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# Evaluation of the Y-PATH (Youth- Physical Activity Towards Health) whole school intervention

**Submission date**
27/02/2018

**Recruitment status**
No longer recruiting

**Registration date**
08/03/2018

**Overall study status**
Completed

**Last Edited**
19/05/2023

**Condition category**
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

## Plain English summary of protocol

Background and study aims
The World Health Organisation state in their 2016-2025 Strategy document that "Physical activity (PA) is one of the most basic human functions and needs. It is an important foundation of health throughout life", yet maintaining sufficient levels of PA is becoming more and more difficult. Failure to address current levels of PA will have staggering economic consequences to healthcare, the education system and society as a whole. In order to maintain health, and benefit future health, young people should accumulate at least 60 minutes of physical activity every day. Most recent national Irish data for youth indicates that only 12% of 10–18 year olds meet this target, and that as adolescents get older their activity levels decrease. The one-year school-based Y- PATH (Youth-Physical Activity Towards Health) intervention was developed to address this problem. Research has demonstrated the effectiveness of Y-PATH in halting the known age-related decline in physical activity. Y-PATH teachers and students, as well as internationally recognised interventions, stress the importance of developing longer-term programmes to enhance both impact and sustainability. As such, the Y-PATH-3 intervention was developed following the same philosophy and structure of the original programme, but extending over the full first three years of Irish second level education. The aim of this study is to formally evaluate the effect of the Y-PATH intervention across 20 schools over a two-year period.

Who can participate?
Children in the first year of a participating school in the greater Dublin area (Ireland)

What does the study involve?
Participating schools are randomly allocated to receive either the Y-PATH intervention or no intervention. Y-PATH is a whole school intervention aimed at increasing the physical activity levels of 12 - 14 year old children attending Irish post primary schools. It has a number of key components. The first is embedded in PE class, where the PE teacher delivers the PE curriculum targeting an increase in the child's motivation for physical activity, their belief in their own ability to be active, their fundamental motor skills ability, and their knowledge of the importance of physical activity for health and wellbeing. The second component targets the whole-school environment, and helps all teachers in the school to better support physical

activity for the student population. The final component focuses on the parents, and helping them to understand the importance of physical activity for their child, and strategies they can use to help their child to be more active.

What are the possible benefits and risks of participating?
The potential benefits from participation in this intervention are increased levels of physical activity (or a halt in the normal decline in physical activity generally seen in adolescents as they get older), increased fundamental movement skill ability, and increased physical activity motivation, confidence and attitude. The risks from participating in this study are no greater than participating in regular PE class in the school.

Where is the study run from?
Dublin City University (Ireland)

When is the study starting and how long is it expected to run for?
March 2013 to May 2015

Who is funding the study?
Dublin City University (Ireland)

Who is the main contact?
Dr Sarahjane Belton
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# Contact information

### Type(s)
Scientific

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# Additional identifiers

### Protocol serial number
DCUREC/2010/081

# Study information

### Scientific Title
Evaluation of the Y-PATH (Youth- Physical Activity Towards Health) whole school intervention through a cluster randomised controlled trial

## Acronym
Y-PATH

## Study objectives
Participation in the Y-PATH intervention will alleviate the age related decline in physical activity levels of 12 - 14 year old adolescent youth.

## Ethics approval required
Old ethics approval format

## Ethics approval(s)
Dublin City University Research Ethics Committee, initial approval 2010 (ref: DCU/REC/2010 /081), amended approval to encompass Y-PATH CRCT 01/05/2013

## Primary study design
Interventional

## Study design
Multi-centre cluster randomised controlled trial

## Study type(s)
Prevention

## Health condition(s) or problem(s) studied
Physical activity

## Interventions
Schools are pair matched upon entry to the trial, and then randomly assigned to control or intervention arm at a 1:1 ratio:
1. Control = no intervention
2. Intervention = Y-PATH schools based multi-component intervention

Y-PATH intervention
The Y-PATH intervention is a whole school intervention, with an educational focus, broken down into four components:
1. Student component:
1.1. Subsumed within school PE class
1.2. Fits within and supports the aims and areas of study (strands) of the current Junior Cycle Physical Education (Department of Education and Science, 2005) curriculum. The Physical Education inspectorate from the Irish Department of Education and Skills were consulted in process of Y-PATH intervention development and confirm that students do not miss out on curriculum content, rather they gain considerably in terms of its focus and how it is delivered
1.3. The Health-Related Activity (HRA) units, with a targeted motivational focus, will be taught exclusively as the first unit of physical education that students are exposed to each academic year (units progress each year), and is integrated across the remaining 7 strands of the PE curriculum [Gymnastics, Dance, Aquatics, Athletics, Invasion games, Net and Wall Games, and Outdoor and Adventure Activities]. Similarly the skills and components of FMS where students were found to be least proficient (Belton et al. 2014) are also targeted across all strands of the curriculum. This represents a change in the philosophy of the Irish PE curriculum from ‘teaching a physical activity’ to ‘teaching HRA and FMS through a physical activity’

1.4. The PE teacher's handbook includes three sets (one each for first, second and third year) of 6 illustrated colour lesson plans for the exclusive HRA unit, a set of resource cards to guide integration of HRA and FMS across JCPE strands, and a sample 6 week scheme of work integrating HRA and FMS for each of the remaining 7 strands
1.5. University-led one-day in-service workshops used to up-skill PE teachers in the delivery of Y-PATH in September of each year. These workshops focus both on the content of the curriculum, and the pedagogy in terms of how it should be delivered to ensure a motivational climate is fostered. The introductory 'Empowering Teaching' unit (as derived from Empowering Coaching) will be delivered to this purpose (Duda, 2013)
1.6. A student HRA journal will focus on PA guidance, monthly self-reporting of PA levels, and target setting for increasing PA in the next month
1.7. Four posters for display in schools, the focus of these is as follows; i) Rationale for PA and suggestions on how PA levels can be improved, ii) PA pyramid – students identify where they currently are on the pyramid and what small steps they can take to make it to the next level (tailored advice), iii) Reducing time in sedentary behavior, iv) generating pathways to PA beyond the school PE class and the school environment. Copies of these posters are also displayed in the students PA journal
1.8. The 'Pathways to Activity' poster is accompanied by a detailed document, that has been developed in conjunction with Sport Ireland, giving an inventory of the extra curricular and sport club opportunities for PA for the students in their specific geographical area. This document details the activity (or sport), location of the activity, cost associated (if any), and a contact for the provider of the activity
2. Parent/guardian component:
2.1. Information sessions held for parents/guardians. The focus is to emphasize the need for activity for both themselves and their children, to identify the role of the parent/guardians in promoting health PA behavior of their child, and to identify various strategies they could use to help promote PA at home. In order to maximize parental attendance at these sessions, they will be held as part of the schools 'first year induction' evening. This induction evening is generally held in September, and is usually well attended
2.2. Information leaflets have been developed for parents/guardians identifying the need for PA, the benefits of PA, and consequences of inactivity, the current activity levels of youth in Ireland, and ways in which they and their family members can become more active
2.3. Bi-yearly Y-PATH newsletters circulated to all parents/guardians (in print, and electronically) each academic in November, and March. These newsletters will be aligned with the core HRA messages being taught at that time as part of the PE curriculum
3. Teacher component:
3.1. Similar to the parents leaflets highlighted above, information leaflets have also been developed for the teachers in the schools.
3.2. Each year a whole-school teachers workshop will be held, focusing on the impact teachers can have on the attitude towards PA of their students. Advice will be offered on ways they can promote PA both within and outside of the school
3.3. School PA charter. Developed during the teachers workshop – teachers identify ten strategies they can implement to try to positively influence PA behavior of their students. The Charter is formatted as a poster by the research team, and two copies will be displayed in prominent locations in the school. Each year the charter is revisited with staff in the workshops, and staff will discuss how well they are achieving the strategies. Any strategies deemed unrealistic will be adapted/changed to something they feel achievable
3.4. A one week 'pedometer challenge' will be set up for the all teachers at the workshop each year. The 'Walk/Step challenge' resource (see http://www.irishheart.ie/iopen24/pub /walk_or_step_challenge_card_final.pdf for details) developed by the Irish Heart Foundation will be used. Teachers can opt to participate or not in the challenge, the purpose is to raise PA awareness of the teaching staff

### Intervention Type
Behavioural

### Primary outcome(s)
Daily minutes of moderate to vigorous physical activity (MVPA), measured with an accelerometer supplemented with a self-report questionnaire (PACE+). Collected at three timepoints in September baseline (start of Year 1), midpoint (start of Year 2), and retention (24 months from baseline)

### Key secondary outcome(s)
Al measures collected at three time points in September baseline (start of Year 1), midpoint (start of Year 2), and retention (24 months from baseline):
1. Fundamental movement skill ability, measured using TGMD II
2. Cardiovascular fitness, measured using Queens College Step Test
3. BMI, measured using height and weight
4. Physical activity motivation, self-efficacy and attitude, measured using questionnaires
5. Perceived physical competence, measured using a questionnaire

### Completion date
20/05/2015

## Eligibility

### Key inclusion criteria
School level inclusion criteria:
1. Mixed gender school
2. Located in the greater Dublin area (Ireland)
3. Offer 80 minutes of timetabled Physical Education (PE)/week to all students at Junior Cycle education
4. Have a qualified PE teacher on staff to deliver PE class

Participant level inclusion criteria:
1. Enrolled in first year of a school meeting the above criteria

### Participant type(s)
Other

### Healthy volunteers allowed
No

### Age group
Child

### Sex
All

### Key exclusion criteria
School level:
1. Single gender school

2. Not located in the greater Dublin area (Ireland)
3. Offer less than 80 minutes of timetabled Physical Education (PE)/week to all students at Junior Cycle education
4. Do not have a qualified PE teacher on staff to deliver PE class

Participant level:
Do not attend a school meeting the above criteria

### Date of first enrolment
01/05/2013

### Date of final enrolment
15/09/2013

## Locations

### Countries of recruitment
Ireland

### Study participating centre
**Dublin City University**
School of Health and Human Performance
Dublin
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000

## Sponsor information

### Organisation
Dublin City University

### ROR
https://ror.org/04a1a1e81

## Funder(s)

### Funder type
University/education

### Funder Name
Dublin City University

### Alternative Name(s)
DCU

### Funding Body Type
Private sector organisation

### Funding Body Subtype
Universities (academic only)

### Location
Ireland

## Results and Publications

### Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are not expected to be made available as the trialists did not secure ethical approval for this at the outset of the study, and under data protection legislation participants were assured only the researchers from DCU carrying out the study would be able to access the data. The data will be held at DCU for a period of 10 years following completion of the study, and then destroyed per University rules.

### IPD sharing plan summary
Not expected to be made available

### Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | results | 01/02/2018 | | Yes | No |
| Results article | | 13/09/2019 | 19/05/2023 | Yes | No |