Prevention and Management of Dental Caries in Children pre-publication survey: summary report

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📖 Background:

The Scottish Dental Clinical Effectiveness Programme (SDCEP) published the third edition of its *Prevention and Management of Dental Caries in Children* guidance in February 2025. This edition introduces updates based on new evidence, including: use of Silver Diamine Fluoride (SDF), preventive fissure sealants, and pulpotomy.

🔎 Aim:

To assess practitioners' views and identify barriers and enablers to implementation.

🪛 Method:

Sample: Dentists, dental therapists and dental hygienists working in Scotland were invited to complete an online survey via email.

Survey design: The survey was split into 6 sections: current practice, beliefs, support, realistic dentistry, demographics and additional comments.

Theoretical framework: The belief questions were based on the COM-B model of behaviour, a framework that posits that behaviour is influenced by Capability, Opportunity and Motivation.

Analysis: IBM SPSS Statistics was used to analyse the quantitative data; qualitative responses were analysed using thematic analysis.

👥 Demographics:

- 131 practitioners (89% dentists, 11% therapists/hygienists)
- Settings: 69% General Dental Service, 28% Public Dental Service, 9% Hospital Dental Service
- Patient Mix: 50% fully NHS, 45% mixed, 5% private.

Key Findings

🫁 *Fissure Sealants*

- 17% of respondents said they "always" placed fissure sealants for the purposes of preventing caries; 40% said "often"; 28% said "sometimes"; 11% said "rarely"; and 5% said "never".
- The most cited factors that were taken into consideration when deciding to place fissure sealants for the purposes of preventing caries were caries risk (96%), patient cooperation (90%), and treatment tolerance (89%).
- Respondents reported that they had the knowledge, training, resources and support, and belief that the treatment would result in better clinical outcomes for their patients.

🫁 *Silver Diamine Fluoride*

- 70% reported that they "never" use SDF, due to a lack of training, awareness, concerns about off-label use and tooth discolouration and it not being included in the Statement of Dental Remuneration (SDR).
- Factors respondents took into consideration when using SDF: patient cooperation/tolerance, depth of the cavity, proximity to pulp, age of patient, time to tooth exfoliation, restorability of the tooth, parent expectations.
- Barriers included: a lack of resources, insufficient time, a lack of training, a lack of confidence, lack of support from colleagues and low familiarity with evidence.

🫁 *Pulpotomy*

- 90% of respondents said they "never" or "rarely" carried out a pulpotomy for a child or young person who has pulpitis with irreversible symptoms in a permanent tooth.
- Barriers included: insufficient training, the difficulty of conducting the pulpotomy, a lack of understanding of the rationale for this treatment, a lack of resources, a perceived lack of support from colleagues.

🧰 *Support:*

- 88% of respondents reported they would find flowcharts/step-by-step guides helpful.
- Additional suggestions included: face-to-face training days, shadowing, clinical observation opportunities and changes to the SDR.

🫁 *Realistic Dentistry:*

- Familiarity with the concept of "realistic dentistry" was mixed: 51% of respondents reported they were familiar with the term, and 47% were familiar with BRAN questions (What are the Benefits? What are the Risks? What are the Alternatives? What if I do Nothing?).
- Respondents noted that they used visual aids (videos, pictures, models, x-rays, intra-oral scans) and leaflets to help in discussions with patients. There were suggestions for resources for both patients and dental teams.

📌 Conclusions:

- Capability, opportunity and motivation were high in relation to considering factors relevant to individual patients when placing fissure sealants.
- Respondents experienced barriers in relation to using SDF for caries management and carrying out a pulpotomy in a permanent tooth, including training gaps, resource limitations and constraints due to the SDR.
- Future work to support implementation of the guidance could include the development of online training and resources.
- A follow-up survey is planned for later this year to capture any variation in current practice and beliefs following the publication of the guidance.

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