Brush Day & Night Partnership

The impact of school oral health programmes on children’s knowledge, behaviour and oral health
The FDI and Unilever Brush Day & Night Partnership

Poor oral health severely compromises children’s eating, sleeping, confidence levels and school attendance.1,2 Tooth decay is the most prevalent oral disease, affecting up to 90% of schoolchildren.3,4 However, by limiting sugar intake and brushing twice daily with fluoride toothpaste it is almost entirely preventable.1,4

In 2005, the Brush Day & Night (BDN) Partnership was formed between the FDI World Dental Federation and Unilever, to:5

- Advocate twice-daily brushing with fluoride toothpaste as a pillar for good oral health.
- Educate schoolchildren and promote community awareness through innovative schemes such as the 21-day BDN programme.

Study to evaluate the 21-day Brush Day & Night Programme2,6

In 2017–2019, a new, more detailed evaluation of the BDN programme was conducted in schools in Nigeria and Indonesia.

The 21-day BDN programme

- Children 6–12 years old
- Teachers trained by local study coordinators

Effectiveness measured by:
- Questionnaires
- Indices of oral hygiene and health

Children received:
- Brushing instructions and supervision
- Songs on twice-daily brushing
- Progress-tracking stickers and calendars
- Celebration, certificates and rewards
- Educational leaflets for parents

Week 0 (baseline):
- Toothbrush and toothpaste provided, questionnaire, OHI-S and DMFT

Week 3 (21 days): questionnaire and OHI-S

Week 8:
- Questionnaire and OHI-S

Week 24 (6 months):
- Questionnaire, OHI-S and DMFT

The aim was to build on the earlier positive results using a strengthened methodology: a two-arm, superiority cluster randomised trial of matched pairs of schools.

Study design2,6

DMFT, Decayed Missing and Filled Teeth.
OHI-S, Oral Hygiene Index-Simplified. A measure of plaque on teeth and therefore brushing effectiveness.
Study results: the Brush Day & Night Programme is proven to establish a twice-daily brushing habit

Data were collected from 2,021 children in Indonesia and 750 in Nigeria.

**Oral health knowledge improved** in children following the programme

- **After 6 months**, children’s awareness of the importance of adequate toothbrushing frequency **improved** by **60%** in Indonesia.

- **After 21 days**, children in Nigeria were **over 6 times more likely** to report fluoride toothpaste use.

- **After 6 months**, use of fluoride toothpaste was sustained, with a **73% improvement** in Nigeria.

**Brushing behaviour improved** in children following the programme

- **After 21 days**, children in Nigeria were **over 16 times more likely** to improve their **twice-daily brushing behaviour**, e.g. brush in the morning and in the evening with no eating or drinking afterwards.

- **After 21 days**, children in Nigeria were **over 5 times more likely** to improve their **brushing frequency**, e.g. brush at least twice a day.

- **After 6 months**, children in Indonesia showed a **30% improvement** in twice-daily brushing behaviour.
The Brush Day & Night Programme is proven to improve children’s oral hygiene and well-being\(^2\)

### Oral hygiene improved in children following the programme, according to a measure of plaque levels

**After 21 days**, children in Nigeria were **11 times** more likely to have ‘good’ oral hygiene.

**6 months later**, children in Nigeria were **almost 4 times** more likely to have ‘good’ oral hygiene.

### Well-being improved in children following the programme

**After 8 weeks**, significantly fewer children following the programme in Nigeria reported bullying due to their teeth.

**After 6 months**, children following the programme in Nigeria were **71%** more likely to have improved smile confidence.

### Conclusions\(^2,6\)

The most recent study has reinforced the effectiveness of the 21-day BDN programme in improving oral health behaviour by establishing a twice-daily brushing habit. The BDN programme delivers a **30% improvement** in children’s **twice-daily brushing behaviour**.

Immediately after programme completion, we observed:
- Improved twice-daily brushing behaviour
- Improved brushing frequency
- Children were more likely to have ‘good’ oral hygiene

6 months after programme completion, we recorded:
- Sustained twice-daily brushing behaviour
- Improved oral hygiene
- Improved well-being

The positive results to date show great promise for continued engagement of children and their communities in twice-daily brushing, which will lead to sustained improvements in oral health and quality of life.

### References