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Does participating in organised active play sessions increase children's physical activity levels?

Submission date
08/08/2017

Recruitment status
No longer recruiting

Registration date
28/08/2017

Overall study status
Completed

Last Edited
25/11/2020

Condition category
Other

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

Plain English summary of protocol

Background and study aims
Levels of physical activity in most Scottish children are lower than is recommended for their health and wellbeing. PE, recess and active transportation have made limited improvements in increasing children's physical activity levels. One neglected area is active play, which has been suggested to increase physical activity if it is promoted. However, for active play to be promoted there needs to be active play interventions aimed at increasing physical activity levels and other outcomes. Go2Play Active Play is an intervention delivered in primary schools by local play charities aimed at increasing children's physical activity levels and improving movement skills (key skills children should be competent at such as running, jumping, throwing etc), cognitive performance and attainment. The Go2Play Active Play programme has been tested previously but not assessed using a strong scientific study and the effect of the intervention on cognitive performance or attainment in children has not been assessed previously. The aim of this study is to find out whether it is feasible to conduct a large study of the Go2Play programme. The large study will determine whether the Go2Play programme increases children's physical activity, and improves their movement skills, cognitive performance and attainment.

Who can participate?
Pupils aged 6 - 8 years old at participating schools

What does the study involve?
Participating schools are randomly allocated to either the intervention or control group. Pupils' movement skills, cognitive performance and attainment are measured over 2 school days in each school. The following week, the pupils' physical activity is measured for four school days using the Actigraph accelerometer, a device worn on a waist belt over the right hip. Once data collection is complete, the intervention schools begin the Go2Play Active Play programme and the control group continue with their usual PE sessions. On the 9th week of the programme, follow-up data collection begins. Physical activity is measured again over four school days on week 9 of the Go2Play Active Play programme and movement skills, cognitive performance and attainment are measured the week after the programme has finished.

What are the possible benefits and risks of participating?
The results of the study will show whether the programme benefits the children. There are no additional risks posed to children taking part in this study. The local charities have their own safety procedures for the sessions.

Where is the study run from?
University of Strathclyde (UK)

When is the study starting and how long is it expected to run for?
August 2017 to August 2018

Who is funding the study?
1. University of Strathclyde (UK)
2. Inspiring Scotland (UK)
3. Glasgow City Council (UK)

Who is the main contact?
Avril Johnstone
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N/A

Study information

Scientific Title
Evaluation of the Go2Play Active Play intervention on fundamental movement skills and physical activity in children: a feasibility cluster randomised controlled trial

Study objectives
The primary aims of this study are to determine if participating in Go2Play Active Play increasing children's physical activity levels and improves their fundamental movement skills.

This is a feasibility trial; it is intended to establish the feasibility of important issues which need to be addressed before any future efficacy trial can take place. These issues include recruitment, retention, willingness of schools and families to be allocated randomly, characterisation and process evaluation of the intervention, practical utility of outcome measures, intra-class coefficients for a future power calculation. If a longer term efficacy trial takes place, it would hypothesise that participating in the go2play Active Play intervention would increase children's school day physical activity, improve their fundamental movement skills, cognitive performance (inhibition) and attainment (maths fluency).

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Strathclyde School of Psychological Sciences and Health ethics committee, 31/05 /2017

Study design
Interventional feasibility cluster randomised controlled trial

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
School day physical activity; fundamental movement skills, cognitive performance (specifically inhibition) and attainment (specifically maths fluency)

Interventions
Go2Play Active Play is being delivered in 40 schools (primary 3 classes) during school year 2017-18 in the South and North West of Glasgow City Council. From the list of 40 schools, 8 schools will be recruited based on deprivation (i.e. high deprivation, defined as 70% of pupils living in top 20% areas), P3 class, previous involvement with charity and geography (4 from south and 4 from NW) and will then be paired. The schools were matched by size, ethnicity and geography. Each pair of schools will be randomly allocated to either the intervention (n=4) or control (n=4) group. The paired schools will be measured at the same time point at both baseline and follow-up on a number of outcome measures detailed below.

The intervention will involve participation in the Go2Play Active Play programme. Go2Play Active Play is a one-hour outdoor session, which combines 30 minutes of structured games delivered by the play workers and then 30 minutes of free play. The structured games aim to target a fundamental movement skills category (locomotor, object control, co-ordination and balance) so that children are developing these skills and during the second half, they are free to play with what they want. The sessions are weekly for 10-weeks and are additional to physical education (i.

e. not designed to replace PE). Play workers (employed by local play charities) deliver the 10-week programme and work alongside the class teacher so that they can continue the programme beyond the 10-weeks when the play workers leave.

The control group will receive their usual course of PE, which is typically one-hour, two times per week (no treatment).

Data collection will begin in mid-August where each pair of school (n=4 pairs of schools) will begin the research one week apart until all pairs have been measured. Fundamental movement skills, cognitive performance and attainment will be measured over 2 school days in each intervention and control school. The following week, the participants will have their physical activity measured for four school days. Once baseline data collection is complete, the intervention class will begin the Go2Play Active Play programme and the control group will continue with their usual PE sessions. On the 9th week of the programme, follow-up data collection will begin. Physical activity will be measured on week 9 of the Go2Play Active Play programme and the other outcome measures will be measured the week after the programme has finished.

Intervention Type
Behavioural

Primary outcome(s)
1. School day physical activity, measured using an ActiGraph accelerometer for four school days at baseline (before the intervention begins) and on the 9th or 10th week of the programme, again for four school days
2. Fundamental movement skills, measured using the Test of Gross Motor Development at baseline and follow up after the programme has finished i.e. 11th week

Key secondary outcome(s))
1. Cognitive performance (specifically inhibition), measured using the NIH toolbox at baseline and follow up after the programme has finished i.e. 11th week
2. Maths attainment, measured using a one-minute maths fluency test at baseline and follow up after the programme has finished i.e. 11th week
3. Physical activity content of sessions, measured using an ActiGraph Accelerometer during the active play sessions

Completion date
14/08/2018

Eligibility

Key inclusion criteria
1. Male or female
2. Able to take part in every day school activities
3. Approximately 6 - 8 years old (approximate age of a Primary 3 pupil in the study location)

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Child

Lower age limit
6 years

Upper age limit
8 years

Sex
All

Total final enrolment
137

Key exclusion criteria
Participant will only be excluded if they disclose any condition that may influence physical activity levels such as broken bone, physical disability, heart defect, severe asthma etc

Date of first enrolment
01/05/2017

Date of final enrolment
01/12/2017

Locations

Countries of recruitment
United Kingdom

Scotland

Study participating centre
University of Strathclyde, Glasgow
School of Psychological Sciences and Health
Graham Hills Building
50 George Street
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Sponsor information

Organisation

University of Strathclyde

ROR
https://ror.org/00n3w3b69

Funder(s)

Funder type
University/education

Funder Name
University of Strathclyde

Alternative Name(s)
The University of Strathclyde, Oilthigh Shrath Chluaidh, University of Strathclyde, Glasgow, Andersonian Institute

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
United Kingdom

Funder Name
Inspiring Scotland

Funder Name
Glasgow City Council

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are/will be available upon request from Avril Johnstone (avril.johnstone@strath.ac.uk).

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	14/03/2019		Yes	No
Statistical Analysis Plan		10/10/2017	10/10/2017	No	No