

Brush Text: A Multimedia Text Messaging Intervention to Improve the Oral Health of Rural Head Start Children

by

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Brush

Goal: Children will have good oral health and start Kindergarten ready to learn.

To do this we develop training, curriculum, and materials for:

- Direct service providers
- Children
- Parents

My Healthy Teeth at 1 Year

Find more information about your children's dental health at www.brushdental.org

What Will Happen at My Baby's First Dentist Visit?

Your baby will sit on your lap so she can see you the whole time.

The dentist will look at her teeth, talk to you about how to care for her teeth, and tell you what to expect with upcoming teething.

This exam gives the dentist a chance to spot any problems that may be starting and helps to prevent future problems.

A healthy mouth means a healthy child!

Happy 1st Birthday Baby

Guess Who Wants to Celebrate With You? Your Dentist!

A baby's first visit to the dentist should be by the time of their first birthday.

Why? Children are getting more cavities and they are getting them earlier - many two-year-olds have cavities.

Dental decay can cause problems with speech, with eating, and with sleeping.

How Should I Get Ready for My Baby's First Visit to the Dentist?

Schedule your visit during a time when baby will not be hungry or needing a nap.

Be ready to answer questions about what your baby eats and drinks and your baby's medical history.

This is a great time for you to ask questions about teething or caring for baby's teeth, so bring a list of any questions you may have.

In a few years your baby will need healthy teeth to be able to do well in school!

Text BRUSH to 35350 and we will send you Brush! tips

brush!

Brush Dental California

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My Problem

Parents are hard
to reach.

Rural parents are even harder
to reach.



We have a problem with access
to dental care.

But we have a bigger problem
with access to
prevention education.



NOTICE



**NO CELL PHONE USE IN
WAITING ROOM**

**PLEASE BE COURTEOUS AND
TAKE YOUR CALLS OUTSIDE
THANK YOU!**

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Literature Review

Text messaging and oral health – only three studies

Sharma, R., Hebbal, M., Ankola, A. V., & Murugabupathy, V. (2011). Mobile-phone text messaging (SMS) for providing oral health education to mothers of preschool children in Belgaum City. *Journal of Telemedicine and Telecare*, 17(8), 432-436.

Hashemian, T. S., Kritz - Silverstein, D., & Baker, R. (2014). Text2Floss: the feasibility and acceptability of a text messaging intervention to improve oral health behavior and knowledge. *Journal of Public Health Dentistry*.

Schluter, P., Lee, M., Hamilton, G., Coe, G., Messer-Perkins, H., & Smith, B. (2014). Keep on Brushing: a longitudinal study of motivational text messaging in young adults aged 18-24 years receiving Work and Income Support. *Journal of Public Health Dentistry*. Retrieved from <http://onlinelibrary.wiley.com/enhanced/doi/10.1111/jphd.12079/>

Multimedia Text Messaging – only one study

Whittaker, R. (2011). Smoking cessation intervention for young adults using multimedia mobile phones: Development and effectiveness (Doctoral dissertation, ResearchSpace@ Auckland).

Purpose of the Study

Determine the feasibility and effectiveness of a five week long multimedia text messaging intervention, delivered to parents and children, in improving rural Indiana Head Start parents' adherence to twice daily brushing for their preschool-aged children.

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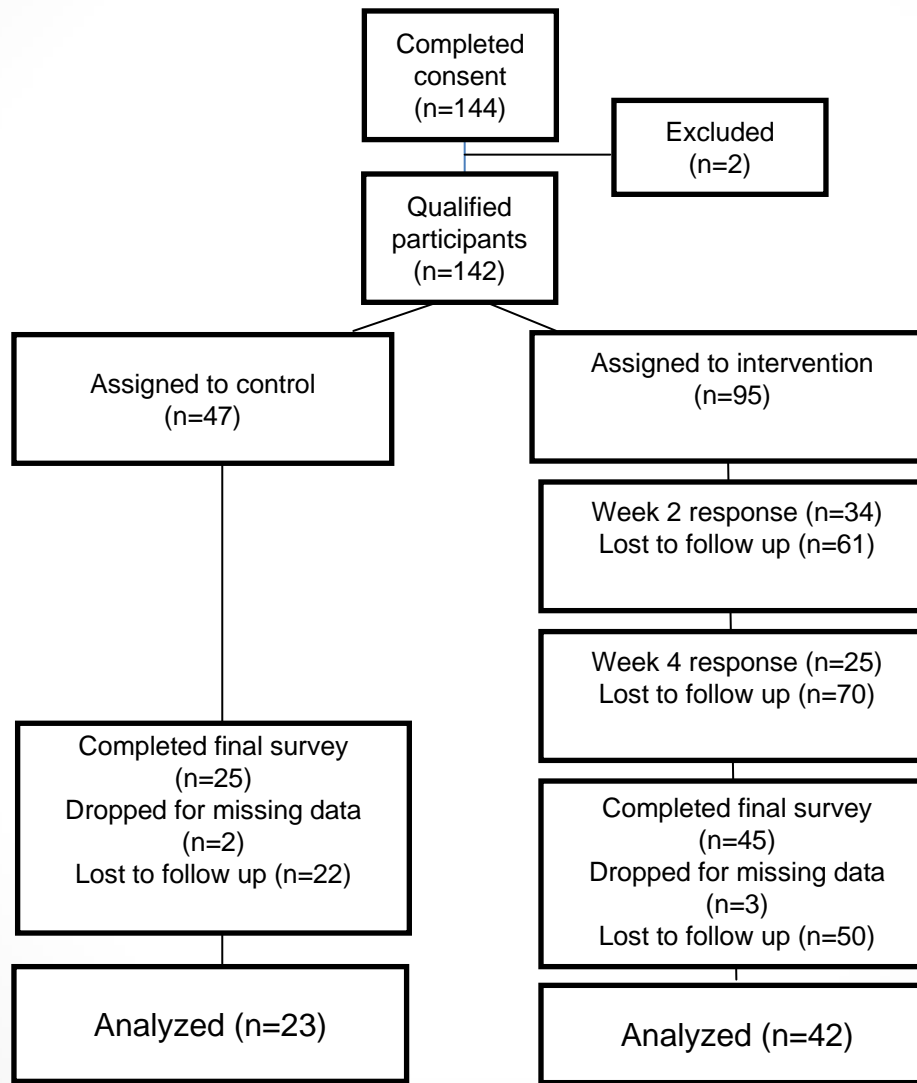
Methodology

- Mixed methods, with quantitative being dominant and qualitative used for intervention refinement.
- Based on Social Cognitive Theory, which is becoming increasingly popular in oral health interventions because it focuses on motivation and thought processes parents undertake when making health decisions for children (Findlayson et al., 2007).

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.

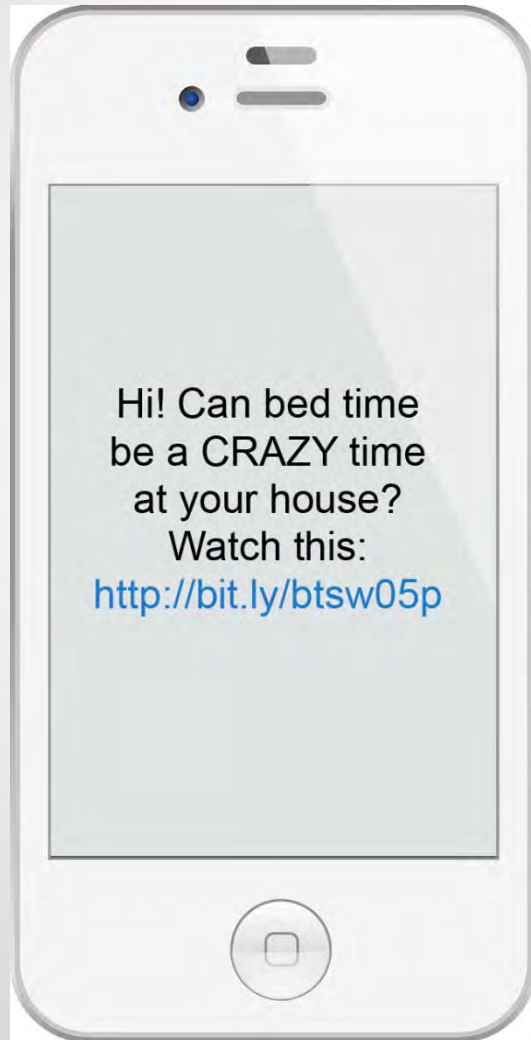
Finlayson, T. L., Siefert, K., Ismail, A. I., & Sohn, W. (2007). Maternal self - efficacy and 1-5 - year - old children's brushing habits. *Community Dentistry and Oral Epidemiology*, 35(4), 272-281.

Data Collection/Analysis

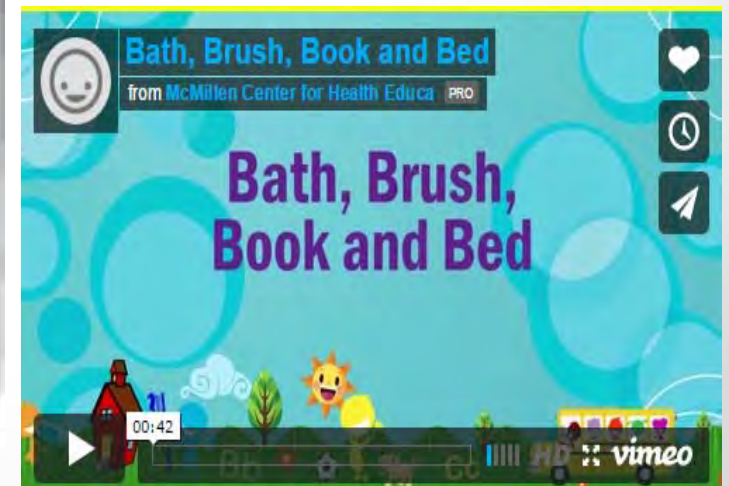




Parent Message



Child Message ages 3-5



Week	Topic	Length of video	Social cognitive theory constructs
1	Daily oral hygiene	1.51 min	Skills training Norming Social support
2	Role-modeling	1.05 min	Role-modeling Skills training Norming Social support External cues to action
3	Nutrition	1.42 min	Role-modeling Skills training Norming
4	Oral health and school success	1.16 min	Skills training Norming Social support
5	Bedtime routines	1.42 min	Role-modeling Skills training Norming Social support External cues to action

How are rural, low socioeconomic (SES) parents using their mobile phones?

- > 90% own a smartphone
- > 87% use their mobile phone to watch videos
- >76% had not experienced an interruption to their mobile phone service in the past six months
- >89% using the same mobile phone number as they had six months ago
- 93% felt they would have no extra charges from a multimedia intervention



What are the attitudes rural, low SES parents have towards receiving oral health information through text messaging?

- <20% had received health information through text message, such as Text4Baby
- Nearly 80% were open to receiving health information about children through text messages depending upon the topic

Results for child toothbrushing for intervention group

	Baseline	Final
Twice or more	55.8%	76.2%
Once	43.2%	21.4%
Zero	1%	2.4%

- Control group: 50% baseline/52.9% final for 2x brushing
- Parents' rate of toothbrushing also showed a significant increase (p=.019)

Post-Intervention Findings

- >86% had no problems viewing the videos
- >87% were very satisfied (53%) or satisfied (34%) with the BrushText messages and videos
- 84% would recommend BrushText to a friend
- >84% indicated the text messages and videos strongly encouraged or encouraged their child to brush twice a day

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Qualitative Findings

Theme One: Children's Positive Attitude

- "Emma really loved them. She was excited when I would say, Emma, you have a text!" (ID Three).
- Children had a more positive attitude towards brushing.

Theme Two: Parent/Caregiver Attitudes Towards the Intervention

- Intervention was for the children
- "Just for him"
- Parents seemed to take the information more seriously when it was in video format

Theme Three: Positive Reactions to Multimedia Text Messaging as a Teaching Tool

- "If I read them a paper from school they're like, yeah, whatever. But if you play them a video they'll watch it. I did like the text and video because it was immediate. Some things get lost in the transition home by kids. So if I wanted to be sure to have it then the text is the way to go" (ID Five).



Implications for Practice

- Head Start/Early Head Start and WIC should integrate multimedia text messaging into curriculum and promote the current interventions available. Head Start should also consider integrating multimedia text messaging into home visiting curriculum.
- Multimedia text messaging offers a modality for dental professionals to use to reach parents with messaging outside of the dentist office, in an effort to reduce dental decay in young children (like Text4Baby.)



Pick up a handout!
Text BRUSHDEMO to 49798

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