motivation, amotivation, and disengagement (Hypothesis 1b). Second, when considering the role of coaches and parents simultaneously, we hypothesised that perceived coaching behaviour may yield the strongest unique relations with (a)motivation and (dis)engagement, as the coach is the most prominent socialization figure for youth soccer players in the context of their sport participation (Hypothesis 2a). Yet, on top of coaches' behaviour, we assume that both parents' need-

supportive and need-thwarting behaviours may also be uniquely related to (a)motivation and (dis)engagement (Amorose et al., 2016; Gaudreau et al., 2016) (Hypothesis 2b).[1]

Method

Recruitment Procedures and Participants

Participating soccer players were recruited via their clubs. First, 25 random clubs that are active in the regional soccer competition of REGION BLINDED FOR REVIEW, the northern region of COUNTRY BLINDED FOR REVIEW, were approached and informed about the study. In total, 23 coaches out of 16 clubs accepted to participate. The number of participating coaches within the same club ranged from one to three. After coaches provided informed consent, their soccer players were informed about the study and signed an informed consent form prior to completing the questionnaires on site following a training session. For under-aged participants, active parental informed consent was also attained. The procedure was approved by the ethics committee of the first authors' department. The final sample consisted of 255 male youth competitive soccer players. They were between 10 and 20 years of age (M = 13.72, SD = 1.97), had on average 8.10 years of soccer experience (SD = 2.75, range 1-16 years), and trained on average 1.43 years under their current coach (SD = .92, range 1-7). The soccer players were active on three different levels: 8.2% of them played at a lowly competitive level, 56.5% at a moderate competitive level, and 35.3% at a highly competitive level.

Measures and Materials

After providing information about background characteristics (i.e., club, age, experience, years under current coach, and competition level) participants completed a questionnaire tapping into four different variables. All items were answered on a 7-point Likert scale ranging from 1 (*totally disagree*) to 7 (*totally agree*).

[1] In a more explorative way, we examined the interactions between need-supportive and need-thwarting behaviours from the same socialization figure. Only one out of ten possible interactions turned out significant. Likewise, potential interactions between coach and parental behaviours were examined. Again, only twenty percent of the tested interactions turned out significant. Results are shown in Appendix A.

Need-Supportive and Need-Thwarting Behaviour of Coaches and Parents

Coaches' and parents' (de)motivating styles were measured using a recently developed measure tapping into generic perceptions of contextual need support and thwarting (i.e., Interpersonal Behaviours Questionnaire; IBQ; Rocchi et al., 2017). The items from this measure can be applied to different socialization figures, as the stem preceding the item is fairly general instead of being task- or context-specific: "*With regard to my soccer participation, my coach/ parent…*". The IBQ was adapted to fit into the context of soccer and to be understandable for younger participants. All questions were answered twice, once for coach behaviours and once for behaviours of the parent most involved in their sport participation. As such, the scores derived from this measure can be used to directly compare effects of perceived coaching and parenting. Need-supportive behaviour was measured by a composite scale of autonomy-supportive (4 items; e.g., "…supports my choices"), structuring (4 items; e.g., "…encourages me to do better") and relational supportive behaviours (4 items; e.g., "…is interested"). The internal consistency of this measure was good for both coaches ($\alpha = .82$) and parents ($\alpha = .75$). Need-thwarting behaviour was measured by a composite score of controlling (4 items; e.g., "…forces me to listen"), chaotic (4 items; e.g., "…tells me I'm probably not capable of doing well") and relational rejecting behaviours (4 items; e.g., "…gives me little attention"). The Cronbach's alphas for both coaches ($\alpha = .80$) and parents ($\alpha = .79$) were good.

Sport Motivation

A slightly adapted version (Assor et al., 2009) of the Behavioral Regulation in Sport Questionnaire (BRSQ; Lonsdale, Hodge, & Rose, 2008) was used to tap into soccer players' behavioural regulation for their sport-related effort-expenditure. A general stem "*I put effort in playing soccer because…*" preceded the 28 items. Autonomous motivation was measured by a composite scale of intrinsic motivation (4 items; e.g., "…I like soccer") and identified regulation (4 items; e.g., "…it is personally meaningful to me"). The reliability of this

composite scale was acceptable (α = .78). Controlled motivation was measured by combining items for introjected (8 items; e.g., "…I would be ashamed if I give up") and external regulation (8 items; e.g., "…others appreciate me more if I do so") and showed good internal reliability (α = .89). Finally, amotivation was measured by 4 items (e.g., "…but I wonder why"; α = .73).

Engagement

To measure soccer players' engagement, 17 items were used tapping into four different forms of engagement; that is, behavioural, emotional, cognitive and agentic. Items were adapted to the soccer context and made accessible for young athletes. The general stem "*During soccer practice…*" was used before all items. The Engagement Versus Disaffection with Learning measure (Skinner et al., 2009) was used to measure behavioural (4 items, e.g., "…I listen very attentively to the coach") and emotional engagement (4 items, e.g., "…I have fun"). The Agentic Engagement Scale (Reeve, 2013; Reeve & Tseng, 2011) was used with regard to agentic engagement (5 items, e.g., "…I ask questions that help me to learn"). Finally, the Metacognitive Strategies Questionnaire (MSQ; Wolters, 2004) was used to assess cognitive engagement using 4 items (e.g., "…I try to find coherence between what I learn and my own experiences"). The total score for engagement showed a good internal consistency (α = .84).

Disengagement

The Engagement Versus Disaffection with Learning measure (Skinner et al., 2009) was used to measure behavioural and emotional disengagement. Items were adapted to the soccer context, made accessible for young athletes and preceded by the stem "*During soccer practice…*". Behavioural (e.g., "…I only pretend to give maximum effort") and emotional disengagement (e.g., "…I often get bored") were measured by 5 items each. The internal reliability of this composite scale was good (*α* = .85).

Data Analyses

Preliminary Analyses

To inspect whether the background characteristics were related to the study variables, we performed correlation (i.e., for continue background variables) and ANOVA (i.e., for categorical background variables) analyses. Next, we explored the mean-level differences in the different facets of a need-supportive (i.e., autonomy support, structure and relational support) and need-thwarting (i.e., control, chaos, rejection) style as a function of the socialization figure (coach vs. parents) by running six independent sample t-tests (one for each facet).

Primary Analyses

Given the hierarchical structure of the data with 255 players (i.e., Level 1) being nested in 23 coaches (i.e., Level 2), a series of two-level multilevel regression analyses with soccer players nested within coaches was performed using MLwiN.[2] Variance components models (i.e., Model 0) were tested to estimate how much of the variance in each of the outcomes (i.e., autonomous motivation, controlled motivation, amotivation, engagement and disengagement) is explained at the level of differences between soccer players (i.e., Level 1) and coaches (i.e., Level 2). Next, relevant covariates (i.e., age, years under current coach and performance level) were added and (de)motivating coach and parental behaviours were examined separately in two different steps. In a third step, the perceived motivating styles from both socialization figures were included in the same model to examine their unique contribution to athlete (a)motivation and (dis)engagement.

Results

Preliminary Analyses

Table 1 presents descriptive statistics of and bivariate correlations between variables. Older soccer players perceived their coaches and parents as less need-supportive, were less autonomously motivated and less engaged during their sport. The longer soccer players were

[2] A three-level model, with soccer players nested within coaches within clubs, was not considered because the distribution of coaches across sports clubs was very unbalanced: for 11 of the 16 clubs only one coach participated.

298 training under their current coach, the less controlled motivation they reported. Regarding youth
299 soccer players' competition level, ANOVA analyses showed differences in controlled
300 motivation ($F(2,253) = 4.72$, $p \leq .01$), with soccer players competing at a high level reporting
301 more controlled motivation ($M = 3.87$, $SD = 1.16$) compared to soccer players competing at
302 either a moderate ($M = 3.43$, $SD = 1.13$) or low level ($M = 3.39$, $SD = .83$). Based on these
303 preliminary analyses, age, years playing under the current coach, and competition level were
304 included as covariates in further analyses.

305 Table 1 also presents bivariate correlations between the different facets of coaches' and
306 parents' (de)motivating styles and the outcomes. The correlations with the outcomes showed
307 very similar patterns across the three facets of both need support and need thwarting, which
308 justifies the use of aggregated scores for need-supportive and need-thwarting styles (see
309 Niemiec et al., 2006 for a similar procedure). To examine the mean-level differences in these
310 different facets as a function of socialization figure (coach vs. parents), we ran six independent
311 sample t-tests (one for each facet). Youth soccer players perceived coaches, compared to
312 parents, as less autonomy supportive ($M_{coach} = 5.11$, $M_{parent} = 5.96$, $t(238) = -10.76$, $p < .001$),
313 structuring ($M_{coach} = 5.53$, $M_{parent} = 5.78$, $t(238) = -3.68$, $p < .001$) and relationally supportive
314 ($M_{coach} = 4.96$, $M_{parent} = 5.22$, $t(238) = -3.28$, $p < .01$), and more controlling ($M_{coach} = 3.90$,
315 $M_{parent} = 3.06$, $t(238) = 10.33$, $p < .001$). For chaos and rejection, there were no significant
316 differences. Hence, the participants had more favourable perceptions of their parents compared
317 to their coaches.

318 ***Primary Analyses***

319 Comparing a one and two-level model indicated that a two-level model, differentiating the
320 between-coach level from the between-athlete level, is preferred for all outcomes except for
321 amotivation ($\chi^2 = 3.23$, $df = 1$, $p = 0.07$). Calculation of the Intraclass Correlation Coefficient
322 (ICC; Lüdtke & Robitzsch, 2009), which indicates the percentage of variance lying at the

between-coach level as a proportion of the total variance, revealed the lowest variance at the between-coach level for amotivation (5.17%) while the highest between-coach variance was found for autonomous motivation (12.30%). For all other of the variables, values fell in between. To be consistent across the outcome variables and to control for coach-level variance even when this variance was not significant, we ran two-level models with random intercepts and fixed parameters for all outcome variables (i.e., autonomous motivation, controlled motivation, amotivation, engagement and disengagement).

The Separate Contribution of (De)Motivating Coaching and Parenting

When considered separately, need-supportive coaching (see Model 1, Table 2) and parenting (see Model 2, Table 2) were significantly positively related to adaptive outcomes among soccer players (autonomous motivation and engagement) (Hypothesis 1a). Surprisingly, both coaches' and parents' need support was also positively related to controlled motivation. The need-thwarting behaviours of both coaches and parents were significantly positively related to negative outcomes in soccer players (controlled motivation, amotivation, and disengagement) (Hypothesis 1b). As the positive relationship between need support and controlled motivation came as a surprise, follow-up analyses were conducted on the subcomponents of controlled motivation. These analyses showed that coach and parental need support were positively related to introjected regulation in particular (resp. β =.35, $p < .001$; β = .33, $p < .001$), while being unrelated to external regulation (resp. β =.13, $p = .16$; $\beta = .10$, $p = .33$).

The Unique Contribution of (De)Motivating Coaching and Parenting

To examine the unique relationships of coaching and parenting behaviours with the outcomes, both types of behaviours were included as simultaneous predictors (see Model 3, Table 2). Results showed that only need-supportive coaching was then related significantly and positively to the two beneficial outcomes (autonomous motivation and engagement) (Hypothesis 2a). As for the need-thwarting behaviours, both coaches' and parents' reliance on need-thwarting

behaviours were related significantly and positively to amotivation, yet were unrelated to controlled motivation and disengagement (Hypothesis 2a and 2b). Apparently, the simultaneous introduction of both need-thwarting predictors cancelled out the role they played when considered in isolation.

Discussion

When examined separately, both coaches' and parents' (de)motivating styles showed similar associations with youth soccer players' (a)motivation and (dis)engagement. The more coaches and parents were perceived as need-supportive, the more autonomous motivation and engagement their soccer players reported. On the other hand, the more soccer players perceived their coaches and parents as need-thwarting, the more amotivation and disengagement they displayed. These findings are in accordance with previous studies examining motivating coaching (e.g., Bartholomew et al., 2011) and parenting (e.g., Amado et al., 2015) in the context of sports.

A somewhat unexpected, yet interesting finding emerged for controlled motivation, as not only higher levels of need-thwarting, but also higher levels of need-supportive coaching and parenting went hand in hand with more controlled motivation. A closer look at the subcomponents of controlled motivation indicated that need support related to soccer players' introjected regulation, but not to their external regulation. This is in accordance with previous studies in the educational (e.g., Haerens, Aelterman, Vansteenkiste, Soenens, & Van Petegem, 2015; Zhou, Ma, & Deci, 2009) and parenting context (e.g., Vansteenkiste, Soenens, Van Petegem, & Duriez, 2014). Importantly, need-thwarting styles were also related significantly to controlled motivation. Apparently, controlled motivation (and introjected regulation in particular) may arise in a context where socialization figures rely on a mixture of need-thwarting and need-supportive styles. These ambiguous circumstances may elicit internal pressures in athletes as they may feel compelled to please socialization figures who can, at

times, be very demanding or even threaten to reject them, but who also at the same time invest considerable time and energy in their players.

Importantly, the findings of the current study underscore the importance of distinguishing between need-supportive and need-thwarting interpersonal styles and are in line with previous studies in the coaching (e.g., Bartholomew et al., 2011) and parenting domain (e.g., Costa, Cuzzocrea, Gugliandolo, & Larcan, 2016; Mabbe, Soenens, Vansteenkiste, & Van Leeuwen, 2016). As such, need-thwarting behaviours are not the exact opposite of need-supportive behaviours. Rather, need support and need thwarting should be viewed as distinct but related dimensions (Haerens et al., 2015) displaying an asymmetric interrelation (Vansteenkiste & Ryan, 2013). The relation is said to be asymmetric because the lack of need support does not necessarily imply the presence of need thwarting, whereas need-thwarting behaviours do automatically imply low need support. In the current study, need support and need thwarting were slightly, but significantly negatively related to each other. Moreover, they were related to a different set of outcomes, with need support being related primarily to beneficial outcomes (with the exception of controlled motivation) and with need thwarting being related primarily to detrimental outcomes. This pattern is in line with findings from the educational context showing that need support and need thwarting relate to motivational experiences through unique pathways (Haerens et al., 2015). This study is, to the best of our knowledge, the first study to support this claim in the context of youth sport parenting.

Analyses taking into account simultaneously (de)motivating coaching and parenting showed that coaches' need support was uniquely related to soccer players' autonomous motivation and engagement. Both coaches' and parents' need-thwarting styles were related to amotivation. As such, the findings suggest that coaches' need-supportive behaviours are ultimately most important to athletes' motivation than parents' need-supportive behaviours. One self-evident explanation for this finding is that coaches are more strongly involved in

athletes' sport participation than parents are. In addition, athletes may feel that coaches are more competent in the domain of sports and have more legitimate authority to provide support than parents. Accordingly, coaches' need support would make a stronger contribution than parents' need-support. In contrast, parental need-thwarting behaviours did matter above and beyond coaches' need-thwarting behaviours. Although these findings are in need of replication before firm conclusions can be drawn, they suggest that parents' need-thwarting behaviours might be more salient than parents' need-supportive behaviours, at least when considered in conjunction with coaches' behaviours. In the sports context, need-thwarting parental behaviours may indeed include highly disturbing and hard to ignore phenomena such as conditional regard (Ross, Mallett, & Parkes, 2015) and sideline rage (Goldstein & Iso-Ahola, 2008). Because of their strong psychological salience, such need-thwarting parental behaviours may affect athletes' motivation even when considering the need-thwarting behaviours of a more proximally involved socialization figure such as the coach. Overall, the coaches' motivating style appeared to have more consistent unique associations with soccer players' outcomes. Our findings are generally in line with previous studies showing that socialization figures more closely involved in a specific life domain play a more pronounced role in domain-specific motivation (e.g., Soenens and Vansteenkiste, 2005).

It is noteworthy, however, that associations between perceived coaching and parenting were quite robust and that several relationships of (de)motivating coaching or parenting as examined in isolation, disappeared when considered simultaneously. The positive association between perceived coaching and parenting is intriguing and may emerge through several mechanisms. First, this association could be explained at least partly through perceiver bias, with soccer players differing in their tendency to perceive different socialization figures similarly in terms of motivating style. Such a bias could, in turn, be affected by several factors. For instance, soccer players' personality may play a role, with players scoring high on

agreeableness perhaps having a more benign appraisal of their social environment (Mabbe et al., 2016). A second possibility is that individuals' motivation and engagement affect their perception of socialization figures. While soccer players high on autonomous motivation and engagement would then perceive coaches and parents in a more favourable light, players high on amotivation and disengagement would hold a generally negative view of their socialization figures. This possibility entails a different order of effects than the order assumed in the current study, with motivation and engagement affecting soccer players' appraisal of their socialization figures rather than the other way around. Longitudinal research is needed to examine the chronology within this relationship. Yet a third possibility is that the perceived parental style affects soccer players' perception of their coach. The motivating style experienced by soccer players at home would then serve as a template or mental representation colouring these players' perception of other socialization figures. Another mechanism possibly linking perceived parenting to perceived coaching involves more evocative processes. Soccer players who perceive parents as need-supportive and who have their psychological needs met on a more regular basis may elicit more need-supportive behaviours among other socialization figures, including coaches. As such, there is a possibility that parents are indirectly important through their effect on perceptions and behaviours of the coach. Again, longitudinal research is needed to test such more complex and dynamic forms of interplay between coaches and parents. A final more down-to-earth explanation is that the strong association between coaching and parenting is caused (or at least enhanced) not only by the mono-informant approach, but also by the mono-method approach. Exactly the same items were used to rate both perceived coaching and parenting, as to be able to directly compare coaching and parenting. As such, it included only generic items, thereby failing to grasp situational specificities that are evident in reality. Future research would do well to use more specific questionnaires tailored to either coaches or parents. Content-wise, such research may also provide more knowledge about the relationship-specific

manifestations of a motivating style. As such, future research might rely on a vignette-based measurement of (de)motivating styles (for an example, see Delrue et al., 2019). Such a type of measurement allows researchers to tailor motivating styles to specific situations in the coach-athlete and parent-athlete interaction, thereby increasing the ecological validity of the measure and study.

Limitations

Some of the limitations of this study were already mentioned in the previous section. Here we discuss a number of more general limitations. A first limitation encompasses the cross-sectional design used in the current study, which does not allow us to draw causal conclusions. Because direct experimental manipulations of coaching and parenting behaviours are not feasible (but for indirect approaches to induce parental behaviour, see Grolnick, Gurland, DeCourcey, & Jacob, 2002; Wuyts, Vansteenkiste, Mabbe, & Soenens, 2017), a longitudinal design is to be preferred. Such a design can determine variable patterns over time and would allow researchers to detect whether changes in (de)motivational coaching and parenting are related to, and even precede, changes in athletes' motivation and engagement. Furthermore, such a design would allow to examine whether coaches or parents adapt their (de)motivating style, based on the style they perceive the other socializing agent to use. For example, a parent noticing the coach of their offspring to be need-thwarting, might take a more need-supportive stance in order to compensate, or, instead, may take over the style used by the coach and, as a result, also become increasingly need-thwarting. A second limitation involved the use of a single informant. Asking coaches and parents to report on their own (de)motivating styles and observable aspects of soccer players' engagement could have increased the validity of the assessment in the current study. In addition, a multi-informant procedure might also reduce shared method variance, as it rules out projections of one socializing agent's behaviours on that of others. Still, assessments based on soccer players' perceptions also have advantages because research has shown that

athletes' perceptions of coaching behaviour are more predictive of outcomes than the objective coaching behaviour per se (Babkes & Weiss, 1999). A third limitation is that we tapped only into soccer players' perception of their most involved parent's (de)motivating style. As a consequence, the current study could not examine the similarities of maternal and paternal styles in their contribution to soccer players' motivation and engagement. Previous research has shown that mothers focus more on enjoyment, whereas fathers attach more importance to ability and effort (Averill & Power, 1995). However, studies that included both paternal and maternal autonomy support suggest that both parents' autonomy support is related to athletes' motivation in similar ways (Amorose et al., 2016). A fourth limitation concerns the generalizability of the findings, given only youth soccer players were sampled. As such, it remains unclear whether the unique contribution of coaching and parenting would be similar for individual athletes and in team sports other than soccer. In individual sports, parents are more often present during competitions, compared to team sports where transportation to games is often regulated by a rotation system. Hence, parents in individual sports are presumed to have more opportunities to affect their children's sport participation (Bois, Lalanne, & Delforge, 2009).

Practical Implications

This study suggests that adults who interact closely with youth athletes, such as coaches and parents, play an important role in youth athletes' sport experiences. The more soccer players perceived their coach or parent to be need-supportive, the more autonomous motivation and engagement they reported. In contrast, perceived need-thwarting coaching and parenting were positively related to amotivation and disengagement. When considered simultaneously, coaches' motivating style displayed more unique associations with adaptive motivation and engagement compared to parents' motivating style. From an applied perspective, practitioners (e.g., sports psychologists) would do well to map coaching and parental behaviours that underlie youth athletes' sports experiences. In a next step, practitioners could offer socialization figures

strategies to help them interact with youth athletes in a need-supportive manner and to uncover the pitfalls of using need-thwarting behaviours. Indeed, recent intervention work has shown that coaches can be trained to adopt a more need-supportive approach, to the benefit of athletes' autonomous motivation and engagement (Reynders et al., 2019). Although this type of coach-oriented interventions may be useful, the current study suggests that interventions targeting both coaches and parents could be even more efficient and effective, since they both appear to play a unique role. Finally, from a meta-perspective, club boards might transmit the message to associated coaches and parents how to behave most appropriately when at the sports club to obtain the most positive psychological and behavioural outcomes among their youth members.

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Table 1. Descriptive Statistics and Bivariate Correlations for All Included Variables

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
Covariates														
1.Age	13.72	1.97												
2.Experience	8.10	2.75	.43**											
3.Years Under Current Coach	1.43	0.92	-.09	-.03										
Outcomes														
4.Autonomous Motivation	6.12	.75	-.22**	-.10	-.05									
5.Controlled Motivation	3.58	1.13	-.05	-.03	-.17**	.24**								
6.Amotivation	1.99	1.22	.04	-.02	-.02	-.26**	.35**							
7.Engagement	5.19	.84	-.21**	-.08	.01	.38**	.17**	-.08						
8.Disengagement	2.54	1.16	.07	-.01	-.04	-.29**	.04	.39**	-.21**					
Coach														
9.Need-supportive Behaviour	5.20	0.94	-.15*	-.04	.10	.39**	.13*	-.06	.42**	-.23**				
a. Autonomy Support	5.11	1.11	-.12	-.03	.04	.32**	.06	-.04	.33**	-.17*	.86**			
b. Structure	5.53	1.05	-.24*	-.07	.12	.44**	.13*	-.11	.39**	-.23**	.81**			
c. Relational Support	4.96	1.19	-.04	-.01	.08	.25**	.13*	-.02	.34**	-.19**	.87**			
10.Need-thwarting Behaviour	2.94	1.03	-.05	-.07	-.06	.01	.27**	.39**	.03	.19**	-.17*			
a. Control	3.90	1.28	-.16*	-.07	.01	.09	.24**	.26**	.10	.09	-.01	.75**		
b. Chaos	2.18	1.26	.06	-.06	-.09	-.08	.21**	.42**	-.01	.23**	-.16*	.83**		
c. Rejection	2.77	1.27	-.04	-.03	-.07	.03	.19**	.28**	-.04	.14*	-.24**	.84**		
Parent														
11.Need-supportive Behaviour	5.65	0.84	-.17**	-.00	.01	.24**	.08	-.13*	.22**	-.16*	.46**	-.04		
a. Autonomy Support	5.96	.98	-.09	-.01	-.04	.20**	-.03	-.16*	.15*	-.19**	.40**	-.08	.78**	
b. Structure	5.78	1.03	-.27**	-.06	.09	.22**	.10	-.15*	.18**	-.11	.34**	-.03	.84**	
c. Relational Support	5.22	1.14	-.06	.05	-.02	.16*	.12	-.02	.20**	-.10	.37**	.01	.81**	
12.Need-thwarting Behaviour	2.63	1.03	-.01	-.07	-.04	-.17**	.24**	.42**	-.04	.26**	-.12	.69**	-.19**	
a. Control	3.06	1.24	-.10	-.03	.04	-.08	.24**	.35**	.01	.15*	.00	.51**	-.03	.77**
b. Chaos	2.09	1.31	.07	-.06	-.06	-.20**	.16*	.43**	-.06	.28**	-.12	.58**	-.24**	.84**
c. Rejection	2.74	1.29	-.01	-.09	-.06	-.12	.20**	.25**	-.05	.19**	-.17*	.59**	-.17**	.81**

Note. $^{*}p < .05$, $^{**}p < .01$

Table 2. Results for the Two-Level Multilevel Analyses regarding Coaches' and Parents' Need-Supportive and Need-Thwarting Behaviours

PARAMETER	**Autonomous motivation**			**Controlled motivation**			**Amotivation**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
FIXED PART	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*
Intercept	5.94 (.21)	5.99 (.20)	5.95(.21)	3.49 (.25)	3.57 (.27)	3.54 (.26)	1.75 (.31)	1.73 (.26)	1.71 (.27)
Covariates									
Age	-.05 (.03)	-.05 (.03)	-.05 (.03)	-.00 (.04)	.00 (.04)	.00 (.04)	.04 (.05)	.03 (.04)	.03 (.04)
Years under current coach	-.10 (.05)	-.08 (.05)	-.10 (.05)	-.20 (.08)**	-.20 (.08)*	-.20 (.08)**	.04 (.08)	.02 (.08)	.03 (.08)
Moderate competitive level[a]	.19 (.23)	.14 (.22)	.17 (.22)	-.04 (.28)	-.09 (.29)	-.08 (.28)	.22 (.34)	.28 (.28)	.28 (.29)
High competitive level[a]	.22 (.23)	.14 (.23)	.21 (.23)	.19 (.28)	.06 (.30)	.11 (.29)	.13 (.35)	.16 (.29)	.20 (.30)
Predictors									
Coach need-supportive behaviour	.25 (.05)***		.24 (.06)***	.24 (.08)**		.17 (.10)	.06 (.08)		.11 (.10)
Coach need-thwarting behaviour	-.01 (.04)		.07 (.07)	.31 (.07)***		.14 (.11)	.49 (.07)***		.28 (.11)*
Parent need-supportive behaviour		.19 (.06)**	.05 (.07)		.22 (.09)*	.11 (.11)		-.05 (.09)	-.15 (.11)
Parent need-thwarting behaviour		-.04 (.05)	-.11 (.08)		.35 (.07)***	.23 (.12)		.52 (.08)***	29 (.12)*
RANDOM PART REFERENCE MODEL	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)
Coach level variance	.07 (.03)	.07 (.03)	.03 (.02)	.08 (.06)	.08 (.06)	.01 (.03)	.08 (.06)	.08 (.06)	.00 (.00)
Soccer player level variance	.49 (.05)	.49 (.05)	.41 (.04)	1.20 (.11)	1.20 (.11)	1.04 (.10)	1.41 (.13)	1.41 (.13)	1.07 (.10)
RANDOM PART TEST MODEL	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)
Coach level variance	.04 (.02)	.03 (.02)	.03 (.02)	.00 (.00)	.01 (.03)	.00 (.03)	.06 (.05)	.00 (.00)	.01 (.03)
Soccer player level variance	.38 (.04)	.41 (.04)	.38 (.04)	1.05 (.10)	1.04 (.10)	1.03 (.10)	1.06 (.10)	1.07 (.10)	1.04 (.10)
Test of significance									
IGLS deviance reference model	557.91	557.91	458.25	779.89	779.89	667.23	815.99	815.99	671.29
IGLS deviance test model	447.08	458.25	442.86	687.42	667.23	663.85	677.79	671.29	665.51
X^2 *(df)*	110.83(2)***	99.66(2)***	15.39(2)***	92.47(2)***	112.66(2)***	3.38(2)	138.20(2)***	144.70(2)***	5.78(2)

Note. *$p < .05$; **$p < .01$; ***$p < .001$. [a]Reference category = low competitive level.

Table 2 Continued

PARAMETER	**Engagement**			**Disengagement**		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
FIXED PART	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*	*B (S.E.)*
Intercept	4.99 (.18)	5.05 (.20)	4.98 (.19)	2.11 (.37)	2.09 (.35)	2.12 (.35)
Covariates						
Age	-.07 (.03)*	-.07 (.03)*	-.07 (.03)*	-.02 (.05)	-.02 (.05)	-.02 (.05)
Years under current coach	-.03 (.06)	-.01 (.06)	-.03 (.06)	-.02 (.09)	-.04 (.09)	-.02 (.09)
Moderate competitive level[a]	.19 (.20)	.15 (.21)	.19 (.20)	.52 (.40)	.56 (.37)	.52 (.37)
High competitive level[a]	.23 (.20)	.25 (.22)	.24 (.21)	.32 (.41)	.40 (.39)	.35 (.39)
Predictors						
Coach need-supportive behaviour	.33 (.06)***		.34 (.07)***	-.17 (.08)		-.17 (.10)
Coach need-thwarting behaviour	.04 (.05)		.08 (.08)	.24 (.07)**		.07 (.12)
Parent need-supportive behaviour		.20 (.07)**	.00 (.08)		-.13 (.09)	-.05 (.11)
Parent need-thwarting behaviour		.03 (.06)	-.05 (.09)		.28 (.08)***	.23 (.13)
RANDOM PART REFERENCE MODEL	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)
Coach level variance	.05 (.03)	.05 (.03)	.00 (.00)	.15 (.08)	.15 (.08)	.09 (.06)
Soccer player level variance	.65 (.06)	.65 (.06)	.61 (.06)	1.18 (.11)	1.18 (.11)	1.09 (.11)
RANDOM PART TEST MODEL	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)	σ^2 (S.E.)
Coach level variance	.00 (.00)	.00 (.00)	.00 (.00)	.12 (.07)	.09 (.06)	.09 (.06)
Soccer player level variance	.55 (.05)	.61 (.06)	.55 (.05)	1.07 (.11)	1.09 (.11)	1.07 (.11)
Test of significance						
IGLS deviance reference model	619.19	619.19	537.80	777.30	777.30	685.52
IGLS deviance test model	513.80	537.80	513.30	686.05	685.52	681.09
X^2 *(df)*	105.39(2)***	81.39(2)***	24.50(2)***	91.25(2)***	91.78(2)***	4.43(2)

Note. *$p < .05$; **$p < .01$; ***$p < .001$. [a]Reference category = low competitive level.