

Research article

## Factors Influencing the Early Development of World-Class Caribbean Track and Field Athletes: A Qualitative Investigation

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### Abstract

This qualitative investigation sought to explore through a socio-cultural lens the perceived early training and competition environment, and support network of world-class Caribbean track and field athletes and the influence on their sport engagement and progression during early childhood and adolescence. Sixteen world-class track and field athletes (8 males and 8 females;  $M_{age} = 29$ ,  $SD = 5$  years) from 6 English-speaking Caribbean islands took part in semi-structured interviews. A thematic analysis was performed on the transcribed data. Three superordinate themes were identified as key factors that influenced the early sporting development of world-class Caribbean athletes: (1) conducive sporting environment, (2) functional social support network, and (3) key organizational input. Findings revealed that perceived high levels of deliberate play activity in childhood (6 – 12 years) and an intense track and field competition culture in adolescence (13 – 20 years) were conducive to the continued engagement and progression of world-class Caribbean track and field athletes at the junior level. Furthermore, world-class athletes perceived themselves to be positively influenced by the support received from their immediate social support network and key organizations during this period. This study showed that a conducive sporting environment coupled with optimal social and organizational support may have encouraged world-class Caribbean athletes to remain engaged in track and field and to successfully progress within the sport at the junior level. Findings shed light on the sporting culture at the junior level within the Caribbean region and provide insight into key environmental factors that can influence and foster the development of future World Champions and Olympians.

**Key words:** Elite athletes, high performance, motivational atmosphere, psychosocial influences, talent development.

### Introduction

Many athletes within the Caribbean region have experienced a great degree of success in track and field at the highest sporting levels (i.e., the Olympic Games and World Championships). The successes attained have been primarily discussed in relation to the hypothesized genetic predisposition of Caribbean athletes of West African descent for the sprint events (Tucker et al., 2013). The sport development literature has examined the influence of both the training related factors (i.e., quantity and timing of deliberate practice and deliberate play activities) (Côté et al., 2007; Côté and Vierimaa, 2014) and psychosocial factors (i.e., influence of family, peers, coach, support staff

(Knight et al., 2018; Wylleman et al., 2013) on the successful athletic development of high-level performers at the junior level. However, these influences have not been explored within the Caribbean context. Other studies have looked into the immediate motivational influences surrounding the athlete at specific stages of development (Keegan et al., 2010; Keegan et al., 2014), with little or no focus on the influence of the sporting environment or the socio-cultural context within which such development takes place (Hollings et al., 2014). The current study therefore sought to explore through a socio-cultural lens the perceived early training and competition environment, and support network of world-class Caribbean track and field athletes and the influence on their sporting engagement and progression during childhood (6-12 years) and adolescence (13 – 20 years).

Early talent development research has primarily focused on the timing and mode of training during childhood and adolescence as being highly influential on an athlete's long-term participation and engagement within a sport (Côté et al., 2007; Côté et al., 2009). In fact, two distinct pathways have been put forward regarding training principles and timing of specialization in the chosen sport of an individual. The first advocates early specialization and deliberate practice that asserts childhood participation in a single field, with deliberate focus on training and development (Côté and Fraser-Thomas, 2007; Ericsson et al., 1993). This principle has been particularly evident in sports where peak performance usually occurs before full maturation (e.g., gymnastics and figure skating) (Law et al., 2007), however the long-term benefits on an athlete's development has been refuted (Bailey et al., 2010). The second approach advocates early diversification which entails sampling a range of sports before choosing to specialize at a later stage of development (Côté et al., 2003; Côté et al., 2009). The developmental model of sport participation has early diversification as a core concept and proposes that athletes pass through three stages of sport development (i.e., sampling – 6 to 12 years, specializing – 13 to 15 years and investment - 16+ years) (Côté, 1999; Côté et al., 2007). More positive outcomes have been reported to occur when children are introduced into sports that are less-structured, designed to maximize inherent enjoyment and do not focus on deliberate practice activities until the specializing and investment years (Barreiros et al., 2013; Fraser-Thomas et al., 2008).

Over the past two decades, there has been considerable growth in research examining the development environment surrounding young athletes and the environmental factors that play a pivotal role in their athletic development (Henriksen et al., 2010; Martindale et al., 2005). More specifically, research on the athletic career development has highlighted the contribution of the immediate support network (peers, coaches, parents, support staff) (Côté, 1999; Knight et al., 2018; Wylleman et al., 2000) on an athlete's progression within the sport at different stages of their development (i.e., psychological, psycho-social, academic-vocational and financial developmental levels) (Wylleman et al., 2013). Albrecht and Adelman (1984) in their seminal review concluded that the support network "serves to meet a recipient's needs for venting feelings, reassurance, and improved communication skills. It also serves to reduce uncertainty during times of stress, provides resources and companionship, and aids in mental and physical recovery" (pp. 8-9). For this reason, it is important to look at specific support transactions a sports person might experience with coaches, support staff, peers and family in dealing with the stresses and strains of high-level sport. Moreover, social support has been reported to benefit an athlete's self-confidence (Freeman and Rees, 2010), performance (Freeman and Rees, 2009; Rees et al., 1999; Tamminen et al., 2018), well-being (DeFreese and Smith, 2014), self-determined motivation (DeFreese and Smith, 2013), and coping with competitive and personal stressors (Cosh and Tully, 2015; Rees and Hardy, 2000).

In accordance with the social support literature, the perceived support received by athletes can be classified into four dimensions (Cutrona and Russell, 1990; Rees and Hardy, 2000). These are: emotional support (i.e., others being present to provide comfort and security), esteem support (i.e., others bolstering an individual's competence or self-esteem), informational support (i.e., others providing advice or guidance), and tangible support (i.e., others providing concrete instrumental advice) (Freeman and Rees, 2009). Furthermore, within the immediate social support network, the behaviours of parents, coaches and peers have been explored in relation to the impact on the variations of an athlete's motivational levels during their early athletic development (Keegan et al., 2010; Keegan et al., 2014). For example, studies that have examined the link between parent behaviours and youth sport outcomes have found that high perceived amounts of parental support, encouragement, involvement, and satisfaction is associated with more enjoyment and intrinsic motivation (Keegan et al., 2010; Scanlan and Lewthwaite, 1986). Other studies have suggested that peer relationships play an important role in a young athlete's engagement within sport as they can contribute to higher levels of commitment to the sport and sources of wellbeing, enjoyment, encouragement and support (Gould et al., 2002; Patrick et al., 1999; Vazou et al., 2006).

As athletes progress through the various stages of development (e.g., sampling to specializing, specializing to investment), they must successfully negotiate various demands or 'transitions' associated with sport and life. These transitions can be highly stressful and difficult for young

athletes as they adjust to the new challenges encountered (Stambulova et al., 2009). For example, changes in social relations and the degree of influence and support from individuals within their social support network (e.g., peers, family, coach) tend to occur during these transitions (Keegan et al., 2014). Additionally, young athletes have underdeveloped coping and problem-solving skills when compared to adults, further compounding these already challenging transitions (Hampel and Petermann, 2006). In fact, the period of adolescence has been described as being the most critical for the formation of identity, development of cognitive motivational strategies, and the social, learning, and organizational skills that may have long-term consequences on educational choices, career aspirations, and long-term engagement and progress in the sport (Nurmi, 2004). The main sources of stress identified in young athletes have been linked to a combination of training and non-training related factors. Excessive strain on the body from the physical stress of increased training and competition workloads combined with psychosocial stressors (e.g., parental pressure, coach conflicts, increased study demands, etc.) have been shown to exert a negative influence on the physical and mental state, and the performance capabilities of an athlete (Fry et al., 1991; Grove et al., 2014). Therefore, it is important that young athletes are adequately supported within their sport and by their surrounding social network in order to minimize adverse outcomes to their long-term health, wellbeing and performance.

The importance of investigating the impact of the socio-cultural context in the discussion of an athlete's engagement and progression in sport has also been emphasized within the talent development literature (Stambulova et al., 2009). Doing so is critical as human behaviour is context specific and differs across cultures (Greenfield et al., 2003). The English-speaking Caribbean community consists of a grouping of approximately 12 independent and 4 British-dependent democratic states located in the Caribbean Sea that have a shared history of over 300 years of British colonization (UNESCO, 2001). Caribbean states are characterized by similarities in heritage, socio-cultural norms and values, as well as political, and educational systems. For example, the education systems throughout the Commonwealth Caribbean are based on the British model of formal education (Peters, 2001). Consequently, the history of the Caribbean is unique and may have influenced the sporting systems, and by extension the sporting culture within the region which primarily operates through a school-based and club-based system. The sport of track and field has grown to be one of the premier sports practiced within the Caribbean region with some countries showing greater dominance over others (e.g., Jamaica, Trinidad and Tobago). The importance that a country or society places on a particular sport can have a dramatic influence on any success achieved (Baker et al., 2003). For instance, the success attained by Canada on the international stage in ice hockey has been attributed to the game being an integral component of the national identity (Russell, 2000). Similar factors have been attributed to the international success and dominance of South American countries in football (e.g., Brazil, Argentina Uruguay) (Bar-On, 1997). However, the

perceived influence of the sporting environment on the athletic development of young athletes remains to be investigated within the Caribbean context.

The Caribbean region has consistently produced some of the most athletically gifted and world-renowned talents in the sport of track and field (e.g., Usain Bolt and Ato Boldon). Genetics might be one explanation for athletic prowess (Tucker et al., 2013), however research has shown that the impact of the developmental environment within which an athlete is nurtured plays a significant role on their long-term engagement and progression within the sport (Henriksen et al., 2010; Martindale et al., 2005). Past research into the developmental practices of promising young athletes have focused on both training and non-training related factors such as timing of specialization (Côté et al., 2009; Moesch et al., 2011) as well as the psychosocial and motivational influences of the immediate support network on athletic development (Cosh and Tully, 2015; Côté, 1999; Keegan et al., 2010). However, little focus has been placed on the socio-cultural context within which such development takes place. As such, there is a need to explore the processes that influence the athletic career progression and engagement of track and field athletes within the socio-cultural context of the English-speaking Caribbean region. The purpose of this study was therefore to explore the perceived early sporting environment, and support network of world-class Caribbean track and field athletes and the influence on their sport engagement and progression during early childhood and adolescence. More specifically, two main research questions that sought to solicit information through the athletes' experiences at the childhood and adolescent sporting levels were addressed: 1) What influence does the perceived training and competition environment have on Caribbean athletes' engagement and progression within sport during childhood and adolescence?; 2) What role does the perceived support network play on the athletic engagement and progression of Caribbean world-class athletes during their childhood and adolescent years?

## Methods

### Approach

To address the objectives, a qualitative design was adopted. This approach was used for the current study as the researchers sought to understand the retrospective experiences of current world-class Caribbean track and field athletes during their developmental years. We used semi-structured interviews to collect information from the participants about their experiences during childhood (6-12 years) and adolescence (13 – 20 years) that resulted in rich and contextualized accounts. This study was grounded in an interpretivist philosophy, underpinned by ontological relativism and epistemological constructivism. A relativist ontology assumes that individuals make multiple meanings of the social world based on their experiences in particular contexts and in relation to others (Thorpe and Olive, 2016) and epistemological constructivism assumes that this knowledge is socially constructed through interaction with others (Sparkes and Smith, 2009). Then using thematic analysis guidelines (Braun and Clarke, 2013), we analysed the sporting experiences of the participants in accordance

with both developmental stages.

### Participants and sampling

The first author's background as a professional track and field coach within the Caribbean facilitated the recruitment of participants who were purposefully sampled; however, there was no prior personal or professional coaching relationship between the participants and the first author before this study. The criteria used to select the participants for this study included: (a) must be a current track and field competitive athlete and (b) must be classified as a world-class athlete. World-class was defined as an international senior-level athlete that has competed or medaled at the Olympic Games and/or World Championship (senior) track and field competitions (Huxley, O'Connor and Larkin, 2017). Sixteen world-class track and field athletes (8 males and 8 females) (Table 1) from 6 English-speaking Caribbean islands (Jamaica, Trinidad, Tobago, Dominica, Bahamas and the British Virgin Islands) participated in the study. Table 1 identifies each athlete using a number (A1 – A16), lists their gender and provides a summary of their family structure during the junior years. Participants' family structure was included to give a snapshot of the familiar support system during the junior level: (a) 38% traditional/nuclear (i.e., consists of a man, woman, and one or more of their biological or adopted children); (b) 31% single parent (i.e., family with child/children headed by a parent who is widowed or divorced and not remarried) and (c) 25% extended (i.e., extends beyond the nuclear family to include grandparents and other relatives living in the same household). All participants had competed at least once in an Olympic Games (between 2000 and 2016) or the International Association of Athletics Federation (IAAF) World Track and Field Championships (between 2003 and 2017) (Table 2). The mean age of participants at the time of the study was 29 years (SD = 5 years). Athletes specialized in one of the following track and field disciplines: sprints/hurdles (13 athletes), jumps (1 athlete), throws (2 athletes) and had been competing at the international level for on average 14 years. The participants had attended 26 Olympic Games and 40 World Championships competitions, amassing a total of 7 Olympic and 15 World Championship medals across these championships (Table 2).

**Table 1. Athlete demographic information.**

Athlete	Gender	Family structure (junior level)
A-1	Male	Traditional/Nuclear
A-2	Male	Traditional/Nuclear
A-3	Female	Single Parent
A-4	Female	Traditional/Nuclear
A-5	Male	Extended
A-6	Male	Single Parent
A-7	Male	Extended
A-8	Male	Traditional/Nuclear
A-9	Female	Not stated
A-10	Male	Traditional/Nuclear
A-11	Male	Traditional/Nuclear
A-12	Female	Extended
A-13	Female	Single Parent
A-14	Female	Single Parent
A-15	Female	Single Parent
A-16	Female	Extended

**Table 2. Tally of Olympic Games and World Championship performances of participants (n = 16).**

	Qualifiers	Semi-finals	Finalists	Bronze	Silver	Gold
Summer Olympic Games	26	15	9	4	1	2
*IAAF World Athletics Championships	40	24	18	5	6	4

\*International Association of Athletics Federations

### Interview protocol

A semi-structured interview protocol was designed to promote discussion on the training history, experiences and psychosocial and organizational influences during childhood and adolescence. The interview guide for athletes was developed based on the previous literature on talent development and career progression in sport. The developmental model of sport participation (Côté et al., 2007) and current literature on the talent development environment and athletic career progression of elite athletes were used to formulate questions on the socio-environmental factors that influence athlete development (Henriksen et al., 2010; Martindale et al., 2010; Wylleman et al., 2013). The ordering of questions was deliberate such that the questions initially focused on participants' early sporting activities and influences at the childhood stage and progressed to their experiences at the adolescent stage.

The interview started by asking the participant to describe their first ever sporting experience and their earliest involvement in sport (e.g., "Can you remember your first ever sporting experience and what was it like? Can you describe it for me?"). Subsequent questions focused on the training and competition experiences as well as the types and volume of training experienced by participants at the primary, secondary and early tertiary level (e.g., "Can you describe the types and volume of training that you underwent as a youth athlete at the primary/secondary/tertiary level?"). Participants were then asked key questions regarding the type of support received from the athletes' support network and how these relationships and factors influenced their athletic progress. Penultimate questions focused on factors that helped participants to manage the school/sport balance during childhood and adolescence (e.g., "Who helped you to manage your school/sport commitments?"). Finally, the interviews ended with questions that focused on the main factors that participants thought contributed to their continued engagement within high-performance sport at the junior level (e.g., "What factors influenced your decision to continue training and competing in high-performance sport at an elite level?").

### Procedure

Following ethics approval, participants were recruited. The first author contacted the participants personally by face to face, video conferencing or e-mail, to explain the aim of the study, ethical issues, and logistics of the interviews. Interview dates were agreed at a convenient time and an informed consent was signed by each participant on the date the interview before commencement. The interviews were between 33 - 80 minutes (Mean = 55, SD ± 15 minutes) in length and were all conducted by the first author. Venues were identified for local participants (i.e., in the home country of first author – Trinidad and Tobago) at training centers and for regional participants (i.e., other Caribbean

islands) at a location convenient to them to conduct the interview via video conferencing. There were 9 face-to-face interviews, and 7 video conferencing interviews. All interviews were digitally recorded and were transcribed verbatim.

### Data analysis

Thematic analysis was performed in line with Braun and Clarke's framework which outlines the process involving 6 phases i.e., familiarization with data, generating of initial codes, searching for themes, reviewing themes, defining and naming themes, and production of a report (Braun and Clarke, 2006; Braun and Clarke, 2013). An inductive approach was applied when we analyzed the sporting, psychosocial and socio-cultural experiences of participants relevant to the developmental stages of childhood and adolescence. We proceeded through the analysis as follows. Firstly, the first author listened to each interview at least once and read the transcripts multiple times to become familiar with the content. Secondly, codes were generated in a systematic fashion across the entire data set by the first author and then cross checked independently by the second author. Preliminary codes (e.g., words or phrases used by participants, labels relating to the research question) representing a characteristic were inductively identified. Thirdly, these raw-data responses were then clustered into lower order subthemes before categorizing them into higher order themes. The higher order themes were then clustered into general dimensions or superordinate themes to present a more meaningful and coherent picture of the participants' views. The second author assisted throughout this process as a critical friend to ensure that various potential interpretations were explored. An iterative process was undertaken with the third and fourth authors who provided higher-level feedback on the thematic structure whereby themes were revisited, reviewed, and revised to better understand their fit and enable refinement (Srivastava and Hopwood, 2009).

### Methodological quality and rigor

It is important to assess the quality of a study using evaluative criteria most appropriate for the research question and emergent data (Roulston, 2010). Three of the following procedures were used to ensure methodological quality and rigor:

(1) *Purposive sampling*: Participants were selected based on the following characteristics to ensure that the experiences of the most appropriate persons for the research question being addressed were sought: (a) being a current senior level track and field athlete in specialties where the Caribbean region has attained significant athletic success (e.g., sprints/hurdles, jumps, and throw events); (b) having competed or medaled at a senior World Championship or Olympic Games level; and (c) being an athlete from an

English-speaking Caribbean territory. It was important to the researchers to represent both the experiences of athletes from the larger territories which possess a more dominant track and field culture and greater resources (e.g., Jamaica, Trinidad) as well as those of the smaller territories with miniscule populations and lesser resources (e.g., British Virgin Islands, Dominica).

(2) *Pilot interviews*: Methodological rigor was enhanced as the first author conducted 8 pilot interviews with 5 sub-elite track and field athletes and 3 world-class athletes belonging to the sports of cycling, sailing and taekwondo. These interviews provided the interviewer with an opportunity to practice conducting interviews on this topic and also assess the appropriateness of the questions contained within the interview guide. Following the pilot interviews, the structure of questions was adjusted to be more open-ended and the number of questions were reduced where there was overlap.

(3) *Critical friend*: Quality checks were used to enable the researchers to think critically about the thematic structure. All transcripts were initially coded by the first author. The second author, who refrained from directly collecting the data, acted as a ‘critical friend’ in the investigation by cross-checking all codes and providing independent interpretations of the data. The critical friend role serves to provide a theoretical sounding board to encourage reflection upon, and exploration of, multiple and alternative explanations to the emerging data (Smith and McGannon,

2017).

## Results

The results describe the participants’ collated responses in relation to their perceived sporting experiences, psychosocial and organization influences on their athletic development during their childhood (6 – 12 years) and adolescence (13 – 20 years). Participants highlighted a number of factors that may have contributed towards their continued engagement and progression within the sport as junior athletes, however no substantial differences were noted between genders. Raw data themes were sorted into raw data, lower order, higher order and superordinate themes as illustrated in Table 3. Three superordinate order themes were identified: 1) conducive sporting environment; 2) functional social support network; and 3) key organizational input. The findings are reported through the use of direct quotations of the participants’ experiences.

### Conducive sporting environment

The Caribbean sporting environment in track and field appeared to be characterized by two overarching themes. Namely: 1) training mode; and 2) competition mode with regard to the way in which training and competition was experienced by participants and the influence of the Caribbean sporting culture on their sport participation during their childhood and adolescent period. In the context of

**Table 3.** Representation of the meaningful and coherent views of world-class Caribbean track and field athletes in relation to their developmental experiences during childhood and adolescence.

SUPERORDINATE THEME	HIGHER ORDER THEME	LOWER ORDER THEME	RAW DATA THEME
CONDUCTIVE SPORTING ENVIRONMENT	Training mode	‘Play for fun’	Fun, no pressure to win No training structure, multi-sport participation
		‘Serious work’	Serious, goal oriented Structured training, increased training volume and intensity Difficulty adjusting to transition Increased time commitment
	Competition mode	‘Fun and Games’	Bush games/village sport participation, extrinsically motivated (prizes)
		‘Compete to win’	Competitive mind-set, increased pressure to win Difficulty adapting to high-competitive environment Competition defeat as motivation
		‘Eye-opener’	International competition as eye-opener
FUNCTIONAL SOCIAL SUPPORT NETWORK	Family influence	Family involvement	Parent proactiveness Family support (emotional, financial, physical)
		Family sporting history	Rich family sporting history Parent sporting background as incentive
	Coach influence	Leadership qualities	Coach belief and support Coach as mentor
		Coach-athlete relationship	Liking and trust (closeness) Father-mother figure / friend Increased reliance on support from coach
	Peer motivation	Peer rivalry	Motivation to compete with peers
		Peer camaraderie	Socialize with like-minded peers Increased reliance on support from significant other, teammates
KEY ORGANIZATIONAL INPUT	Talent recruitment	Recruiter	Early talent identification (teacher, coach, parent)
	Industry support	Industry support	Support through national federations, sporting scholarships, professional contracts, Financial, educational, facilities, equipment etc.

this theme, the term culture highlighted the possible idiosyncrasies that may be specific to the Caribbean that were captured in the aforementioned higher order themes.

### Training mode

The training experiences of participants during the childhood and adolescent years were congruent with those typically encountered within the Caribbean education system (i.e., primary, secondary/tertiary levels). The training experiences of participants during the primary and secondary/tertiary level were considerably different as was evident in the two emerging lower order subthemes: a) 'play for fun', and b) 'serious work'.

All participants highlighted that the training experiences at the primary level largely entailed 'playing for fun' and was characterized by their playing of multiple sports and undertaking fun activities during the childhood stage. During this time, training had little or no structure, little to no pressure to win, and was just great fun. As (Athlete) A-3 said "we never think about it as training, it was always play. So, every recess and every lunchtime we play rounders, or anytime it had a cricket ball in the yard, or a football...". At primary school, most participants didn't consider their involvement in sport as training due to the unplanned nature of physical education and sport sessions. In rare cases, some coaching sessions occurred during this period. However, physical education classes at the primary school level were generally viewed as an opportunity to play seasonal sports with little guided instructions from teachers. As one participant explained "I don't particularly think that there was any technical stuff, it was kinda just show up and run. In terms of purpose, at that point I didn't know what the purpose was, we were just running." (A-10). Similarly, A-2's description of his unstructured training experience at the primary level was common for many of the participants:

*'I don't even see anything I did in primary school as training. Everything was just fun and games. Like you're young, you just have a lot of energy and you're just trying to express yourself in the sport. And you just go about doing things every day. I didn't see it as training until a later age.'*

It was clear to all 16 participants that training expectations and standards changed once they transitioned into the secondary/tertiary level. Here, 'serious work' reflected training that was more structured and intensive. Two participants described this transition as difficult; A-1 recounted that he "could not adjust" to the increased training load, and A-2 stated that sport required "a lot more time in high school than in primary school". Nevertheless, most participants expressed that at this level, there was a defined goal and plan associated with an increased training volume and intensity that required a change in mindset. As A-1 summarized in relation to the change in training to a more structured approach at the secondary/tertiary level "When he [coach] came, there was something to do, there was a goal involved, there was always a plan...that was the change in structure". The increased training expectations at the secondary/tertiary level lead to a resultant change to a

more competitive mindset in most participants, which was well explained by A-14:

*'So, for the secondary level it was a complete change in terms of training and being disciplined, being focused, not even focusing on oh I'm tired. If you're tired and don't want to do it anymore, there's somebody else behind you who's willing to pass you. So your spot is up for grabs.'*

### Competition mode

Similar to the description of training experiences, competition experiences coincided with education levels within the Caribbean (i.e., primary, secondary and tertiary levels). Participants' experiences fell into 3 lower order subthemes: a) 'fun and games'; b) 'compete to win'; and c) international competition as an 'eye opener'.

At the primary level all participants spoke about 'fun and games' which was characterized by them largely competing in the annual sports days that were planned by their primary schools or participating in 'bush games' competitions within their respective villages. These childhood competitions allowed participants to remain engaged within the sport at this stage as they were motivated by the possibility of winning prizes and having fun with their peers. In the Caribbean region, 'bush games' refers to sport competitions organized within villages where traditional games (e.g., sack race, lime and spoon etc.) are played and non-traditional prizes are won by young kids (e.g., cookies and chocolate milk, clocks etc.). For the majority of participants these sport days or bush games competitions were their first introduction to competition as A-13 explained "My first ever sporting experience was at the inter-primary school sports day. I had no expectations, I was young, so I just went out there to have fun. I just wanted to have fun with my friends." Consequently, competition motivation during the childhood stage was mainly influenced by participants' desire of 'extrinsic rewards' or prizes and having fun.

One of the fundamental factors that enabled participants' continued engagement during the specializing and early investment years was their strong desire to 'compete to win' against their track and field peers within a highly competitive track and field culture. This period in adolescence was characterized by an apparent shift in mindset from "I just want to play and have fun" to "I want to win" (A-2). Unlike the previous phase, participant experiences regarding the transition towards increased competition varied slightly. For example, A-14 expressed difficulty in adapting to the highly competitive environment, stating that "Competitively at the beginning it was really rough for me". Similarly, A-13 explained how losing competitions served as further motivation to push forward "You approach it [competition] and enjoy it but then if you lose then it's more like ok...I can't lose again" (A-13). In contrast to these experiences, one of the world champion sprinters (A-16), described how the fierce competition culture at the secondary school level within the Jamaican track and field fraternity helped motivate her in the sport "Competing at Boys and Girls Champs, it's like the best of the

best out of Jamaica go there. It was like an excitement for us. It was more of your ego telling you that yes, I am the best of the best.” Most participants also described the perceived increase in pressure on them to win from their immediate social network and noted that competition at this level was intense. The pressure experienced was similar across participants at this level in that they felt a significant pressure from their peers to generate points during school sport competitions as A-2 explained “In the transition to secondary school, everybody [peers] was like we need the points [school competition points]. People were depending on you; they would have expectations of you”.

Most participants viewed their transition to international competition during adolescence as an ‘eye opening’ experience which allowed them to gain exposure internationally as well as to legitimize their own identity as an elite athlete. During this period, participants were provided with an opportunity to go on national team travel and be exposed to a higher level of competition. This new exposure was a turning point for most participants as they were able to see the higher level of commitment and effort required to compete on the world stage. A-6, a quarter miler explained the inspiration he felt on seeing more advanced elite athletes at his first international outing “I was young and was just amazed and impressed by what they were doing and kinda just wanted to be like them. So I would work hard, trying to be like these guys”. Competing against higher caliber athletes served as a valuable learning experience for some participants, who then returned home with these new experiences with a renewed outlook to improve their training practices. For example, A-2 explained his change in attitude as a result of the fierce competition that he faced on the world stage as a junior athlete:

*‘My clear turning point in track and field is when I was winning everything in the Caribbean. I made the Worlds team and I felt humiliated because I didn’t even make the final. And knowing that I was winning [Caribbean Championships]...I just sat down and I was like... “yo, what’s the difference between me and the other athletes?”. Because, why are they that much better than me and I am at this position. And at that point I told myself that “yo, this is never going to happen again”’.*

### **Functional social support network**

The influence of the social support network appeared to be characterized within the following three themes. Namely 1) family influence 2) coach influence; and 3) peer motivation. The social support network theme encompassed the dynamic motivational influences exerted by the immediate personnel that provided support (i.e., informational, tangible, emotional and esteem) during the participants’ athletic development during the childhood and adolescent years.

### **Family influence**

The high level of involvement of participants’ families emerged as a key factor that motivated them to remain engaged within sport during their childhood and adolescence. More specifically, participants highlighted the dynamic role played by their immediate family (i.e., parents and siblings), the extended family (e.g., grandparents, aunts, cousins) and their rich family sporting history on their development within the sport. It should be noted however that a

shift in overall dependency on support from family to partner, teammates and coach was observed during late adolescence. Specific lower order themes included: a) family involvement; b) family sporting history; and c) sibling influence.

A common thread across the majority of participants was the role the parents played, primarily the mothers, and/or the extended family in introducing the individuals to sport and ensuring participants were well supported. Support included providing emotional and esteem support, attending practice sessions, providing transport to and from practice as well as tangible and informational support through the provision of finances for gears, equipment and guidance on how to balance sport and academia. One Olympic gold medalist shared the different types of parental support he received at a young age that facilitated his athletic development “They [parents] were investing in every way that they could, not just financially and physically being there [practice], they were investing emotionally in what I did too” (A-11). Some participants agreed that a high level of involvement and support was also provided by extended family members (e.g., grandparents, cousins etc.) as most participants either grew up in the same household or within close proximity to them. Support from the extended family was also key when participants dealt with the challenges of balancing sport and education. The type of support provided by extended family members was dependent on the role they played in the participants life. For example, A-16, a recent world champion qualifier reflected on the emotional and esteem support that both her parents and grandmother provided when managing the challenges associated with school and sport at a young age:

*‘I would say that they [family] had a positive effect. Because if it wasn’t for them I would have stopped track and field from secondary level. Because at one point around grade 10, I was like going down, I was having a break down. Because you know you have SBA’s [School Based Assessments], you have assignments, you have to be going to training, you have...expectations of parents wanting you to pass CXC [Caribbean Examination Council] and all those stuff. My parents were my backbone, they were there to motivate me especially my grandmother. She was there to tell me that you can do it, like once you put your mind to it.’*

In addition to the key support provided by family during childhood and adolescence, several participants’ families rich sporting history also facilitated their introduction and continued engagement within the sport. Seven of the participants highlighted that they grew up within sporting environments where at least one parent or extended family member had been involved in competitive sport at some point. As a result, the transition into sport participation at a young age was easy as the family environment facilitated play in a variety of sports and continuation of family sporting traditions. A-2, an Olympic champion shared how his family’s sporting history influenced his involvement in track and field and sports in general at a young age “I grew up with all my cousins who were older than me and so I just grew up in sports. My aunt...she did track and field before me.” Furthermore, the desire to continue the family sporting traditions and successes within the sport was a key

factor in how and why participants were involved in track and field. An Olympian sprinter shared his experience of the insistence by his mother for him to pursue track and field in order to capitalize on any potential genetic advantage he may have acquired from his father who also competed at an Olympic level. The athlete recalled his mother stating that “‘Your father use to run so there has to be some kind of genetic trait there where you would be able to run. You know what, I am going to put you into a running club.’ That is how I joined a club to begin with.” (A-1). Parental sporting success also appeared to indirectly benefit A-5 whose father was a successful international footballer but shared a poor father-son relationship with the participant. In this case, A-5 was driven to avoid the footballer life “I did not want to do football because that was my father’s sport so I chose deliberately not to kick no ball” (A-5), and instead pursued track and field as an alternative option.

### Coach influence

The majority of participants expressed positive views of their experiences with their early coaches who provided emotional, esteem, tangible and informational support throughout both developmental stages. Coaches were credited as being widely instrumental and influential to their athletic development and current success, both on and off the track. Specific lower order themes that were elicited from the thematic analysis included: a) leadership qualities; and b) coach-athlete relationship.

Participants described the admirable ‘leadership qualities’ that coaches possessed, which encompassed the high degree of coach belief and/or vision shown regarding the participants’ far-reaching potential. Coaches were described as supportive, motivational, patient, and dedicated. Coaches were generally viewed as mentors or advisors; relationships with coaches who didn’t provide this experience were terminated prematurely by the athletes. Overall, the potential transcendent nature of a coach’s influence on an athlete’s behaviour was best explained by A-5:

*‘I didn’t really grow up with my father, again my father was motivation for me to stay out of certain sports, so I didn’t really have the example of certain things growing up, but through sport I at least was able to see certain principles that I admired and tried to emulate. Again, one being consistency, dedication, commitment to individuals and something that you start. I learned a lot of those manly principles from my coach.’*

The ‘coach-athlete relationship’ included trust, mutual understanding, and communication of goals as key elements of the positive relationship shared with coaches during the childhood and adolescent years. In most instances, the relationship with coaches was described as akin to the relationship with a family member (e.g., big brother, father-figure). For example, A-15 describes the relationship shared with her most influential youth coach:

*‘My coach was a very good supporter of me and what I wanted to achieve, and I actually see that I was going somewhere with my coach at the junior level. I admire his level of leadership. He’s a very good leader and he’s very, very optimistic. He was also very spiritual, before*

*every training we’d thank God and we’d pray so he was all-rounded and I’d say a very balanced coach.’*

### Peer motivation

Most participants credited their peers as being largely influential in staying motivated and enjoying sport at the childhood and adolescent years. Peers, in this instance encompassed friends, teammates, and in some cases partners. It was also apparent that peers had a greater influence within the participants’ circle of support during the mid to late adolescent years. Two lower order themes were also elicited: a) peer rivalry; and b) peer camaraderie.

For the majority of participants, peers were perceived as rivals during sport practice and competition. It was a case of “who could beat who and who’s better than who” (A-3). These rivalries served as a constant motivation for participants at the differing stages of their youth development. A-7 explained the competitive dynamic that he had with his teammates “well I had few friends on the team...so we would always like push each other to do better, and we’d always race each other to see who’s the fastest”.

For some participants, sport participation also served as a place where participants felt a sense of belonging where they could socialize with like-minded individuals. The camaraderie that participants felt with their peers was succinctly described by A-10: “Junior high you could say track for me was social, it was just social – it was about hanging out with friends and being there and being around so...they were huge. They were more influential than my parents.”. As earlier mentioned, teammates and partners seemed to play a more significant role in participants’ lives in late adolescence and provided a great deal of support to them as they managed their athletic, personal and in many cases academic demands. For example, upon reflection on her evolving support system as she progressed within the sport, A-3 noted that “My little support system definitely made me stay a whole lot longer than I planned to. My support system moved from me and him [boyfriend] to the other girls from Trinidad who were on the team...and included my coach who was nurturing us.”; indicative of an increased reliance on the social support network during the latter stages of adolescence.

### Key organizational input

The superordinate order theme encompassed the contributions made by key organizations (and personnel within these organizations) to the athletic development of participants during early childhood to late adolescence within the immediate support network (e.g., track and field clubs, sporting schools) and the wider support network (e.g., federation funding, government funding, sporting scholarships from tertiary institutions, professional contracts from brands etc.). These contributions which facilitated participants’ entry, development and progression within the sport were characterized by two overarching themes: 1) talent recruitment; and 2) industry support.

### Talent recruitment

Most participants were introduced to the sport through an



arbitrary recruitment process. However, the majority of participants recounted a specific individual who was responsible for having recruited them into track and field at an early age who was typically either a teacher, or coach (or as in most cases teacher-coach combination) or a parent. Within the English-speaking Caribbean region there are no talent development academies or talent selection programs that recruit young talent. As a result, young track and field athletes are recruited and developed within track and field clubs which are overseen by the relevant national sporting federations or within academic schools with sport orientations which are overseen by the respective government institutions. For example, 10 participants expressed having been recruited during an annual primary school sports day, a bush games competition or while playing within the school yard with friends. A-6, a world champion gold medalist, shared how his athletic talent was recognized one day by a teacher at school "I was in primary school and this teacher saw me running and he said he thought I had some talent. He encouraged me and then he put me on to this guy, and he's been my coach up until I was like 18 years old." The teacher/coach recruiters not only suggested that they join a track and field program based on the talent observed but were assertive in their methods to ensure the talent was captured by making the necessary contact with the athlete's parent or guardians. A-3 reflects on her own fate as an elite level athlete had it not been for the intervention of a teacher/coach:

*'If it wasn't for him [teacher/coach] stepping in and telling my mother this is what you need to do...he didn't make it a suggestion, he told her "you need to get your daughter in a club". So I'm thinking what would've happened to my life, where would I have been if it wasn't for that little pivotal step.'*

### Industry support

One of the fundamental factors that enabled athletes continued engagement in track and field during late adolescence was the high degree of support received from the industry. In the context of this investigation, industry support encompassed any tangible support received from organizations that was generated from within the athlete development pathway to aid the athletic development of participants (e.g., government and federation funding, sporting scholarships, professional contracts, access to specialized sporting facilities). The support provided by the industry allowed participants to supplement the increasing expenses that was track and field necessitated during the post high school years.

Many participants frequently cited that the financial support received was critical to their progression in track and field as it was an expensive sport to compete in at the international level. Hence, funds from national federations, sporting scholarships and in many cases, professional contracts enabled these participants to pursue their athletic careers post high school. University or college sporting scholarships provided participants with a new level of support and access to specialized support staff and facilities that bolstered their athletic development at an elite level. Such access to additional resources was welcomed, as A-5, an Olympic sprint hurdler explained: "Now you have

facilities available to you, you have medical staff, you have strength and conditioning coaches, you have like a nutritionist, travel budgets and apparel. There were definitely more resources available". The support provided through scholarships also facilitated participants transition to a professional career in track and field as A-13 recounted "College definitely helped me to continue because I had to perform well to keep my scholarship and then just being able to qualify for major meets through the college rankings helped me see that I could do this long term." In some cases, the offer of professional contracts in late adolescence was a defining moment on their decision to continue their engagement in the sport professionally. A-14 recounted the high importance he placed on having both the support of the country and the industry on his decision to engage in the sport as a professional athlete:

*"Continuing had a lot to do with the fact that I was supported by the country and I actually had a contract. So, without those two things, I don't see myself or anybody successfully being able to transition over to the professional level; cause it's very difficult"*

### Discussion

The main purpose of this study was to develop a better understanding of the key environmental factors that may have influenced the athletic engagement and development of world-class Caribbean athletes during the childhood (6 – 12 years) and adolescence (13 – 20 years) stages. Through a socio-cultural lens, the study sought to explore their perceived experiences and interaction with their early sporting environment and, immediate and wider support network. The following section considers the findings in the context of the existing literature.

#### Conducive sporting environment

A key finding from our interviews revealed that perceived high levels of play activity and a low degree of structured training in childhood may have contributed to participants' long-term engagement in track and field. Additionally, the cultural sporting traditions (i.e., bush games) ingrained within Caribbean communities may have also facilitated free play activities in childhood. The results in this study were consistent with the sampling years (age 6 -12) outlined within the developmental model of sport participation which advocate for an emphasis on deliberate play, and multi-sport participation at this stage (Côté et al., 2007). Children's involvement in a diversity of sport and deliberate play activities in the sampling years has been linked to elite performance later in development (Balyi and Hamilton, 2004; Côté et al., 2003; 2009; Moesch et al., 2011). Furthermore, diverse sport involvement has been shown to foster quality early learning experiences and competence perceptions, which in turn lead to motivation for continued participation (Kirk, 2005). However, findings further revealed that the perceived emphasis on play activity and multi-sport participation at this level may not have been planned within the primary school system but instead a consequence of the lack of structure within school physical education programs at this level. Lack of structure and limited allocation of resources (e.g., qualified

personnel, diversion of resources) to physical education programs in developing Caribbean countries have been previously reported (Neckles, 2013).

Findings in our study also revealed that participants perceived that the highly competitive sporting environment in track and field experienced during adolescence was conducive to their athletic development and engagement within the sport at the junior level. Findings can be compared with other sporting nations that have showed dominance in specific sports (Bar-On, 1997; Russell, 2000). For instance, Canada's long history in ice hockey has resulted in the development of an extensive and competitive club system which produces 3.5 times more children playing ice hockey than Russia, Sweden, Czech Republic, and Slovakia combined (Robinson, 1998). Similarly, in Jamaica, one of the reasons attributed to Jamaica's ability to consistently produce a high quantity of senior elite track and field sprinters is the existence of a yearly cultural phenomenon; a highly competitive secondary school championships system fondly termed 'Boys and Girls Champs' (Franklyn, 2010). The world-renowned system that was established in 1910 has earned the small country of 2.7 million inhabitants the title of 'the sprint factory' as a result of its successes in producing a host of top-level performers (Franklyn, 2010). Another plausible explanation is that the competitive environment at the junior level where a winning culture is revered, may have motivated many participants to continually prove themselves at these high-stake competitions and remain engaged in the sport. This dynamic may be explained in research on the social-cognitive theories of motivation that have shown that self-determined forms of motivation and intrinsic motivation will be enhanced if achievement of personal goals in elite sport reinforces perceptions of competence and self-determination (Mallett and Hanrahan, 2004; Reeve and Deci, 1996). Specifically, the motivation to improve (task goal) and beat their opponents (ego goal) provided them with a sense of accomplishment which, in turn, positively influenced self-determined forms of motivation (Hollings et al., 2014; Mallett and Hanrahan, 2004).

### **Influential social support network**

The results revealed that the perceived support received from participants' families (i.e., emotional, esteem, tangible and information) during both the childhood and adolescent stages was key to their athletic development and continued engagement within the sport. The findings in our study were consistent with previous research on the positive motivational influences of family (Bengoechea and Streat, 2007; Keegan et al., 2010) and the benefits on young athletes overall wellbeing and athletic development in sport (DeFreese and Smith, 2014; Freeman and Rees, 2009; Huxley et al., 2018; Knight et al., 2018; Stambulova et al., 2015). For example, studies that have examined the link between parent behaviours and youth sport outcomes have found that high levels of perceived parental support, encouragement, involvement, and satisfaction were associated with more enjoyment and intrinsic motivation (Gould et al., 2008; Lauer et al., 2010; Scanlan and Lewthwaite, 1986). Additionally, similar to the findings in this study,

research on the provision of support for young dual-career athletes found that in late adolescence, athletes still relied upon external support from their families and other support staff, although there was a diminished reliance compared to earlier stages (Stambulova et al., 2015). The diminished reliance on support to help manage the demands encountered have been found to be likely a sign of the participants growing autonomy and denial of help (and also control) in private life from significant others (Stambulova et al., 2015).

A unique contribution of the current study was the finding that the extended family (e.g., grandparents, aunts, cousins etc.) also provided key social support during the childhood and adolescent stages of development. Findings revealed that emotional and esteem support was provided in some cases by extended family members to facilitate the management of academics and sport. At present, there is no research that has investigated the impact of extended family support on young athletes' development. However, this finding may be more pronounced within the Caribbean region where 'child shifting' – the practice of shifting the caretaker responsibilities from the biological mother to a relative/non-relative – is reported to occur for approximately 15-30% of children (Evans and Davies, 1997). Senior (1991) surmised that child shifting in various forms is characteristic of lower-income Afro-Caribbean families; and is strongly embedded in Caribbean history. Given that some participants cited extended family support as critical to their engagement within the sport, this finding reveals the importance of broad family support for Caribbean athletes.

In addition to the significant contribution of family, the majority of participants also acknowledged the important and positive role their respective coaches (e.g., coach belief, strong coach-athlete relationships) and peers (e.g., camaraderie and rivalry) played in their athletic development and continued engagement during childhood and adolescence. The findings were consistent with some previous research on the positive influence of autonomy supportive coach behaviours and peer influence on athletes' motivation at the sampling, specializing and investment stages of development (Bengoechea and Streat, 2007; Huxley et al., 2018; Keegan et al., 2010; Keegan et al., 2014). Previous research has also emphasized the importance of having a trusting relationship with the coach as a key motivational element for athletes at the different stages of development (Jowett, 2017; Keegan et al., 2014). Strong ties between coaches and athletes have been shown to promote a great deal of understanding and in turn an even more stable, harmonious and healthy coach-athlete relationships (Jowett, 2017; Keegan et al., 2014). Similarly, studies on the motivational influences of the social support network have suggested that peers can contribute to higher levels of commitment to the sport as they can be sources of enjoyment, encouragement and support (Gould et al., 2002; Patrick et al., 1999). Moreover, Keegan et al. (2014) found that social consideration between peers appeared to be highly influential within elite populations.

### **Key organizational input**

Findings further highlighted that an important factor that influenced participants' early engagement within the sport was the perceived mode of recruitment into track and field at the junior level; an approach best described as unsystematic. When juxtaposed with the talent recruitment processes used within more advanced sporting nations with greater resources; the lack of a clear and cohesive plan and strategy within the Caribbean context is evident. In more advanced nations, talent recruitment is systematic and is conducted through specialized organizations like the child and youth sport schools in East European countries (e.g., Russia) or national talent search programs such as the Australian Institute of Sport, ASPIRE in Qatar and the UK high performance talent program (Vaeyens et al., 2008). These programs allow for greater recruitment of potential talent thus increasing the talent pool within the respective countries. Additionally, a significant financial investment is made each year by many nations into their talent development pathways to improve their medal rankings on the Olympic stage. In fact, Hogan and Norton (2000) reported a linear relationship between money spent and total medals won at the Olympic Games. The economic limitations within the Caribbean region coupled with the historical lack of resources infused into sport development and research within the region (Mc Cree, 2002) likely minimizes the enforcement of an effective talent development system and recruitment process in the foreseeable future. Nonetheless, in spite of the sport planning and economic shortcomings, an English-speaking Caribbean country has retained the top spot in the world medal ranking table per capita for the Olympic Games over the past five cycles (<http://www.medalspercapita.com>).

The results of this study further highlight that organizational support from key sporting institutions was important to the continued engagement and progression of participants within the sport of track and field, particularly during late adolescence. For example, participants perceived that having access to full scholarships (primarily within North American educational institutions) facilitated the pursuit of a dual career during late adolescence and provided an avenue that allowed them to climb the rankings within the collegiate system. Previous research on high-level performers from France, Finland and the UK have revealed numerous benefits from their dual career experiences at the tertiary level including: the balance of intellectual and physical stimulation which increased motivation and commitment to both domains, and feelings of security in their sport, which allowed athletes to perform better (Aquilina, 2013). Nevertheless, other research has highlighted the accompanying challenges that can arise with dual-career engagement at this stage because success in both elite sport and education require extensive time commitments (Ryan, 2015). However, in this study, dual-career engagement afforded through foreign scholarships was an important contributor to participants' continued engagement within the sport. This is further supported by research that has examined the premature drop out reasons of elite track and field athletes in late adolescence. Reports of limited self-belief in being able to progress to the next elite level due to the perceived huge performance gaps between the junior and senior levels was a key factor that influenced

athletes' decision to prematurely withdraw from high performance sport (Bennie and O'Connor, 2006; Hollings and Hume, 2011).

The transitions experienced by participants during the childhood and adolescent stages of development were not without obstacles and challenges. Athletes reported some administrative conflicts (e.g., lack of professionalism of national team staff, coaching conflicts), financial issues (e.g., lack of personal finances, inadequate funding from sport organizations), conflicting commitments (e.g., academic and personal demands) and lack of motivation. However, in spite of the aforementioned challenges, athletes either overcame or endured the trials and adversities they faced during their junior development in order to attain success at the senior-elite level. This is not surprising as the majority of athletes in the current study attributed their successful transition to the senior international level to an intrinsic desire to succeed and overcome challenges to reach their athletic goal. This suggests that the successful athletes were self-determined, autonomous, and intrinsically motivated to participate and succeed (Ryan and Deci, 2000). This is consistent with existing athlete motivation research that has found that elite track and field athletes were highly driven by personal goals and achievements (Hollings et al., 2014; Mallett and Hanrahan, 2004). Furthermore, some of the facilitative personal characteristics shown by athletes within this study (e.g., competitiveness, confidence, determination, self-belief) may be indicators of mental toughness (Jones et al., 2007). Mentally tough athletes have been shown to be more consistent and superior at remaining determined and focused, compete effectively by handling pressure and successfully handle both failure and success (Jones et al., 2007, Anthony, Gucciardi and Gordon, 2016), more so within a socially supportive environment (Rees and Hardy, 2000). Nevertheless, the influence of individual/intrinsic factors on athletes' engagement and progression within the sport was not examined in the current study and is therefore beyond the scope of this paper.

The findings of our study have implications for stakeholders who wish to promote improved performance and wellbeing of prospective Caribbean athletes. First, the results revealed that the perceived influence of key individuals within an athlete's social network (e.g., parents, coaches) was significant to their development at the junior level. As such, track and field sport governing bodies should place emphasis on the continued development of support providers by offering access to workshops/resources (e.g., coach education workshops, pre-elite workshops for parents etc.) to help equip them with the necessary tools to foster an autonomy supportive environment for athletes. Second, results also revealed that organizational support was important to the continued engagement and progression of participants within this study. Therefore, track and field sport governing bodies should ensure that developing junior-elite athletes are provided with adequate financial and sport science/medicine support services (e.g., athlete career assistance programs, state sponsored sport science/sport medicine services, etc.) in order to facilitate the transition from the junior to senior-elite level. The provision of the aforementioned support would assist

aspiring elite athletes to offset financial costs and help athletes manage the demands of elite sport through access to the appropriate service providers (e.g., lifestyle advisors, sport psychologists etc.).

### Limitations

Despite the strengths associated with the current study, some important limitations were identified. First, the perspectives of stakeholders (e.g., parents, coaches, peers, administrators) were not included which may limit the validity of the study as it only provides the athletes' perspective. Future research would benefit from combining the perspectives of athletes and other key stakeholders to provide a more robust understanding of the development environment. The focus of the current study was to investigate the environment and support structures for successful Caribbean track and field athletes. In doing so, the authors recognise that the results suggest that these athletes had many positive experiences that contributed to their apparent success. As such, the culturally specific context and related experiences mean that findings may not be generalizable across all countries and cultures. Therefore, future research needs to focus on other groups in order to determine whether the positive nature of these experiences are common, or unique to this sample.

### Conclusion

This study sought to explore the perceived early sporting environment and support network of world-class Caribbean track and field athletes and the influence of their development environment on their engagement and progression within the sport at the junior level. The qualitative findings revealed that the perceived high levels of play activity experienced at the primary level coupled with the intense competition culture in track and field at the secondary/tertiary level were conducive to the athletic engagement and development of the athletes in this study. Furthermore, world-class Caribbean track and field athletes perceived that their development was supported by a broad network of individuals (e.g., family, peers, coaches) and organizations (e.g., federations, educational institutions, sponsors) throughout the childhood and adolescent stages which facilitated their long-term engagement and progression within the sport. Overall, these findings shed light on the sporting culture at the junior level within the Caribbean region as perceived by world-class track and field athletes and provide insight into key environmental factors that can influence and foster the development of future World Champions and Olympians.

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### Key points

- Perceived high levels of deliberate play activity in childhood and an intense track and field competition culture in adolescence were conducive to the athletic development of world-class Caribbean track and field athletes
- Immediate social support network was perceived to be highly influential on world-class Caribbean track and field athletes' engagement, and progression, within the sport during childhood and adolescence
- Talent recruitment process by key personnel during childhood and adolescence perceived to be highly influential to the initial entry of world-class Caribbean track and field athletes into the sport
- Perceived tangible industry support received in late adolescence was a key contributor to the continued progression within track and field for world-class Caribbean athletes
- Findings provide insight into key environmental factors that can influence and foster the development of future World Champions and Olympians within the Caribbean region.

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