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The effect of playing advergames that promote energy-dense snacks or fruit on actual food intake among children

Submission date
14/09/2012

Recruitment status
No longer recruiting

Registration date
02/11/2012

Overall study status
Completed

Last Edited
08/08/2016

Condition category
Nutritional, Metabolic, Endocrine

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

Plain English summary of protocol

Background and study aims
Previous studies have looked at the effects of television advertising on children's food intake. However, we need to measure the effects of non-traditional forms of marketing on children's behavior. An advergame is a video game that contains an advertisement for a product, service, or company. The aim of this study is to find out whether playing advergames promoting high-calorie snacks or fruit affect food intake among children.

Who can participate?
Children aged 8-10.

What does the study involve?
The children are randomly allocated to either play an advergame promoting high-calorie snacks, fruit, or toys, or to not play a game at all. The children's intake of snacks and fruit is then measured. The children complete questionnaires and are weighed and measured.

What are the possible benefits and risks of participating?
There were no benefits or risks of participating.

Where is the study run from?
Amsterdam School of Communication Research (ASCoR), University of Amsterdam (Netherlands)

When is the study starting and how long is it expected to run for?
November 2011 to February 2012

Who is funding the study?
Amsterdam School of Communication Research (ASCoR), University of Amsterdam (Netherlands)

Who is the main contact?
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Contact information

Type(s)
Scientific

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Study information

Scientific Title
The effect of playing advergames that promote energy-dense snacks or fruit on actual food intake among children: a randomised study

Study objectives
1. Children that play an advergame containing energy-dense snacks will eat more energy-dense snacks afterwards.
2. Children that play an advergame containing fruit will eat more fruit afterwards.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Amsterdam School of Communication Research/ASCoR, 17/11/2011, ref: ASCoR-u-2011-03

Study design
Randomized between-subject design

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Obesity

Interventions

The children were randomly assigned to 1 of 4 conditions, which involved playing
1.The energy-dense snacks advergame (i.e., promoting a popular candy brand and 8 different gummy and jelly sweets from this popular candy brand)
2. The fruit advergame (i.e., promoting a popular fruit brand and 8 different fruits, fruit drinks, or cups with fruit from this popular brand)
3. The nonfood advergame (i.e., promoting a popular Dutch toy brand and 8 individual toys from this popular toy brand); or
4. No game at all (control condition).

We randomized the conditions within schools and the conditions were counterbalanced to start with a different condition every day, so that none of the conditions were tested more in the morning or just before or after the break. The order of conditions was also counterbalanced to avoid any order effects. A professional game designer designed the advergames. All games were identical, except for the advertised brands and products. The game involved a memory game with 16 cards, whereby the brands appeared on the back of the cards, and the individual products (candy, fruit, or toys) appeared on the front of the cards. These products clearly displayed the brand logos. Furthermore, we showed the brand on the right side of the screen to enhance the awareness of the advertised brand. Similar to regular advergames, we integrated two specific features to immerse the children into the game. First, a digital timer appeared on the top-left of the screen, and a time bar appeared in the top center of the screen to exert time pressure on the children. Second, the game played an unpleasant sound when a child selected a false pair and a pleasant sound when a child selected a correct pair. All children were presented four bowls that contained four different food snacks. Two bowls contained energy-dense food snacks, (1) jelly candy (cola bottles) and (2) milk chocolate candy shells; and two bowls contained sliced fruit snacks, (3) bananas and (4) apples. Two bowls of test food, such as cola bottles and bananas, were identical to one of the food products shown in the advergame. In addition to these food snacks, we used other popular candy (milk chocolate candy shells) and fruit (apples) to test possible spill-over effects.

Intervention Type
Behavioural

Primary outcome(s)
1. Kcal intake of fruit, energy dense snacks, and total. We preweighed the bowls that contained food and measured it again after the child left the room. We calculated kcal according to the amount they ate.

Key secondary outcome(s))
1. Hunger [Visual analogue scales (VAS scale)]: not hungry - very hungry
2. Age, gender

Completion date
02/02/2012

Eligibility

Key inclusion criteria
Children (girls and boys) between 8-10 years

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Child

Lower age limit
8 years

Upper age limit
10 years

Sex
All

Key exclusion criteria
1. Children younger than 8 years or older than 10 years
2. Children allergic to one of the test foods

Date of first enrolment
01/10/2011

Date of final enrolment
02/02/2012

Locations

Countries of recruitment
Netherlands

Study participating centre
Kloveniersburgwal 48
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Sponsor information

Organisation
Amsterdam School of Communication Research (ASCoR) (Netherlands)

ROR
https://ror.org/04dkp9463

Funder(s)

Funder type
University/education

Funder Name
Amsterdam School of Communication Research (ASCoR), University of Amsterdam (Netherlands)

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	01/02/2013		Yes	No
Results article	results	09/02/2016		Yes	No