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Exploring how and why a sports-based multi-component intervention works for disengaged students: a longitudinal realist evaluation

Emily Owen-Boukra [a,b]*, Camilla J. Knight [a,c] and Denise M. Hill [a]

aDepartment of Sport and Exercise Science, Swansea University, Swansea, UK; bDepartment of Primary Care and Population Health, University College London, London, UK; cDepartment of Physical Education and Sport, University of Agder, Agder, Norway

ABSTRACT

School dropout is associated with numerous detrimental consequences including prolonged unemployment, poverty, a wide range of psychological and physical health problems, and premature mortality. As such, designing and implementing interventions to prevent school dropout and ensure successful school completion is crucial. The purpose of the current study was to conduct a longitudinal realist evaluation to understand how, and under which circumstances, a multi-component intervention delivered through the charitable foundation of a professional sports team may impact the developmental outcomes of disengaged students. The intervention comprised one-to-one mentoring, classroom-based learning, sport and physical activity. Participant observations and fifty-two interviews were conducted with teachers and students over a ten-month period to form context-mechanism-outcome configurations (CMOCs) and to refine initial programme theories. The CMOCs developed highlighted the importance of students developing healthy conflict resolution skills and emotional regulation strategies, the potential of sporting content to re-ignite interest in academic learning, the powerful effects of deviant peer contagion, the synergistic impact of a multi-component intervention, and the role of pre-existing and ongoing contextual factors in determining whether interventions can create sustainable and lasting desirable outcomes among students. The findings provide practical recommendations for future sport-framed intervention design, implementation, and evaluation.

Abbreviations: RE: realist evaluation; CMOC: context-mechanism-outcome configuration; IPT: initial programme theory.

Introduction

School completion and educational qualifications are powerful predictors of health (Dalgard et al., 2007). Completing secondary school with qualifications provides access to further educational and employment opportunities, and subsequently, more evidence-informed health decisions. In contrast, leaving school early without qualifications has been shown to enhance the likelihood of involvement in health-compromising behaviours, including smoking, alcohol, drugs, sedentary behaviour, and physical inactivity (McWhirter et al., 2017). School dropout is associated with prolonged unemployment, poverty, a wide range of psychological and physical health problems, and early mortality (Ruglis, 2009). As such, staying at or leaving school prematurely may be one of the most critical factors in a young person's development and life trajectories.

Given the negative consequences of leaving school prematurely, numerous interventions have been developed to enhance the likelihood of school completion and improve educational qualifications for disengaged young people (Ghose et al., 2024; Prevatt & Kelly, 2003). Such interventions include one-to-one mentoring (e.g. Christensen et al., 2019; DuBois et al., 2011), classroom-based learning (e.g. Ciocanel et al., 2017; Hale et al., 2014), and sport and physical activity (e.g. Hermens et al., 2017; Lubans et al., 2012). Many of these interventions are complex and diverse, ranging from 1 week to 6 months, targeting a range of outcome domains (e.g. social, emotional, behavioural, and academic domains of young people's development) and different age groups (e.g. primary and secondary school students). Overall, evidence suggests that the efficacy of existing interventions has been modest, and it remains unclear what works for disengaged young people and under which circumstances (Mawn et al., 2017; Prevatt & Kelly, 2003; Tidmarsh et al., 2022).

Considering one-to-one mentoring interventions, a broad array has been conducted to re-engage disengaged young people. They are often characterised by the following elements: (1) the establishment of a continuous professional relationship between the mentor and mentee; (2) the mentor has a higher possession of wisdom, knowledge, and experience than the mentee; and (3) the mentee can benefit from the mentor's expertise academically, socially or emotionally (Butler, 2016; Tolan et al., 2013). Typically, their potential benefits have been accepted (e.g. improved emotional wellbeing, social skill development, improvements in academic achievement, and a reduction in delinquency; Dolan et al., 2011; Karcher, 2008; Tolan et al., 2014). However, despite the potential benefits of one-to-one mentoring, a series of meta-analyses assessing the effectiveness of mentoring with disengaged young people have revealed only modest effect sizes (DuBois et al., 2002; 2011; Raposa et al., 2019).

The use of classroom-based learning interventions has increased significantly. These include health education workshops, social skills training, behaviour management practices, and leadership activities (Durlak et al., 2010; Hale et al., 2014). Several meta-analyses and systematic reviews have examined the effectiveness of these interventions on academic, behavioural, and psychosocial outcomes among disengaged young people (e.g. Ciocanel et al., 2017; Durlak et al., 2010; Hale et al., 2014). Unfortunately, drawing together the findings from these reviews and the broader literature (e.g. Curran & Wexler, 2017), there is inconsistency regarding the impact of classroom-based learning interventions for disengaged young people, with the effect sizes remaining relatively small.

Finally, several sports and physical activity interventions have been developed as potential strategies to improve developmental outcomes among disengaged young people (Whitley et al., 2019). They comprise various forms and strategies, including outdoor adventure, team sports, skill-based (e.g. development of motor skills) physical activity, and physical fitness interventions (Hermens et al., 2017). Such interventions have been suggested to be beneficial because they have the capacity to provide a safe and empowering environment, which can help disengaged young people foster internal resources, such as social and emotional competencies, self-esteem, self-expression, and a sense of purpose, meaning, and vision (Draper & Coalter, 2016; Spaaij, 2012). However, as with

other intervention approaches, evidence regarding the effectiveness of such interventions for disengaged young people remains limited (Haudenhuyse et al., 2014; Whitley et al., 2019). Three systematic reviews (Berger et al., 2023; Hermens et al., 2017; Lubans et al., 2012) have concluded that sport and physical activity may hold promise as an intervention strategy for disengaged young people, but there is a need for further longitudinal research to understand the mechanisms that underlie the effectiveness of sport-based interventions, the impact of sport when combined with other intervention components, and the factors which may enhance or hinder overall effectiveness (e.g. facilitator background/characteristics, intervention design features).

One-to-one mentoring, classroom-based learning, and sport and physical activity interventions are complex and context-dependent, with many features and characteristics that may influence their likelihood of success. The success of any intervention may depend upon the extent to which they account for, and address, the complex and varied reasons disengaged students may decide (or be forced) to leave school (Rajasekaran & Reyes, 2019). Many disengaged students encounter adverse experiences and challenges including poverty, neglect, emotional and physical abuse, parental death, substance abuse, and criminality (Kirlic et al., 2020). Exposure to such adverse circumstances can have detrimental effects on educational engagement (e.g. investment and active effort), behavioural (e.g. disobedience and absenteeism), and psychosocial (e.g. low self-worth and perceived competence) outcomes, each of which is a salient predictor of school dropout (Witte et al., 2013). To counter such issues and enhance disengaged students' engagement, behavioural, and psychosocial outcomes, a singular intervention approach may not be sufficient (Mawn et al., 2017; Rajasekaran & Reyes, 2019). Intensive, multi-component interventions could enable students to access many pathways and accommodate their complex needs (Mawn et al., 2017). Critically, however, research is needed to understand the causal processes that facilitate (or constrain) the success of multi-component interventions: What works, for whom, in what contexts, and how?

A recent study (Owen et al., 2024) provides insights into the potential benefits of such an approach. This study examined the extent to which a multi-component intervention impacted the developmental outcomes of disengaged students aged 14–15 years. A realist evaluation (RE) was conducted, and it was identified that such an approach has the potential to work synergistically in a coordinated, accumulated, and dynamic way to provide students with the necessary support to re-ignite their engagement in education. However, there are limitations to this intervention that should be noted. First, the intervention was implemented over a six-month period, with inconsistent delivery due to various school breaks and curriculum requirements. Existing research suggests that interventions delivered over a sustained period (e.g. six-months) may lead to students losing interest and to increased attrition rates (Cleary, 2015). Second, the intervention was implemented during mid-adolescence (for students aged 14–15 years). Accumulating evidence shows that when interventions are implemented during early adolescence (ages 11–13 years), students' engagement, behavioural, and psychosocial functioning may be more malleable and susceptible to effect change (Gracey & Kelly, 2010). Finally, the interviews used for the evaluation occurred only once, immediately following the completion of the intervention. This prevented any examination of the intervention's long-term effects.

Given the potential benefits of a multi-component intervention for addressing school engagement and recognising the limitations of the research that has been conducted in relation to such an approach, the purpose of the current study was to evaluate the short- and long-term effects of a 10-week multi-component intervention on the developmental outcomes of disengaged students aged 12–13 years. Three research questions were posed: (1) How, why, and in which contexts does a multi-component intervention (TACKLE) impact (if at all) the students' engagement, behavioural, and psychosocial outcomes? (2) What are the underlying mechanisms explaining the impact (if any) of the intervention? (3) Does the intervention have long-term sustainability effects on the students' engagement, behavioural, and psychosocial outcomes?

Materials and methods

Methodological approach

A RE approach was adopted to address the purpose of this study. RE prioritises not only the outcomes and overall effectiveness of interventions, but also the influence of contextual factors and underlying mechanisms that bring about change (Chen, 1990). RE aims to develop, test, and refine initial programme theories (IPT) through the examination of contexts (the 'backdrop' and conditions of interventions), mechanisms (underlying causal forces), and outcomes (desirable/undesirable consequences of interventions resulting from the generation of mechanisms in various contexts), forming context-mechanism-outcome configurations (CMOCs; Jagosh et al., 2013; Pawson & Tilley, 1997). RE is conducted in three broad phases. In phase one, an IPT is developed that aims to explore how the intervention is expected to work. In phase two, the IPT is tested, scrutinised, and expanded upon throughout the evaluation using multiple methods of data collection (Pawson & Tilley, 1997). The final phase of a RE involves the synthesis of evidence, the formulation of CMOCs, and the refinement of a programme theory which explains how the intervention is or is not working, for whom, and under which contextual circumstances (Wong et al., 2016).

Study setting and intervention participants

This RE employed an in-depth, single, longitudinal case study design (Yin, 2018); the case being Llanfair School (pseudonym). This approach enabled an in-depth exploration of TACKLE, at multiple time points, and in the real-world context of Llanfair school. The case is a public secondary school located in South Wales, U.K., with approximately 800 students ranging in age from 11 to 16 years (Estyn, 2020). Llanfair is situated in a low socio-economic area and has a significantly higher than average proportion of students eligible for free school meals. It is located in an area with high rates of unemployment, low family income, poor housing conditions, and extremely poor community safety (Welsh Government, 2019).

The teachers purposively selected the students to take part in the intervention if they displayed two or more characteristics associated with school dropout (i.e. low academic attainment and grades, behavioural challenges, problems related to poverty including sleep deprivation and hunger, caregiving responsibilities etc.) and were in year 8 (aged 12–13 years). A total of 12 male students with a mean age of 12.6 years (SD = 0.9) were chosen for the intervention. All students identified as white. Each student provided assent, along with parental consent, to be included in the evaluation of the intervention (further details below).

The intervention, which was delivered by the charitable foundation of a professional sports team (Ospreys in the Community), comprised one-to-one mentoring, classroom-learning, sport and physical activity. It was delivered by TACKLE facilitators who acted as the students' mentors, classroom educators, and sport and physical activity coaches. There was also an additional facilitator, including a professional rugby player, who supported the intervention. The intervention ran for 10 weeks during the summer term and comprised a two-hour session each week, including classroom-based learning and sport sessions. The mentoring meetings followed the sport sessions. Additional reward sessions (e.g. opportunities to attend a professional rugby match and a sports stadium tour) also took place. A more extensive overview of TACKLE is provided in the supplementary material.

TACKLE facilitators

The TACKLE facilitators (n = 2) were males from South Wales, U.K. (mean age: 27 years; SD = 8.9). Similar to the students, the facilitators came from areas of high socio-economic deprivation. The first facilitator had a background in Sports Development and Education. Prior to delivering the TACKLE intervention, he worked as an Active Young People Development Officer in secondary

schools across South Wales and was an active facilitator of the Young Ambassador Scheme.[1] The second facilitator signed a youth development contract with a professional rugby team at the age of 17. He earned international honours at the under-18s and 20s level. While continuing to play rugby for a semi-professional team, the facilitator joined Ospreys in the Community as a sport and physical activity coordinator, where he was responsible for delivering various initiatives to primary and secondary school students. To enhance their professional skills and knowledge, both facilitators attended formal training programmes including the Adverse Childhood Experiences (ACEs) training course, NSPCC Child Protection in Sport and Physical Activity training, Mental Health Awareness (Mind), Autism Awareness (National Autistic Society), and Welsh Rugby Union Coaching Courses.

Procedure

Ethical approval to conduct the longitudinal evaluation was obtained from the University Ethics Committee (2018-067). All the students invited to take part in the intervention were also invited to be part of the evaluation. Parental consent and student assent were obtained, with all the students who were invited agreeing to take part in the evaluation. Two teachers were also invited to participate in this evaluation and agreed to be interviewed at various time points.

Phase one: the development of initial programme theories
The IPTs were developed based on the existing literature (e.g. Lubans et al., 2012; Raposa et al., 2019) and the findings from the previous RE of TACKLE (Owen et al., 2024). The findings from this RE and the literature were compiled to formulate IPTs that explored how the TACKLE intervention may work (or not), in the context of disengaged year 8 students, and over what duration.

Phase two: testing the initial programme theories
Participant observation and field notes. Throughout TACKLE, the first author (EO-B) served as a participant observer. EO-B was raised on a working-class council housing estate in Merseyside, U.K. At the time of this study, she was in her early twenties. Her closeness in age and similar socio-economic background to that of the students helped to facilitate the development of trusting relations and allowed the students to feel more comfortable discussing sensitive topics. At the start of the intervention, EO-B explained to the students that she was there to support TACKLE and to explore how, when, and in what circumstances it does or does not work. It was made clear to the students that they could share information regarding TACKLE with the first author but also choose not to share their thoughts.

Observations of the students occurred in a variety of contexts: the classroom, sports field, the gymnasium, off-site trips, and during periods of informal interaction. During the observations, the first author was actively involved in each session and activity, forming relationships with the students, engaging in informal (as well as more formal) conversations, and listening to the students discuss their experiences of the intervention. These observations also provided insight into the wider school environment in which TACKLE was embedded, and enabled interactions with teachers and wider staff networks (e.g. healthcare professionals).

Detailed field notes were recorded during and after each observational period, during informal discussions, and after the interviews. They included elements of the first author's own reflections and interpretations, in addition to contextual factors (e.g. local culture and language/dialect), the students' interactions with the TACKLE facilitators, their engagement, behavioural, and psychosocial outcomes during activities, and the students' decision-making, leadership, and conflict resolution skills.

Interviews. The interviews were conducted with 12 students and 2 teachers by the first author immediately following the completion of the intervention. The teachers were interviewed as they had regular engagement with the students and/or were responsible for coordinating the TACKLE

intervention. They ranged in length from 8 to 50 minutes (M =37.1, SD =18.8). The interviews with the teachers were conducted on the school field during regular school hours or by telephone at a time suitable for them. The interviews with the students took the form of 'walking interviews', in which a student and the first author would talk together while walking around the school facilities (particularly areas where the intervention had taken place). Walking interviews were used because previous studies using these interviews with vulnerable populations have provided insight into both the value and success of the approach (Botfield et al., 2019; O'Neill & Hubbard, 2010).

The interview topics explored contexts, mechanisms, and outcomes based on students and teachers' perceptions. Initial questions followed a semi-structured approach seeking to elicit the participants' experiences of, and views on, the TACKLE intervention. The questions covered activities, the meaning of TACKLE to the students, the relationships established, and the overall impact (if any) on the students' engagement, behavioural, and psychosocial outcomes. Interview questions then progressed into the realist teacher-learner cycle (Manzano, 2016). During this phase, questions were informed by the IPTs. Examples of the questions posed included: 'TACKLE works differently for different students; how did TACKLE work for you?' The interviewees were then asked to share their interpretations and experiences of the intervention (i.e. refining programme theories). With the permission of the students and teachers, all interviews were audio-recorded, transcribed verbatim by a professional transcription service, and reviewed for accuracy by the first author.

Follow-up interviews. Thirty-seven follow-up interviews were conducted with the same students and teachers at three points in time following the completion of the intervention: 3 months (12 students, 2 teachers); 6 months (10 students, 2 teachers); and 10 months (10 students, 2 teachers). Two students dropped out of the evaluation due to family circumstances and subsequent school changes. The interviews ranged in duration from 7 to 54 minutes (M =38.9, SD =20.3). Walking interviews were again conducted with the students to explore their engagement, behavioural, and psychosocial outcomes at multiple time points. The semi-structured interview guides were tailored specifically to each student and employed a conversational tone, including questions about their interests, friendship groups, and educational and employment aspirations. The students were also prompted to reflect on the overall impact of TACKLE, and whether they perceived that the intervention had led to any long-term changes in their engagement, behavioural, and psychosocial outcomes. Interviews with the teachers were conducted in a classroom setting, and their views regarding their students' progress were explored, focusing on important contextual factors, and their perceptions of students' developmental outcomes over time. Each interview was again audio recorded and transcribed verbatim using a professional transcription service. The transcripts were then reviewed to ensure their completeness and accuracy.

Phase three: CMOCs and refined programme theories

The third phase involved realist analysis and synthesis of the data to formulate CMOCs and refine programme theories. The data were examined to explain how TACKLE led to specific outcomes, under which contexts, and through which causal mechanisms. The interview transcripts and field notes were read several times in their entirety and each audio recording was listened to repeatedly. The interview transcripts and field notes were then examined individually, and the data were coded as they related to contexts, mechanisms (separated into resources and reasoning; Dalkin et al., 2015), and outcomes. Contexts, mechanisms, and outcomes were reviewed against the entire data set to identify similarities and differences before they were linked and compiled into summaries, diagrams, and tables (including supporting quotations). The data from the follow-up interviews were analysed using a realist logic of analysis, and CMOCs were formed, which explored the students' long-term engagement, behavioural, and psychosocial outcomes. The following questions were asked throughout the analytical process (Wong et al., 2015):

1. Interpretation of meaning: Do the transcripts (or field notes) provide data that may be interpreted as being context, mechanism (resources/reasoning), or outcome?
2. Interpretations and judgements: What is the CMOC for the data that has been interpreted as functioning as context, mechanism, or outcome?
3. Interpretations and judgements about programme theory: How does this CMOC relate to the IPT? Given this CMOC and supporting data, does the IPT need to be modified?

The CMOCs and refined programme theories were then discussed among the TACKLE facilitators and the research team, helping to expand theoretical and analytical possibilities by suggesting different ways of looking at and thinking about the data.

Quality and reporting standards in RE

To ensure methodological rigour, the study was carried out in accordance with the RAMESES II reporting (Wong et al., 2016) and quality standards (Greenhalgh et al., 2017). The reporting standards seek to enhance the quality and rigour of REs and comprise 20 items (Wong et al., 2016). Each item was followed during data collection and analysis. The quality standards highlight eight key principles: (1) a realist approach is suitable for the overall purposes of the evaluation; (2) principles of generative causation are applied; (3) there is an initial and refined programme theory; (4) the evaluation design is explained and justified; (5) the data collection methods are appropriate; (6) appropriate selection of participants to address research questions; (7) the data analysis is retroductive and examines the interaction between context and mechanism(s); and (8) realist analysis is utilised to construct CMOCs and refine programme theories (Greenhalgh et al., 2017).

Results

The findings are presented under six programme theories. The first five are concerned with the short-term impact of TACKLE, and the sixth unpacks the long-term sustainability effects of the intervention. Each IPT is introduced and then discussed, and information is provided in relation to whether it was supported, expanded, refined, or refuted based on the data collected. Evidence relating to each theory is then explained according to the important contextual factors, mechanisms, and outcomes. The refined programme theories are summarised in the corresponding tables.

Table 1. Programme theory 1: One-to-one mentoring.

IPT	The mentor may provide an opportunity for students to feel listened to, supported, and valued (Grossman & Rhodes, 2002). Through prolonged engagement, the student can develop trust and respect for their mentor and may feel comfortable sharing their feelings and personal aspects of their life with their mentor. Throughout the one-to-one mentoring process, the mentor may provide access to new perspectives, information, and advice. Further, because of similarities in interests, the student may look up to their mentor and feel driven to emulate their mentor's achievements. Consequently, mentoring relationships may lead to improvements in students' engagement, behavioural, and psychosocial outcomes.
Refined programme theory	In the context of students who had a history of behavioural and personal challenges, many students felt supported and confided in their mentor about challenges with their peers, parents, and teachers. The outcomes observed as a result included the development of conflict resolution skills and emotional regulation, improvements in behaviour, and relationships. For other students, a constraint to the mentoring relationship was contexts in which students experienced extremely chaotic home environments. In these situations, students experienced difficulties articulating their thoughts and feelings and were uncomfortable and reticent discussing personal aspects of their lives with their mentor. These findings correspond to attachment theory (Bowlby, 1982) and findings from previous research (Ahrens et al., 2011), which have indicated that exposure to early childhood adversity can result in a young person becoming mistrustful of others, leading to difficulties in forming and maintaining relationships.

Programme theory 1: one-to-one mentoring

This IPT explores the role of a one-to-one mentor. Overall, the findings supported certain elements of this theory (see Table 1). There was evidence to suggest that in certain contexts, the students felt listened to, supported, and were able to share their thoughts, feelings, and personal aspects of their lives with their mentor. Through the provision of the mentor's advice and guidance, there was evidence to indicate improvements in the students' conflict resolution skills and emotional regulation. However, not all students benefited from the mentoring relationship. There was no evidence to support the proposition that the students looked up to their mentor and felt driven to emulate their achievements.

CMOC 1.1: conflict resolution and emotional regulation

Many students in TACKLE experienced numerous behavioural (e.g. disobedience, aggression, and violence) and personal (e.g. poverty, parental separation) challenges (context). The mentors had extensive experience working with such students. They approached the relationships between themselves and the students with patience and empathy, offering guidance and advice in relation to healthy conflict resolution skills and emotional regulation strategies. Many students described feeling supported and confided in their mentor about challenges with their peers, parents/caregivers, and teachers (mechanism). Brayden explained: 'I was telling [mentor] about my behaviour and like any [behaviour] points I got. And like I tell him about stuff in school and he helps with things going on at home'. Outcomes evident included the development of conflict resolution skills and emotional regulation, improvements in behaviour and relationships. Ellis revealed: 'I admit my anger used to be bad. [Mentor] taught me how to stay calm and say if I don't agree with someone, he helped me to put the point across and then just leave it … ' Similarly, one teacher described the impact of mentors on students' conflict resolution skills:

> You could see a noticeable difference in a lot of the students. There were less anger outbursts, swearing, or tantrums and things like that … I've seen a lot of them have disagreements, and rather than kicking and shoving each other they might have a little word and then it's over … The other day, Alex, and Harrison, you know, they'd had words, but they agreed to leave it there.

CMOC 1.2: the role of trust in mentoring

During the process of relationship-building, the mentor asked questions and provided an opportunity for the students to feel heard (context). For a few of the students, it was evident that they experienced difficulties articulating their thoughts and emotions and were uncomfortable sharing personal aspects of their lives with their mentor (mechanism). For instance, some students replied with short responses to questions, while others acknowledged that discussing personal challenges with an adult in a 1–1 setting can be 'hard' and 'complicated' (field notes). In such instances, this led to delays and barriers in the formation of a relationship between the mentor and student (outcome).

Programme theory 2: classroom-based workshops

This IPT refers to the pedagogical content implemented within the classroom setting and the type of peer relationships established. There was evidence to suggest that using the language of sport and active pedagogies (e.g. emphasising the active involvement of students in the learning process, the importance of collaboration, and encouraging students to construct their own knowledge and understanding) facilitated student interaction and engagement during the classroom-based workshops (see Table 2). However, for certain students, the classroom sessions triggered different mechanisms and led to alternative outcomes. For example, bullying incidents were encountered and there was an increase in deviant behaviours among students.

Table 2. Programme theory 2: Classroom-based workshops.

IPT	To re-ignite engagement in learning and education, students who are passionate about sport may benefit from classroom sessions that utilise the language of sport, sports content, and active pedagogies to teach students English and mathematics and concepts such as leadership, respect, and teamwork. By integrating sporting examples into the school curriculum and enabling students to work cooperatively together in groups, solve problems, and explore new ideas, classroom sessions may succeed in engaging and motivating students to learn (Azzarito & Ennis, 2005). Furthermore, by bringing students together with similar experiences, challenges, and backgrounds, they may be able to provide support and positive encouragement to one another and develop trusting relationships based on shared understanding and collective experience.
Refined programme theory	Consistent with the IPT, for some students, the integration of sports content and active pedagogies into the school curriculum proved to be important processes through which classroom sessions led to higher levels of teamwork, interaction, and engagement. However, for others, there were barriers that precluded their active participation in the activities, including a culture of hypermasculinity and competition that resulted in feelings of discomfort and frustration. In turn, this led to the emergence of bullying behaviours and conflict among students. These findings resonate with previous studies (Bramham, 2003; Swain, 2006), which concluded that the inclusion of sport and competitive activities among boys can lead to bullying behaviours and practices due to the reinforcement and enactment of hegemonic masculine identities and 'top dog' competitive cultures (Hickey, 2008). In contexts where students experienced bullying and name calling, the incorporation of a mixed group of students (e.g. those exhibiting aggression and behavioural challenges and those displaying low self-esteem and social skills challenges) led to differences between the students being highlighted. For several students, this triggered feelings of isolation, intimidation, and frustration, leading to difficulties in concentrating on activities and disengagement. Additionally, in the context of students who shared similar behavioural challenges (e.g. disobedience, verbal aggression, and physical violence), the assembling of students with similar challenges led to an increase in deviant and disruptive behaviours.

CMOC 2.1: using sporting content to re-ignite interest in academic learning

In the context of students who were passionate about sport but disengaged with their curriculum subjects, the classroom sessions focused on using sporting content and active pedagogies to engage the students. For instance, a math lesson was built around the students working in groups to co-ordinate a trip to France to attend a rugby match, and an English lesson focused on the students establishing and designing their own sports clubs. Such activities were perceived by several students as triggering interest and enjoyment in learning (mechanism). Alex explained: 'Well even though they [activities] was about literacy and maths and that, they were quite fun cause it was rugby stuff and group challenges'. In contrast, for other students, there were barriers that precluded their active participation in the activities, including a culture of hypermasculinity (i.e. emphasis on males displaying aggression, toughness, and stoicism) and the competitive nature of the activities, which resulted in feelings of discomfort and frustration.

Consequently, different outcomes were generated for different students. For some students, the outcomes observed included the development of leadership and teamwork skills, and higher levels of interaction and engagement. Rhodri explained, ' … 'cause they were all team efforts, they made me listen to other people's points of views, communicate more, and get on with people better'. For the other students, the outcomes included conflict, physical and verbal aggression, and bullying.

CMOC 2.2: feelings of isolation, intimidation, and bullying

TACKLE incorporated a mixed group of students, including those exhibiting aggression and behavioural difficulties and students with low self-esteem and social skills challenges (context). This combination led to noticeable differences between students (e.g. loud and assertive versus quiet and reserved) during classroom activities. During the observations and interviews, it became apparent that interactions among students led to the emergence of bullying behaviours (mechanism). This triggered feelings of isolation, intimidation, and frustration among the students subject to bullying, and led them to experience difficulties concentrating on the activities (outcome). Cameron shared: 'The boys were continually picking on me and that, so, I couldn't really take part properly cause, erm, I didn't wanna keep reacting to what they were saying'. Brayden also experienced bullying by his

peers: 'I liked the activities, but [I] didn't like talking to anyone in the erm, group 'cause I kept getting annoyed, so, [I] couldn't concentrate'.

CMOC 2.3: deviant peer contagion

Several students involved in TACKLE shared similar backgrounds and behavioural challenges, including disobedience, inattentiveness, verbal aggression, and physical violence (context). By bringing such students together in a classroom setting, interactions with one another were intensified and heightened (mechanism). The students indicated that clustering others with similar backgrounds and behavioural challenges resulted in an increase in deviant and disruptive behaviours. Isaac shared: 'The boys in TACKLE, they [have] got all the same problems as me so, and like some of them are naughtier than me. I reckon being around people like that, makes you like naughtier and naughtier'. In a similar way, Caleb explained:

> Because of the type of people in TACKLE, I find myself attention seeking because that is all I do, I try to make them [peers] laugh all the time. Then when people laugh, it encourages me to do it more.

Such narratives suggest that bringing several students together with similar behavioural challenges led to an increase in behaviour-related issues during the classroom workshops (outcome).

Programme theory 3: sport and physical activity

This IPT explores the role of sport as a potential strategy for improving the students' engagement, behavioural, and psychosocial outcomes. There was evidence to support the importance of providing opportunities for the students to display their sporting talents, and to lead various sports activities (see Table 3). However, the programme theory was also expanded. For some students, exposure to different activities and challenges triggered frustration and vulnerability. Additionally, there was evidence to suggest that TACKLE provided the students with access to new opportunities.

CMOC 3.1: praise and positive feedback

The students typically received limited praise or positive feedback within school. For many, this lack of praise was often mirrored in their lives outside the school setting (context). TACKLE provided students with opportunities to display their sporting talents and to lead and officiate sports where they

Table 3. Programme theory 3: Sport and physical activity.

IPT	By providing disengaged students with leadership responsibilities (e.g. refereeing different sports) and opportunities to display their sporting talents, they may develop leadership skills and experience feelings of competency, empowerment, and pride. Opportunities for disengaged students to experience feelings of competency and pride have been recognised in the literature as processes that can contribute to desirable engagement, behavioural, and psychosocial outcomes (Danish & Nellon, 1997). TACKLE may provide students with an opportunity to experience new activities (e.g. a stadium tour and attendance at a professional rugby match) that they may otherwise have limited access to due to financial constraints. As a result of these activities, students may experience enhanced social cohesion and connection with others.
Refined programme theory	In accordance with the IPT, there was evidence to suggest that in the context of students who received limited praise and positive feedback, the opportunity to display their sporting talents and to lead and officiate various sports enabled students to receive praise and to experience feelings of competency, empowerment, and pride. The outcomes evident as a result included enhanced confidence in students' abilities and improved leadership skills. In the context of students with low self-esteem and limited coping strategies, exposure to different activities triggered feelings of frustration and vulnerability. The implementation of the sin-bin strategy enabled students time away from the activity to reflect and recalibrate. This led to a willingness among the students to re-engage with the activity and improve their emotional regulation. Many students in the intervention experienced high levels of poverty, socio-economic inequalities, and poor school attendance. In such contexts, TACKLE provided access to new opportunities (e.g. a visit to the stadium to watch a professional rugby match and a sports stadium tour), which triggered excitement and happiness among students and led to improvements in their existing relationships with their peers and in their school attendance.

felt competent. Through involvement in such activities, the students received praise from the TACKLE facilitators and teachers. A teacher explained: 'It gave the students an opportunity to get a lot of positivity, positive recognition, and reinforcement you know, and to do something they enjoy doing which all the students need'.

As a result of such praise and feedback, the students spoke of experiencing feelings of competency, empowerment, and pride (mechanism). For instance, according to Alex, involvement in the sporting activities allowed him to 'feel proud, cause other people were cheering me on and that'. Isaac shared similar views, explaining he felt 'good because it was fun, we got to ref [referee] and play rugby, and the coaches asked me like who it is I play for, and they said that I was good like'. The outcomes evident as a result included students developing confidence in their own abilities and improved leadership skills. As one student, who was chosen for one of the ambassador awards because of his leadership skills, explained: 'It gave me more confidence in myself because it [winning the award] means I've actually done good, and I've improved'.

CMOC 3.2: the sin-bin strategy

Several students had low self-esteem and limited coping strategies in response to challenges and stressors (context). This was observed by one of the teachers:

> It is a confidence thing; some of them have definitely got low self-esteem, they don't think of themselves very highly at all. You do hear 'I can't' a lot and you know; they are vulnerable, they lack the skills needed to solve different types of situations.

Throughout the intervention, the students experienced frustration and vulnerability when they engaged in different activities. For instance, when taking part in an inflatable rugby passing drill, one of the students struggled to throw the rugby ball onto the target and vented his frustration by aggressively kicking the ball onto the next field (field notes). One teacher understood the student's frustration: 'He's terrible if he doesn't feel he can do what he's doing, so, that incident with him on the field, was just because of his frustration that he couldn't get the ball in the target'. The implementation of a 'sin-bin'[2] and time-out strategy provided the students with time away from the activity to reflect and recalibrate. This strategy helped students to calm down and manage their emotions (mechanism). Alex explained: 'It [sin-bin] was good 'cause it made me take my mind of it'. Consequently, the outcomes evident included a willingness among students to re-engage with the activity and improved emotional regulation.

CMOC 3.3: access and exposure to new opportunities

Within the context of students who experienced high levels of poverty, deprivation, and poor school attendance, TACKLE provided exposure to new opportunities, including tickets to a professional rugby match and a tour of a sports stadium. For many, visiting a stadium was a new experience. Access to new opportunities triggered excitement and happiness among students and enhanced their motivation to attend school (mechanism). The students' excitement was reflected in one of the teacher's comments:

> I remember that there was a time when one of them, he'd missed his bus, and he'd you know, usually would have been 'Oh I've missed my bus I'll stay at home' but he'd walked to school and got here 'cause he was excited to come and go to the stadium.

Further, Cameron described how he proudly shared his experiences of the stadium tour with his friends: 'I was telling them that we went in big rooms where the players sit and sat in the chairs down the field, and they all want to start coming TACKLE now'. The outcomes evident included improvements in the students' relationships with peers and increased school attendance. Rhodri commented: 'My attendance is better now than what it was because it's made me want to come in to school and go to TACKLE, otherwise I wouldn't have got to see the stadium and that'.

Table 4. Programme theory 4: Professional athletes.

IPT	For students who are interested in, and passionate about rugby, the involvement of a professional rugby player may play an important role in enhancing their engagement, motivation, and confidence (Armour & Duncombe, 2012). Through the rugby player sharing their own background, challenges experienced at school, the regret of not working hard enough in school, the obstacles they have overcome, and their current career pathways outside of professional sport, students may be able to envision the opportunities available to them post-school and develop a realisation of the importance of school completion.
Refined programme theory	In the context of shared similarities between students and the professional athlete, listening to the athlete triggered engagement, inspiration, and motivation to work harder in school. The outcomes observed as a result included the development of future orientation and expressing feelings of hope and optimism.

Programme theory 4: professional athletes

This IPT relates to the positive role that a professional athlete may play in students' lives. It was evident from the data that many students were engaged, interested, and inspired by the rugby player's achievements outside of professional sport (see Table 4).

CMOC 4.1: the development of future orientation

There were similarities between the students and the professional rugby player (e.g. socio-economic background, values, and interests). During the interviews and informal conversations, it became apparent that many students valued that the rugby player was from the same geographical area and shared an understanding of socio-economic inequalities (context). This is evidenced in the following quote by Caleb: 'Well obviously, he lives in a massive house now with a gym and that, but he'd grown up around here with nothing, like not much at Christmas'. During the workshop, the athlete shared his regret for not having worked hard enough at school. He also described the formal apprenticeship route he pursued after he completed school and the businesses in which he had established outside of his professional rugby career. Many students were inspired by the rugby player's achievements and described enhanced motivation to work hard in school (mechanism). For example, Alex revealed:

> Well, he has about 3 different businesses, doesn't he? That's just class! I know where one of them [businesses] are and why it's called what it is … It [listening to the rugby player] made me wanna be better in school.

One teacher also commented on the impact of the rugby player on the students:

> It was brilliant. I thought he was just fantastic. And I suppose as well for all of them, you know, I'm not saying it's like, oh yeah, they've all decided now that this is what they want to do but I think it's planted some seeds. It's planted that seed, so, it's just given them a little bit of inspiration …

As a result, the evident outcomes included students developing an orientation towards their future and expressing feelings of hope and optimism. As acknowledged by Ellis: 'I'd like to have my own business, like my own garage, 'cause I've always worked better with my hands'. Similarly, Caleb explained:

> I want to buy my own car dealership and invest the money then … A populated one, Nissan or Renault, you see … Because I grew up not having money, I think if I was to have money, I'd be different with my kids, I don't think I would spoil them. I wouldn't spoil them loads and loads, but I would a little bit …

Programme theory 5: the importance of a multi-component intervention

This IPT explores the interaction between different modalities and exposure to various forms of social support. There was evidence to support the IPT. For instance, the diversity of modalities and the presence of positive social support led to increased student attendance at school and higher levels of connection and engagement with school (see Table 5).

Table 5. Programme theory 5: The importance of a multi-component intervention.

IPT	To re-ignite students' engagement and interest, a singular effort or approach may not be sufficient (Mawn et al., 2017). To accommodate each student's varied needs, they may need to be exposed to diverse modalities, resources, and support mechanisms (Rajasekaran & Reyes, 2019). Through exposure to a variety of modalities, including mentoring, classroom-based learning, sport, and forms of social support such as emotional, informational, appraisal, and instrumental types of support, students' engagement and interest in learning may be enhanced.
Refined programme theory	The data corroborated the IPT. For instance, by exposing students to a diversity of modalities and support structures, it was evident that students felt supported and more motivated to attend school. Consequently, this led to increased student attendance at school and higher levels of connection and engagement with school. Such findings support the proposition that providing access to various modalities, support structures, and role models can increase the likelihood that students will attend school and re-engage with their education.

CMOC 5.1: access to support, guidance, and resources

Many students experienced instability in their family lives and lacked access to social support (context). Through involvement in TACKLE, the students encountered diverse modalities and accessed multiple sources of social support from various individuals (e.g. TACKLE facilitators, teachers, and a professional athlete). For many students, this triggered feelings of being supported and led to enhanced motivation to attend school (mechanism). Rhodri remarked: 'The [TACKLE facilitators] helped me to keep on the right path and try more in school'. Likewise, Brayden attested: 'There was people in the TACKLE project that I could count on'. This led to positive outcomes for the students, including increased school attendance and engagement, and higher levels of school connectedness.

Programme theory 6: are any changes sustained? If not, why not? For whom? In what contexts?

This IPT refers to the sustainability effects of TACKLE. There was evidence to corroborate the initial theory (see Table 6). The long-term success of the intervention was influenced by the students' pre-existing and ongoing contextual circumstances.

CMOC 6.1: sustained improvements in self-esteem, attitude, and behaviour

In the context of eight students who experienced low self-esteem, disengagement towards school (e.g. limited involvement and poor conduct during academic activities), and less chaotic home

Table 6. Programme theory 6: Are any changes sustained? If not, why not? For whom? In what contexts?

IPT	In the context of students who experience low self-esteem, disengagement towards school, and less complex home environments, the resources of the TACKLE intervention may be sufficient to sustain improvements in students' engagement, behavioural, and psychosocial outcomes. However, in the context of students who encounter extremely complex home environments and difficult circumstances outside the school setting, evidence suggests that the positive effects of interventions may diminish over time (Bloom, 2010). Consequently, within the context of heightened complexity, TACKLE may not have sufficient leverage to sustain long-term improvements in students' engagement, behavioural, and psychosocial outcomes.
Refined programme theory	There was evidence to support the IPT. Within the context of students who experienced low self-esteem and disengagement towards school, and less chaotic home environments, TACKLE's resources had sufficient leverage to maintain positive self-esteem, attitudes, and behaviours over time. This led to improved engagement, behaviour, and psychosocial outcomes during curriculum lessons. However, in the context of students who experienced an extremely chaotic home environment and difficult circumstances outside the school setting, the resources of TACKLE did not have enough leverage to maintain improvements. Hence, the outcomes included poor school attendance, exclusions, and entrenched feelings of disaffection towards school. Alternative learning provisions were also provided to students. Such findings align with previous research that underscores the erosion of intervention effects over time because of the chaos and instabilities students encounter outside the education context (Bloom, 2010).

environments, there was evidence to suggest that TACKLE provided sufficient resources to maintain positive self-esteem, attitude, and behaviour (mechanism). Outcomes observed as a result included improved engagement, behavioural, and psychosocial outcomes during curriculum lessons. For example, during follow-up interviews, a few students noted how the intervention contributed to increased self-esteem. Jamie explained: 'It's given me the confidence to talk in front of people 'cause we did a lot of working in groups and presenting stuff in TACKLE' (6-month interview).

During the follow-up interviews, the students also highlighted improvements in their attitudes and behaviours. Leo noted: 'I don't escalate small problems as much, it [TACKLE] taught me to be like more calmer in like different situations' (6-month interview). In a similar way, Caleb explained how the intervention had brought new resources of perspective and encouraged him to exert more effort and improve his behaviour during lessons (3-month interview):

> TACKLE made me see that I am here to learn and that you see, and that even though I'm still obviously working on [my] behaviour and stuff, it's made me put more effort in. So, like yesterday, I had to write an essay in geography, had to write 3 pages, and then the lesson after, I had to write another 3 pages … Before TACKLE, I mean, I probably wouldn't have even wrote a page, but I do see things a bit different now and that's what you gotta expect when you get into year 9, you have to work hard and write essays after essays.

Several students also spoke about plans for their future and occupations they were considering, including working as accountants, construction labourers, police officers, electrical and gas engineers, and physiotherapists. These thoughts appeared to have been triggered by participation in TACKLE. One student, Leo, described how TACKLE had motivated him to start thinking about his future: 'It did have an impact because it has made me think a bit more seriously about what I'm gonna do and the subjects I need to pass and that' (10-month interview). Further, Caleb explained how the talk from the professional rugby player stimulated him to start exploring options for his future (6-month interview):

> Well, he [rugby player] shocked me with some of the things he said … He taught me stuff about things I never knew, and I realised that GCSEs are important … I think I know the GCSEs I want to take, well I know two, but I don't know what third one to do see … I wanna go to university. I went there with the school, and it was really nice; they had a gym, they had loads of pitches to play sports.

CMOC 6.2: a lack of sustainment, reversion, and a regressed state

For four students facing an extremely chaotic home environment and difficult circumstances (e.g. parental substance abuse, limited supervision, neglect, and gang affiliations) outside the school setting (context), the resources provided through TACKLE did not have sufficient leverage to sustain improvements in their self-esteem, attitude, and behaviour (mechanism). The following extract from one student[3] provides some indication of the complexities of their lives (3-month interview):

> We always lived with [my parent], then a big thing happened, and then I lived with my uncle. My eight-year-old brother lives back with [parent] now, but I don't bother [with] them. My fourteen-year-old sister lives with my nan and then my two baby brothers and big sisters in foster care, and also my new baby sister is.

Poignantly, one student stated, 'I haven't talked to [parent] in like a year … I got a bit lost, lost track a bit in school, like my attitude and behaviour. I wasn't really myself for like a, like a long time' (10-month interview). Overall, it was evident that family circumstances impacted upon the students' school attendance, as one student simply stated: 'When something bad happens at home, I stay off' (6-month interview).

For others, changing residence several times during the same term led to disruptions in their education. For example, one student discussed how he was unable to revise for his exams: 'The exams go towards your sets, for like science, English, and maths … I couldn't revise for them 'cause I was off school for a while 'cause I moved house three times' (6-month interview). A few described how the end of the TACKLE intervention had impacted negatively upon their motivation to behave in

school: 'I think if I haven't got anything coming up where I go to, like TACKLE and the trips and stuff, then I'm not going to try as I'll never be as good' (Ellis, 6-month interview).

In some instances, the students explained that they had limited parental supervision and guidance: 'My parents let me do anything really, not strict at all' (6-month interview). A teacher described the impact limited parental support had on the students, sharing:

> Their parents do not push them into school. They're not supportive of school, not reinforcing consequences … Everything is impacted by external things, and when programmes are no longer in place, all this other stuff is still going on or has happened since (6-month interview).

With limited parental guidance and supervision, and no access to TACKLE, some students expressed feelings of abandonment, disappointment, and loneliness: 'I wish I was doing TACKLE now. 'Cause I don't really have anyone to speak to now. I was disappointed when it finished like but erm, talking to [TACKLE facilitators] like once a month or something could help' (6-month interview).

Other students started to associate with older peers outside of school, which, in turn, contributed to an increase in disruptive and maladaptive behaviours (3-month interview):

> I'm worse now than I was … because outside of school I am hanging around with like, older boys, they're like 18, 17 … On the summer holidays, basically I was hanging around with them and they're chopsy [loud] people. And if someone chops [shouts] us, we'll chops them back, and now, I just got it from them.

In the context of friendships with older peers, a student discussed how he had gained access to drugs and affiliations with gangs (6-month interview):

> They [friends] all smoke the green [marijuana] and everything they do. One of my friend's mum's a [drug] dealer, it's class … I've holded like acid tabs [tablets] and stuff, holded them, but I've never done them … I want to go to [city], there's like all knife crimes and stuff like that innit. I would go with all the boys and see if our group is bigger than theirs like …

The four students for whom the outcomes of TACKLE did not appear to be sustained were in extremely different situations at the end of the 10-month follow-up period. One teacher explained the students' circumstances (10-month interview):

> He [one of the students] is permanently excluded now, just for complete disruption, really bad, continually not following instructions … One of the students had to move schools [family circumstances] so, he's no longer with us … For [student], it's kind of got to that stage now, he's got like the most behaviour points in the school. We've had parents in, you know, we're trying … youth work referrals, throwing everything at him now to try and keep him. We are even looking at doing like a reduced timetable … For [student], he's taking part in a [sport intervention] two hours a week, so it's regular. Obviously, it's not always sort of, how we sustain that with funding or do you know like people's workloads … The programmes helping him a lot, and he's actually engaging really well with it.

Interestingly, in some cases, despite the lack of continuing positive impacts on engagement or behaviour due to involvement in TACKLE, it was evident that one of the students was more willing to receive one-to-one support and participate in other school-based interventions because of the positive experiences he encountered during TACKLE. He shared: 'I think the TACKLE project helped me speak better to adults and try different things in school' (6-month interview).

Discussion

This study aimed to examine the short and long-term effects of a multi-component intervention on the engagement, behavioural, and psychosocial outcomes of disengaged students aged 12–13 years. Based on the findings, it was evident that a 10-week multi-component intervention, delivered in conjunction with a professional sports team, can lead to favourable developmental outcomes among early secondary school disengaged students. The evaluation identified numerous contextual factors that facilitated and constrained desirable outcomes. Importantly, the findings illustrate that the long-term effects of multi-component interventions may be shaped by disengaged students' pre-existing and ongoing contextual circumstances.

In line with the findings of previous research (Owen et al., 2024), key overarching mechanisms that enhance the effectiveness of TACKLE include facilitators endorsing a strengths-based ethos (e.g. focusing on identifying and enhancing student assets, potentialities, and innate capacity), providing students with access to multiple sources of support from different role models (e.g. TACKLE facilitators, teachers, and a professional athlete), and offering financial support and transportation to new sporting events (e.g. attendance at a professional rugby match and a sports stadium tour). These findings underscore the importance of providing access to a network of supportive, close, and nurturing relationships and new opportunities that may, in turn, cultivate desirable engagement, behavioural, and psychosocial outcomes (Armour et al., 2013; Borden & Serido, 2009).

The findings indicated that many of the disengaged students who participated in TACKLE experienced socio-economic challenges, complex family circumstances, and difficulties regulating their emotions, particularly controlling anger, and responding to conflict. When experiencing such circumstances, students may be more likely to experience more frequent, intense, negative emotions and be in need of emotional regulation strategies (Wang et al., 2015). Similar to Morgan et al. (2016), the findings of the current study indicate that mentors are uniquely positioned to support the development of emotional regulation in disengaged students. Through mentors listening attentively to the students' thoughts and feelings; discussing emotions, behaviours, and social relationships; and providing guidance regarding emotional regulation strategies, including reappraisal (e.g. reinterpreting a teacher's behaviour as caring instead of controlling) and suppression (e.g. being humble in victory and gracious in defeat) (Wang et al., 2015), they were able to help the students navigate difficult circumstances and complex social relationships.

However, there were barriers to the development of mentoring relationships. Some students, for instance, were unable to articulate their thoughts and feelings and were reticent sharing personal aspects of their lives with their mentor. These results illustrate, in line with prior research (Rhodes, 2002), that when the students have a history of adversity, neglect, and disorganised relationships, they may encounter challenges in forming trusting relationships with others. To help students with this, the findings point to the importance of the same facilitators delivering each intervention component (i.e. mentoring, classroom-based workshops, and sport and physical activity sessions) to enhance feelings of familiarity and stability. Additionally, corresponding with previous literature (Crabbe, 2009; Gaffney et al., 2022; Haudenhuyse et al., 2012), the students were more likely to resonate with the facilitators and professional athletes when they came from similar socio-economic backgrounds and shared an understanding of inequalities. Facilitators and athletes may command higher levels of respect and perceived authenticity through shared experiences and similar cultural capital.

In the context of students who were passionate about sport but disengaged towards academic learning, the findings indicated that utilising sporting examples and active pedagogies to teach curriculum subjects facilitated many students' interaction and engagement. This observation is congruent with previous findings, which have illustrated that subjects may be more interesting, meaningful, and accessible to students when they utilise the language of sport and actively involve the students in the learning process (Robinson, 2012; Whatman & Main, 2018). However, the findings from this evaluation also highlight the need for facilitators to carefully consider group composition and supervisory arrangements to ensure that the activities are appropriate for all students. In general, research examining the integration of sport content during classroom sessions for disengaged students in secondary school settings is limited. As such, the findings extend the literature and suggest that to help the students move *away* from disaffection and *towards* engagement, future interventions should integrate sporting and real-life examples into the school curriculum.

In the current evaluation, the competitive nature of the activities led to a culture of hypermasculinity and the emergence of bullying among some students. Such bullying likely arose because, if students do not conform to hegemonic masculine identities, the competitive nature of group challenges and activities can result in isolation and exclusion (Hickey, 2008; Swain, 2006). Taken together, these findings have important implications for classroom-based workshops. In line with previous

recommendations (Jimenez-Barbero et al., 2020), to prevent the students from engaging in bullying behaviours, the facilitators should actively supervise activities to ensure positive interaction and engagement between the students, establish an environment that de-emphasises competition and reinforces cooperation, and encourage the students to display pro-social behaviours and empathy towards others.

Within TACKLE, several students shared similar backgrounds and behavioural challenges, including disobedience, inattentiveness, verbal aggression, and physical violence. Similar to Cho et al.'s (2005) and Dishion et al.'s (2001) results, the findings revealed that by aggregating the students with similar backgrounds and behavioural challenges, there was an increase in deviant and disruptive behaviours during TACKLE classroom sessions. These findings can be interpreted using dual systems theory (Steinberg, 2010). This theory suggests that the parts of the brain that respond to rewards develop during early adolescence (i.e. aged 10–14 years old), while the parts of the brain responsible for response inhibition, cognitive, and behavioural control develop gradually throughout adolescence and early adulthood (Casey et al., 2019). As such, when the students perceive that their peers are accepting of deviant and disruptive behaviours, the rewards in relation to peer support and affiliation may outweigh their capacity to assess risks, evaluate consequences, and control their behaviours (Lansford et al., 2020). Consequently, within the context of younger students, the findings support the need for the facilitators to develop successful behaviour management strategies and techniques to command authority and respect (Tidmarsh et al., 2022). For instance, the facilitators should actively monitor collaborative activities, carefully arrange pairs and groups (e.g. separate the students who already have deviant affiliations), and establish a pro-social culture that facilitates and enforces positive and supportive peer relationships.

In the context of students who experienced frustration and vulnerability when they engaged in different sporting activities outside of their comfort zone, the findings strongly support the need for a time-out strategy to enable the students to remove themselves from the situation and recalibrate. These findings are consistent with and expand upon previous work, which concluded that time-out strategies and places of safety and refuge are particularly important for the students during periods of anxiety and frustration (Goodall, 2018). Consequently, in addition to one-to-one mentoring, the findings suggest that when appropriate time-out strategies are integrated, interventions such as TACKLE can play a valuable role in helping disengaged students learn to regulate their emotions.

The longitudinal follow-up highlighted the role of contextual factors in determining whether interventions can create sustainable and lasting favourable outcomes among students. There was evidence to suggest that in the context of the students who experienced less chaotic home environments, the resources of TACKLE were sufficient to maintain improvements in their self-esteem, attitude, and behaviour. However, it was not sufficient in the long-term to compensate for the students who encountered extremely chaotic home environments and circumstances. These findings reinforce previous research (e.g. Bloom, 2010; Magee & Jeanes, 2011; Trubey et al., 2024) and suggest that within the context of heightened complexity and vulnerability, interventions such as TACKLE may be able to offer positive experiences and a change of routine in the short-term, but they may be unable to produce long-term sustainability effects.

To alter disengaged students' long-term trajectories, they may require multi-component interventions and support structures for longer durations and/or at greater intensities. However, in the context of disengaged students, fulfilling duration commitment (e.g. 10 weeks) may be more important than the actual duration of the intervention. For instance, early termination of mentoring/facilitator relationships has been shown to adversely affect the students' developmental outcomes. Such negative student outcomes may not be attributable to the shorter duration, but rather to the expectation that the student had for a longer, more sustained relationship (Karcher, 2008). Disengaged students may already enter relationships with internalised doubt that others may be able to accept and care for them, due to either the absence of or insecure and disorganised attachments with their own family members (Bowlby, 1982; Kanchewa et al., 2018). Consequently, students may perceive that they are responsible for problems in subsequent adult interactions.

Challenging upbringings can enhance the likelihood of a student developing rejection sensitivity, whereby they may overreact to an adult's behaviour, question intentions, and whether the facilitator authentically cares, and fear that they may suddenly be abandoned (Kanchewa et al., 2018). The findings from this evaluation suggest that the facilitators should establish clear and appropriate boundaries that are sensitive to a student's context and effectively communicate regarding the cancellation of meetings, activities, and the end date of the intervention to avoid feelings of shock, disappointment, and rejection. Where possible, the facilitators should maintain contact with the students once the intervention is completed. Such continuity of care may be particularly valuable in helping the students to sustain improvements in their engagement, self-esteem, and motivation.

Limitations and future directions

This study has some limitations that should be noted. First, two students dropped out of the longitudinal follow-up at the second time point (six-months). As such, a detailed understanding of the long-term impact of TACKLE on these students has not been obtained. Second, the interviews were conducted with the students and teachers; however, to enhance understanding of important contextual factors and underlying mechanisms, it may have been useful to have conducted realist interviews with the TACKLE facilitators and to have included them in the process of theory refinement. Additionally, although this study used novel and innovative data collection methods ('the talk-as-you-walk' approach), it was apparent that some of the students found the one-to-one interviews challenging because of social communication difficulties. These students struggled to express and articulate their experiences and feelings verbally, leading to short responses and feelings of discomfort. Future research is needed to examine the effectiveness of different types of interview techniques and communication tools (e.g. props, games, drawings, vignettes, and role play) in the context of disengaged students. Finally, the intervention was delivered within the school setting, and it remains unclear whether the refined programme theories from this study can be transferred to disengaged young people who are outside of education and employment.

The longitudinal follow-up design allowed for an exploration of the students' trajectories over a ten-month period. As such, the current study expands previous literature (e.g. Owen et al., 2024) by providing insight into how a condensed multi-component intervention impacted the students' engagement, behavioural, and psychosocial outcomes over time. The longitudinal design sheds light on the contextual circumstances of disengaged students, which may prevent interventions from having long-term sustainability effects. Future research is needed to examine the effectiveness of multi-component interventions that provide disengaged students with additional resources and follow-up support. Prospective studies should also aim to establish how multi-component interventions may work for disengaged populations outside of school settings.

Conclusion

This study has generated new insights regarding how, and under which circumstances, a multi-component intervention worked for disengaged year 8 students, and over what duration. These findings expand previous empirical research (Owen et al., 2024), providing an indication of the longevity of multi-component interventions. The findings from this evaluation can be used to inform the design and development of future interventions for disengaged younger students.

Notes

1. The Young Ambassador Scheme aims to develop young people as leaders in sport and physical activity. Ambassadors use their role to promote participation in sport/physical activity, improving the health and wellbeing of their local community.

2. The sin-bin is a strategy used in professional rugby, where players who have received a yellow card offence must leave the game for ten minutes.
3. Due to the sensitive information provided, no pseudonyms have been used to protect the identities of these four students.

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Disclosure statement

ORCID

Emily Owen-Boukra http://orcid.org/0000-0001-5558-8567
Camilla J. Knight http://orcid.org/0000-0001-5806-6887
Denise M. Hill http://orcid.org/0000-0001-8580-4048

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