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Physical activity and wellbeing in schools

Submission date 28/12/2012	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 10/01/2013	**Overall study status** Completed	
Last Edited 08/01/2016	**Condition category** Other	

Plain English summary of protocol

Background and study aims
About one in ten school-aged children suffer from problems such as anxiety, depression and conduct disorders. National attempts to impact on this problem have not so far met with great success. It seems that regular physical exercise might help. This project aims to increase levels of physical activity and so improve feelings of well being. To be successful, interventions must change behaviour and we aim to do this by working with student to student interactions and recognising the broad range of social influences in young people's local communities. We will also aim to encourage students to commit, in front of others, a particular course of action.

Who can participate?
Secondary schools and once class of students in years 7 and 9 in each school. The study is open to all state and private schools within reasonable travelling distance of Durham. Schools will be involved with one of two interventions or both or none. If they are involved in none during the first year they will be involved with the best intervention(s) in the second year.

What does the study involve?
We plan two school-based interventions linked to the secondary school curriculum. The first approach, the 'participative learning' strategy, will be run for six lessons in Year 7 Geography lessons; the second the 'personal coach' strategy, is linked to Physical Education classes in Years 7 and 9. It will also run for six lessons. Both use collaborative work linked to ways of capturing data about children's physical activity. Physical activity monitors (accelerometers) and Geographical Positioning receivers will be used to track children's locations during and outside school for the participative learning strategy. In the Geography lessons, students will be encouraged to work together to gain a greater self-understanding of their environment. This activity will be informed by the data about their movements during the day. This will allow individuals and groups to explore their own levels of physical activity and those of others. The personal coach approach will use cross-age peer tutoring in which older children teach younger children. The plan is that both tutors and tutees gain greater knowledge and understanding. They will agree and regularly review personal targets for increased physical activity.

What are the possible benefits and risks of participating?
The potential benefits are increased levels of physical activity and increased feelings of well

being
The risks are negative feelings associated with the completion of a questionnaire which asks about such feelings and negative interactions between Year 7 and Year 9 students.

Where is the study run from?
The project is run from the School of Education, Durham University, UK . Other departments at Durham are also involved. They are Geography and the School of Medicine and Health. The University of Bristol is also involved.

When is the study starting and how long is it expected to run for?
September 2012 to May 2014

Who is funding the study?
The Economic and Social Research Council is funding the study.

Who is the main contact?
Professor Peter Tymms
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
ES/J003492/1

Study information

Scientific Title
Can the physical activity levels and feelings of well-being of 12 and 14 year olds be increased amongst the general population?

Study objectives

1. That the two interventions will increase levels of physical activity amongst Year 7 and Year 9 students.
2. That the increased levels of physical activity will lead to increased feelings of well-being.

The primary research questions are:
1. What impact do these school-based interventions have separately and together on students' levels of moderate to vigorous physical activity?
2. What impact do the interventions have separately and together on students' mental health?

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics Committee of the School of Education, November 2012

Study design
Multi-site clustered factorial randomised control trial involving a 2 x 2 factorial stratified randomised controlled methodology with a waiting list control group

Primary study design
Interventional

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Physical activity and well being

Interventions
There are two interventions (A&B) and school are allocated to one, both of none in the first year. In the second year the schools that had no intervention receive the most successful intervention.

Intervention A: The Personal Coach Teachers in participating schools will receive training sessions before the interventions commence to equip them with the necessary knowledge and skills to train the student coaches, and to be familiar with the accelerometers and the data output. They will also be involved in developing material for the interventions.

In the schools, the older students from Year 9 will work 1:1 with younger students (Year 7), acting as personal coaches. As part of their training, the mentors will be taught about the range of physical activities and about the benefits of physical activity. The older student will then discuss these matters with the mentee with the aim of promoting the value of physical activity and encouraging reflection upon the lifestyle and choices open to the younger student. Together the mentor and mentee will draw up plans designed to increase levels of moderate-to-vigorous physical activity (MVPA). During the subsequent six week period they will discuss activities and barriers to increasing their physical activity, and how these may have been successfully addressed and overcome. Each week they will look at self-recorded activity diaries. The physical activity data obtained for both the mentor and the mentee will be shared and reflected upon within the pairing.

Intervention B: Participative learning. A series of six class lessons will be introduced into the geography programme for Year 7 students in study schools. Prior to the delivery of the lessons,

the students will wear GPS and activity monitors for one week. The data will then be downloaded by researchers and made available for use during the intervention. The six sessions will involve:
1. A discussion concerning activity, space and health
2. Explanation about Geographic Information Systems (GIS), GPS and map reading
3. The students personalised GPS data will then be downloaded onto a freely available GIS computer package and they will have the opportunity to review their maps
4. The students will then explore their activity and geographic data within the GIS software which leads to a discussion of the ways in which the children's mapped action space paths relate to MVPA, health and wellbeing generally. There will also be a class discussion of the interest /value of technologies, the scope for students to take action to enhance MVPA (e.g. active transport to school), and encouragement of public statements of intent. The final two sessions comprise a Key Assessed Task linked to the geography National Curriculum which requires the students to undertake an enquiry about the barriers to exercise amongst their friends and family and their suggestions of improvements to their neighbourhood which may lead to more physical activity.

Throughout the six week period, students will be encouraged to interpret the maps, add information about how they travel to and from school, and consider what parts of the local environment may impact on health, well-being and physical activity. The learning objectives relate to: use of GPS technology and its role as a stimulus for discussion, understanding of the times and places where one is most active, and reflection upon what may encourage (or discourage) healthy physical activity. An ancillary objective is to foster experiential learning and collaborative work between students.

Intervention Type
Behavioural

Primary outcome(s)
1. MVPA as measured through the wearing of accelerometers
2. Well being as measured by Kidscreen

Measured at one month post intervention and at 12months.

Key secondary outcome(s))
1. Knowledge (online questions designed as part of the study)
2. Self concept using Marsh's measures
3. Motivation
4. Interactions amongst peers - form observation and focus groups
5. Production of useful teaching material (take up by schools)
6. Social interactions

Measured at one month post intervention and at 12months.

Completion date
31/05/2014

Eligibility

Key inclusion criteria

All Year 7 and Year 9 students in one class each from the state and private secondary schools recruited to the trial

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Child

Sex
All

Key exclusion criteria
Inability to be involved in the interventions in the opinion of the schools

Date of first enrolment
01/09/2012

Date of final enrolment
31/05/2014

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Durham University
Durham
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DH1 1TA

Sponsor information

Organisation
Durham University (UK)

ROR
https://ror.org/01v29qb04

Funder(s)

Funder type
Research council

Funder Name
Economic and Social Research Council (ESRC) (UK) ref: ES/J003492/1

Alternative Name(s)
Economic and Social Research Council (ESRC), ESRC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	06/01/2016		Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes