"I just like the feeling of it, outside being active": Pupils' experiences of a school-based running programme, a qualitative study

ABSTRACT

Introduction

School-based running programmes which promote daily (or regular) walking/jogging/running are an emerging public health initiative. However, evaluation of these programmes has predominantly used quantitative measures which limit understanding and explanations of contextual influences on pupil participation. Therefore, the aim of this study was to qualitatively explore pupils' experiences of participating in a primary school-based running programme (Marathon Kids) to provide relevant insights and inform programme developments.

Methods

Nine semi-structured focus groups were conducted with a purposeful sample of 50 pupils (26 girls and 24 boys) aged between six and ten years from five primary schools in England. All schools had delivered the running programme for between five to nine months during the 2015/16 academic year. Transcripts were analysed using an inductive thematic approach.

Results

Pupils identified a range of organisational, interpersonal and intrapersonal factors which they believed influenced their participation in the programme. Six themes were identified as being important to pupils' experiences: Marathon Kids as an enabling programme; pupils' autonomy to participate; peer influence on participation (e.g., development of social cohesion); teacher influence on delivery (e.g., fidelity of implementation); logistics and suitability of the school environment; and appropriateness of programme resources.

Conclusions

School-based running programmes can offer an enjoyable physical activity experience for children; however, it is important to understand how current delivery approaches influence pupils' participation. Aspects which were believed to facilitate enjoyment included pupil autonomy to participate, perceived benefits of participation (including psychosocial outcomes) and a supportive school environment. Further research is required to identify the type and level of support required by schools to sustain pupil participation in running programmes so that their perceived value is maintained.

Keywords: Physical activity, Focus groups, Pupils, Primary school, Qualitative, Running

Background

Despite the development of physical activity guidelines to promote physical activity among children and young people in the United Kingdom (UK) (Department of Health, 2011), the proportion of those achieving at least 60 minutes of moderate to vigorous physical activity (MVPA) daily remains relatively low, with only 23% of boys

and 20% of girls aged 5-15 years classed as sufficiently active (NHS Digital, 2016). School-based physical activity programmes are the most frequently targeted and pragmatic method of promoting physical activity among children and young people (World Health Organization, 2018). Schools have the unique ability to reach a wide range of children from across the population, regardless of social background, and over a continuous period of time (Anderssen, 2013). Their importance in contributing to children's physical activity and health is demonstrated by their inclusion as key focal points for action within UK policies relating to sport and physical activity. For example, the government's sport strategy (UK Government, 2015) and Childhood Obesity strategy (Department of Health, 2016). Not only do schools provide a useful infrastructure and resources with which to deliver physical activity programmes (Cale & Harris, 2006), they are also responsible for providing positive early experiences of physical activity participation (Institute of Medicine, 2013) through both formal (e.g., Physical Education (PE)) and informal (e.g., unstructured play during breaktime and lunchtime) opportunities to be active. These are particularly important during the formative years for facilitating long term engagement in physical activity as part of a healthy lifestyle (Cardinal, Yan, & Cardinal, 2013).

Discretionary time periods during the school day where pupils are given some autonomy for how they spend their time, such as recess and lunchtime, have received much attention as windows of opportunity to increase children's physical activity (Langford et al., 2014). Within the UK, the popularity of school-based running programmes as a means to increase pupils' physical activity has grown exponentially with such initiatives being endorsed as a practical and cost-effective strategy which schools may wish to adopt (Department of Health, 2018; Scottish Government, 2017; Welsh Government, 2017). Consequently, several school-based running

programmes have been developed and are being promoted nationally in the UK and internationally. For example, The Daily Mile ('The Daily Mile,' 2013), the Golden Mile ('Golden Mile,' 2016) and Marathon Kids UK ('Marathon Kids UK,' 2013). Intuitively this 'new' genre of programme is appealing as a school-based intervention due to its simplicity, replicability, minimal cost and lack of reliance on specialised equipment, resource and/or specific expertise (Kahan & McKenzie, 2018), all of which have previously been identified as barriers preventing the use of physical activity programmes in schools (Naylor et al., 2015).

This study focuses on Marathon Kids UK (MK) which was developed as an individual participation-based initiative in 2010 by the charity Kids Run Free (KRF) and has been implemented in the UK since 2013. MK challenges children to complete up to the equivalent of four marathons over a whole school year by running or walking laps of a course, during their lunch break. Although MK shares many of the characteristics of other school-based running programmes, its components and implementation strategies differ. For example, MK is an optional activity which is delivered during lunchtime (rather than curriculum time), with children wearing their school uniform/regular clothing, and it serves as an additional opportunity to be active during the school day beyond PE. Furthermore, it is also underpinned by five key components, namely; monitoring, goal setting, rewards, celebration, and role modelling (by both teachers and pupils).

Pupils participating in MK receive a wrist band for every lap completed and the number of bands is recorded centrally within the school via a digital tracking system (DTS). Distance is accumulated and monitored over time and rewards are given at certain milestones (e.g., quarter, half, three quarter and/or a full marathon). Various strategies and tools are employed to assist with programme implementation; these

include the appointment of a Marathon Champion (i.e., a member of school staff who takes responsibility for co-ordinating MK), Marathon Ambassadors (i.e., pupils who assist with its organisation and administration) and a school launch. The launch affords schools the opportunity to receive optional on-site support by KRF staff who deliver a marathon-themed assembly, measures and marks the running route(s), populates the DTS with pupils' details, and provides training on the administration of the programme.

Although school-based running programmes may be an attractive way to increase children's physical activity, there is a lack of studies demonstrating their effectiveness. The first and only published evidence to date on the effectiveness of the daily running programmes is a quasi-experimental pilot study of the Daily Mile in two Scottish primary (children aged 4-12 years) schools (Chesham et al., 2018); the results of this study showed, alongside positive improvements in fitness and body composition, an increase of ~9 min /day and a decrease in of ~18 min/day of sedentary time in children in the Daily Mile School, compared to those in the control. Although the results are promising, the small sample size, low numbers of pupils providing valid accelerometer data, bias in school recruitment, and the lack of randomisation reduces the robustness of the findings.

Traditionally, research on physical activity interventions have focused on change in MVPA as an indicator of effectiveness. More recently however, there has been a call for research to consider the full range of social and psychological outcomes and to focus on evidence to guide the adoption and implementation of programmes into schools (Daly-Smith, Morris, Hobbs, & McKenna, 2019). Indeed, critics of school-based running programmes have also expressed concern that such initiatives, whilst possibly leading to short term (physical activity or fitness) gains, may be counter-

119 productive to facilitating future participation in physical activity (Fairhurst & Hotham,
120 2017). Specifically, critics argue that by mandating pupils' participation, schools are
121 more likely to promote negative attitudes towards and experiences of physical
122 activity rather than positive, motivational and affective experiences conducive to later
123 engagement in physical activity (McKenzie, 2007).

124 Previous studies have explored psychological variables with regards to engagement
125 in PE via the use of mixed gender focus groups (Domville, Watson, Richardson, &
126 Graves, 2019); however, less emphasis has been given to exploring these variables
127 in relation to physical activities inside school, but outside of the school curriculum.
128 Such qualitative data is particularly relevant for the refinement and optimisation of a
129 programme and to inform future dissemination and implementation by understanding
130 how implementation, and programme functions, vary across different contexts
131 (Dooris & Barry, 2013). Although Chesham and colleagues demonstrated promising
132 outcomes from the Daily Mile, there are no known qualitative studies exploring
133 children's experiences of running initiatives. Thus, this qualitative descriptive study
134 sought to provide a comprehensive summary and description of pupils' experiences
135 of MK with a focus on the effect of implementation on pupil engagement and
136 participation with MK. It was intended that data from this study would subsequently
137 be used to inform a strategic approach to the growth and development of MK within
138 the UK with specific attention being given to how schools can effectively implement
139 the programme to ensure sustained participation.

140 **Methods**

141 As part of a broader study [redacted] on the implementation of MK, the
142 data for this paper came from [redacted]

[redacted]. This research has pragmatic philosophical underpinnings, recognising the gap between academic and real world applied practice relating to school-based physical activity programmes and the need to reduce this gap by being 'problem' centred (James, 1907). Within this position, the authors acknowledge that scientific enquiry is contextual in nature and there may be multiple realities in terms of how MK is perceived by pupils. Therefore, the most appropriate research methods are those which can provide sufficient depth, insight and understanding and can be applied to the needs and purposes of the situation (Gillespie & Cornish, 2009).Consequently, a qualitative approach was used to generate rich data and understand the diversity and complexity associated with the implementation of MK.

Qualitative research is recognised as an important tool for exploring the contextual, social and cultural aspects that are believed to influence the longer term effectiveness of health based interventions (Dixon-Woods & Fitzpatrick, 2001) and are not as easily illuminated using quantitative methodology (Beltrán-carrillo, Ferriz, Brown, & González-cutre, 2017; Patton, 2015). Given the aim of the study was to provide a comprehensive summary and description of pupils' experiences of MK, the method of inquiry used was a qualitative description (Sandelowski, 2000), thereby permitting the generation of contextually rich data and allowing the diversity of experience associated with pupils' participation in MK to be understood. Specifically, focus groups were utilised as they are an effective method to explore the ideas and perspectives of children and young people (Gibson, 2007; Vaughn, Schumm, & Sinagub, 1996).

Sample selection, recruitment and ethics

Details relating to the recruitment of the schools have been reported fully elsewhere [redacted]. To briefly summarise here, five schools were purposefully selected from a sample of 20 primary schools in England which had delivered MK during the 2015/16 academic year to yield information-rich cases relating to the implementation of MK in practice. The Marathon Champion (MC) from each school was asked if they would help organise at least one focus group with a sample of their pupils. Guidelines were provided to the teachers to inform their selection of pupils for the focus groups, such as ensuring pupils of different ages, sex, enthusiasm for and participation level in the programme, as well as in their willingness to communicate their experiences and opinions.

Prior to data generation, written consent was obtained from the schools, signed by the headteachers and parents for all participating pupils. All participants provided written informed child assent as well as verbal assent and were informed they could withdraw from the research at any time without any negative consequences. Ethical approval was granted by Loughborough University Ethics Approvals (Human participants) Sub-Committee (R16-PO32).

Data generation and rigour

Focus groups were used to generate data relating to pupils' experiences of participating in MK, allowing the exploration of issues with participants, through encouraging depth and contributing to the richness of data required in qualitative description designs (Colorafi & Evans, 2016). Nine semi-structured focus groups were conducted with 55 pupils (aged between six and ten years of age) from the five schools, between May and July 2016..Typically, in focus group studies participants are recruited until the data reaches a level of saturation (i.e., wherein no new themes

192 are identified through further data collection (Fusch & Ness, 2015). Saturation is
193 affected by several factors including the quality of the interviews and the scope of the
194 study. For this study, saturation was achieved after the eighth focus group; however,
195 a ninth focus group had already been scheduled and therefore data for this study
196 came from nine focus groups. The focus groups were conducted with between five to
197 eight pupils at a time and grouped by Key Stage[i] . They took place within the pupils'
198 respective schools in a quiet and private setting to reduce any possible anxieties
199 associated with participation (Kennedy, Kools, & Krueger, 2001), and at a time
200 deemed by the MC to be the least disruptive to the school day.

201 All focus groups were moderated by the first author, [redacted]
202 [redacted] and
203 thoroughly trained in qualitative methods and focus group techniques. At the
204 beginning of the focus groups, the moderator introduced herself and provided each
205 of the participants with a name badge. In addition, information on the researcher's
206 role in respect of the focus groups, the aim of the study, anticipated duration and
207 anonymity and confidentiality were provided, and the importance of participants' own
208 opinions, experiences and ideas were emphasised (Morgan, Gibbs, Maxwell, &
209 Britten, 2002). To facilitate discussion and give every participant the opportunity to
210 input and share their experiences, the moderator promoted selected 'ground rules'
211 such as "ensuring that we listen when others are speaking". In addition, the
212 researcher actively role-modelled key characteristics for fostering a supportive
213 environment such as active listening, empathy, respect and patience, and made
214 every effort to enable all participants to express their opinions, even if they differed
215 from their peers (Morgan et al., 2002).

A semi-structured schedule was developed (see Additional file 1) and used as a guide when carrying out the focus groups to ensure all included similar content; this was shared with the MC of each school in advance to verify pupils' ability to comprehend the concepts to be discussed and questions asked. Topics explored pupils' physical activity practices and preferences, participation in the programme, use of the programme materials and barriers and facilitators to participation in MK. When using the guide, the moderator tailored the vocabulary used for the respective age group and probes and follow-up questions were used to generate discussion, provide examples and elaborate on ideas and opinions. Questions were guided by previous literature assessing barriers and facilitators to children's physical activity (Martínez-Andrés et al., 2012; Stanley, Boshoff, & Dollman, 2012) as well as the socioecological model (SEM) for health promotion (McLeroy, Bibeau, Steckler, & Glanz, 1988). The SEM conceptualises the multiple influences of behaviour and the levels at which they operate and was useful for providing a framework for the questioning. At the centre of the SEM is the intrapersonal level which includes personal factors that increase or decrease the likelihood of an individual being physically active. Surrounding the individual is the interpersonal level which comprises the social environment and influences from relationships or the way individuals interact. Finally, the institutional level relates to the physical environment and influences from, in the case of this study, within the school setting.

To achieve a common understanding of physical activity amongst pupils, the interviewer read out a description of the concept and, as an illustration, gave participants photographs of different types of physical activities as well as some of the MK branded tools and resources. Such strategies have been suggested to be effective in facilitating children's understanding and active participation in focus

groups (Horner, 2000) and further helped to foster a supportive and inclusive environment for pupils.

All focus groups were audio recorded and transcribed verbatim into Microsoft Word (Microsoft, Redmond, WA, USA), where the data were deidentified and referred to by an identification code, before the transcripts were checked against the recordings for accuracy. In addition, the researcher took field notes following each focus group which were used to supplement and, where necessary, improve the accuracy of the transcripts. The focus groups lasted between 37 to 70 minutes (with an average of 45 minutes). The study methods and reporting have been completed in accordance with the Standards for Reporting Qualitative Research Checklist (O'Brien, Harris, Beckman, Reed, & Cook, 2014).

Data analyses

Data analysis was led by the first author. Firstly, data were imported into NVivo (QSR Version 11.0) to manage and organise it. Inductive thematic analysis was used to provide a nuanced and descriptive account of participants' views of participating in MK and using the programme's resources. Within thematic analysis, the application of themes across datasets facilitates a systematic overview of the scope of the data which allows the combination of analysis of their meaning within their particular context (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2014).

Following Braun and Clarke's (2006) six phases of thematic analysis, the transcripts were initially reviewed in order to become familiar with the breadth and depth of content of the data and to generate preliminary ideas and notes for coding. An inductive approach to analysis was taken by segmenting the data and openly coding, whereby codes were collected under potential subcategories/subthemes or

categories/themes, before comparing the emerged coding clusters together and in relation to the entire data set. Semantic and latent themes were identified, where pupils explicitly communicated the meanings (e.g., physiological benefits of participating in MK) and themes where the researcher interpreted the meaning which underpinned the semantic meanings (e.g., development of social cohesion). If new subthemes appeared from the second or third focus group, the first and/or second transcripts were reread to check for any additional data falling within this subtheme. Coding was hierarchical, with variation in a given theme being coded under subthemes. For example, 'make new friends' was a subtheme of 'development of social cohesion' which represented a higher order theme of 'peer influence on participation'. The candidate themes were subsequently revised and refined to ensure they reflected the meaning evident in the data set, before being named. Analysis took a cyclical approach with several iterations made before establishing themes and subthemes emanating from the data. This iterative process of repeated reading, reviewing, and refining of themes and subthemes while considering the whole text ensures a truthful representation of participants voices and experience in qualitative descriptive studies (Sandelowski, 2000).

The trustworthiness of the findings was facilitated by two methods. Firstly, investigator triangulation processes involved two of the authors [redacted] independently checking the initial coding strategies and the coding framework generated by the first author. Through discussions, codes were interrogated, interpreted, and grouped to build shared understandings of the ideas and patterns represented in the data. This iterative process resulted in the construction of six candidate themes. Interpretations were then openly discussed and appropriately challenged to achieve a final consensus. At this end stage, the other authors [redacted]

[redacted] then served in the capacity of peer-debriefers or 'critical friends' (Creswell, 1998) by reviewing the framework and critically probing for explanations of certain decisions made by the first author.

Results

Participants included 26 girls and 24 boys from across Key Stages 1 and 2 (five pupils from Year 1, seven pupils from Year 2, six pupils from Year 3, five pupils from Year 4, 12 pupils from Year 5 and 15 pupils from Year 6). At the time of conducting the focus groups, all schools had been implementing MK throughout the 2015/16 academic year as a new programme. The programme was offered to all pupils in all schools apart from School 2, where it was delivered to Key Stage 2 pupils only. A summary of the characteristics of the schools is provided in Table 1 and a summary of the composition of the focus groups is provided in Table 2.

<insert Table 1 here>

<insert Table 2 here>

Six themes were identified as being important to pupils' experiences of MK: MK as an enabling programme, pupils' autonomy to participate, peer influence on participation, teacher influence on participation, logistics and suitability of the school environment, and appropriateness of MK resources (See Additional File 2 for a summary of the generated themes). Provided illustrative quotes are predominantly from children in older year groups. There were no marked differences between the views of pupils from younger age groups, but older pupils gave more articulate responses.

MK as an enabling programme

A core theme identified in the data was that participation in MK offered pupils positive experiences. Pupils identified several benefits and outcomes believed to be related to their participation.

Psychosocial benefits of participation

The majority of pupils discussed how they had experienced changes in multiple psychological (e.g., motivation for physical activity) and social (e.g., confidence and self-esteem) outcomes as a result of taking part in the programme. One pupil shared, "I like doing it because it like really tires you out and you like get more happier and stop being sad sometimes" (Year 1 Boy, School 3). Some of the outcomes mentioned were uniquely related to features of the programme, for example, the sense of achievement and pride felt when meeting running goals and reaching key milestones (e.g., 10k), as well as the sense of freedom from being outside. However, the most frequently reported outcomes were fun and enjoyment, with one pupil describing the former as the most important reason to participate, "Well it's a fun thing to do and I don't really see why not to do it because, like, it's fun" (Year 4 girl, School 5).

Encouraging further physical activity

In addition to psychosocial benefits, some pupils reported physiological gains from participating in MK. These included 'feeling fit' and 'keeping healthy'; one pupil explained "You build your muscles and your heart gets stronger" (Year 4 boy, School 4). Noteworthy were the benefits felt by some pupils with medical conditions experienced from MK, and whose ability to participate in activities had previously

been restricted. This was illustrated by one girl who stated, "I have asthma and ever since I've been doing Marathon Kids, my asthma has got more healthier, my lungs have been getting healthier, so it's really helped me as well" (Year 5 girl, School 2). Consequently, as a result of these physiological gains, children felt they were able to engage in more physical activity.

When asked if they thought MK had changed how active they were, many pupils agreed that they had increased their activity levels as a result of the programme. One pupil thought that the opportunity to run at school had helped her to develop a love of running: "I like practising for my running so it's making me want to do more" (Year 5 girl, School 3). There was also evidence that MK had encouraged the pupils to try new activities and had improved their ability to participate and perform other activities, as one boy shared:

> Yeah because like I used to play football a lot before the Marathon and then I like stopped playing football when the Marathon was introduced. It helped me pick my speed up and then I decided to play football again, and I got better at football because of the Marathon (Year 6 boy, School 3).

Pupils' autonomy to participate

A recurring theme throughout the focus groups was the degree to which MK allowed pupils to exercise volition over their own participation. This included the freedom to choose not to participate in MK if they did not want to and the non-committal basis of participation.

Individualised participation

Many pupils talked most favourably about that fact that MK promoted the notion of developing 'a personal best'. Although MK is individual in nature, by participating with others it bestowed a sense of common purpose but equally pupils recognised that different individuals would participate at their own level and to a greater or lesser extent. For example, one pupil shared, "when you go on the field like to do the running, you are just running around and lots of people just walk around and chat with their friends but lots of other people start running" (Year 5 girl, School 2). Indeed, the inclusive nature of MK was something which appeared to particularly resonate with those who self-identified as being 'non-sporty'. For example, one pupil explained:

> I'm not very good at running when we do PE and we're racing I'm like 'oh no, not again' because like I'm really slow. When our teachers put us in groups I'm always against fast people and I'm not very fast, so I always come last but when Marathon Kids came, I knew it wasn't a race, so I didn't try and go my fastest I did it at a pace, so I wasn't under pressure. I set myself a target so I could try and do that every week (Year 5 girl, School 2).

Goal setting and rewards

The philosophy and ethos underpinning MK were widely understood by pupils. One pupil reflected on how she found the challenge to run a marathon motivational commenting, "that's the thing that I like about Marathon Kids is that you have something to aim for" (Year 6 girl, School 2). Participation held an intrinsic value for pupils, consequently, many reported feeling empowered to take ownership of their own involvement and expressed how they planned their participation during lunchtime to achieve their goals, "When you see how much you've got you think 'oh I

want to get to the next marker', I really want to get that sticker" (Year 5 girl, School 1). In addition, many pupils described how the rewards acted as an incentive for them to continue participating in MK, "Well it's good because it's basically like setting a target for you to get a certificate" (Year 5 boy, School 2).

Peer influence on participation

Social influences from friends and peers were commonly reported and pupils provided numerous examples of both negative and positive influences of peers on their participation. Two key areas relating to peer influence were discussed, which are presented below as the sub-themes of Development of social cohesion and Competition.

Development of social cohesion

Participating with friends was frequently mentioned and viewed positively by nearly all pupils. This was particularly so for those who said that they did not feel as if they were very active, would not otherwise have taken part, and who usually preferred to walk and chat with their friends. For these pupils, MK was considered beneficial in increasing their physical activity:

> It's also good for the children who aren't as sporty in the class because they'd be walking round and speaking to their friends, but they won't even know that that it is exercise because they are speaking to their friends, but they are doing a lot (Year 5 boy, School 2).

However, preference for spending time with friends was a pervasive trend when participating in physical activity more broadly, and sometimes to the detriment of MK. For example, one pupil explained how his friends would influence his decision to

participate in MK by encouraging them to do something else during the lunchtime period, "Sometimes I play then I plan to go back and do it and I forget to do it and I just carry on playing with the rest of my friends" (Year 5 boy, School 1).

Many pupils recalled new friendships which had developed as a result of participating in MK, particularly in schools where the whole school, or pupils from multiple year groups, took part at the same time. It was apparent that pupils valued the shared experience and sense of community MK provided. One pupil described the supportive environment and how it facilitated pupils' participation:

> We also encouraged each other so if somebody was nearly there and they'd start to walk then you'd tell them to start running. Because sometimes they'd be really tired but sometimes, they could do more (Year 6 girl, School 2).

Competition

Despite MK being an individual participation-based programme, the majority of pupils frequently mentioned the sense of competition which ensued from comparing themselves to their peers and feeling under pressure to do well. This typically manifested itself with pupils either racing each other whilst they were participating and/or comparing the number of lap bands they each had achieved. One pupil described how this appeared to be particularly enjoyable and motivating for some pupils, "some people in this class are getting really competitive and they try to like beat each other so they are really enjoying it" (Year 4 girl, School 4). However, she also acknowledged that this was not the case for all, and how this may serve to dissuade others from participating, explaining, "Some people like competition but some feel like 'oh I'll just come last' so they won't like it" (Year 4 girl, School 4).

Teacher influence on delivery

MCs and other members of staff within the school were identified as being important influences on, and determinants of, pupils' participation and enjoyment of MK.

Fidelity of the programme

Many pupils reported how integral teachers and members of school staff were to the day to day delivery and organisation of the programme. One pupil suggested that without the MC, MK would not take place on a given day because, "He has like the clipboard, the bands, the cones" (Year 6 girl, School 3). Pupils felt that supervision of the running sessions was important, specifically, as one pupil highlighted, so that the lap bands were distributed properly to prevent any cheating. He explained, "If they're not handed out, some people are just like 'ohh no-one's doing it' so they just put loads of bands round their wrist and say they've been running when they hadn't" (Year 5 boy, School 3).

For the majority of pupils in most of the schools, staff involvement in MK was minimal and limited to one or two key teachers who took responsibility for implementing MK. As a result, pupils commented how feedback on their progress and praise was predominantly triggered by and only offered on the achievement of key milestones and qualification for a reward, rather than recognition of their effort. One pupil believed that reliance on distal forms of feedback may have been insufficient to maintain pupils' interest and momentum over the duration of the programme and how he would prefer more immediate feedback on his progress. He commented, "It's another part of motivation, you want to know how much you've done in the day" (Year 5 boy, School 2).

It was apparent from hearing pupils' experiences of the programme that there were differences between the schools in how MK had been implemented. Adaptations schools made included the requirement to change shoes and/or wear PE kit to participate, the use of MK during curriculum time, and mandated participation (promoting teacher control over pupils' participation) thereby removing the optional element of the programme. A common modification was counting pupils' participation in other running-based activities towards the marathon distance. For one school, any type of running completed within or outside of school counted, (e.g., Parkrun), whereas for others, only running in school did (e.g., cross country). Whilst beneficial for some, one pupil reported frustration and confusion over the lack of communication and/or inconsistent approach to such adaptations, "Things that you do in school about running count except when you're playing at lunch time and break time and things that you do out of school don't and I'm really annoyed about that" (Year 3 girl, School 4).

Logistics and suitability of the school environment

The schools participating in the study differed in terms of their size and facilities available for physical activity. Perhaps unsurprisingly then for an outdoor physical activity programme, logistics and suitability of the school environment for MK was identified as a key theme, with the Timing of MK and Location of MK in school, identified as the two sub-themes.

Timing of MK in school

As noted earlier, the suggested delivery model for MK is for the programme to be implemented during the lunchtime period. However, pupils identified a number of challenges to their participation which were believed to be linked to the timing of

delivery. For example, one pupil referred to the conflict created at his school by multiple activities occurring during lunchtime in a shared space, "when you are trying to run, a little kid will just like run across it like and get in the way. And like, people kicking the football at the cones" (Year 5 boy, School 3).

Location of MK in school

Where possible, KRF recommend that, two running routes (one grass surface and one hard surface) are demarcated on the school grounds to allow flexibility over where MK can take place. Given the choice, nearly all pupils expressed a preference for participating in MK on the field. There were various reasons given for this. One girl explained that this was related to the fear of injury associated with running on a hard surface, "I don't like the thought of doing it on the playground because I get so scared that I will trip over or knock myself out by whacking my head or badly hurting myself" (Year 5 girl school 4). Another reason, given by one boy, was the congestion on the playground:

> The field it's quite big and because there's about 50 in Years five and six together, there's enough space for each of us to run because if we did it on the playground there might not be enough room (Year 3 boy, School 2).

Similarly, other pupils considered participating on the field to be more liberating, "It's just having the freedom of that massive space to run" (Year 5 boy, School 5). Some pupils naturally drew comparisons between MK and participating in cross-country. One boy felt that participating in MK was not as interesting as cross country where there is typically more variation in the route and a longer distance to run which he thought would be more engaging, "It was a bit boring the course, because you were

just running round the field loads of times. It wasn't like a proper course" (Year 6 boy, School 4).

Appropriateness of MK resources

The final theme relates to the resources provided by KRF to support the programme. Whilst pupils liked and benefitted from the concept of tracking their progress, there were mixed views as to the appropriateness of some of the resources available to help them to do so. Comments primarily focussed on the use of the lap bands. On the one hand they were seen to provide a tangible, immediate, and valuable form of feedback, "It's nice to see how many laps you've done… it helps you to remember" (Year 6 girl, School 2). However, the awkwardness of distributing the bands, particularly with large groups of pupils, was repeatedly raised as an issue. This included the need to queue for a band as well as the potential for cheating. One pupil complained, "When it first started, loads of people were doing it and there would be loads of different bands on the floor and there would be loads of people who just picked them up and claimed it for themselves" (Year 3 girl, School 3).

Discussion

This study aimed to explore pupils' experiences of participating in the school-based running programme, MK within primary school settings in England. Pupils reported multiple sources of influence within the school environment which impacted on their participation in MK. These findings can be mapped onto the SEM (McLeroy et al., 1988) which conceptualises the various contextual influences on behaviour.

Intrapersonal factors identified as being related to pupils' participation in MK, included the programme offering a positive experience for pupils and pupil

521 autonomy. Broadly, these can be interpreted to be associated with pupil motivation
522 for physical activity. One framework commonly used which can inform our
523 understanding of motivation is Self Determination Theory (SDT) (Ryan and Deci,
524 2000). Within SDT, motivation is believed to operate on a continuum of self-
525 regulation through which motivation ranges from high to low levels of self-
526 determination from controlled to autonomous or volitional forms (Deci and Ryan
527 2008). Within SDT intrinsic motivation is considered the most autonomous form of
528 motivation, where individuals are active simply for the pleasure of being so because
529 the activity by itself is engaging and gratifying.

530 Conditions supporting an individual's experience of competence (perceived ability to
531 execute a task effectively), autonomy (perceived ability to experience choice and feel
532 that a behaviour is self-determined) and relatedness (perceived social connections
533 with peers and teachers) are believed to promote the most volitional and high quality
534 forms of motivation and engagement for activities (Ryan & Deci, 2000). Importantly,
535 within MK, the opportunity and freedom to change the physical demands of the
536 activity and participate with other children, is believed to have fostered feelings of
537 autonomy and thus enjoyment and motivation to engage in activities (Humbert et al.,
538 2008). This is particularly relevant for children (Sebire, Jago, Fox, Edwards, &
539 Thompson, 2013), whose motivation between the ages of seven and 11 years, tends
540 to focus on fun and enjoyment (Kirk, 2005).

541 Interpersonal factors found to be related to pupils' participation included peer and
542 teacher influences. Social context is integral to promoting a positive physical activity
543 experience and within schools, this is largely determined by teachers' behaviours
544 and expectations. SDT suggests that more autonomous types of behaviour are likely
545 to develop if socio-contextual factors facilitate satisfaction of the three psychological

546 needs (competence, autonomy and relatedness). This study confirmed the
547 importance of the MC and other members of staff as influences on pupils'
548 participation. For example, pupil enjoyment and sustainability of participation
549 appeared to be more frequently referred to by children in schools where teachers
550 were supervising during the sessions, especially if staff also participated. Such role
551 modelling is believed to have a positive effect on children's physical levels and is
552 important for developing positive attitudes towards a physically active lifestyle
553 (Cardinal, 2001).

554 Conversely, SDT also proposes that the degree to which any of the three basic
555 psychological needs is unsupported or thwarted within a social context will have a
556 detrimental impact on motivation. Indeed, environments which are perceived as
557 controlling tend to destabilise autonomous motivation (Ryan & Deci, 2000). Our data
558 supports this notion whereby teachers' adaptations and modifications to
559 implementation, such as rewarding outside of school running and mandating
560 participation, resulted in negative feelings (e.g. frustration) by many pupils. Whilst
561 made for pragmatic reasons these appeared to have generated unintended
562 consequences in some schools. For example, by reducing opportunities for pupils to
563 plan their participation, inhibiting their achievement of goals, facilitating cheating and
564 affecting the structured and organised nature of MK. Seemingly, such an
565 unsupportive environment could add pressure (and a sense of judgement) and
566 undermine pupils' positive functioning (Reeve, Nix, & Hamm, 2003). However, by
567 engaging with pupils and focusing on the intrinsic value they have for physical
568 activity from the outset, implementation can be optimised to ensure their needs and
569 preferences for physical activity can be met. This is particularly important during the
570 planning and early stages of delivery where the inclusion of pupils as active

participants, rather than passive recipients, of a healthy lifestyle programme has been found to be important in enhancing its longer term impact and sustainability in primary schools (Passmore & Jones, 2018).

A pervasive finding from the data was the sense of social connectedness across the whole school, which was evident during, and subsequent to, the schools' participation in MK. Many pupils described this as being a unique aspect of the programme and something which they had not experienced at school previously. One reason for this may relate to the inherent inclusivity of running (and walking) as an activity as well as the shared experience and sense of purpose the MK programme provides, reinforcing pupils' perceptions of relatedness and therefore intrinsic motivation to be active (Ryan & Deci, 2000). These qualities have been shown to be pertinent to adult participation in running based events such as Parkrun (Reece, Quirk, Wellington, Haake, & Wilson, 2018) and effective in attracting non-runners (Stevinson & Hickson, 2014). It is thus reasonable to assume that the same would be true of children, particularly when they are participating in the school context which provides the opportunity for meaningful interaction and mutual support and encouragement. When planning how and when to implement MK, schools and teachers would benefit from considering how these qualities can be reinforced, especially given that peer acceptance, friendships and social support have shown to be correlates of physical activity (Fitzgerald, Fitzgerald, & Aherne, 2012; Sallis, Prochaska, & Taylor, 2000).

Institutional factors included logistics and the suitability of the school environment and the MK resources. As previously explained, KRF recommend that where possible, two running routes (one grass surface and one hard surface) are

596 demarcated on the school grounds. Despite variations in school size, pupils
597 confirmed that they had, and had used, two routes at some point during the
598 academic year. Within all schools, space to participate was available but it was
599 frequently reported by pupils to be inaccessible for two main reasons. Firstly, access
600 to the facilities was restricted by the schools' weather policies which did not permit
601 use during inclement weather, and secondly the space allocated to MK was
602 frequently being used for other physical activities at the same time (e.g., football)
603 The former has previously been reported as a barrier to school physical activity
604 programme implementation (Naylor et al., 2015). Yet, school policies can be
605 modified to resolve such issues (e.g., by using an indoor space during wet weather
606 (Harrison et al., 2011).
607
608 Similarly, limited access to school space has been identified as a barrier to physical
609 activity in other focus group studies with pupils (Stanley, Ridley, Olds, & Dollman,
610 2014). Possible tried and tested solutions in other schools were however provided.
611 For example, different classes accessing the route on designated day(s) of the week,
612 the use of 'zoning' in the playground, restricting specific areas for different activities,
613 and trialling implementing MK before the school day. Given that previous studies
614 have demonstrated playground area per student to be conducive to children's
615 physical activity (Fairclough, Beighle, Erwin, & Ridgers, 2012) such strategies would
616 seem to be important considerations when implementing MK and supporting children
617 to be physically active. Other school-based running programmes, such as The Daily
618 Mile, which are implemented during curriculum time and hence when space is less of
619 a premium, may have an advantage in this respect. As noted earlier though, this may
620 be at the expense of pupils' independence and volition to participate which is

621 believed to be integral to enjoyment and sustainability of participation (Ryan & Deci,
622 2000).
623
624 In terms of the suitability of the MK resources provided by KRF, these were used at
625 the teachers' and/or MCs' discretion. That said, they were viewed as a key
626 mechanism for providing feedback on pupils' progress towards achieving the
627 marathon distance, and their (non) use may have negatively impacted on pupils'
628 enjoyment of the programme. Indeed, it is well recognised that the effective use of
629 feedback can significantly impact on pupils' motivation, persistence and enjoyment in
630 a task (Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008). Teachers' perceptions of
631 the quality of resources has been identified as an important determinant of their use
632 in practice (Naylor et al., 2015). It is also feasible that having adequate and suitable
633 resources, which are valued and appropriate for children's use is likely to contribute
634 to both teacher and pupil programme satisfaction as a whole, and in turn influence
635 participation in and the perceived suitability of the programme.

636 **Strengths and limitations of the study**

637 Although focus group studies have examined correlates of physical activity in
638 children (Cope, Bailey, Parnell, & Kirk, 2018; Eskola, Tossavainen, Bessems, &
639 Sormunen, 2018), there is a paucity of research directly comparing the views of
640 children on issues relevant to a specific intervention. Furthermore, previous research
641 has identified the need for explicit description of physical activity related factors that
642 are pertinent to particular settings from the perspective of children (Humbert et al.,
643 2008). This study is unique, as to the authors' knowledge, it is the first to examine
644 pupils' experiences and perceptions of participating in a school-based running
645 programme in the UK. Thus, it adds to the limited evidence base on pupils'

perceptions of physical activity programmes in schools generally and generates new evidence relating to running programmes specifically.

Although the authors feel that saturation in the data generation was reached, it should be noted that these findings cannot be generalised to all pupils in all primary schools. However, most of the categories emerging from the focus groups were found to be similar across the different schools, implying that the themes identified might be relevant to other schools as well.

Schools volunteered to take part in the study and the purposive selection of schools based on proximity to the researchers' workplace, coupled with the purposive selection of pupils for the focus groups by the MCs, may have resulted in a selection bias. For example, recruited schools and participants may have had a greater interest in and commitment to physical activity and the programme, and thus had a more positive experience of it. However, even within this group of participants, less favourable aspects of participation were highlighted which could also apply to less motivated pupils (e.g., disruption to the scheduling of MK). Furthermore, the authors believe that the pupils were not limited in their freedom to express their own views.

Implications for practice

The potential of qualitative approaches to increase the theoretical and practical contributions of the socioecological framework to address determinants of behaviour have previously been recognised (Devís-Devís, Beltrán-Carrillo, & Peiró-Velert, 2015). Based on the findings from this study, practical recommendations for schools to maximise pupil engagement in school-based running programmes are provided in Table 3. The recommendations have been developed using the SEM (McLeroy et

al., 1988) as a conceptual framework and specifically in response to the experiences and feedback received from the pupil focus groups.

<insert Table 3 here>

Conclusion

This study has identified aspects of a school-based running programme, in this case MK, and its implementation, which were believed by pupils to both positively and negatively influence their participation. The findings suggest that it is important to understand how current delivery approaches to school-based running programmes influence pupils' participation, and in particular, their enjoyment. Aspects which were believed to facilitate enjoyment included pupil autonomy to participate, the perceived benefits of participation (including psychosocial outcomes) and a supportive school environment. It is likely that none of these acted in isolation to influence enjoyment but are interrelated. This study has highlighted areas to consider both for programme design and evaluators working within these programmatic contexts. Future research would benefit from focusing on the type and level of support needed by schools to sustain pupil participation in school-based running programmes over time, so that their perceived value is maintained, and limitations addressed.

Endnotes

[1] A Key Stage is a stage of the state education system which in England, Wales and Northern Ireland sets the educational knowledge expected of students at various ages. In primary schools, Key Stage 1, represents Years 1 and 2 (and includes children of five to seven years of age) and Key Stage 2, represents Years 3, 4, 5 and 6 (children seven to11 years of age).

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Table 1. Summary of school characteristics

School	Region	Urban/Rural Description*	Size of school (N pupils)*	Free school meal eligibility (%)*
1	South	Rural hamlet and isolated	111	9.1
2	West Midlands	Rural village	168	14
3	East Midlands	Rural town and fringe	195	26.2
4	West Midlands	Urban city and town	200	25.8
5	East	Rural hamlet and isolated	44	11.9

*Data retrieved from the Ofsted data dashboard

Table 2. Summary of the composition of pupil focus groups

Focus Group	School	Year Group(s)	Sex	
			Boy	Girl
1	1	6	0	1
		5	3	1
2	5	5	1	0
		4	1	1
		3	0	1
3	5	2	1	2
		1	2	1
4	3	2	2	2
		1	1	1
5	3	6	1	1
		5	1	0
		3	1	1
6	4	4	2	1
		3	2	1
7	4	6	1	2
		5	1	2
8	2	6	1	2
		5	2	1
9	2	6	1	5

Table 3 Practical recommendations to maximise pupil engagement in school-based running programmes

Level of Influence	Strategy
Intrapersonal i.e. those which immediately affect the individual	• Develop a supportive climate by recognising individual participation, rewarding individual effort and promoting the concept of 'personal best' • *Promote the use of individual goal setting, ensuring that goals set are specific, measurable, achievable, realistic and timebound • Allow pupils to participate at their own level and pace i.e. using a combination of walking/jogging/running • Emphasise fun and enjoyment of the activity over and above competition and focus on developing psychosocial outcomes • Ensure there is an appropriate balance between pupil autonomy and programme structure e.g. by delivering a hybrid model of one regular/fixed running session a week and one 'open' session which is more flexible
Interpersonal i.e. influences from relationships or the way individuals interact	• Engage pupils in consultation, prior to delivery, to ensure that children's needs and preferences for participation can be met • Be organised and consistent in the day to day delivery of the programme and make adaptations in consultation with pupils. Ensure any changes are communicated effectively to all pupils and staff • Provide regular feedback to pupils on their progress and supportive, consistent messages • *Consider signposting to community-based running opportunities to facilitate pupils' participation beyond school e.g. Junior Parkrun • Consider using a buddying system to proactively encourage pupils to participate together and facilitate social cohesion
Institutional i.e. influences which form within the school setting	• Trial delivering the programme at different times of the day e.g. before school, during class time and breaktimes and lunchtimes • Consider relaxing physical activity policies e.g. the need to change footwear and/or clothing to make participation easier • *Provide training for (extended) staff to assist with administering the programme • Make physical activity high profile within the school by encouraging staff to participate and become role models for the programme • Be creative and flexible in the use of space and facilities to avoid multiple activities occurring in the same space at the same time

*These recommendations are believed to be important strategies and are based on the author's interpretation of the data rather than directly linked to the findings of the study