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Short Communication

Building Bright Smiles Through Relationship-Based Oral Health Education: A Two-Year Preventative Oral Health Model in Early Learning

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Abstract

Introduction: Early childhood is a critical period for establishing lifelong oral-health behaviours, attitudes, and confidence. The Smart Smiles Initiative developed a prevention-first, relationship-based oral-health education model delivered within a familiar Early Learning Centre (ELC) environment. This study describes the implementation and outcomes of a two-year program centred on repeated six-monthly visits and the use of the original children's book *Cara and Charlie's Smile Adventure*.

Methods: Oral-health education sessions were delivered every six months over a two-year period in an ELC setting. Approximately 150 children aged 3-5 years participated in recurring sessions. The program was based exclusively on the Smart Smiles Initiative philosophy and utilised *Cara and Charlie's Smile Adventure* as the principal educational resource. Sessions incorporated storytelling, visual learning, interactive discussions, plaque-disclosure activities, supervised brushing demonstrations, drawing activities, and educator engagement. The repeated structure aimed to reinforce learning and foster familiarity and trust.

Results: Over the two-year period, observational findings demonstrated improved oral-health awareness and strong recall of key preventive messages among participating children. Repeated exposure to oral-health concepts within a familiar environment appeared to reduce anxiety associated with oral care and dental visits. High levels of participation and enthusiasm were observed during activities, and educators reported increased confidence in reinforcing oral-health messages. Engagement from families was also noted, supporting the continuity of preventive practices beyond the ELC setting.

Conclusion: The Smart Smiles Initiative model demonstrates that consistent, relationship-based oral-health education delivered within early childhood settings can promote positive attitudes towards oral health and support the development of lifelong preventive behaviours. Storytelling, emotional safety, and repeated six-monthly reinforcement appear to be key components of successful oral-health promotion in young children. This model provides a practical framework for integrating oral-health education into early learning environments and may contribute to reducing dental anxiety and improving oral-health literacy among children and their families.

Keywords: *Bright Smiles; Oral Health Education; Oral Health Model; Early Learning Centre (ELC); Smart Smiles Initiative*

Introduction

Oral health is inseparable from overall wellbeing, confidence, communication, nutrition, and quality of life. Yet oral-health education for young children is often delivered as isolated information sessions rather than as part of a sustained preventative-health philosophy. The Smart Smiles Initiative was developed to address this gap through a gentle, relationship-based approach that introduces oral health in ways that are developmentally appropriate, emotionally safe, and integrated into early learning environments.

The Smart Smiles Initiative - Healthy Smiles, Healthy Futures philosophy is centred on several core principles:

- Prevention before treatment
- Building confidence rather than fear
- Familiarity and continuity of educators
- Age-appropriate communication
- Visual and sensory learning
- Family and educator involvement
- Empowering children through participation.

Within this philosophy, oral-health education is not presented as a clinical procedure, but rather as part of everyday wellbeing and self-care.

The initiative utilised the children's book *Cara and Charlie's Smile Adventure* as the foundation of learning. The story introduces oral health through relatable characters, positive language, and familiar experiences designed to reduce fear and encourage curiosity.

Importantly, the program was not delivered as a single intervention. Sessions were repeated every six months over a two-year period, allowing children to revisit concepts as they matured cognitively, emotionally, and socially.

Smart smiles initiative philosophy

The Smart Smiles Initiative approach differs from traditional oral-health promotion models by focusing on relationship-centred preventative education rather than short-term information delivery as summarised in figure 1.

Children aged 3 - 5 years learn primarily through repetition, emotional connection, visual engagement, and play-based experiences. The initiative therefore prioritised:

1. **Familiarity and trust:** The same facilitators returned every six months, enabling children to build familiarity and emotional safety around oral-health discussions. Repeated exposure reduced anxiety and increased participation.

2. **Storytelling as a learning tool:** *Cara and Charlie's Smile Adventure* was used as the central educational resource during sessions. The book created a non-threatening introduction to oral health and encouraged children to discuss brushing, food choices, and dental visits openly.

3. **Prevention-focused education:** Rather than focusing on disease or fear-based messaging, the sessions promoted positive habits including:

- Brushing twice daily
- Drinking water
- Understanding “sugar bugs”
- Looking after teeth every day
- Feeling confident about oral care.

4. **Visual and sensory learning:** Young children learn best when concepts are visible and interactive. Plaque-disclosing activities transformed abstract ideas into visual experiences that children could understand and actively participate in.
5. **Emotional safety:** No child was pressured or assessed clinically during the educational sessions. The environment remained playful, supportive, and curiosity-driven.

Figure 1 represents the summary of the approach.

Figure 1: *Smart smiles initiative philosophy: relationship-centred preventative oral health education model for early childhood.*

Methodology

The program was conducted within a Melbourne Early Learning Centre over a two-year period. Approximately 150 children aged 3 - 5 years participated in recurring oral-health education sessions conducted every six months.

Sessions were delivered in small groups to maximise interaction, communication, and participation. Each session lasted approximately 30 minutes and followed a predictable structure to reinforce familiarity and routine.

The educational structure included:

1. Shared reading of *Cara and Charlie's Smile Adventure*
2. Group discussion about healthy teeth and food choices
3. Demonstration using oversized dental models
4. Plaque-disclosure visualisation activities
5. Toothbrushing demonstrations
6. Drawing and colouring activities
7. Questions and open discussion.

The same facilitators delivered each session across the two-year period, supporting continuity and relationship-building.

Observational reflections from educators, facilitators, and families were analysed under the following themes:

- Knowledge retention
- Engagement and participation
- Emotional response
- Behavioural changes
- Communication confidence.

Educational approach

Story-based learning

Storytelling formed the foundation of the educational model. *Cara and Charlie's Smile Adventure* introduced oral-health concepts using child-friendly language and positive emotional framing. The characters created familiarity and consistency across sessions, helping children recall information over time.

The use of storytelling encouraged:

- Group discussion
- Emotional connection
- Language development
- Confidence asking questions
- Positive association with oral care.

The reading sessions also enabled educators to reinforce oral-health concepts within classroom routines between visits.

Visual learning and plaque disclosure

Plaque disclosure was introduced using child-friendly explanations such as “sugar bugs” and “tooth trolls”. This transformed invisible plaque into something children could see and understand.

The plaque-disclosing activities created excitement and active participation. Children demonstrated strong engagement during brushing demonstrations and frequently verbalised a desire to “clean away the sugar bugs”.

Visual learning was particularly effective because it:

- Made oral-health concepts tangible
- Encouraged active participation
- Reinforced brushing techniques
- Supported sensory learning
- Increased recall of information.

The use of oversized dental models and interactive demonstrations further reinforced understanding.

Creative reinforcement

Drawing and colouring activities were integrated into every session to reinforce learning through creativity and motor engagement. Children commonly drew:

- Smiling teeth
- Toothbrushes
- Healthy foods
- Characters from the book
- “Sugar bugs”.

Creative activities allowed children to process information emotionally and cognitively while also supporting communication and self-expression.

Results and Observations

Over the two-year period, several consistent themes emerged.

Strong knowledge retention

Children who attended repeated six-monthly sessions demonstrated strong recall of oral-health concepts. Many children independently discussed:

- Brushing twice daily
- Limiting sugary foods
- Drinking water
- Visiting oral-health professionals
- Looking after their teeth every day.

Children also demonstrated strong recognition of *Cara and Charlie's Smile Adventure* and its characters during follow-up sessions.

Increased engagement over time

Children became progressively more confident and interactive with each returning session. Familiarity with facilitators and session structure reduced hesitation and increased participation.

Educators reported that children frequently referenced oral-health discussions after the sessions had concluded.

Positive emotional response

One of the most important findings was the reduction of fear and anxiety surrounding oral-health discussions.

Children approached the sessions with excitement, curiosity, and confidence rather than apprehension. The preventative, relationship-based approach created positive emotional associations with oral health.

Family and educator involvement

Families and educators reported increased discussions around toothbrushing and healthy eating within both home and classroom environments.

Parents commonly noted:

- Greater willingness to brush teeth
- Improved brushing routines
- Children reminding siblings to brush
- Increased enthusiasm around oral care.

Educators also reported that the six-monthly structure enabled oral-health concepts to become integrated into broader wellbeing discussions within the learning environment.

Discussion

The findings of this initiative reinforce the importance of continuity, familiarity, and relationship-based learning in early childhood oral-health promotion.

Traditional one-off educational visits may provide short-term engagement; however, sustained behaviour change requires repetition and trust. By revisiting children every six months over two years, the Smart Smiles Initiative created a familiar and emotionally safe learning environment that supported long-term reinforcement of oral-health concepts.

The philosophy of the initiative aligns closely with early childhood developmental theory, recognising that young children learn most effectively through:

- Play
- Repetition
- Emotional connection
- Visual engagement

- Predictable routines
- Positive reinforcement.

Importantly, the initiative avoided fear-based messaging or highly clinical approaches. Instead, oral health was framed as part of self-care, confidence, and everyday wellbeing.

The use of storytelling proved particularly valuable because it transformed oral-health education into an enjoyable and memorable experience rather than a medical discussion.

This relationship-based preventative model may provide a valuable framework for future oral-health promotion programs within early learning settings.

Conclusion

The Smart Smiles Initiative demonstrated that oral-health education in early learning environments can become significantly more effective when delivered through sustained, relationship-based preventative care.

Through six-monthly sessions conducted over two years, children developed familiarity, confidence, and strong recall of oral-health concepts. The use of *Cara and Charlie's Smile Adventure*, visual learning, plaque disclosure, brushing demonstrations, and creative reinforcement enabled oral-health education to become engaging, emotionally safe, and developmentally appropriate.

The initiative highlights that preventative oral-health education is most powerful when children feel supported, involved, and empowered rather than instructed or intimidated.

Within the Smart Smiles Initiative philosophy, oral health is not simply about preventing disease — it is about building confidence, dignity, healthy habits, and positive lifelong experiences [1-11].

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