

Children, parents and Pets Exercising Together

Submission date 16/12/2011	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 27/01/2012	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 14/02/2014	Condition category Other	☐ Individual participant data

Plain English summary of protocol

Background and study aims

In Scotland, as in other countries, we recommend that children spend at least 60 minutes per day in physical activity. However, only around 3% of boys and 2% of girls meet our recommendations. Most previous attempts to increase physical activity have been unsuccessful, and so there is a need for new approaches to help children become more active.

Pet dogs might be able to help their owners (parents and children) to become more physically active, but no studies have yet shown us how pet dogs might best be used to promote physical activity among their owners. We therefore aim to use this research project to test whether and how pet dogs can be used to promote physical activity in children.

Who can participate?

Families with children aged 9-11 years (primaries 6 and 7) who own a dog. All families with children in this age range who own a dog can take part so long as there is no reason why their children, parents, or dogs cannot become more physically active.

What does the study involve?

We will make the following measures:

Children:

Wear an activity monitor (known as an accelerometer) for a period of seven consecutive days, this will tell us how active they are. The accelerometer is a small, harmless device that is attached to a belt and worn around the child's waist.

Have their body fatness and bone health measured using a technique known as dual energy x-ray absorptiometry (or DXA for short). This technique has been used extensively in the past and is very safe it uses less than one tenth the radiation of a standard x-ray and less than one day's exposure to natural background radiation.

Have their height and weight measured.

Complete a short questionnaire about their health and well-being.

Parents

Asked to wear an accelerometer for the same period as their children

Measure their weight and height

Ask parents to report on their children's health and well-being

Dogs

Measure physical activity using accelerometers, and again this will be for the same period as in children and the parents.

Measure the dogs degree of underweight or overweight

Once we have carried out initial measures we will ask some of the families to take part in a 10 week exercise intervention aimed at increasing their level of physical activity. The other families will be asked to carry on with their normal lives for the 10 weeks. When this period is over each participant will be asked to repeat the same tests outlined above, this will allow us to compare the results with those obtained at the start of the study.

What are the possible benefits and risks of participating?

Being active with your dog may improve your health, the health of your child, and the health of your dog.

We do not expect that taking part in the study will put you at any risk. Dogs which take part in the study will be family pets- we will check each one to just ensure that they can take part safely by carrying out a behavioural assessment on each dog that may be included in the study and exclude those that do not pass the assessment.

The DXA scans at Yorkhill involve giving your child a dose of radiation from each scan which is lower than one days exposure to natural background radiation. Enhanced disclosure (PVG) checks will be carried out on those members of the research team who will come into contact with the children and their families.

Where is the study run from?

This is a collaborative project between members of the University of Glasgow, the Royal Hospital for Sick Children at Yorkhill, the University of Strathclyde, and the University of Liverpool.

When is study starting and how long is it expected to run for?

The study will start in the middle of February 2012 and will finish by the end of November 2012. We will recruit participating families in January and early February 2012.

Who is funding the study?

The study is being funded by the Carnegie Trust and by the Yorkhill Childrens Foundation.

Who is the main contact?

Prof John J Reilly
john.j.reilly@strath.ac.uk

Contact information

Type(s)

Scientific

Contact name

Prof John Reilly

Contact details

Physical Activity for Health Research Group
School of Psychological Sciences & Health
University of Strathclyde
Glasgow
United Kingdom
G13 1PP
+44 (0)141 950 3142
john.j.reilly@strath.ac.uk

Additional identifiers

Protocol serial number

CPET1

Study information

Scientific Title

Children, parents and pets exercising together: a randomised controlled trial

Acronym

CPET

Study objectives

There is increasing concern that level of physical activity among children is much lower than recommended, and it is now clear that in the UK physical activity is in decline by mid-late childhood. Interventions to promote physical activity in children have generally had only modest and short-term success, but a recent systematic review concluded that interventions directed at the family environment may be most promising. There is some evidence that adults and children who own pet dogs are slightly more physically active than non dog-owners, and dogs might represent an under-utilised resource in physical activity promotion.

CPET aims to develop and evaluate a simple behavioural intervention directed at dog owning-families, and is intended primarily to increase physical activity among children.

Ethics approval required

Old ethics approval format

Ethics approval(s)

College of Medical, Veterinary, and Life Sciences Ethics Committee, University of Glasgow

Primary study design

Interventional

Study design

Exploratory randomised controlled trial

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Low levels of physical activity, high level of sedentary behaviour

Interventions

Intervention Group:

Three home-base intervention sessions of approximately 60-90 minutes duration, 1 with a Chartered Pet Behaviour Counsellor, 2 with a researcher experienced in behavioural change interventions. These will be followed up with 4 telephone calls.

The intervention is based on social cognitive theory and the ecological model, and will use standard behavioural change techniques with the family (decisional balance, self monitoring, goal setting, rewards, problem solving). It will aim to encourage increased engagement with the dog for physical activity, together with greater access to environmental opportunities for physical activity with the dog.

The intervention duration is 10 weeks.

Control Group:

The control group will receive no intervention during the study, but at the end of the study will receive materials provided to the intervention group (information on dog walking opportunities in the local environment; information about games which children and dogs can play together).

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Changes in objectively measured physical activity in the child (Actigraph accelerometry), between baseline and 11 weeks (1 week after the end of the intervention)

Key secondary outcome(s)

Changes in children:

1. Objectively measured total time sedentary and breaks in sedentary behaviour (Actigraph accelerometry)
2. Body composition (dual energy x-ray absorptiometry)
3. Bone mineral content (dual energy x-ray absorptiometry)
4. Weight
5. Height
6. Body mass index (BMI) score
7. Health Related Quality of Life as reported by both the child and the parent (Peds QL)

Changes in parents

1. Objectively measured physical activity
2. Total sedentary time
3. Breaks in sedentary time (Actigraph accelerometry)
4. Body weight

Changes in dogs:

1. Objectively measured physical activity (Actigraph accelerometry)
2. Body Condition Score

Measured at baseline and 1 week after the end of the intervention (week 11)

Completion date

01/12/2012

Eligibility

Key inclusion criteria

1. Families that own a dog
2. Families that have a child age 9-11 years at study entry
3. Families with children in years 5 - 7 of mainstream primary education in East Dunbartonshire
4. Children who are physically and intellectually capable of participating in the intervention
5. Children who have at least one parent willing to become involved in the intervention, and available for outcome measures
6. Families with a dog deemed physically and psychologically safe to participate in the intervention (as judged by a Chartered Pet Behaviour Counsellor).

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Other

Sex

All

Key exclusion criteria

1. Families that do not own a dog
2. Families that do not have a child age 9-11 years
3. Children who are not in a mainstream primary school in East Dunbartonshire
4. Families that have a physical or intellectual impediment to their participation
5. Families that are unwilling to become involved in the intervention and the outcome measurement sessions
6. Families with a dog is deemed unsuitable and/or unsafe for the intervention on grounds of their physical capacity or behaviour

Date of first enrolment

20/02/2012

Date of final enrolment

01/12/2012

Locations**Countries of recruitment**

United Kingdom

Scotland

Study participating centre

Physical Activity for Health Research Group
Glasgow
United Kingdom
G13 1PP

Sponsor information

Organisation

University of Glasgow (UK)

ROR

<https://ror.org/00vtgdb53>

Funder(s)

Funder type

Charity

Funder Name

Carnegie Trust, Dryerre Scholarship (UK)

Funder Name

Yorkhill Childrens Foundation (UK)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	27/11/2013		Yes	No