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MCCANN, B., MCCARTHY, P.J., COOPER, K., FORBES-MCKAY, K. and KEEGAN, R.J.

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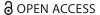
Bryan McCann[a] (iD), Paul J. McCarthy[a] (iD), Kay Cooper[b] (iD), Katrina Forbes-McKay[c] (iD), and Richard J. Keegan[d] (iD)

[a]Department of Psychology, Glasgow Caledonian University, Glasgow, UK; [b]School of Health Sciences, Robert Gordon University, Aberdeen, UK; [c]Applied Social Sciences, Robert Gordon University, Aberdeen, UK; [d]Research Institute for Sport and Exercise, University of Canberra, Canberra, Australia

ABSTRACT

This study retrospectively explored perceptions of coach, parent and peer motivational influences across athlete development. Four investment stage football players (M age = 18.5 years, SD = 0.6) with an average age of 13 (SD = 1.4) years footballing experience, and four of their parents, were interviewed to investigate their perceptions of coach, parent and peer motivationally-relevant influence during the athletes' sampling, specializing and investment stages of development. Abductive thematic analysis of the interview transcripts identified five categories of perceived social agent motivationally-relevant influence that were consistent amongst each social agent and across each development stage. Each social agent was perceived by participants to play a role in each of the following motivationally-relevant categories of social agent influence: relationship factors; interpersonal interactions; support for development; support for participation; and feedback and evaluation. The categories were somewhat supportive and reflective of those outlined in other models. The results describe a complex and dynamic social environment within which players develop and provide insight into how this socio-motivational environment changes as athletes develop. Identified categories of perceived motivationally-relevant social agent influence may provide a framework for future research and allow practitioners to better determine athletes' motivational needs. Sport practitioners may use the findings from the study to ensure that athletes are gaining the breadth of motivational influences described in the categories within this study. Coach education might be developed or adapted to educate coaches on the types and importance of socio-motivational influences in sport.

Lay summary: Coaches, parents and peers were found to influence football players' motivation in a range of ways, including the quality of their relationship with athletes, their positive and negative behaviors, the support they provided players' development and participation in football, and the support they provided footballers to reflect on their experiences. The type of support that coaches, parents and peers provided to players changed as players progressed through different developmental stages, with coaches and peers becoming more important as athletes reached higher performance levels.

CONTACT Bryan McCann ✉ bryan.mccann@gcu.ac.uk 🖳 Department of Psychology, Glasgow Caledonian University, Glasgow, G4 0BA, UK.

Coaches and other sport practitioners might benefit from insight into the range of motivational influences that coaches, parents and peers can have in a football context in order to better develop and maintain athlete motivation.

Football is one of the world's most popular sports, with benefits for participants and society. A recent report for seven European countries with a combined 10.6 million registered players found that football contributed over €6.3bn to society (UEFA Direct, 2019). In England, where 12 million people participate in football each year, the estimated annual value of football to social wellbeing (e.g., quality of life, self-efficacy) was £8.7bn (FA, 2019). Understanding football players' motivation to participate in football, and the influences on their motivation, may help to increase and maintain participation, leading to positive benefits associated with physically active lifestyles.

Motivation is an "internal state that energizes and drives action or behavior and determines its direction and persistence" (Hagger & Chatzisarantis, 2007, p. xi) and has been extensively studied in sporting contexts (Hassmén et al., 2016). Social influences on motivation are considered within several contemporary motivation theories, especially self-determination theory (SDT; Deci & Ryan, 2000) and achievement goal theory (AGT; Nicholls, 1984). Therefore, understanding athletes' perceptions of social influences on their motivation may help to optimize sport participation and performance because of motivation's link with outcomes such as self-esteem and self-regulation (O'Rourke et al., 2014).

Much of the research into the roles of significant others in relation to athlete motivation has focused on the independent influence of coaches, parents or peers (Harwood et al., 2015), such as the influence of perceived coach autonomy support (Adie et al., 2012), parental feedback (Gershgoren et al., 2011) and peer-influenced motivational climates (Jõesaar et al., 2011). Some research has suggested that athlete motivation is shaped through a complex interaction of combined influences from multiple social agents, such as parents and coaches (e.g., Gagné et al., 2003); coaches and peers (e.g., Jõesaar et al., 2012); and parents and peers (e.g., Ullrich-French & Smith, 2006). Few studies and theories, though, have considered the interactive role of these three social agents influencing the same athlete at the same time. This study aimed to address this issue by considering the perceived motivational influence of coaches, parents and peers simultaneously.

Social agent influence on motivation during athlete development

Much of the research into coach, parent and peer influence in sport has focused on youth sport, with studies showing that this influence can change over time (e.g., Chan et al., 2012). Models of athlete development such as the Developmental Model of Sport Participation (DMSP; Côté, 1999; Côté & Fraser-Thomas, 2016) and the Lifespan Model (Wylleman & Lavallee, 2004) suggest that relationships with others influence athlete participation, development and performance. Social agents' influences and roles fluctuate as athletes develop, and consideration should be given to these dynamic influences

on athlete motivation to contextualize knowledge and interventions to athletes' developmental stage (Wylleman & Lavallee, 2004). Within a competitive youth sport context, Garcia-Bengoechea and Strean (2007) identified interpersonal influencers on motivation (e.g., parents, relatives, friends, teachers, teammates, coaches, etc.), and five categories of social agent influence: support, exerting pressure and control, socialization and achievement orientation, providing information relating to competence, and being role models. Such variety of identified sources-of-influence indicate a complex and dynamic process of social agent influence.

The role of others in motivational theories

To understand motivation, one must understand its processes, antecedents and consequences (Weiss & Amorose, 2008). Many theories have been developed and applied to better understand human motivation (Hassmén et al., 2016; Keegan et al., 2010). AGT (Nicholls, 1984) and SDT (Deci & Ryan, 2000) are two of the most dominant theories guiding practice and research within the field of sport and exercise psychology (Keegan et al., 2010). Understanding how research aligned to SDT and AGT has conceptualized social influences may provide insight into the dominant perceptions of social agent influence on motivation within the sport and exercise psychology discipline.

SDT posits that motivation is influenced by satisfaction of the basic psychological needs autonomy, relatedness and competence which have been associated with more self-determined forms of motivation (Ryan & Deci, 2000). Interactions between athletes and social agents have been found to influence athlete basic need satisfaction. Social agent influenced environments which create opportunities for athletes to cooperate, make decisions and develop their skills (i.e., relatedness-, autonomy- and competence-supporting environments) lead to increased basic need satisfaction (Ntoumanis, 2001). For example, athletes' basic need satisfaction can be predicted by the quality of their relationship with coaches (Jowett et al., 2017), and parent autonomy support has been found to be related to autonomous forms of motivation in youth sport (Gagné et al., 2003). Furthermore, peer-created motivational climates, such as when peers are supportive of one another and emphasize personal improvement, can predict athletes' intrinsic motivation (Jõesaar et al., 2011), and the quality of peer relationships can facilitate motivational outcomes such as competence (Smith et al., 2006).

AGT asserts that motivation and behavior derive from athletes' achievement goals, which are broadly categorized as mastery/task (i.e., mastering and improving tasks) and performance/ego (i.e., outperforming others and basing ability on comparisons; Nicholls, 1984). Achievement goals are generated by the interaction between one's goal orientation (i.e., a predisposition to adopting specific types of goals) and the perceived motivational climate (i.e., the context and situation related to the task; Ames, 1992). Motivational climates are influenced by those behaving in them (e.g., coaches, parents and/or peers) and perceptions of task and ego-oriented climates are associated with adaptive (e.g., self-confidence) and maladaptive (e.g., negative emotions) outcomes respectively (Harwood et al., 2015). Ego-involving peer climates (e.g., intra-team conflict) have, for instance, been related to perceived burnout in adolescent athletes (Smith et al., 2010), and parent-created task-involving climates (e.g., where parents provide

encouragement and positive responses to success) predicted positive athlete sporting behaviors (Lavoi & Stellino, 2008).

SDT and AGT as Kuhnian paradigms

Kuhn (1962) described how paradigms (i.e., worldviews, methodologies and theories dogmatically adopted by researchers) have historically dictated research and shaped enquiry within disciplines until reaching a crisis point, before new paradigms are developed and become dominant. Sport and exercise psychology research was dominated by positivism before a diversification of paradigms, epistemologies and methodologies in the mid-1990s (Vealey, 2006). Hassmén et al. (2016) considered paradigms which dominate motivation discourse in contemporary sport and exercise psychology research and practice. They argued that many studies exploring SDT and AGT in sport were explicitly or implicitly paradigmatic, guided by the theory as a framework or seeking to verify the theories' predications through correlational studies which verify rather than test the theory.

A turn toward more inductive approaches

Popper (1969) argued for research approaches which aim to disprove theories in order to either remove errors or discard disproven theories in favor of theories which have more 'truth content'. Attempting to meet this challenge, Keegan and colleagues investigated the simultaneous influence of parents, coaches and peers on the motivation of early career athletes (Keegan et al., 2009), specializing athletes (Keegan et al., 2010), and advanced athletes (Keegan et al., 2014a). Keegan and colleagues adopted a 'theoretically agnostic' perspective in which they resisted the tendency to let a single dominant motivational theory guide the research and interpret findings, but still kept those theories in mind (Keegan et al., 2010), and an analysis informed by grounded theory and not framed by one dominant theoretical perspective (i.e., not purely inductive, but rather abductive in nature). Results demonstrated that motivation within sport at each developmental stage was reconcilable with existing theories of motivation (e.g., SDT adn AGT) as well as offering practical opportunities to inform and intervene in the surrounding motivational atmosphere (as opposed to abstract perceptions of motivational climate). Results from each study demonstrated that social agent influence on motivation fluctuated depending on the athletes' developmental stage. Keegan et al. (2014a) compared their findings from athletes at the 'investment' career stage (15–29 years old) with those from initiation athletes (7–11 years old; Keegan et al., 2009) and specializing athletes (9–18 years old; Keegan et al., 2010). They reflected that although there were consistent sources of motivational influence at these stages, there were clear qualitative changes in the nature of the influence. For example, the role of parents in sport became less important for developing sport skills and the role of peers increased in relation to providing social support (Keegan et al., 2014a).

Building on their research into social agent influence across different stages of athlete development, Keegan et al. (2014b) conducted a qualitative-synthesis of 45 studies relating to the motivational influences of parents, peers and coaches on athletes during an athlete's career in sport. They created a novel interpretation of the motivationally-relevant social milieu in sport, describing motivational atmosphere (Keegan et al., 2010)

as a way of understanding the complex and multifaceted combined influence of others on athlete motivation, and incorporating Vallerand's (2007) identification of global, contextual and situational influences on motivation. Using a meteorological analogy, Keegan et al. (2014b) suggested that a momentary motivation profile would be shaped by the global motivational atmosphere, which is formed from contextual motivational climates (e.g., competition climate, training climate, etc.), themselves created by situational characteristics (e.g., competition conditions, training conditions, etc.). This model suggests that motivational climates, and by extension the social influencers of motivation, should not be investigated in isolation, as one motivational climate can influence the other. Social agent influences on athlete motivation do not happen in a vacuum and the influences of different social agents overlap with one another at different levels (e.g., situational or contextual), requiring a more sophisticated understanding that considers the interaction between the motivational influence of multiple social agents (Keegan et al., 2010). Keegan et al. (2014b) also proposed that this model may enable the prediction of motivation based on the varying motivational influences at different stages in development in the same way that measuring various meteorological indicators can allow predictions of the weather. Although complex, this analogy may allow researchers to better explore the complex and potentially competing situations and contexts within which social agents influence athlete motivation.

Positioning the present study

In summary, coaches, parents and peers have been found to influence athlete motivation in different ways at different stages of athletes' careers. Recent research has attempted to avoid a paradigmatic approach by being more grounded in the experience of athletes rather than being guided by existing theories of motivation (e.g., Keegan et al., 2009, 2010, 2014a), and have shed some light on the dynamic role of social agents during different stages of athlete development and within the complex social milieu that athletes experience. These 'theoretically agnostic' studies, which were abductive in nature (i.e., analysis was theory-informed rather than being purely inductive) have provided insights beyond those of existing and dominant motivation theories (e.g., SDT and AGT). Retrospective and longitudinal studies are required to better understand the mechanisms of combined social agent influence on athlete motivation, and how these change over time (Harwood et al., 2015). Keegan et al.'s (2014b) model of motivational atmosphere suggests transient boundaries between the global, contextual and situational levels of influences, and therefore focusing research on one sport may facilitate enhanced understanding of motivation in the specific sporting context, by reducing the variability in motivational atmosphere to participants undergoing similar transitions in a relatively consistent sporting system.

In line with the preceding discussion regarding the paradigmatic nature of motivation theory in sport, this study aligned to a critical realist philosophy. Critical realism was developed by Bhaskar (1979) to deviate from both positivist and constructivist perspectives, which were argued to limit the advancement of knowledge by reducing ontology to epistemology (Bhaskar, 1998). Critical realism ontologically proposes three levels of reality: the real, the actual and the empirical (Blaikie, 2007). At the real level, causal structures contain

mechanisms which cause events at the actual and empirical level. At the actual level, events occur whether they are observed or not. At the empirical level, events are observed and experienced, and can be understood through interpretation (Fletcher, 2017). For example, players on a school football team may all experience and perceive the motivational climate during training differently (empirical level), yet the motivational climate exists independently of players' experiences of it (actual level). The motivational climate is itself caused by complex and interacting structures and mechanisms, such as coach experience, educational context and socioeconomic factors (real level).

Critical realism suggests a reality exists independent of humans' perceptions of it but understanding of reality is profoundly difficult and can always improve (Blaikie, 2007). From an ontological position of critical realism, the role of science is to improve existing, fallible knowledge of an external reality, rather than pursuing an absolute 'truth' (Blaikie, 2007). This fallibility of our knowledge of reality, and researchers' pursuit of improving understanding, means that critical realism is epistemologically similar to Popper's (1974) Critical Rationalism (Piggott, 2010) sharing a 'fallibilism' tradition (Keegan, 2016). Critical realism thus provides a valuable philosophical framework for exploring perceptions of athletes' motivational influences in a manner which challenges existing motivation theory paradigms. Qualitative research grounded in critical realism can challenge existing theories through analysis of participant perspectives and interpretations (Redman-MacLaren & Mills, 2015). As football is one of the most popular sports in the world with significant economic and wellbeing benefits for society (UEFA Direct, 2019; FA, 2019), understanding the influences on athlete motivation within football contexts is important. Pathways in football are also relatively consistent (e.g., transitioning from youth teams to football academies to professional teams), and footballers have generally similar transition pathways meaning it is an ideal context to explore the motivationally-relevant social agent influences across athlete developmental stages. This study, therefore, aimed to identify the perceived motivationally-relevant influence that coaches, parents and peers had across all stages of investment-stage footballers' development, and determine how these influences changed through developmental stages.

Method

Design

This study examined the perceived motivationally-relevant behaviors and influences of social agents during athletes' sampling, specializing and investment developmental stages. Aligned to critical realism ontological and critical rationalist epistemological positions, a qualitative approach using one-to-one interviews was selected as motivation development in sport is complex (Keegan et al., 2014a) and can be perceived differently by similar individuals (e.g., Cumming et al., 2007). Qualitative methods within a critical realist ontology assist in mapping out concepts and systems prior to then determining the stability of these systems and whether they can be measured (Ryba et al., 2020) which makes them an appropriate method in relation to the aim of this study. Despite calls for longitudinal study designs to investigate social influences on athlete motivation (e.g., Harwood et al., 2015), a full investigation across all developmental stages would need to take place over potentially 15–20 years. As a starting point retrospective

interviews, therefore, may provide similar insight in a more efficient and practical way, so long as data and findings are interpreted appropriately. In addition, retrospective interviews have been proposed as a primary method of gaining insight into the development of expert performers (Côté et al., 2005).

Participants

Following ethical approval from a UK university's ethics committee, players were purposively sampled from a UK elite football program (EFP). The four-year EFP was delivered in partnership between the national governing body as part of their performance strategy and local authorities and participating schools. The EFP provided players with individualized football training, nutrition and conditioning support integrated within their secondary school curriculum (i.e., football training replaced another school subject) in addition to their training with local football academies. The EFP was designed to provide players with at least ten hours of individualized, high-quality football coaching per week on top of the standard hours of training players their age and level of performance might receive (e.g., via a school football team and/or football academy). The lead researcher gained access to these participants through their sport psychology consultancy role with the governing body after the EFP that participants had been involved in had been completed. The lead researcher had not been involved in the delivery of the EFP that the participants had taken part in. The lead researcher's experience of providing psychological support in football contexts and knowledge of sport development pathways allowed them to establish effective relationships during interviews with participants and to better contextualize and understand participant responses and perspectives provided during interviews.

Players on the EFP represented athletes who had passed through the sampling and specializing stages, and reached the investment stage of development, in line with trajectory two of Côté's (1999) DMSP (i.e., players were dedicated to achieving the highest performance level possible within one sport). Gatekeeper approval to approach players was provided by a national governing body. Information about the study was e-mailed to eligible players and their parents, and dates and times were arranged to conduct telephone interviews with those who indicated a willingness to participate. All eight players who completed the EFP were approached to participate, with four players choosing to take part. Where players agreed to participate, their parents were also approached to take part in the study. Coaches and peers were not recruited for the study because the aim of the study was to understand the players' experiences and perceptions of the motivational influence of social agents. Eight participants were recruited for the study: four male football players (M age $= 18.5$ years, $SD = 0.6$) with an average of 13 years ($SD = 1.4$) years footballing experience; and four parents (i.e., one parent per player; three fathers and one mother), who were recruited to enhance the credibility and trustworthiness of the findings by triangulating with player perspectives as they were present during athlete development (Coulter et al., 2010; Johnson et al., 2008). Conducting the research within one sport allowed for an in-depth and rich exploration of the perceptions of participants within one specific sporting context at a situational rather than global or contextual level (Vallerand, 2007).

Procedure

At the start of interviews, participants received a verbal explanation of the study and reminder of its voluntary nature and issues relating to confidentiality and anonymity. Interviews were conducted via telephone because of the large geographical distance between participants and the researcher. Telephone interviews also provided flexibility to participants in terms of timing, although they did not allow for observation of body language which may have enhanced interpretation of interview content. Interviews lasted between 35 and 65 min ($M = 51.6$ minutes, $SD = 9.6$) and followed a pre-prepared semi-structured interview guide informed by previous research exploring social agent influences on athlete motivation (e.g., Côté, 1999; Keegan et al., 2009, 2010, 2014a). The researcher did not provide a definition of motivation, instead relying on participants' own conceptualization of motivation when answering questions. The researcher explained each of the three stages of Côté's (1999) athlete development model and asked participants to identify the players' ages during each development stage to contextualize subsequent questions and stimulate recall (Lauer et al., 2010). Questions were grouped by developmental stage and related to the role of the players' coach, parents and peers during the sampling, specializing and investment stages of the players' development. These social agents were the focus of the study because previous research identifies them as dominant social influences in sport.

Critical realism accepts that research can be guided by existing theories, but that researchers should "avoid any commitment to the content of specific theories and recognize the conditional nature of all its results" (Bhaskar, 1979, p. 6). As such, aligned with this philosophical stance interview questions were thus informed by motivational theories such as SDT (Deci & Ryan, 2000) and AGT (Nicholls, 1984), as well as Keegan et al.'s (2009, 2010, 2014a) motivational atmosphere model, to help determine the behaviors which might be considered motivationally-relevant based on a breadth of motivation theories, and not just one conceptualization of motivation. Questions were adapted to apply to participants and their parents. The first question asked in relation to each social agent at each developmental stage allowed participants to provide insights into how they perceived that social agent to influence motivation (e.g., "During this stage, how would your coach motivate you?"). Subsequent questions related to the influence of these social agents on motivation-related behavior (Keegan et al., 2009) such as encouraging effort (e.g., "what kind of things did your son's coach do or say that encouraged your son to continue to put in effort even when your son felt tired?") and making comparisons with others (e.g., "what kind of things did your coach say or do that made you compare yourself to others"), and follow-up questions were used to encourage participants to provide examples of these behaviors. The semi-structured nature of the interviews allowed an iterative analysis process where topics from interviews could be confirmed and explored further within the same interview and subsequent ones. All interviews were recorded using two Dictaphones and transcribed verbatim.

Data analysis

In line with a critical realist stance challenging existing motivation theories, an abductive approach to data analysis was adopted, grounding the findings in participant

perspectives but also, where appropriate, aligning findings to existing (fallible) theory (Fletcher, 2017). All possible theoretical interpretations were considered in a critical manner, and theories had to "earn" their way into the analysis (Charmaz, 2014, p. 201). Player and parent data were analyzed together to provide triangulated insight into the perceived influences of others on athlete motivation. Analysis commenced immediately following the first interview with the researcher considering participant responses and noting initial reflections. Thus, subsequent data collection focused on themes identified in preceding interviews. Informed by the analysis methods adopted by Keegan et al. (2009, 2010, 2014a), a seven-step procedure for thematically analyzing data was adopted: (1) interviews were transcribed verbatim, resulting in 150 single-spaced pages; (2) the researcher familiarized themself with the content by repeated reading of, and listening to, interview transcripts and audio; (3) quotes were divided into those relating to each social agent (i.e., coach, parent, peer) and developmental stage (i.e., sampling, specializing, investment); (4) an extensive abductive analysis (i.e., inductive followed by deductive analysis; Charmaz, 2014) was used to analyze the data in line with a critical realist position (Fletcher, 2017) using N-Vivo10 software (QSR, 2012), which involved open coding (i.e., tagging content), and focused coding (i.e., categorizing codes; Côté et al.,1993) and resulted in 707 raw codes refined and grouped into 235 focused codes which were then refined into themes and higher order themes via constant comparison methods. Adopting a theory-informed approach aligned with critical realism (Fletcher, 2017), the abductive coding process involved an iterative method combining induction and deduction (Charmaz, 2014). This iterative method involved the researcher assigning labels which reflected the content of participant quotes (i.e., induction), but at times labeling content based on concepts outlined in existing theories (i.e., deduction) where these stood out as clearly aligned with participant quotes or inductive attempts to label content did not appear to adequately reflect participants' meaning. Where theory was used to label codes, the researcher repeatedly went back to the participant data to ensure that labels fit the data; (5) member reflections (Smith & McGannon, 2018) were carried out during interviews to explore similarities and differences between the participants' and researcher interpretations to develop new insights and better map out the concepts being discussed (Ryba et al., 2020); (6) research supervisors critically commented on and questioned the integration of codes into categories throughout the analysis process through regular meetings with the researcher resulting in some changes to categories (e.g., themes relating to feedback and evaluation behaviors were removed from other categories to form their own category). This process was also used to determine the appropriateness of conceptualizing codes and categories in line with existing theories as part of the abductive analysis approach; (7) peer debrief was conducted throughout the analysis during discussions with peers and presentations of findings to colleagues at internal seminars and external conferences.

Results

The aim of this study was to identify the perceived motivationally-relevant influence that coaches, parents and peers (collectively referred to as "social agents") had across all stages of investment-stage footballers' development and determine how these influences changed

through developmental stages. Analysis allowed comparisons of social agent influence across each stage of athlete development. Five categories of social agent influence on athlete motivation emerged from the data: (a) relationship factors; (b) interpersonal interactions; (c) support for development; (d) support for participation; and (e) feedback/evaluation. Table 1 describes each category of social agent influence and their associated higher order themes. All social agents were involved in each category of influence during athlete development, though influences changed over time as summarized in Table 2. Each category will be described holistically and then in relation to each developmental stage.

Relationship factors

Participants described how the quality of relationships between players and social agents were perceived to be motivationally important. Players sourced motivation from their *friendships* and the *closeness* of relationships, from *group factors* such as a sense of belonging. Players were selective in their choice of motivational relationships with social agents, gaining motivation from *role models* and placing importance on their *similarity* with the social agent and the *continuity* of the relationship.

Sampling stage

Indicators of relationship quality related to both coaches and peers but not parents. Establishing friendships with peers and coaches was important in motivating players in new environments, as was the degree of closeness within these relationships. Coaches and peers were motivational role models to players, providing them with "someone to look up to that's nice and cool and collected, that makes you want to be like that" (Player 2). Players were motivated by belonging to a team, with coaches and peers creating a sense of belonging, which was further enhanced by having a shared interest with coaches and peers.

Specializing stage

Players' relationships with peers increased in importance. Similarity of experience and friendships with peers progressing through to football academies motivated players to adapt to this new setting. Transitioning to football academies provided access to more talented peers who became motivational role models for players as "they wanted to be as good as them … they were … gifted players" (Parent 2). Players were selective in their peer relationships, prioritizing those which were facilitative and motivational. The team environment was influenced by coaches who were "quite good at bringing the boys and getting them to work as a team, and bringing out the good points in them" (Parent 4).

Investment stage

Players' relationships with coaches and peers dominated during this stage. Closeness in relationships with both coaches and peers was said to keep "morale high … keeps you sort of happy … it keeps everyone a lot happier, keeps everything a lot smoother" (Player 3). Coaches and peers acted as motivational role models to players. Player 3 described how coaches motivated players by contextualizing training because of their

Table 1. Descriptions of categories and higher order themes of social agent influence on athlete motivation.

Category	Description	Higher Order Themes	Description
Relationship Factors	Indicators of the quality of relationships between athletes and social agents	Friendships	Positive relationships motivating players within football setting
		Role Models	Players looked up to social agents and aspired to be like them
		Group Factors	Encouragement to feel belonging to a team
		Closeness	Players established close relationships with social agents
		Similarity	Social agents had similar experiences and passions as players
		Selective Relationships	Players chose which social agents to interact with
		Continuity	Coaches being a constant presence during development important
Interpersonal Interactions	Behaviors demonstrated by social agents during interactions with players	Supportive Behaviors	Behaviors which matched the needs and goals of players
		Engendered Positive Feelings	Behaviors that made players feel good about themselves
		Negative Influence	Explicit and implicit behaviors which reduced player motivation
		Promoting Intrinsic Motivation	Behaviors which promoted player enjoyment and autonomy
Support for Development	Behaviors which contributed to players' sport development	Technical Development	Assisting the development of players' technical skills
		Psychological Development	Assisting the development of players' psychological skills
		Facilitating Development	Contextualizing player experiences as developmental opportunities
		Prepare for Performance	Helping players develop their competitive performance skills
Support for Participation	Behaviors which facilitated and supported sport participation	Practical Support	Logistical and lifestyle support
		Social Support	Emotional and interpersonal support
		Effort Support	Support to maintain high levels of effort
		Gatekeepers for Performance	Social agents as gatekeepers for participation (e.g., team selection)
Feedback & Evaluation	Behaviors which helped players evaluate competencies	Reflection	Helping players understand and learn from developmental experiences
		Praise	Providing positive comments and encouragement for performance
		Forward Planning	Helping players maintain perspective of long-term development

Table 2. Summary of perceived motivationally-relevant social agent influence across each player developmental stage.

Social Agent	Sampling stage	Specializing stage	Investment stage
Coach	Dominant social agent within sport context, though has mainly similar influences as one or both other social agents. Provides all aspects of motivational-influence, apart from Providing Access to Sport. Perceived as only social agent supporting players' psychological development and engendering positive feelings.	Very important influence, mainly in combination with both parents and peers. Quality of relationship with players less important. Supports players with praise.	Dominant social agent influence as performance level increases. Quality of relationship important especially when there is continuity in this relationship. Perceived as sole provider of praise and many developmental influences. Continuity of coaches (i.e., working with a coach for a long period of time) perceived as important.
Parent	Comparatively little perceived influence at this stage. Quality of relationship not perceived as being motivationally relevant within sport. Solely responsible for providing access to the sport.	No unique influence—each influence shared with both coaches and peers. Closeness only relationship factor of influence. Main influences in development, performance and interpersonal interaction categories.	Sole provider of practical support. Players choosing which types of support to gain from parent. Few additional relationship factors perceived as influential. Most influences shared with both coaches and peers.
Peer	Provides wide range of influence across each category. No influence for which they are solely responsible. Relationship factors important and shared with coach.	Dominant social agent of influence, involved in almost every type apart from praise. Quality of relationship with player of particular sole importance at this stage.	Influential across a range of categories, but friendships with player only unique influence. Quality of relationship continues to be important, yet players choose which peers to influence their development.

insight into performance environments: "he was an ex pro himself and he just sort of knew exactly what you needed". Players were motivated to work hard and got on well with one another in a positive team environment. Although players valued this team environment, it led to perceptions of motivation-related pressure as players "don't want to be the friend who gets … released, or the friend who … doesn't play anymore" (Player 3).

Interpersonal interactions

Behaviors demonstrated by social agents during their interactions with players were perceived to be motivationally-relevant. Social agents demonstrated *supportive behaviors* which motivated players by matching their needs and goals, and *engendered positive feelings* to motivate players in training and competition. Participants reported that social agent behaviors *promoted intrinsic motivation* amongst players, but that at times social agent behaviors may have explicitly or implicitly had a *negative influence* on athlete motivation.

Sampling stage

The three social agents demonstrated positive and supportive behaviors which created an environment which "wasn't about winning or anything, it was just about enjoying

yourself" (Parent 4). Participants struggled to identify specific examples of coach behaviors but felt that the "general vibe" (Participant 2) from coaches helped players develop intrinsic motivation as illustrated by Parent 4 who stated that their child would "always be ready to go … there was nothing that would put him off going out to train". Coaches in particular engendered positive feelings by creating fun training experiences. All three social agents were, however, perceived to also have negative motivational influences whereby players felt pressured to develop their skills or perform in games. Player 2 highlighted the feeling of pressure about peers and performing well for the team when commenting " … there's nothing worse than … somebody has let the team down through a personal mistake and everybody sort of goes in a bad mood with them."

Specializing stage

All three social agents continued to provide supportive behaviors during this stage, encouraging player motivation whilst helping players adjust to the professionalism of football academies. Academy coaches increased demands on players, with one coach described as being "very controlled … very highly qualified … and it was the discipline he was trying to instill in them" (Parent 2) which players were motivated by as they felt this approach was beneficial to their career ambitions as professional footballers. All three social agents still contributed to player intrinsic motivation by allowing players to be themselves, yet some interactions had a negative influence, including new unhealthy behaviors like smoking and drinking amongst some of the players' peers.

Investment stage

Each social agent demonstrated supportive motivational behaviors during this stage. For example, peers looked after Player 4 when he signed a professional contract as "this was real stuff, this was fans coming to see him … so everything kind of became a lot more serious in that respect" (Parent 4). Social agents continued to promote intrinsic motivation, yet players were becoming more self-sufficient in this respect as "you need to be self-motivated; you can't rely on other people as much. It … comes from yourself, just knowing you need to dig in" (Player 3). Peers and coaches provided "magical moments" (Parent 2) in the performance environment, such as a coach selecting players for first team squads for the first time, which engendered positive feelings and motivated them to continue to work hard for future opportunities. Coaches and parents continued to have a perceived negative motivational influence due to some challenging behaviors, such as intimidating coaches who generated a "fear factor that made you work harder" (Player 2).

Support for development

Participants reported that social agents provided players with motivational support which contributed to their development as footballers. Social agents motivated players in their *technical development* and *psychological development* by working with them on these aspects of their football during and outside of training. Social agents *facilitated development* during challenges such as losing matches or playing poorly by creating an

environment which emphasized development in an implicit way. Although social agents provided a developmentally orientated environment, it was the ambition of players to become professional footballers. Participants therefore reported that social agents would help players *prepare for performances* as elite footballers by developing the necessary competitive skills.

Sampling stage

Each social agent demonstrated motivationally relevant behaviors relating to support for development. Coaches, for example, motivated players to develop their technical skills, and players were motivated by their parents' willingness and enthusiasm to "kick a ball … practice headers, that type of thing" (Parent 4). Coaches and peers also created a motivational environment with both development and performance dimensions. Perceived coach- and peer-created motivational environments which supported development were described as "nothing set in stone or serious about winning, it was all just sort of about making yourself better as a player" (Player 2). The environment was also perceived to provide motivational support for performance where coaches and peers helped players develop the skills needed to perform in competitive games. Coaches supported players' psychological development by promoting confidence and concentration skills by, for example, encouraging players to imagine playing with the "heart of a lion" (Player 4).

Specializing stage

Each social agent supported player development during transitions to football academies. Coaches provided technical development, motivating players by preparing them for professional careers and working "on the things that every sort of modern player needs" (Player 3). Parents and peers supported players with technical elements at home and in training, respectively. Players gained support for their psychological development to assist them to cope with the demands of football academies, with parents motivating Player 1 by "keeping his confidence up and keeping him going, keeping him focused all the time" (Parent 1).

Investment stage

Coaches supported technical development, as players had progressed past their parents' level of football competency and competed with peers. Coaches created environments which supported development, and players respected the contribution coaches made to prepare them for professional football: "he … kind of turned me into a man, like, you start to realize a lot more things about the game and you learn a lot more" (Player 4). Social agents supported players' psychological development, with parents motivating players and helping them cope with being professional footballers by "keeping you grounded … keeping you on the right track, so if you ever get a bit stressed about whatever, just making you think in the long run and just keeping you positive" (Player 3).

Support for participation

Besides supporting and motivating players when developing in football, participants described how social agents supported players' motivation to participate in football. In

addition to providing *practical support* with logistics and lifestyle matters (e.g., nutrition) which allowed the players to focus on their performance, social agents provided *effort support* and *social support* to help maintain motivation to participate. Social agents acted as *gatekeepers for participation*.

Sampling stage

Social agents provided practical support including lifestyle and transport support for players to be able participate in football, including parents "taking me into training every night … making, feeding me the right things" (Player 3). Each social agent provided social support through emotional support and encouragement, helping players cope with new football experiences and be motivated despite their novelty. Social agents provided effort support to players, for example, parents were reported to motivate players to "train a bit harder away from … the academy, and do some more running" (Parent 3). Player 1 commented that without peers motivating him to keep up his effort levels he "probably wouldn't have gotten as far" as a player.

Specializing stage

Social agents continued to support player participation. In relation to practical support, Parent 1 described their own efforts as being "like military precision" due to the high demands on players' time and meant that their child " … didn't have to worry about anything" not related to their sport, allowing them to maintain their motivation to participate. Football academy participation required continued social support, especially when faced with challenging situations such as injury. For instance, Parent 1 commented that "the head coach had always said to him he wanted him to still feel part of the team, and to come along to training if he wanted", motivating Player 1 even when injured. Peers motivated Player 1 when he returned to playing as "a lot of his teammates applauded him as he came on, which we thought was really nice of them" (Parent 1). Social agents provided access to sport, including parents who in some cases sacrificed their own ambitions and resources for players to join a football academy.

Investment stage

As players progressed to professional and semiprofessional football, provision of support changed. Each social agent continued to provide social support in assisting players to cope with this environment, as well as effort support to help motivate them maintain high levels of performance. For example, Player 1 described how peers "motivated each other … we just obviously had to keep everyone motivated". Coaches and parents provided access to sport, including access to sport science and other support services in order "to give them a flavor of all the attributes that you needed to become a professional sports person" (Parent 2). During training and matches coaches supported players in coping with high-pressure performance situations. Parents continued to provide practical motivational support to players despite them having professional contracts as "it is still up to the parents to provide them with all the necessary needs to make him still feel comfortable and so that he is just concentrating on his football" (Parent 3).

Feedback and evaluation

Participants reported that social agents supported player motivation by assisting them in evaluating their experiences within football. In supporting player *reflection* and *forward planning*, social agents maintained and protected player motivation by assisting them to make sense of positive and negative experiences within the sport, and contextualizing within long-term development goals. Social agents motivated players through praise which also acted as a form of feedback. In assisting players in their forward planning, social agents helped to contextualize feedback in relation to long term goals. Feedback and evaluation support is related to player development in that the information gained was used to help them become better footballers, this category was considered to be distinct yet related to the Support for Development theme. Feedback and evaluation went beyond development in that the behaviors here allowed players to place their development, performances, relationships and interactions with others within the broader context of their aspirations to become footballers.

Sampling stage

Coaches and parents helped players evaluate and learn from experiences through reflection. Coaches and peers provided praise, which made players feel motivated and good about themselves and provided evaluative information for players about their progress and development, although the pursuit of praise meant that "you will notice other players … getting more attention … so you may get jealous or annoyed" (Player 2). Coaches and players assisted players' forward planning and motivation by helping them contextualize experiences in relation to long-term goals.

Specializing stage

Players were supported in their reflections by each social agent. Player 1, for example, reflected and improved his performance following advice from a peer and "picked up what that boy had said to him and changed it slightly … it did improve his holding of the ball" (Parent 1). Praise for performances came from coaches and provided feedback on performance, although gaining this praise was a challenge as coaches were "searching for perfection … so you knew if you had done something well, and you knew that you had done something right, it made you sort of feel good" (Player 2). Each social agent continued to help athletes consider their learning within their long-term career ambitions, framing setbacks as opportunities to improve, and implementing feedback into their forward planning which helped maintain motivation.

Investment stage

Feedback and evaluation support from social agents continued into the specializing stage. Each social agent enhanced player reflection on performances. Praise of players' performance continued to be offered by coaches and became increasingly motivationally important as players felt this feedback might be related to their likelihood to be selected or offered contracts. Each social agent supported players' forward planning in relation to future ambitions. Illustrating that social agents helped players reflect on challenges,

Player 3 commented that this "is where my dad comes in … saying stuff like 'imagine this' or 'imagine that' … 'just keep working and you will be there'".

Discussion

This study aimed to identify the perceived motivationally-relevant influence of coaches, parents and peers across each stage of investment-stage footballers' development, and how these influences changed between developmental stages. Five categories of social agent influence were identified: relationship factors, interpersonal interactions, support for development, support for participation, and feedback & evaluation.

Categories of social agent motivational influence

The finding that the quality of relationship between social agents and players was motivationally-relevant was consistent with previous literature. Relationship factors with others in sport has been consistently demonstrated to have positive motivational outcomes, including the closeness dimension of the coach-athlete relationship (Jowett et al., 2017) and the quality of friendships with peers (Gledhill et al., 2017; Smith et al., 2006). The perceived lack of influence of the quality of relationships between players and their parents might be surprising given the motivational importance that parents have been found to have (e.g., Gagné et al., 2003) and its associations with athlete perceptions of skill and competence in sport (Jowett & Cramer, 2010). In a sporting context, though, players might take for granted their relationship with their parents because this relationship is established outside of sport or is perceived as unconditional parental regard, which has been associated with autonomous forms of motivation (Roth et al., 2016).

Social agent behaviors identified in the interpersonal interactions category related broadly to research investigating motivational climates in sport. For instance, the finding that social agents promoted fun and positive feelings resonates with findings that positive mastery motivational climates created by peers (Ullrich-French & Smith, 2009) and parents (Lavoi & Stellino, 2008) are associated with positive athlete outcomes. The motivational importance of negative behaviors demonstrated by social agents highlighted in the present study also resonates with previous findings such as explicit external pressures being perceived as stressors (Sarkar & Fletcher, 2014). What was not clear from the present study, however, was how the relationships between social agents and players might mediate or moderate the influence of behaviors on athlete motivation as, for example, children's' perceptions of their parents' involvement in sport appears to be influenced by the quality of the relationship between parents and children (e.g., Wagnsson et al., 2016).

The finding that social agents provide support for development to players in their pursuit of careers in football reflects previous literature which has identified that coaches, parents and peers all contribute to the development of athletes' skills and competencies in sport (e.g., Keegan et al., 2009, 2010a, 2014a). For example, the development of technical and psychological skills is core to the role of coaches (Vella et al., 2011) and peers have been found to share information and learning resources with one another to help each other develop their skills (Gledhill et al., 2017; Gledhill & Harwood, 2014). The finding that parents became less involved in this category as players transition through

developmental stages may reflect their children's knowledge of the sport surpassing their own (Keegan et al., 2014a), yet parents were found to be continually important in providing support in this category away from the sporting context.

Parents and coaches dominated the motivationally relevant behaviors contained within the support for participation category, and the range of behaviors they are involved in are in line with previous literature (Gledhill & Harwood, 2014; Keegan et al., 2009, 2010a, 2014a). The finding that parents provided consistent practical support across all three stages of athlete development is in line with a study by Holt and Dunn (2004) which identified that parents provided players with support to attend training and competition logistically and financially. Social support has been found to buffer the stress associated with sporting injuries (Mitchell et al., 2014; Rees et al., 2010; Rees & Hardy, 2000) and can lead to improvements in performance (Moll et al., 2017). A recent systematic review into social support in youth sport (Sheridan et al., 2014) identified that all social agents have a role in ensuring that they provide social support, alongside practical and effort support, which will lead to improvements in performance.

The finding that each social agent played a role in supporting athletes' evaluative behaviors resonates with existing evidence (e.g., Carpentier & Mageau, 2016). The quality rather than quantity of feedback and praise received by athletes may be more important, as this has been found to predict athlete performance and motivation (Carpentier & Mageau, 2013). Feedback from coaches might be linked to the quality of the coach athlete relationship when the feedback is autonomy supportive, because it provides players with a choice of how to address their feedback (Carpentier & Mageau, 2013), and all three social agents have been found to be involved in this behavior during the sampling (Keegan et al., 2009), specializing (Keegan et al., 2010) and investment stages of athlete development (Keegan et al., 2014a).

Comparisons with existing theories

In line with a critical realist position, this study sought to understand the perceived motivationally-relevant influence of social agents in a footballing context. An important contribution of the present study is that due to the abductive nature of the analysis, the findings did not align exclusively or entirely with theories of motivation in sport. For instance, the relationship factors reflected some dimensions of Jowett's (2007) $3 + 1\,C$ model of the coach-athlete relationship, the dimensions of which have been shown to predict athlete basic need satisfaction in line with the SDT (Jowett et al., 2017). Elements of the interpersonal interaction category reflected aspects of AGT's other-created motivational climates and SDT's autonomy-support contexts. None of these theories on their own, however, predict or explain each of the categories identified in the present study, suggesting that the perceived social agent influences on athlete motivation extend beyond those included within the paradigmatic theories (e.g., AGT and SDT) which dominate motivation research in sport.

The results add to our understanding of the complex nature of perceived motivationally-relevant social agent influence in sport. The five identified categories share similarities with other attempts to map the perceived motivationally-relevant social agent influence, such as the heuristic model of motivational atmosphere suggested by Keegan et al. (2014b).

Each category in the current study maps to a similar category in the motivational atmosphere model, and the present study extends Keegan et al. (2014b) findings in that categories of motivationally-relevant social agent influence are relatively consistent across athlete developmental stages within the context of football. What is unclear from the findings of the current study is whether social agents each have a unique influence on athlete motivation, or whether athletes require a specific amount of motivationally-relevant support for optimal performance and functioning that can be provided by any social agent.

Implications

The findings of this study provide a range of applied implications which may be useful for practitioners in sport. Understanding how social agents were perceived by players to influence their motivation, we can provide better advice to social agents and athletes in sport regarding the roles and behaviors that can promote athlete motivation during development. For instance, practitioners in sport (e.g., coaches, volunteers, parents, sport psychologists) could consider ways to ensure that athletes are gaining support from each social agent in line with each of the categories identified in this study, and minimize the negative behaviors demonstrated by social agents where possible. The findings may also enhance coach education by providing insight into the distinct roles that social agents are perceived by athletes to have in promoting and maintaining their motivation in sport. The categorization of perceived motivational influence in the present study may allow coaches or other sport development staff (e.g., academy managers) to better understand how they can support athletes during their development and to maintain athlete motivation to participate and perform in sport by allowing them to map out the current support and influences on athlete motivation in line with the categories identified in the present study.

The categories generated in this study are an important step in exploring the simultaneous influence of coaches, parents and peers on athlete motivation acrss each developmental stage in sport. Critical realism, though, treats all explanations of reality as fallible (Bhaskar, 1979), including information provided by participants and researchers (Fletcher, 2017). To progress the field further, these exploratory and fallible findings should be tested. For instance, similar studies might be undertaken with athletes from different sports to determine whether the categories of motivational influence identified in the present study are consistent across different contexts or need to be adjusted or replaced by more appropriate concepts. In addition, the findings of this study could help review the dominant motivation theories in sport psychology research (e.g., AGT and SDT) to ultimately remove errors from these theories or discard them in favor of new ones with more truth content. Future studies should consider more social agents than those identified in the present study, including, for instance, friends, wider family and teachers. Action research studies could also be undertaken involving coaches, parents, athletes and researchers working together to test different ways of improving their motivational influence through different interventions. An additional important next step for this line of research would be to determine whether social agents have unique motivational influences, or whether athletes have motivational needs that can be met by any social agent's influence. Longitudinal research could also be used to determine whether the proposed categories of social agent

influence can predict athlete motivational outcomes both for athletes who progress through each developmental stage and those who drop out along the way. Finally, the finding that coaches were at times perceived to be demonstrating negative behavior which was still perceived as motivating by players could be followed up in future studies to determine the motivational role of negative behaviors in sport.

Strengths and limitations

Strengths of this study include the investigation of simultaneous motivationally-relevant influence of coaches, parents and peers and across three developmental stages. In addition, the focus on one sport allowed for in-depth exploration of the socio-motivational context within this sport. There are, however, some limitations to the current study that should be highlighted in order to appropriately interpret findings. First, the study represented the experiences of male footballers, and evidence suggests there may be different perceptions of the importance of social agents in sport between male and female athletes (e.g., Martin et al., 2014). Second, the study only investigated one sport, one geographical area and investment stage athletes' perceptions and results may therefore only relate to this unique context. A detailed description of this context was provided, though, in order to enhance the transferability (Lincoln & Guba, 1985) and naturalistic generalizability (Stake, 1995) of findings. Third, the study only considered the influence of social agents in a sport context and did not consider those from other life domains (e.g., school settings, PE). Finally, information recall accuracy can reduce over time and the retrospective nature of this study might mean that the information provided by participants lacked accuracy, although the triangulation of perspectives through the involvement of players' parents enhanced the trustworthiness of interpretation.

Conclusions

The current study identified that the types of influence social agents have on football players' motivation is consistent across development in sport. While categories of perceived social agent influence were consistent with previous research, this study identified that the influence of coaches, parents and peers had changed as players progress through each developmental stage. Although coaches and peers dominated motivationally-relevant support for athletes, social agents frequently provided similar and overlapping support. Further research should determine whether social agents have distinct or combined influences on athlete motivation, or whether athletes require specific motivational support regardless of which social agent provides it.

ORCID

Bryan McCann 🄳 http://orcid.org/0000-0001-9937-1730
Paul J. McCarthy 🄳 http://orcid.org/0000-0002-4896-8374
Kay Cooper 🄳 http://orcid.org/0000-0001-9958-2511
Katrina Forbes-McKay 🄳 http://orcid.org/0000-0003-4076-610X
Richard J. Keegan 🄳 http://orcid.org/0000-0003-4253-4492

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