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Metabolic response to playing video games

Submission date	Recruitment status	[_] Prospectively registered
20/02/2012	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
21/03/2012	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
30/01/2020	Circulatory System	

Plain English summary of protocol

Background and study aims
Videogames are an extremely popular pastime, in particular amongst young people. Research has suggested that passive activities such as watching television and computer gaming increase the risk of excess weight gain and obesity. However, computer games are very variable, and not all involve passive participation. For example, many computer games involve exposure to violent images during simulated violent encounters. Such games involve the participant responding at high speed to simulated experiences which, in real life, would be highly stressful. In real life, stress generates many metabolic effects, including those associated with cardiovascular risk. Chronic exposure to stress, for example in the work place, has been associated with central obesity (excessive fat around the stomach). It is unknown whether simulations of violence in computer games generate the same kinds of stress response. The aim of the study is to understand if playing computer games has different effects from watching television, and if playing violent computer games generates different effects to playing non-violent games.

Who can participate?
Our study is open to healthy young men aged between 18 and 30 years.

What does the study involve?
The study involves a single visit to UCL Institute of Child Health, London. Participants will be randomly allocated to one of three activities: (a) watching television, (b) playing a non-violent computer game, or (c) playing a computer game involving high levels of simulated violence. Measurements of weight, height, heart rate, blood pressure and a saliva sample will be taken.

What are the possible benefits and risks of participating?
All participants will learn their current weight, height and BMI, and they will also be given their blood pressure results. There are no known risks to participants.

Where is the study run from?
UCL Institute of Child Health in the Childhood Nutrition Research Centre (UK)

When is the study starting and how long is expected to be run for?
January 2010 to April 2011

Who is funding the study?
The Childhood Nutrition Research Centre at UCL Institute of Child Health

Who is the main contact?
Prof. Jonathan Wells
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Contact information

Type(s)
Scientific

Contact name
Prof Jonathan Wells

Contact details
University College London
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30 Guilford Street
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WC1N 1EH

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N/A

Study information

Scientific Title
Metabolic response to playing video games: a randomised trial

Study objectives
Indices of metabolism and cardiovascular risk differ between those watching television, those playing a sport computer game, and those playing a violent video game.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University College London (UCL) Graduate School Ethics Committee, 19/05/2009, ref: 0326/004

Study design
Randomised trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Other

Study type(s)
Other

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied
Cardiovascular disease and obesity

Interventions
Randomisation to one of three groups:
1. Watching television
2. Playing sports video games
3. Violent video games

The study involved a single 1-hour measurement session for each participant, when they were requested to participate in their randomly-specified activity (watching television, playing a sports computer game, or playing a violent video game). The study was completed at the end of this session and no further follow up was conducted.

Intervention Type
Other

Phase
Not Applicable

Primary outcome measure
Blood pressure

Secondary outcome measures
1. Anthropometry (weight, height)
2. Saliva samples for assessment of salivary cortisol
3. Visual-scale ratings of appetite
4. Heart rate

Overall study start date
01/06/2009

Completion date
01/04/2011

Eligibility

Key inclusion criteria
1. Healthy young men
2. Aged 18-30 years

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Upper age limit
30 Years

Sex
Male

Target number of participants
Three groups of young men (16 per group) - 48

Total final enrolment
48

Key exclusion criteria
1. Smokers
2. Body mass index (BMI) <18 or >25 kg/m2
3. Weight-unstable (i.e. a change of more than 3kg in the previous 3 months)
4. Diabetic or hypertensive individuals
5. Those with chronic or acute medical conditions or medications that might affect the primary outcomes of the study
6. Those with psychiatric disorders
7. Consuming less than 21 units of alcohol per week

Date of first enrolment
01/06/2009

Date of final enrolment
01/04/2011

Locations

Countries of recruitment
England

United Kingdom

Study participating centre
University College London
London
United Kingdom
WC1N 1EH

Sponsor information

Organisation
University College London (UK)

Sponsor details
Institute of Child Health
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Sponsor type
University/education

Website
http://www.ucl.ac.uk/

ROR
https://ror.org/02jx3x895

Funder(s)

Funder type
University/education

Funder Name
University College London Institute of Child Health - Childhood Nutrition Research Centre (UK)

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

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	01/12/2013	30/01/2020	Yes	No