



Review Article

Innovations in ECC screening: Revisiting the ‘lift the lip’ technique with Eee Aah technique

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Abstract

Early Childhood Caries (ECC) is a prevalent and potentially serious dental condition affecting young children, often leading to pain, infection, and difficulty eating. Early identification of children at risk is crucial to ensure timely intervention and prevent disease progression. One traditional screening method widely used in pediatric dentistry is the “lift the lip” technique, in which the child’s upper lip is gently lifted to visually inspect the front teeth for signs of decay. Although simple and quick, its main limitation is that it focuses only on the upper front teeth, potentially missing early lesions on posterior teeth. To address this gap, we propose a novel screening method called the Eee Aah technique. In this approach, children are first encouraged to vocalize “Eee,” allowing clear visual inspection of both upper and lower anterior teeth. Next, the child is asked to produce the “Aah” sound, which makes the mandibular posterior teeth visible. Finally, the child is instructed to look upward, enabling the examiner to assess the maxillary teeth, including the posterior surfaces, for a more thorough and comprehensive evaluation of dental health. Since the child’s mouth does not need to be touched during the examination, this technique improves comfort, lowers anxiety, and effectively minimizes the risk of cross-infection.

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1. Introduction

Oral health plays a crucial role in a child’s overall health and wellbeing. Despite this, many children suffer from preventable dental issues, with tooth decay being one of the most widespread. In India, a significant number of young children continue to be affected by Early Childhood Caries (ECC). ECC is recognized globally as one of the most common chronic conditions among infants and preschool-aged children. According to the American Academy of Pediatric Dentistry, ECC is the presence of one or more decayed, missing (due to cavities), or filled surfaces in any primary tooth of a child aged 71 months (approximately 6 years) or younger.¹ According to the WHO, more than 530 million children globally are affected with caries in the primary teeth.² Screening tools play a vital role in identifying children at risk and detecting carious lesions at their earliest stages³

The “Lift the Lip” method is a simple and visual approach to oral health screening, mainly aimed at spotting early signs

of tooth decay in young children. It involves gently lifting the upper lip to examine the front upper teeth. This technique is not limited to dental professionals. It can also be used by non dental healthcare providers, parents, and caregivers to help detect issues early and ensure prompt referral for preventive dental care. It is particularly useful for children from birth to around five years of age, a crucial period for identifying and addressing Early Childhood Caries (ECC).

However, this technique is limited to detecting caries in the anterior teeth, as it does not allow for thorough examination of the posterior teeth where decay can also occur. To overcome the limitation of lift the lip technique we are introducing a new screening tool, Eee Aah technique for early identification of ECC. The Eee Aah technique is an interactive and engaging screening approach designed to complement the limitations of the “Lift the Lip” method by allowing clear visualization of both anterior and posterior teeth.

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2. Importance of Early Detection and Intervention

Early Childhood Caries (ECC) is a major public health challenge affecting children in both developed and developing countries. It is notably more prevalent than other childhood conditions, occurring five times more frequently than asthma and seven times more than hay fever. Although ECC is largely preventable, it remains a widespread issue particularly in socially and economically disadvantaged populations underscoring the critical need for focused prevention efforts and early detection strategies on a global scale.⁴

Managing Early Childhood Caries (ECC) in its early stages is essential to stop the disease from advancing, helping to preserve tooth structure and avoid pain, infections, abscesses, and negative effects on nutrition, speech, and overall health.⁵ The burden of ECC is significantly higher among marginalized and socioeconomically disadvantaged communities, with prevalence rates reaching up to 85% in certain groups. Prevention and early intervention are key pillars of pediatric dental care. Educating parents and caregivers about proper oral hygiene, healthy eating habits, and the importance of regular dental check ups plays a vital role. Timely detection and treatment can effectively prevent the progression of tooth decay and other oral health issues, leading to improved long-term outcomes for children.⁶

A comprehensive bibliometric analysis from 2025, covering over two decades of research, reveals a threefold increase in global scientific output on childhood caries, led by the United States, Brazil, and China. Despite this growth, significant gaps remain in translating research into practice, especially in low and middle income countries where access to effective treatments like silver diamine fluoride is limited. International collaboration across 108 countries reflects a growing commitment to addressing ECC, but sustained policy efforts and funding are essential to reduce disparities and implement evidence based prevention strategies globally.⁷

3. Discussion

3.1. Lift the lip technique

Developed originally by South Australian Dental in 2007 and relaunched recently, “Lift the Lip” incorporates a holistic approach that links oral health to overall health and emphasizes equity in access to early oral disease detection and intervention. The technique is simple, non invasive, and quick, typically taking just a few minutes. It involves inspecting the outer surfaces of the upper front teeth for early white spot lesions or advanced decay, which are common indications of ECC at this age. Early identification allows interventions to prevent progression, reducing the physical and financial burdens on parents and health systems

Shackleton and colleagues emphasized the ease and quick application of the lift the lip technique, noting that it can be completed in just 2–3 minutes. Their research in New Zealand demonstrated that this method is effective in detecting early signs of childhood caries, particularly on the

upper front teeth of children under the age of three. This makes it a valuable and practical tool for regular screening in community based health initiatives.⁸

The “Lift the Lip” oral health assessment tool has proven to be both practical and well accepted by health visitors. By enabling visual inspection of the front teeth, it supports early identification of dental caries, promotes timely referrals to dental care, and helps lower the incidence of untreated tooth decay in young children.⁹

Curto-Manrique et al. found that the modified Bass technique combined with the lift-the-lip method was effective in removing plaque from preschool children. Combining the “Lift the Lip” technique with proper toothbrushing methods can significantly aid in the early detection and prevention of dental issues in young children.¹⁰

Peedikayil emphasized the need to educate parents and caregivers on the lift-the-lip technique as a secondary prevention strategy, allowing for early detection of carious lesions before significant tooth damage occurs and facilitating the reversal of initial enamel demineralization.¹¹

The adaptability of the technique also makes it suitable for diverse settings, including rural and underserved communities. Since it requires no specialized equipment, it can be implemented in home visits, childcare centers, schools, and community clinics with minimal training. This flexibility greatly enhances its potential for widespread adoption, especially in regions where access to pediatric dental services is limited.

Training programs for caregivers and health professionals can integrate “Lift the Lip” into broader child wellness curricula. Combining instruction on early caries signs with nutritional guidance, fluoride use, and toothbrushing habits creates a comprehensive preventive strategy. Such initiatives not only address current oral health concerns but also instill habits and awareness that safeguard children’s dental health well into adulthood.

Further evidence from public health initiatives, such as the Early Childhood Oral Health (ECOH) program in South Western Sydney, demonstrates the sustainability and impact of training child and family health nurses (CFHNs) in the “Lift the Lip” method. In regions with high socioeconomic vulnerability and culturally diverse populations, this approach has increased parental awareness, improved screening rates, and enhanced referral to dental services. Despite its simplicity, the technique’s effectiveness depends on proper training to distinguish early carious lesions from other enamel defects, such as hypocalcifications, and to ensure consistency among examiners. With growing support from professional organizations and inclusion in clinical frameworks, “Lift the Lip” continues to emerge as a cornerstone of preventive pediatric oral health, bridging gaps in access and empowering non-dental health providers to play a vital role in reducing the global burden of ECC.¹²

3.2. Integration into child health services and health visitor programs

“Lift the Lip” is easily integrated into well child checks by Pediatricians, Nurses, Health visitors, and, as a standard step in physical examinations for children under 5 years. Health visitors and nurses report increased confidence in identifying oral health problems and value the tool’s role in facilitating better communication and stronger relationships with families around prevention and referral. Continued training and incorporation into national preventive child health programs have made Lift the Lip an accepted part of health visitor protocols in regions like Australia and the UK¹³

The “Lift the Lip” method is a quick visual screen effective for catching obvious early and established lesions, particularly white-spot carious lesions or visible decay on upper front teeth.

3.3. Limitations of lift the lip technique

1. “Lift the Lip” is effective for anterior teeth screening. However, its sensitivity may be limited for identifying lesions on posterior or less-visible surfaces¹⁴
2. The examiner have to use gloves while lifting child’s lip during screening

To overcome these two limitations We are introducing a new screening tool Eee Aah technique to Paediatric Dentistry

3.4. Eee Aah technique

Child is asked to make Eee sound, one can easily visualize the whole upper and lower anterior teeth. When child makes Aah sound one can easily visualize the mandibular posterior teeth, after making Eee Aah sound the child is asked to look up so that maxillary posterior teeth are also visible.

Eee Aah technique can be easily carried out by Pediatricians who have frequent interactions with children and their families, they are ideally suited to provide oral health education to parents, evaluate children’s risk for dental issues, perform routine oral screenings, and refer patients promptly to dental specialists, thereby playing a crucial role in preventing and detecting Early Childhood Caries at an early stage. Screening for Early Childhood Caries can also effectively be performed by grassroots-level health workers and teachers, who, with proper training, play a vital role in early identification and referral, thereby enhancing community-based prevention and timely management of the disease. This new method can be performed from any place as there is no need to touch the child and the posterior teeth can also be screened making this technique unique. A combined effort from all these people who are in close contact with children can help the child in early detection of caries and by referring to dentist for treatment will save the child from further progression of the disease. This examination is rapid (typically 2-3 minutes), non invasive ,cost effective and can be performed by primary healthcare providers or caregivers, making it a practical and valuable tool for widespread early caries detection in young children. By empowering

pediatricians, teachers, grassroots health workers, and caregivers with this easy to learn method, oral screening can become a regular part of child health assessments even outside dental clinics. Early detection is essential if one has to avoid the breakdown of the teeth leading to further destruction. These carious lesions may necessitate invasive, General Anesthesia based treatments that are expensive in terms of both time and money.

4. Conclusion

Integrating early screening and intervention into routine health checks such as through tools like Eee Aah technique and “Lift the lip “technique improves oral health outcomes, lowers economic burden and enhances the quality of life for children and their families.

Eee Aah technique can be used as screening tool to detect caries in posterior teeth also. When caries is detected the child can be referred to a dentist so that further diagnosis and treatment can be planned. Hence along with “lift the lip” technique, Eee Aah technique can also be incorporated to screen children so early detection and prompt treatment can be done so that we can avoid complications in future

These methods empower healthcare providers, parents, and caregivers to detect early signs of decay both anterior and posterior without requiring specialized equipment or extensive training, enabling timely referrals and interventions that prevent disease progression. By embedding these practices into standard care, health systems can shift from reactive treatment to proactive prevention, significantly reducing the physical, emotional, and financial toll of untreated dental disease on children and families, particularly in underserved communities where access to dentists is limited.¹⁵

5. Source of Funding

None.

6. Conflict of Interest

None.

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