

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

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		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> 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?

Frans Folkvord

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# Contact information

## Type(s)

Scientific

## Contact name

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# Additional identifiers

## Protocol serial number

N/A

# 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 adverggame (i.e., promoting a popular candy brand and 8 different gummy and jelly sweets from this popular candy brand)
2. The fruit adverggame (i.e., promoting a popular fruit brand and 8 different fruits, fruit drinks, or cups with fruit from this popular brand)
3. The nonfood adverggame (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 adverggames. 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 adverggames, 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 adverggame. 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

Amsterdam

Netherlands

1012 CX

**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?
<a href="#">Results article</a>	results	01/02/2013		Yes	No
<a href="#">Results article</a>	results	09/02/2016		Yes	No