

# BBaRTS Children's Healthy Teeth Programme

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<b>Registration date</b> 23/09/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 11/12/2018	<b>Condition category</b> Digestive System	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

A series of eight storybooks has been developed by a health psychologist, public health dentist, science educator, children's author and illustrators with guidance from the Department for Education (England). The storybooks are designed to encourage twice daily toothbrushing with fluoride toothpaste and discourage eating sugary snacks, especially at bedtime. The aim of this study is to find out whether children's dental health can be improved using these storybooks.

### Who can participate?

Children aged 5-7 at 60 primary schools in England and Scotland whose headteachers have agreed to participate in the study.

### What does the study involve?

Participating schools are randomly allocated to one of three groups. Children in group 1 schools receive the storybooks containing the dental health messages. Children in group 2 schools receive storybooks with exactly the same illustrations, characters and story but without the dental health messages. Children in group 3 schools receive the storybooks containing the dental health messages, undertake supervised toothbrushing at school, and receive a supply of toothbrushes and toothpaste to use at home. All children in the study will have a dental examination annually and parents will be asked to complete questionnaires at the start of the study and after 1 and 2 years. A subset of children and families are invited to join a study of the child's diet and saliva composition at the start of the study and at the final assessment 2 years later.

### What are the possible benefits and risks of participating?

All children whose parents give permission for them to take part will be given 8 bright and colourful story books to take home and keep. Risks to all participants could include inconvenience due to time taken to complete the questionnaire (up to 30 minutes on three occasions).

### Where is the study run from?

60 primary schools across England and Scotland (UK).

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

June 2013 to December 2017.

Who is funding the study?  
Queen Mary University of London (UK).

Who is the main contact?  
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## Additional identifiers

**Protocol serial number**  
QMREC2013/43

## Study information

**Scientific Title**  
A cluster randomised controlled trial to prevent dental caries in primary school children: The BBaRTS Healthy Teeth Behaviour Change Programme

## **Acronym**

BBaRTS

## **Study objectives**

The primary aim of this research is to determine whether children's dental health can be improved by increasing parental self-efficacy using a storybook approach for two child behaviours: toothbrushing and sugars snacking. Specifically, with the following objective:

Objective:

To determine whether an intervention (Test 1) designed to increase parental self-efficacy using a storybook approach with embedded Behaviour Change Techniques (BCTs) for two child behaviours: toothbrushing with fluoride toothpaste and reducing consumption of free sugars, especially at bedtime, can improve child oral health compared to:

1. An exactly similar intervention without embedded health messages and BCTs (Control)
2. The intervention (Test 1) supplemented with home supply of fluoride toothpaste and supervised toothbrushing on schooldays (Test 2).

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

Queen Mary University Ethics Committee, 21/08/2013, ref: QMREC2013/43

## **Study design**

Three-arm multicentre cluster randomised controlled trial with blinded outcome assessment

## **Primary study design**

Interventional

## **Study type(s)**

Prevention

## **Health condition(s) or problem(s) studied**

Dental caries

## **Interventions**

A series of 8 story books have been developed by a health psychologist, public health dentist, science educator, children's author and illustrators with guidance from the Department for Education (England). The books are given out each school term over two years.

Participants are children (estimated 2000 – 2600) aged 5-7 years and their families from 60 Primary Schools in England and Scotland. Schools are randomized into three groups:  
Group 1 (test 1) will receive 8 story books (the test books) containing the intervention messages  
Group 2 (control) will receive 8 story books with exactly the same illustrations, characters and story but without the intervention messages  
Group 3 (test 2) will receive the 8 test books and supervised toothbrushing at school and a supply of toothbrushes and toothpaste to use at home

## **Intervention Type**

Behavioural

### **Primary outcome(s)**

Dental caries experience in permanent teeth at age 7 years, measured by a simple visual dental examinations conducted in the child's school at baseline, after one year and after two years. The examinations will be conducted by independent dental examiners, trained in standardised dental epidemiological survey techniques and blinded to the group allocation of the school. Dental caries experience on any surface in either dentition will be recorded. All children will be examined using sterilised or single use mouth mirrors, CPITN probes, a standardized halogen lamp (2,000 lux) and cotton wool rolls as needed.

### **Key secondary outcome(s)**

1. Oral cleanliness, measured by plaque assessment on the buccal surfaces of upper anterior teeth at the dental examinations
2. Oral health behaviours
3. Family satisfaction
4. Early Child Oral Health Impact
5. Reading Intensity

Parents/guardians of children will be asked to complete a questionnaire pack at baseline, one year and two years post enrollment.

### **Completion date**

30/06/2019

## **Eligibility**

### **Key inclusion criteria**

1. Children aged 5-7 at primary schools in England and Scotland whose headteachers have agreed to participate in the study
3. Parent/legal guardian completed informed consent

### **Participant type(s)**

Healthy volunteer

### **Healthy volunteers allowed**

No

### **Age group**

Child

### **Lower age limit**

5 years

### **Upper age limit**

7 years

### **Sex**

All

### **Key exclusion criteria**

1. No parent/guardian consent obtained
2. Schools that have existing toothbrushing programmes or fluoride varnish schemes

**Date of first enrolment**

07/09/2013

**Date of final enrolment**

31/12/2015

## Locations

**Countries of recruitment**

United Kingdom

**Study participating centre**

60 primary schools across England and Scotland

United Kingdom

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## Sponsor information

**Organisation**

Queen Mary University of London (UK)

**ROR**

<https://ror.org/026zzn846>

## Funder(s)

**Funder type**

University/education

**Funder Name**

Queen Mary University of London, supported by an unrestricted grant from GSK

## 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="#">Protocol article</a>	protocol	20/02/2016		Yes	No