Understanding Elite Youth Athletes’ Knowledge and Perceptions of Sport Psychology

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Abstract

The purpose of this study was to examine elite youth athletes’ knowledge, perceptions, and understanding of sport psychology, psychological characteristics, and psychological skills. To address this purpose an interpretive description methodology was employed. Data were collected through five focus groups with 34 elite youth swimmers, triathletes, and athletes (aged 13 to 20 years). Following each focus group, the recordings were transcribed verbatim and analysed using thematic analysis. The first theme labelled perceptions, knowledge, and experiences of sport psychology encompassed athletes’ current and future perceptions of sport psychology as well as the factors impacting on athletes’ perceptions of sport psychology. The second theme was psychological characteristics for success in elite sport, which included athletes’ perceptions of the characteristics held by other elite athletes as well as the development of their own characteristics. The final theme accounted for the psychological skills deemed necessary for success in elite sport. Overall, the findings provide an insight into youth athletes’ varying perceptions of sport psychology, as well as their limited knowledge and understanding of key psychological considerations for sport.

Keywords: Youth sport, psychological skills, psychological characteristics, perceptions
Lay Summary

Focus groups were used to explore the perception and understanding of sport psychology of elite youth athletes involved in swimming, athletics, and triathlon. Overall perceptions of sport psychology were varied, with multiple factors impacting upon them including the use and understanding of sport psychology, as well as coaches’ perceptions.

Implications for Practice

- Athletes should be provided with the opportunity to be educated on the benefits of sport psychology from a young age, so that as they progress they are aware of what it is, how it can be of use, and when they might choose to use it.
- Athletes would also benefit from being taught about the variety of characteristics that elite athletes possess and the available psychological skills that are commonly used to enhance performance.
- In addition to educating athletes, it could be beneficial for national governing bodies to also educate coaches around the topic of sport psychology given their influence on athletes.
The importance of psychology within sport has become increasingly recognized over time, with continual growth in both research and applied fields (Barker & Winter, 2014). Sport psychology is more readily utilized by elite athletes, with many athletes indicating that they have a positive perception of sport psychology (Anderson, Miles, Mahoney, & Robinson, 2002; Byrne & Cusack, 2015). However, perceptions of sport psychology vary among individuals. For instance, research carried out by Martin (2005) looking at the perceptions of sports people aged 14 – 27 years old revealed that athletes who were male, young (14-18 years old), or involved in contact sports were more likely to possess a negative perception towards sport psychology and were least likely to seeking out psychological support. In contrast, female athletes and those who have had previous positive experiences of sport psychology reported more positive perceptions and appreciation of psychological services and were more likely to seek out support from a sport psychologist (Wrisberg, Simpson, Loberg, Withycombe, & Reed, 2009).

Unfortunately, if athletes (or coaches) possess a negative perception of sport psychology, it may reduce the likelihood of them seeking out psychological support during their sporting career, which could have both performance and wellbeing implications (Martin, 2005; Wrisberg et al., 2009). Thus, insights into perceptions of sport psychology are important to help practitioners anticipate behaviors or barriers that may impact on their work. Fortunately, research in this area is growing particularly with college age and adult elite athletes (e.g., Holland, Woodcock, Cumming, & Duda, 2010; MacNamara, Button, & Collins, 2010a, 2010b). However, there is a noticeable lack of research considering the perceptions of youth athletes (cf. Dohme, Piggott, Backhouse, & Morgan, 2019). Given the potential influence that initial experiences of sport psychology can have on subsequent perceptions and engagement, seeking such insights from athletes who are located on an earlier stage on a
performance or talent pathway is warranted. Thus, the first purpose of the current study was to examine youth athletes’ knowledge and perceptions of sport psychology.

In addition to general perceptions of sport psychology, understanding youth athletes’ beliefs regarding the psychological characteristics and skills that are necessary to succeed at a youth and elite adult level may also be useful (Dohme et al., 2019). Specifically, by understanding youth athletes’ perceptions of psychological skills and characteristics needed to achieve at an elite level, practitioners may be able to tailor their delivery to align with or challenge such beliefs and maximize the efficacy of sport psychology program/interventions. For instance, in a recent review of psychological characteristics and skills among elite youth athletes, Dohme and colleagues (2019) highlighted the possibility that psychological demands and understanding likely vary depending upon the sport athletes are involved in, with specific differences between team and individual sports. Armed with such information, practitioners may be able to position their work more appropriately for different athletes and maximize the chances of youth athletes having positive introductions to sport psychology.

Unfortunately, there is limited research specifically examining youth athletes’ perceptions of psychological characteristics and skills that are deemed important for success. A number of papers include retrospective reports from adult elite athletes (e.g., MacNamara et al., 2010a, 2010b) or sport psychologists’ suggestions/perceptions of important skills/characteristics for young athletes (e.g., Harwood, Cumming, & Fletcher, 2004). However, such papers do not include the voices of young athletes themselves and thus, the extent to which they account for athletes’ views while they are at these younger ages remains unknown. Some initial insights into youth athletes’ perceptions of psychological skills and characteristics has been gained from adolescent rugby players (Holland et al., 2010). Overall,

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1 For the purpose of this study, psychological characteristics and skills are defined in line with Dohme et al., 2019; characteristics are considered as predispositions that impact upon athlete development and skills are learned psychological strategies.
the findings supported previous research carried out with adults (e.g., Gould, Dieffenbach, & Moffett, 2002) with a range of similar characteristics such as confidence, focus, and optimal mental state perceived as vital for success in elite sport. However, the youth athletes also identified several additional characteristics that had not previously arisen in studies with adults such as squad spirit, peer support, effectiveness as a team player, and leadership roles. With regards to psychological skills, athletes again shared similar thoughts to adult athletes (Gould et al., 2002) indicating a range of skills they used during their sport to enhance their performance. Such skills included goal setting, relaxation techniques, routines, self-talk, and visualization.

Although Holland et al.’s., (2010) work demonstrates an important start to understanding youth athletes’ perceptions, it focuses only on one team sport and was conducted almost a decade ago, when sport psychology was less common than it is currently. As Dohme et al. (2019) outlined there are likely different perceptions and understanding between athletes involved in different types of sports (i.e., team versus individual sport). Thus, in an attempt to further extend the work of Holland and colleagues, the second aim of this study was to examine youth athletes’ perceptions of psychological characteristics and skills needed within select individual sports. To this end, the overall purpose of the current study was to understand elite youth athletes’ knowledge and perceptions of sport psychology. Specifically, the study sought to answer these three research questions:

1. What do elite youth athletes know and understand about sport psychology?
2. What are elite youth athletes’ perceptions of sport psychology?
3. What psychological characteristics and skills do youth athletes think are important in sport and for their personal success as an elite athlete?

Method
Methodology and Philosophical Assumptions

This study drew upon interpretive description methodology (Thorne, 2016). Originating from the work of Thorne, Kirkham, and MacDoald-Emes (1997), interpretive description is an inductive analytical approach used to understand phenomena. The aim of interpretive description is to explore multiple people’s knowledge, understanding, and experience of a specific phenomenon and pull out any commonalities, providing useful, applied information (Thorne, 2016). Interpretive description recognises the constructs and contextual experiences of individuals, while acknowledging a shared reality (Thorne, Kirkham, & O’Flynn-Magee, 2004). As such, this inductive analytical approach allows for the researcher and participant to interact and influence each other, which ultimately results in the formation of multiple constructed realities and inevitable individual variations.

Interpretive description was chosen as a suitable methodology for this study because it enabled insights to be gained into the overarching phenomena of interest (i.e., sport psychology) as well as the multiple experiences and interpretations from individual athletes (Thorne et al., 2004). Furthermore, this study was carried out with the intent of feeding back applied information to a national governing body, which aligns with interpretive description.

Participants

Participants were recruited through maximum variation purposeful sampling to ensure they had sufficient experience of the phenomena of interest and could draw on a broad range of experiences. The purposeful sampling criteria included adolescent athletes across the ages of 13-20 years who were competing at an elite standard in either athletics, swimming, or triathlon. In the case of this research, aligned with the classifications of Swann, Moran, and Piggot (2014), elite standard was classified as having represented their country at national or international standard or having been selected for a national squad and training program. The decision to include participants across the ages of 13-20 years was based on an understanding
that participants in some sports (i.e., swimming) may have been involved at an elite standard from a younger age than those involved in other sports (i.e., triathlon). Having been exposed to the elite sporting environment for multiple years was important to ensure athletes were able to provide an understanding of their knowledge and perception of sport psychology within this specific setting. For many participants, sharing their insights into the phenomena included demonstrating their lack of knowledge, often exposing the absence of education of sport psychology within elite youth sport.

Moreover, including a broad age range enabled the comparison of knowledge and perceptions based upon age and experiences. In the current study, athletes were aged 13 to 20 years and were classified as youth athletes. Although it may be argued that athletes aged 18 and above are no longer youth athletes, there is a vast amount of literature that instead demonstrates support for this classification of 18 to 20 year olds as youths. Steinberg (2005) discusses the cognitive and emotional changes within the brain throughout adolescence. The research suggests that adolescents can be classified as youths until the age of 24 years old, based on their brain development and cognition (Steinberg, 2005). Further research on youth cognition was carried out by Gardner and Steinberg (2005), who classify youths in their study as 19 to 22 years old. Again, psychological research on the social brain suggests adolescence is still occurring up until the individual is between 22 and 25 years old when they begin to enter adulthood (Blakemore, 2008). This is due to the continued brain development throughout the adolescent period of an individual’s life.

Overall, the sample consisted of 34 athletes: 19 males and 15 females ranging from 13 to 20 years ($M = 16.29$ years, $SD = 1.85$). Participants had been involved in their sport for between four months and 16 years ($M = 7.27$ years, $SD = 3.95$). See Table 1 for further details.

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2 Three triathletes had participated in sport for less than three years, however all three had been involved in youth sport, either swimming, athletics, or cycling, prior to transferring to triathlon.
**Procedure**

Following ethical approval, the research team contacted a national sport organising body to begin the recruitment of participants. The organising body then contacted the NGBs of athletics, swimming, and triathlon to request permission for their athletes to take part in the research. Subsequently, the lead researcher contacted the performance director/lead coach for each of these sports to arrange a convenient time to attend training and speak to potential participants regarding participating in the study. Prior to taking part in the study, participants were informed that the study was focused upon perceptions of sport psychology. This information was shared with participants prior to the study to ensure they were aware of the topic of discussion and selected to take part if they believed they had information to share (i.e., they were information-rich) and discuss. It was made clear there were no right or wrong perceptions or experiences, and that we were interested in everyone’s experiences, knowledge, and thoughts whether positive, negative, or neutral. Interested participants then indicated their willingness to be involved and provided parental consent (if needed). Focus groups were arranged based on the availability of participants from each sport and, drawing on guidance from Carlsen and Glenton (2011), between four and 12 participants were sought for each focus group. Such a number allows for an in-depth exploration of the phenomena while ensuring each participant is included and given the opportunity to share their insights.

**Data Collection**

Focus groups were selected as the most appropriate method of data collection to fit the study aims and methodology. Focus groups enable researchers to gain a comprehensive understanding of participants’ perspectives through a detailed discussion moderated by the lead researcher (Carey & Smith, 1994). The opportunity to gain contrasting views was deemed particularly important for the current study because it was anticipated that many of
the athletes would have been involved in similar sporting experiences but have differing perspectives and opinions on sport psychology (cf. Kidd & Parshall, 2000). Using focus groups also encourages involvement from participants who may be less inclined to speak or would have been uncomfortable in an individual interview (Owen, 2001).

Overall, five focus groups were carried out (one for athletics and two for both swimming and triathlon). These focus groups were conducted by a postgraduate researcher who had previously completed a qualitative study prior to commencing this research, conducted a pilot focus group prior to this study to increase her experience, and engaged in numerous conversations with a broader research team regarding the questions being asked and how to manage different scenarios that may arise (e.g., if certain participants dominated the conversation, if participants did not speak). Additionally, the researcher had previous knowledge and experience both of sport psychology (having engaged with a sport psychologist as an athlete and had both positive and negative experiences and also studied it within her undergraduate and postgraduate degree) and high-level competitive sport (as a swimmer and now coach). These experiences helped the researcher to develop rapport with the participants prior to the start of the focus groups. Following each focus group, the researcher reviewed the questions asked, the information obtained, and her reflections on the running of the focus group with the wider research team. These debriefing sessions enabled tweaks or adaptations to be made for subsequent focus groups if deemed necessary.

Before the commencement of each focus groups, each athlete was asked to complete a short demographic sheet and engage in general discussion about their sport to develop group rapport (approximately 30 minutes). The focus groups then started and lasted between 36 and 59 minutes ($M = 46.93$ minutes, $SD = 10.26$). The focus group guide was structured using a questioning route developed based upon previous research in a similar area (Holland et al.,
In line with Horner’s (2000) suggestion, the initial questions were very broad, becoming more specific over the course of the focus group with a target of five main topics for discussion. Each focus group began with introductory questions, which aimed to relax participants and establish rapport with the researcher. Introductory questions included, “What are the best parts about being an elite athlete?”, following this, the focus group moved onto transition questions. The aim of these questions was to direct the focus groups towards the topic of skill use in sport, for example, “Do you use any skills or strategies to maximise your sporting performance?” The main questions involved athletes being asked more specifically about any psychological characteristics or skills they could identify as useful for an elite youth athlete, followed by how the skills were taught and developed. Every time a question was asked or a new topic arose, the researcher ensured all participants were given the opportunity to contribute by asking every athlete if they had anything to add.

Data Analysis

Data were analyzed using Braun and Clarke’s (2006, 2013) approach to thematic analysis. The use of thematic analysis aligns with the overall interpretive approach adopted in this study, as it provided an opportunity to examine each individual participant’s experiences and subsequently identify similarities and differences in their experiences. Prior to starting the analysis process, the data from each video file were transcribed verbatim. The verbatim transcripts were then read multiple times to ensure the lead researcher was familiar with the data set. Next, by identifying any feature of the data that was relevant and interesting, an initial list of codes was created. Some of the initial codes included positive and negative reactions to sport psychology, any indication of an understanding of sport psychology, any mention of use of sport psychology, and significant others within elite youth sport. Through this process we captured both the group and individual response, highlighting some interesting intra-group differences.
Following the initial coding, analysis was re-focused and initial codes were sorted into potential themes. Relevant codes were collated together and the relationship between codes considered with the aim of producing overarching themes. Next, the themes were reviewed and refined. Through this process it became clear that some themes were not substantial enough on their own and therefore were collapsed into other themes, while others were broken down into multiple smaller themes. This process was carried out at two levels, the initial stage of refinement was to review all coded data extracts followed by a review of the entire data set. After the final review of the data set, themes were defined and named, based on the essence and core meaning of each theme. At this stage, the themes were further collapsed into three main themes, each substantial enough to possess multiple subthemes and provide in depth insights into each phenomenon.

Methodological Rigour

A relativist approach to considering the rigour of this study was adopted (Sparkes & Smith, 2009). As such, in this study, steps were taken to enhance the rigour of this work in line with an interpretive descriptive methodology. According to interpretive description, the evaluation guidelines used to demonstrate and highlight credible research include:

- Epistemological integrity was achieved throughout this study by maintaining methodological congruence, aligned with an interpretive paradigm. Specifically, through the use of focus groups and interpretive thematic analysis, underpinned by an interpretive description methodology, this study was consistent in its attempt to understand the individual experiences of participants.

- Representative credibility was attained through the use of focus groups with the aim of understanding the individual experiences of the participants as well as shared experiences. Further, the lead researcher took part in regular debriefing sessions with
the co-authors between focus groups to review the data collected and discuss alternative approaches if any flaws were identified. This collaborative discussion also provided an opportunity for any initial interpretations of the data to be identified, facilitating a clear and transparent research process.

- Analytic logic was established by drawing on previous research with a similar research area and focus (e.g., Holland et al., 2010) to guide and educate the researchers on the subject area throughout the research process. For instance, it helped to increase the appropriateness of the questions asked and to enhance the quality of the discussion.

- Interpretive authority was met through frequent discussions by the research team to ensure clear logical steps of the data analysis process were being followed and to give the research team a chance to discuss the findings and enhance interpretations. The extended research team acted as critical friends during the constant discussions and increased confidence in the findings and awareness in the analysis. As per Smith and McGannon (2018), engagement with critical friends provided an opportunity for critical dialogue between the research team to encourage reflexivity regarding interpretations and construction of knowledge.

- Contextual awareness was enhanced due to the lead researcher’s previous personal experiences in youth sport, which helped to gain rapport with the athletes, as well as the research team’s extensive experience of working within youth sport settings.

Results

Throughout the focus groups, participants discussed their knowledge and application of sport psychology relevant to their experience. Across all of the focus groups there was large variation in perceptions but three key areas were identified: (a) Perception, knowledge, and experience of sport psychology; (b) Psychological characteristics for achieving success
in elite sport, and; (c) Psychological skills for achieving success in elite sport. The shared and individual experiences are discussed below.

**Perception, Knowledge, and Experience of Sport Psychology**

Participants described mixed views of sport psychology with many apparent conflicting perceptions. It appeared that participants’ knowledge impacted perceptions of sport psychology, with those athletes who indicated a limited understanding of sport psychology demonstrating more negative initial perceptions. This theme consists of two subthemes, the first being current perceptions of sport psychology and the second being factors impacting upon perceptions.

**Current perceptions of sport psychology.** Some participants displayed extremely negative perceptions of sport psychology and struggled to appreciate why it was beneficial. For example, in FG1 athlete one shared the following thoughts on sport psychology: Seems a bit pointless, some of it seems okay, can work on a bit but I still don’t see how there’s special jobs for people that like, loads of jobs for those kinds of people, like England employ sports psychologists to help them get over taking penalties and I just don’t see why they need it, they just need to do it themselves because they [sports psychologist] can’t do it [take the penalties].

In contrast to the very strong opinions shared by above, other participants instead offered a much more positive response, as the following dialogue from the same focus group shows:

A1: You can’t really have like sessions on like “I need to try this, try this.” I still say “well try that” and anyone can really tell you that, like a coach can just say “well try talking to yourself positive, believe in yourself” rather than have a specific job [sport psychologist].

A4: No I disagree because I think some people actually have like major anxiety before races and stuff like that and that like affects them not in the competition but...
outside of the competition and I feel like you need someone who’s actually you know

got a degree…

A2: I can see both sides but I feel it’s something I can just do without thinking about

it so if I just talk positively to myself I feel like I don’t need to think about doing it,

do it automatically before the race. It can be taught but in a difficult way.

A3: Yeah, I think it can, when it’s being taught it’s more like guidance and breaking
down what’s going on in your mind and trying to correct it and set a way forwards to

turn the negative into more positives so I think that when people have a degree in it,

because they’re really knowledgeable on how they can help you…rather than you

trying to figure out yourself...

Despite some participants having a positive view of sport psychology and identifying

the benefits, it was noticeable that it was almost exclusively discussed as a “fix” or something

that certain individuals needed when there was a “psychological weakness” or an athlete was

“in a bad place.” There was limited discussion of the benefits of sport psychology to enhance

performance if the participant was doing well. As swimmer four discussed in FG3:

Umm I feel like it [sport psychology] can help an athlete when they’re in times of like

depression…and stuff like that, struggle, it can like, I think it can, you can feel like

you can open up to a psychologist and err kind of get things off your chest, just like


can help you with your sport.

Factors impacting on perception of sport psychology. The participants’ perceptions

of sport psychology appeared to be influenced by two main factors, understanding of, and

previous engagement with, sport psychology, and others’ beliefs. These are discussed below.

Understanding of, and previous engagement with, sport psychology. Understanding

and knowledge of sport psychology often appeared to be influenced by participants’ exposure

to sport psychology, which in turn seemed to impact athletes’ perceptions. However, it is
important to note that it is not possible to know the direction of influence from experience and knowledge to perceptions (i.e., which came first). Nevertheless, the participants constantly made a link between use and perceptions as illustrated below.

Initially, most participants were able to provide a basic description of their thoughts about sport psychology, generally indicating that it was simply the “mental side of sport”. Quotes from participants who had no previous experience working with sport psychologists tended to be shorter and less descriptive when trying to explain what sport psychology involved. For instance: “The way you think before you race” (FG3, S9), “Studying how people think, stuff like that” (FG5, T16), and “How you feel…emotions” (FG4, T11). Such participants indicated that they did not know what sport psychology was because they did not have any experience of it: “But I don’t know because I haven’t really used it yet” (FG5, T16).

In contrast, some participants shared slightly more advanced or detailed understanding. Understandably and consistently, those participants who demonstrated a more advanced knowledge of sport psychology had often experienced individual or group sport psychology sessions. For example, a triathlete who worked with a sport psychologist provided the most detailed explanation of why one may engage in sport psychology: If there’s a qualification race and maybe there’s two spots and ten athletes going for it, like some athletes might thrive off that pressure and do really well and others might not do well and not get the qualification that they need and like I guess looking into why that happened and maybe it could have been a result of them being more negative in the race, that’s around like mental processes and stuff (FG5, T14). Importantly, none of the participants who had engaged with sport psychology reported negative perceptions regarding sport psychology.

**Beliefs of others.** As well as use and knowledge of sport psychology, another factor that appeared to influence the participants’ perception of sport psychology was the perception others around them had, specifically their coach. Many participants, especially the
swimmers, reported their coach to have a negative perception surrounding sport psychology. For instance, during one focus group the swimmers reported their coaches did not support the psychological side of sport and they had to deal with this on their own. As one participant’s said: “He’d [coach] most likely say it’s your own problem, sort it out yourself” (FG3, S9). This perception appears to have impacted this swimmer’s use of sport psychology as demonstrated in this conversation:

S9: I told [name of coach] like I want to see one [sport psychologist] like once every month just for like a check in so if I’ve got anything to get off my chest I can get it off my chest.

I: How seriously do they [coaches] take it when you say that?

S9: If he thinks it was that serious he would have sorted something out but as of yet he hasn’t sorted anything out (FG3).

Here the participant believed that his need for a psychologist was not considered important and did not seek a sport psychologist on his own. This attitude appeared to have arisen because the coach was not perceived to take the request seriously or hold sport psychology in high esteem.

Psychological Characteristics for Success in Elite Sport

Participants were asked to discuss psychological characteristics that athletes may possess for developing excellence. Participants spoke about characteristics that they thought were necessary for success as an elite adult athlete, as well as how such characteristics might change over time, and also what influenced their development.

Perceived characteristics of elite athletes. Across all focus groups, participants were initially hesitant to recall any psychological characteristics and appeared to doubt their knowledge in this area. Specifically, many participants provided no reply or a short response when asked what psychological characteristics they thought were useful for success in sport.
For instance, one swimmer simply described psychological characteristics as: “The way you process stuff” (FG3, S8). This swimmer expanded his answer when pushed for a further explanation, however still demonstrated doubt and hesitancy: “Yeah the way you approach things like do you take things on in training as a challenge sort of thing or you can bottle it and not, is that sort of the right lines?” (FG3, S8).

Although initially hesitant to recall characteristics, when asked to consider these in relation to their favourite athletes or role models, participants eventually listed multiple psychological characteristics. For instance:

Interviewer: Ok so think of your role model, what traits do you think they have that you feel you need to have to be a swimmer?

S8: Committed, like determined…

S13: Positive attitude…

S10: Confidence…

S13: Yeah like care free

S10: Stress free

S12: Be passionate towards the sport (FG3).

From this list of characteristics, the most commonly discussed were determination, motivation, and positive thinking. For instance:

We said, well determination, you’ve got to be able to keep motivated and keep going but also you’ve got to think positively about everything so like you know if something bad happens in training or a race you’ve got to, rather than get upset you’ve got to keep positive and like learn from it (FG4, T5).

Some athletes were unable to recall certain terminology, however they were able to demonstrate an understanding of the characteristic instead. This was especially common in the most popular characteristics discussed by athletes, such as determination and positive
thinking. Triathlete 6 explained: “And like if you get knocks back as well you’ve got to like keep…if you get knock backs for some reason like illness and that, you’ve got to, rather than get upset, you’ve got to keep positive” (FG4, T6).

Changes in psychological characteristics over time. In identifying the characteristics they believed enabled elite athletes to succeed, the participants were keen to highlight that the importance or need for these characteristics might change over time or in different situations. For instance, most participants indicated that when they were younger and participated in sport for enjoyment only, there was no value to psychological characteristics because, “It’s just all for fun of it” (S13, FG3), and “Like you didn’t think you were going to get this far” (S9, FG3).

However, participants reported that the importance of psychological characteristics increased as their sporting involvement became more serious. When discussing the point at which psychological characteristics became important to participants, one of the swimmers reported: “I think you just kind of like start to realize when you start qualifying for bigger events, meets like British nationals and your kind of like the best, you’re better than everybody else” (FG3, S10). Similarly, participants reported that as sport became more important to them, they started to develop key psychological characteristics. For instance, one of the participants from FG3 described how his commitment developed: “I think from 13 I started to realize that I had to sort of commit myself to it, like I had before but from that point I realized it was either commit yourself to it or give up” (S4).

Participants further indicated that psychological characteristics developed as a result of their training or competition experiences. For instance, one athlete spoke about developing motivation as a result of training on his own during his early athletic career:

So I trained a lot when I was younger by myself so I’d be the only one in the group so that’s how I learnt self-motivation because I knew well if I just give up now I’m not going to
get there so I started to motivate myself during the sessions and then I also became focused so I was focusing, well I thought if I do this I’ll improve and then motivated myself into doing to and it’s just led on from there (FG1, A1). Another athlete reported the development of motivation and determination as a result of success in their sport:

I think when people start to notice me more like other athletes knowing who I was that would give me more motivation then when I started getting all the titles and [Country] Champion then I started to like become more determined to keep on having like successes so I’d say gradually like first year of under 17’s and now this year starting to become more motivated on my own (FG1, A3).

Factors influencing possession or presentation of characteristics. Participants perceived that psychological characteristics were constantly changing rather than a stable trait. For instance, one participant shared: “You don’t possess them all the time though” (S9, FG3). Such changes in psychological skills could relate to the competition they were engaged in, as one swimmer explained:

I think I’m like more confident when it’s a race like I know it isn’t a big deal, I’m a lot more confident but it’s just like when I go into a big race like I don’t feel like as confident that I’m going to do well and stuff (FG5, T16).

Another situational factor discussed by participants that was seen to particularly impact upon motivation was competition frequency. For instance, participants indicated that they often struggled to maintain motivation during a large block of training with no competitions:

I feel like you feel a lot more motivated coming up to an event, like a long time out from an event and you’re in a massive like training block and it’s all hard work, you find it hard to motivate yourself to keep like pushing through it (FG3, S10).

Factors external to sport, such as school issues, were also perceived to influence their display of psychological characteristics, specifically confidence and self-esteem:
It just varies, not necessarily just with sport, there could be other factors. So like in school or something if you haven’t done so well that can make you feel a bit down and that can affect your sport so it’s not just with the races or anything (FG4, T5).

**Psychological Skills for Success in Elite Sport**

Participants recalled a range of psychological skills they thought were important for success in elite sport and discussed their experiences of using and developing these skills.

**Understanding and use of psychological skills.** In general participants found it easier to recall psychological skills than characteristics. However, similar to their views on psychological characteristics, participants perceived that psychological skills would become more important as they progressed in their sport, for example one triathlete shared: “Yeah, I think they’ll get more important as we get older, maybe more than now” (FG5, T17).

Specifically, participants indicated that it was only in the last few years that they felt they had needed to use any psychological skills to help their performance, as a swimmer explained:

It’s only been the last couple of years [I've used psychological skills] because when you’re younger you just kind of jump in and think “oh it’s a race, swim it” and you don’t really think about anything else or how you could do better …because you’re younger, but as you mature and grow up a bit you do seem to do a bit more (S5).

The most commonly discussed skills were goal setting, visualization, positive selftalk, and reflection. However, participants who had previously participated in individual sport psychology sessions were clearly able to list the most skills during the focus group.

**Goal setting.** Nearly every participant was aware of and believed they had a strong understanding of goal setting. Overall the older participants seemed to have a better appreciation and knowledge of a complete goal setting process, including understanding the use of process as well as outcome goals and the reasons behind the practice of goal setting.

This was demonstrated by one of the older triathletes in focus group four:
Um like so I use it to like calm my nerves so instead of focusing purely on the outcome so like at the start of the race like working hard, fast turnovers, sprinting at the start and focusing on things like that instead of like worrying about the other people around me. So like focusing on the stuff that you can control and thinking about your technique and not stuff that other people are going to influence (T3). In general, the younger participants talked a lot about short, mid, and long-term goals and occasionally mentioned the SMART principles. However, the descriptions they provided when asked to explain things further were often quite brief, for example:

I’ve always set goals, it’s just I’ve never known short term, long term, medium term so I’ve always had, well this is my long-term goal but more recently I’ve started saying well to reach that I need to do this (FG1, A1).

Some participants also worried about engaging in goal setting due to a fear of failing to meet their goals or because others might subsequently expect too much from them:

Because I don’t like putting like too much pressure on myself so expectations is just one of them, where if I don’t meet it [the goal] then I feel like I’ve put myself down and probably give up so I just go with the flow (FG4, T11).

Participants who used goal setting spoke about the importance increasing in the last few years due to the step up of international competitions: “I think it motivates me more now than it used to because now it’s more important the goals I want to achieve because it will get me to more like international standard” (FG1, A3). However, not all participants felt goal setting was a beneficial process with some placing little or no value on it. For instance, multiple swimmers reflected that they sometimes found goal setting to be tedious, especially when they had too many goals to think about:

S3: It’s a bit tedious
S2: Having one or two minor ones I find because you can like think about it when you’re swimming and like we’re always told to stay positive but like too many can get like…

S3: Put you under pressure (FG2)

*Visualization.* Visualization was the other psychological skill that most participants discussed. It became apparent that most of the younger participants who spoke about visualization had gained their knowledge through group sessions at national training camps and in turn had a basic knowledge. However, they did not demonstrate the ability to apply it to their sporting situation and perform it themselves, for example:

Yeah, we had a talk on that [visualization] so it’s the visual, thermal, is it? I don’t know finger imagery, so you can feel the…so if you open a fridge and you can feel the cold air rush out on you, yeah, umm you can visualize where it is, visualize how big it is, what it looks like (FG1, A1).

In contrast, older swimmers had a very good understanding of visualization and seemed to be able to apply it in specific situations:

I think I was like taught when I was, a couple of years ago when I was at like one of the younger camps and they sat us down and like told us we were all doing like the same event and you got to swim it how you’d want to do it and they like put a stopwatch on it and you had to figure out like how many strokes and that and then you had to later on try and go in the pool and replicate it to see how far off (FG3, S13).

Overall, participants generally highlighted the value of visualization prior to or during a competition: “I normally like in the day building up to a competition just start to visualize yourself doing well and yeah visualize yourself doing the correct techniques” (FG1, A4).
Although identified as a key psychological skill, compared to goal setting, visualization was perceived to be less important and participants indicated they were less likely to use it. One of the reasons for the lack of use was that participants felt it increased their feelings of pressure leading up to competitions and were worried that the race outcome might differ to what they hoped. This was discussed in focus group two:

S2: I never like actually just imagine myself in the race but like I think about it and like where I want to be and like what I want to be doing but I never like picture it.

S3: Yeah neither do I, I feel too under pressure

S2: Because like if you picture it and then it doesn’t like go the way you want it to then like you’re like stressed even though you might still be doing well.

Positive self-talk. Generally, participants indicated that they did not consciously engage in positive self-talk. However, as participants were discussing their races it was apparent they did use this skill and when encouraged to further talk about this they realized that they did use it. For instance, one swimmer explained: “You kind of do it without thinking in training but then like when you come to a race it’s just part of the process, you want to get yourself psyched up and do it” (FG3, S13). Participants perceived that perhaps it was a skill they need for longer events. For instance, one swimmer explained:

Sometimes, during races but like I’ve used it during really long races like in open water where I’m swimming like 3km 5km, it’s just like really long and tedious so singing to yourself, talking to yourself can like make the race feel shorter (S1).

Other psychological skills. A range of other skills were discussed but with limited indication of how or why they were used. For instance, reflection was another skill that multiple participants talked about using, with some participants being required to complete a formal reflection process. As the triathletes explained:
Last year we had to do like, they kept sending us these like little things, you had to say exactly what you did before the race, like how you planned for the race and what you think went well and then you’d speak about each element like what went well and how you could have done better so there’s like loads of reflection (T16). However, beyond stating that they completed these forms, participants provided little understanding of why they would use this skills.

Pre-performance routines were only mentioned by triathletes, however it seemed to be considered more for practical reasons rather than to enhance their psychological preparation. The participants spoke about arriving at their race venues early to ensure they had time to set up their transition areas and physically prepare for the race. One of the participants spoke about the difficulty of having a formal set routine due to timings and the issues if you do not have time to complete it: “It depends from race to race sometimes because like different races you’ve got different wait lengths and like sometimes that can throw you off a bit” (FG4, T5).

Discussion

The purpose of the current study was to understand the psychological needs of elite youth athletes within swimming, triathlon, and athletics. The findings suggest that athletes across the sports often had conflicting opinions of sport psychology, with both positive and negative perceptions being discussed. Those participants who had a limited understanding of sport psychology often had more negative perceptions compared to those with a greater understanding of the area. Many athletes were initially hesitant to discuss psychological characteristics due to an apparent lack of knowledge and psychological skills were generally limited in their descriptions.

Perception, Knowledge, and Experience of Sport Psychology

The findings of the current study indicate that elite youth athletes have a range of perceptions of sport psychology, which is generally consistent with previous research with
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older athletes (e.g., Wrisberg et al., 2009). It is somewhat surprising that the youth athletes’ perceptions of sport psychology were so consistent with previous literature given that this work has focused on adult athletes who grew up in a period when sport psychology was less common and accepted. However, in line with previous literature (cf., Martin, 2005; Wrisberg et al., 2009), the participants in the current study had various experiences of sport psychology. Such experiences subsequently appeared to impact on their perceptions.

Additionally, in line with work such as that by Fortin-Guichard, Boudreault, Gagnon, and Trottier (2017) who indicated that personal characteristics such as gender and age influenced perceptions of sport psychology and Martin (2005) which revealed that athletes who were male, young, or involved in contact sports were more likely to possess a negative perception, age (but not gender) appeared to be an influencing factor on athletes’ perceptions of sport psychology.

There are many other factors that may have influenced the athletes’ perceptions of sport psychology, one being the recruitment of athletes from many different sports clubs. Consequently, athletes may have provided more honest opinions due to being away from their close peers and not feeling they had to share the same views as others in the group.

Having a mix of male and female athletes from different clubs added to the diversity of the focus groups, which has previously been shown to increase the likelihood for more varied knowledge and perceptions to be shared (Stewart, Shamdasani, & Rook, 2007). Further, recruiting athletes from different clubs and teams will have resulted in the participants most likely having different coaches. Therefore, we have to consider the coaches’ perception of sport psychology given that previous research has supported the idea that coaches are in a position to have a remarkable influence over the athletes they coach (Buning, 2016; Zakrajsek, Steinfeldt, Bodey, Martin, & Zizzi, 2013).
Although a number of the participants in the study had positive or negative experiences, a large group of athletes also indicated having relatively limited views on sport psychology. Surprisingly this neutral or apathetic view of sport psychology has not often emerged in previous research, potentially because adult athletes are more likely than the youth athletes in this study to have been exposed to sport psychology and consequently formed opinions on it. As previous literature has reported, athletes’ perceptions of sport psychology can be impacted by their prior experience or knowledge (Wrisberg et al., 2009; Zakrajsek et al., 2013). However, many of the youth athletes in the current study had never had that prior exposure and really just did not appear to know what it was.

A consistent pattern emerged indicating that athletes with a positive perception of sport psychology appeared to have a deeper knowledge and understanding of it, as well as often having previous experience of sport psychology. Although the direction of influence between these factors can only be speculated, it is consistent with previous research with adult athletes (e.g., Gee, 2010; Wrisberg et al., 2009). For instance, previous research has shown that athletes who had a poor understanding of the sport psychology process were more reluctant to seek out psychological services because of their lack of knowledge (Gee, 2010). This suggests that if athletes know and understand more about the sport psychology process and the benefits they may be more inclined to participate and potentially have a more positive perception. Supporting this, Wrisberg and colleagues (2009) also discovered that athletes who possessed a negative perception of sport psychology often had no prior sport psychology experience or education, potentially meaning they were lacking in knowledge and understanding of sport psychology.

Given such a relationship, ensuring that athletes’ initial experiences of sport psychology are positive is critical to ensuring long-term engagement with the field. Opportunities for positive early experiences of sport psychology will be largely influenced by the quality of delivery from practitioners. Thus, rather than practitioners “using” young athletes as a stepping
stone to working with elite athletes, there is a need for practitioners to have a genuine desire to
work with young athletes, to have a thorough understanding of child and adolescent
development, and creatively adapt approaches to working with these individuals (Gould &
Szczygiel, 2017; Knight, Harwood, & Gould, 2017). Integrating specific developmental
training within sport psychology education would seem pertinent.

Moreover, ensuring that individuals around young athletes have a thorough
understanding of the benefits and uses of sport psychology seems particularly important,
which will again require specific consideration and training among practitioners. Some of
athletes in the current study had a positive perception of sport psychology, however when
they spoke about when psychological services would be used they reported it as a ‘quick fix’
solution that was useful only when something had gone wrong. A similar perception has
previously been reported among coaches (Pain & Harwood, 2004) and, interestingly, within
this study, this deficit view of sport psychology to address problems or limitations appeared
to be largely influenced by athletes’ coaches. Such findings highlight not only the influence
of others on young athletes, but also the importance of earlier sport psychology education to
young athletes to minimise misconceptions developing.

Psychological Characteristics for Success in Elite Sport

Initially most of the athletes in the current study were very hesitant to report any
psychological characteristics they thought were necessary to achieve success at an elite
standard or that they possessed themselves. This hesitancy may have occurred due to the
participants’ lack of familiarity with the focus group moderator and a desire not to be
perceived as giving the “wrong answer”, or a result of the age/developmental trajectory of
the athletes (cf., MacNamara et al., 2010b). However, once athletes got into conversation and
moved beyond their initial hesitation, they were able to discuss a number of characteristics
they felt were important for success at elite standard. The characteristics that were reported
for both success at elite standard and that they currently possessed were focus, determination, and motivation. Compared to the insights shared by rugby players in Holland and colleagues (2010) study, this list is extremely short. Such differences may, to some extent, be reflective of a team sport versus individual sport environment as many of the characteristics highlighted by rugby players were directly related to being part of a team (e.g., team strategies, team support and climate, and leadership (Holland et al., 2010). Similarly, compared to research with elite adult athletes, knowledge of psychological characteristics is clearly lacking (cf. Gould, Dieffenbach, & Moffett, 2002). Such a difference may be an indication that some youth athletes really do have a limited knowledge of psychological characteristics, which may limit the extent to which they believe they can develop in this area.

In the current study, the athletes also thought that psychological characteristics developed over time during their youth sporting career and were built on throughout adolescence. For instance, some of athletes discussed how the importance of the psychological characteristics increased during some of the transitions they encountered in sport. Initially this appears to be consistent with the research carried out by MacNamara and Collins (2013) in that psychological characteristics of developing excellence (PCDE) are used in assisting athletes through the challenges of development, contributing to everyday life as well as sport. However, when PCDEs were first researched, it was suggested that psychological characteristics helped adolescents to negotiate their path and overcome the challenges they face within and outside of sport. In the current study, the participants explained this relationship differently. Specifically, rather than the characteristics helping them to manage challenges within and beyond sport, the participants indicated that external factors would actually influence their development and display of characteristics. For instance, when the athletes were facing a difficult time at school or with peers, they thought it
influenced the psychological characteristics they displayed or needed. Overall, rather than seeing psychological characteristics as stable or trait-like, the athletes in the current study generally saw these as unstable and situation-specific. Such a view may mean that athletes would be more amenable to developing these characteristics. However, it could also be an indication that they see them as fallible and thus a threat to achieving on an elite stage.

**Psychological Skills for Success in Elite Sport**

In general, the athletes in the current study knew more about psychological skills than they did psychological characteristics. However, as with the characteristics, there were differences between athletes. When the athletes discussed psychological skills they felt were important for success, it soon became apparent that some of the older athletes, specifically the swimmers, knew more than the younger athletes. Specifically, many of the younger athletes failed to acknowledge the differing types of goals one might set, with a range of perceptions and understanding surrounding the goal setting process. An explanation for such a difference can again be speculated based on MacNamara et al.’s (2010b) research. MacNamara and colleagues reported that athletes involved in team sports tend to specialize around the age of 16 years in the UK; in contrast athletes involved in individual sports may specialize when they are younger in age and development. As a result, athletes who are engaged in sport from a younger age may ’self-deploy’ psychological skills earlier due to their development, or have been taught these skills earlier by coaches and practitioners meaning they may have a better understanding of the skills by the time they reach late adolescence. Another explanation for the difference in knowledge could also be due to different athletes’ exposure to certain training camps and environments. In the current study the older athletes spoke about training and competition camps where they had been encouraged to carry out goal setting, often learning about the types of goals and the reasons behind it. In comparison, although some of the younger athletes reported having used goal
setting, they had only gained their knowledge verbally from a coach and as such had a more limited understanding and knowledge of the topic as they had not experienced a formal goal setting process.

A new finding from the current study was the misconception of skills that certain athletes had. A number of athletes reported that they did not like to use psychological skills, such as goal setting, because they thought it would negatively impact their performance or wellbeing. For instance, athletes discussed that if they did not meet their goals they would be disappointed and have ‘failed’ and therefore it was better to not set goals. This misconception of the purpose of goal setting is something that is generally not discussed in previous research, with the vast majority of studies highlighting the acceptance and importance of goal setting across a range of sports (Fournier, Camels, Durand-Bush, & Salmela, 2005). This finding once again emphasises the lack of understanding some of the athletes had around this area. If the athletes were educated in goal setting, they may have understood the process better and focused upon setting achievable goals and avoiding disappointment of not reaching their goals.

The key psychological skills that were reported by the athletes in the current study included goal setting, visualization, positive self-talk, and pre-performance routine. This list is very similar to previous literature that has reported the four traditional psychological skills that are most commonly employed by athletes, namely goal setting, visualization, self-talk, and relaxation techniques (Vealey, 2007). Seemingly, the popularity of these skills with adult athletes is filtering down to younger athletes and perhaps the accessible nature of these skills is increasing their use within younger populations. However, one caution with this is the extent to which athletes might be learning psychological skills in isolation of characteristics. That is, the athletes appeared more confident in talking about specific skills than characteristics and they did not appear to link skills to the development of characteristics. As
such, the athletes may not be aware of exactly when or why they would utilize different
skills, or how they can use skills to foster the necessary characteristics to succeed in their
sport. Further research examining the link between these two areas and the extent to which
athletes recognise the role of skills in enhancing characteristics would likely be beneficial.

**Applied Implications**

From the findings of the current research there are multiple considerations that should
be taken into account by sporting organisations that are attempting to improve or restructure
their psychological support provided to their athletes. Firstly, athletes should be provided
with the opportunity for education in sport psychology from a young age, so that as they
progress they are aware of what it is, how it can be of use, and when they might choose to use
it. Another potential consideration could simply involve exposing youth athletes to a group or
individual sport psychology session(s) at a younger age, due to the consistency in research
showing that athletes who had previous experience with psychology sessions were also more
likely to have a positive perception. However, such exposure must be of an appropriate
quality, which may require changes in the training and education available to sport
psychology practitioners to ensure it is appropriately tailored to youth athletes. Further, it
may also be beneficial to educate coaches around the topic of sport psychology. The aim of
educating coaches should not be for the coaches to then deliver psychological intervention
but more importantly to understand the benefits themselves and potentially relay their
positive perceptions back to the athletes.

The broad range of research carried out surrounding psychological characteristics and
skills demonstrates the importance of these areas within sport psychology and therefore,
understanding both the meaning and terminology could potentially be another way to
enhance youth athletes’ perceptions and use of sport psychology. A common mistake among
athletes in the current research was the lack of knowledge of the characteristics, skills, and
terminology. Athletes could be educated at a young age on a variety of characteristics that
elite athletes possess and the available psychological skills which are commonly used to
enhance performance.

**Limitations and Future Directions**

The findings of the current study must be considered within the study limitations.

Firstly, the research was conducted with athletes only, meaning there was no opportunity to
compare and contrast their results to significant others in their sporting career such as their
coach or parents. Future research should seek to include the perceptions and experiences of
athletes’ significant others. Secondly, the current research was conducted on athletes
competing in athletics, swimming, and triathlon, all of which are individual sports. Although
there has already been previous literature researching team sports (Holland et al., 2010), it
has only focused on male rugby. Given the differences in the findings of the current study
and Holland and colleagues’ work, it may be interesting to explore the perceptions of athletes
in other team sports. Additionally, there would be great interest in further examining
perceptions of sport psychology among athletes competing in individual sports such as golf
or tennis, which have embraced sport psychology for a number of years and are recognised as
having a substantial psychological/mental component. Finally, only one form of data
collection was employed, from one time point. As such, the findings provide us with a one
off snap shot of insights, which may not necessarily be reflective of the athletes’ views at
different stages of their seasons. A consideration for future research would be to introduce
multiple data collection methods, over an extended period of time. This would enable
researchers to develop a further understanding of whether athletes’ perceptions or
understanding develop over time, for example an athlete’s perceptions of psychological
characteristics may change over the course of a competitive season depending on how close
they are to a competition.
Conclusion

In conclusion, the present study demonstrates the lack of knowledge and understanding many elite youth athletes have surrounding sport psychology. The study has provided insight into the variety of perceptions of sport psychology among athletes, often underpinned by their understanding and use of sport psychology. The athletes in the study also illustrated their awareness of, or lack thereof, psychological characteristics and skills.

Overall, the current study has offered new and further insights into how youth athletes perceive sport psychology and factors that are important to improve perceptions of young athletes entering into and already within the elite sporting world.
References


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## Table 1. Demographic Information

<table>
<thead>
<tr>
<th>Focus group</th>
<th>Sport</th>
<th>Number of participants</th>
<th>Ages (years)</th>
<th>Sporting standard</th>
<th>Years involved in sport (mean)</th>
<th>Training frequency (Mean hours/week)</th>
<th>Competition frequency (Mean comps/month)</th>
<th>Self-declared experience of Sport psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG1</td>
<td>Athletics</td>
<td>4: A1, A2, A3, A4</td>
<td>15-17\nM=16.25</td>
<td>International</td>
<td>7.75</td>
<td>7.13</td>
<td>2.25</td>
<td>2 had experienced group sessions during national training camps. 2 had no experience.</td>
</tr>
<tr>
<td>FG2</td>
<td>Swimming</td>
<td>6: S1, S2, S3, S4, S5, S6</td>
<td>14-16\nM=15.17</td>
<td>National</td>
<td>9.17</td>
<td>18.70</td>
<td>1.00</td>
<td>1 swimmer had regular individual sessions to improve pre and post-race mentality. 1 swimmer had experienced multiple group sessions at national training camps. 4 swimmers had no previous experience.</td>
</tr>
<tr>
<td>FG3</td>
<td>Swimming</td>
<td>7: S7, S8, S9, S10, S11, S12, S13</td>
<td>18-20\nM=19</td>
<td>International</td>
<td>12.29</td>
<td>23.14</td>
<td>0.60</td>
<td>5 swimmers had experienced multiple individual sessions offered by their national governing body on training camps. 2 swimmers had no previous experience.</td>
</tr>
<tr>
<td>FG4</td>
<td>Triathlon</td>
<td>11: T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11</td>
<td>13-16\nM=14.82</td>
<td>National</td>
<td>4.05</td>
<td>13.82</td>
<td>2.18</td>
<td>None of the triathletes had any previous experience.</td>
</tr>
<tr>
<td>FG5</td>
<td>Triathlon</td>
<td>6: T12, T13, T14, T15, T16, T17</td>
<td>16-18\nM=17</td>
<td>National</td>
<td>5.13</td>
<td>16.83</td>
<td>1.83</td>
<td>1 triathlete had experienced regular individual sessions to improve confidence following time out from the sport. 1 triathlete was provided with individual sessions through her swimming national governing body prior to starting triathlon. The other 4 triathletes had no previous experience.</td>
</tr>
</tbody>
</table>