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Original Article

Challenges and Strategies Faced by Newly Qualified Dentists When Providing Oral Health Guidance to Parents and Caregivers of Young Children

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ABSTRACT

Effective communication about preventive oral health is a core skill for dental practitioners. In the UK, newly qualified dentists complete a one-year Foundation Training Programme in general practice. This study investigated the challenges and enabling factors that Foundation Dentists encounter when discussing oral health with parents and caregivers of children aged 0–11 years. Approximately 100 Foundation Dentists from the Yorkshire and Humber region took part in focus group discussions. These sessions explored how they and their broader dental teams approach oral health guidance for young children. The collected data were examined using thematic analysis. Analysis revealed five central themes influencing oral health discussions: (1) Gaps in understanding parenting and child development; (2) Parents' willingness to engage; (3) Drivers for behavior change; (4) Variability and clarity of information shared; and (5) Organizational constraints within the National Health Service (NHS) general practice framework. A comprehensive, multi-layered training approach is recommended to better equip Foundation Dentists for preventive oral health conversations with children and their caregivers. Enhancing these skills may strengthen practitioner–patient interactions and support meaningful behavior change, ultimately contributing to improved oral health outcomes in children.

Keywords: Qualitative, Paediatric dentistry, Foundation dentist, Behaviour change, Oral health, Communication

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Introduction

Dental caries remains the most common preventable disease in childhood and represents a significant public health concern. Caries disproportionately affects disadvantaged populations, highlighting health inequalities. In England, 12% of 3-year-olds and 25% of 5-year-olds experience dental decay, with higher rates of 14% and 37% in deprived areas such as Yorkshire [1]. The burden of dental disease extends beyond the individual, impacting families and placing substantial demands on the National Health Service (NHS), with Public Health England reporting annual costs of £3.4 billion for oral health management [2]. Disease distribution is skewed, predominantly affecting those with the greatest need, which correlates strongly with socioeconomic deprivation. Consequently, tailored approaches to primary prevention are necessary [3]. For the general population, a Common Risk Factor approach [4] may be sufficient to maintain low caries levels, but high-risk groups require targeted interventions, reflecting the principle of proportionate universalism, where services are delivered universally but scaled according to need [5]. Experts emphasize that effective oral health education and preventive interventions, particularly within general dental practices, are crucial to improving oral health equity and outcomes [6-10]. This

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requires consistent messaging, active engagement with patients, and training in targeted behavioral strategies.

National guidance from Public Health England [11] and NICE [12] highlights the importance of focusing on children aged 0–11 years and their parents or caregivers. Encouraging protective home-based oral health behaviors, such as regular toothbrushing and reduced sugar intake, is critical during early childhood to establish long-term oral health habits and prevent common diseases like caries [13-15]. However, both dental teams and parents/caregivers acknowledge the difficulties in modifying poor oral health behaviors, especially once disease has developed [16-18]. For the 40% of children under four in England who attend regular dental check-ups, primary care teams play a vital role in supporting healthy habits from infancy.

Several programs have been introduced to support dental teams in delivering effective oral health advice. For example, the Starting Well initiative, implemented in 13 regions with high childhood caries prevalence, aims to strengthen connections between local communities and dental practices and enhance the delivery of health messages to parents/caregivers [19]. The Dental Check by One campaign promotes dental visits before a child's first birthday, involving multiple care sectors such as dentists, doctors, health visitors, and nurseries [20]. Similarly, the American Academy of Pediatric Dentistry advocates establishing a "Dental Home" by the age of one to ensure early oral healthcare [21].

While these initiatives encourage dental professionals to support parents/caregivers in promoting healthy behaviors, their effectiveness depends on practitioners having the appropriate communication and behavior change skills. To maximize the benefits of dental visits, dental teams must provide evidence-based preventive advice in primary care, employing effective behavior change techniques and communication strategies, as highlighted in the 2015 NICE guideline on Oral Health Promotion: General Dental Practice [22]. Recent government guidance, including the Department of Health and Social Care's "Delivering Better Oral Health: An evidence-based toolkit for prevention" [23], emphasizes practical behavior change models such as COM-B [24], SMART goals [25], and OARS communication strategies used in motivational interviewing [26], yet their consistent application in practice remains uncertain.

Previous studies exploring dental teams' experiences in providing oral health advice have highlighted several challenges and the inconsistent delivery of guidance [27-31]. National guidelines specify what behaviors to promote but do not provide detailed guidance on how to conduct behavior change conversations effectively. Understanding the barriers and facilitators to engaging in these conversations is a crucial step in workforce development.

In the UK, newly qualified dentists (Foundation Dentists) complete a year of vocational training under the supervision of experienced General Dental Practitioners. They are expected to demonstrate competence in delivering evidence-based preventive education and self-care guidance to patients and caregivers [32]. As early-career practitioners, Foundation Dentists' experiences with behavior change conversations are likely to influence their future practice. Unlike fully qualified dentists, Foundation Dentists are salaried and not subject to the usual NHS contract monitoring, making them a unique cohort. To date, only one study has examined Foundation Dentists' experiences, focusing solely on adult patients [33]. Therefore, this study aimed to explore Foundation Dentists' experiences in delivering oral health advice to parents/caregivers and children aged 0–11 in general dental practice and to identify the key barriers and facilitators influencing this process.

Materials and Methods

Research design

This study employed a "World Café" qualitative approach, utilizing focus groups guided by open-ended questions that explored current practices, as well as the barriers and facilitators, in delivering preventive oral health advice to children aged 0–11 and their parents/caregivers. Given the exploratory nature of this study, a phenomenological framework was adopted at a semantic level. To encourage participation from all group members, an A1 sheet of paper was placed at the center of each group for participants to note relevant thoughts during discussions, while facilitators simultaneously recorded field notes. Ethical approval was granted by the University of Leeds Dental Ethics Committee (100117/PD/220).

Sample

All Foundation Dentists in the Yorkshire and Humber region were invited by Health Education England to attend a professional training day focused on dental prevention. Those attending were subsequently invited to participate in the study via email prior to the event. Around 100 out of 104 eligible Foundation Dentists participated. Due to the opt-out consent process and anonymity measures, personal details were not collected, and no information was obtained regarding reasons for non-participation.

Procedure

Before the event, participants received a detailed information sheet via email, explaining the study purpose, voluntary participation, opt-out consent, and the freedom to withdraw at any stage. On the day, attendees were divided into twelve convenience-based groups. The objectives and ground rules, including confidentiality and anonymity, were outlined at the start of each session. Discussions were facilitated by three experienced researchers—a paediatric dentist, a research psychologist, and a dental hygienist/therapist (PD, KVC & JO). Key discussion points were noted on an A1 sheet at the center of the group, and audio recordings were made. Each session lasted approximately 25–30 minutes, and participants were given the opportunity to review and comment on the final report.

Data analysis

Audio recordings were transcribed verbatim, and field notes and written contributions were collated. A team of four researchers (IH, JO, RD, LR) immersed themselves in the data through repeated reading and note-taking [34]. Initial findings were reviewed with two additional team members (KVC, PD), while four further authors (ZM, SH, LR, KG-B) provided contextual input. Transcripts were coded using a combination of manual methods and NVIVO software. The analysis focused on participants' experiences without exploring underlying assumptions [35], adopting an inductive approach aligned with the study's objectives [34, 36]. Themes were iteratively developed and refined through team discussions, with redundant or unsupported themes removed, and negative case analysis conducted to ensure robustness. Cross-validation by the wider team ensured credibility, and analysis continued until data saturation was achieved.

Results and Discussion

Approximately 100 Foundation Dentists from the Yorkshire and Humber region participated. Although specific demographic data were not collected, Foundation Dentists are typically in their early twenties, hold a single dental degree, and show a slight female predominance, with most identifying as White British, followed by Indian ethnicity [37].

Thematic analysis identified five primary themes reflecting current practices and perceived barriers and facilitators in delivering oral health advice to parents/caregivers and children aged 0–11 years:

1. Lack of knowledge around parenting skills and child development
2. Parental receptivity
3. Motivation for behavior change
4. Information content and inconsistency
5. Current NHS structures of general dental practice

Each theme encompassed several sub-themes, summarized in **Table 1** with supporting quotations. **Figure 1** presents a visual map linking overarching themes, sub-themes, and their interrelationships, highlighting lateral associations across different themes.

Table 1. Themes and sub-themes of the barriers and facilitators to foundation dentists delivering oral health advice to children (aged 0–11 years old) and their parents.

Themes	Sub-themes	Quotes
Lack of knowledge around parenting skills and child development	Lack of knowledge and training	Participant 1: "Do GPs tell parents that night-time bottle feeding is harmful to their child's teeth? That would make our jobs a lot easier. Many parents seem surprised." Participant 2: "They don't always see the GP…" Reply: "Exactly. I'm not really sure how that system works."
	Lack of real-life experiences	I find it quite challenging to discuss breastfeeding, particularly with mothers, when you're not a parent yourself.
Parental receptivity	Strongly ingrained beliefs	"Many parents tell me that dental problems run in their family and seem genetic. I explain that diet plays a bigger role, but it's challenging to overcome this belief because they insist, 'My teeth have always been like this, so my child's will be the same—they just have weak teeth.'"
	Confusion over control and responsibility	"…you can advise them repeatedly, but they continue the same behavior. They often say it's not their responsibility and that 'you should make sure you're not buying those things.'"
Motivation for changing behaviours	Parents motivation to change	"Patients tend to switch off and stop paying attention after a certain point… they absorb a few key pieces of information, but the rest just goes in one ear and out the other."

	Practitioner not motivated to engage in a behaviour change conversation	"…while I was giving her dietary advice, she started moving away from the chair. I thought, 'Alright, bye,' because I can't chase after her."
Delivery of oral health advice	Lengthy information	"I feel like we give them so much information that, in the end, they go home and don't follow through…"
	Inconsistencies between practitioners	"I don't think they even verbalize it. […] Many associates just write 'oral health as per Delivering Better Oral Health' in their notes. What does that actually mean? Mine didn't even know what Delivering Better Oral Health is."
Current NHS structures of general dental practice	Time and funding for dentists	"I think my nurse is always surprised by how much detail I go into. They often say, 'Oh, that was good—you really covered everything, but the other dentists don't do it.' I usually respond, 'Well, they don't have any incentives to do it.'"
	Constraints to assistance	"Because the training happens during work hours, the nurses have to take time off to attend it. Many of them are trained to deliver oral health advice, but we don't run any OHI clinics because all the nurses are needed to assist the dentists, so they aren't given the time or space to do it."

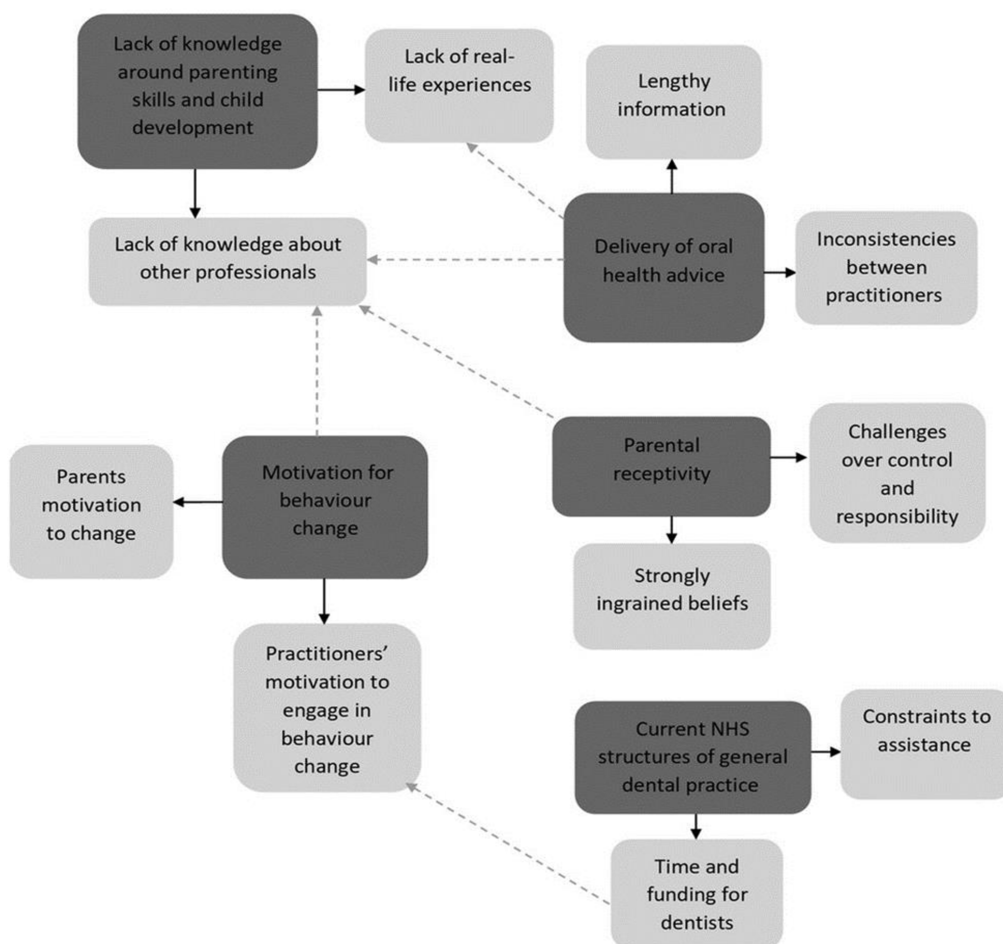

Figure 1. Visual map of overarching themes and subthemes. (Solid arrow indicates overarching theme and the subsequent subthemes. Dotted arrow indicates correlating themes and subthemes of different overarching themes).

Theme 1: lack of knowledge around parenting skills and child development

This theme is split into two sub-themes: Lack of real-life experiences and lack of knowledge about other professionals, highlighting young dentists' uncertainties regarding their ability to provide oral health guidance to parents/caregivers and their young children.

Sub-theme 1: lack of real-life experiences

Foundation Dentists voiced apprehension about offering oral health advice to caregivers of children aged 0–3 years.

"I don't feel confident addressing children from 0 to 3, especially when asking about breastfeeding or cup use."

Although they possess the theoretical knowledge necessary for advising on oral health, Foundation Dentists often find their confidence lacking, which hinders their practical application. They placed great importance on practical experience and personal insight but recognized their minimal exposure to real-life parenting or child development scenarios. Consequently, they rely mostly on information from textbooks and official guidelines. This gap left them feeling underprepared to provide complete advice, and at times unsure how to respond to parental questions, particularly when unfamiliar with certain terminology:

"I avoid asking because I know nothing about babies, and I'm unsure what's typical for a child."

"Patients ask about Cow and Gate and I don't know… they ask about sippy cups and I don't understand some of these things…"

Because most Foundation Dentists are young and have limited firsthand experience with raising children, they often lack the confidence to discuss behavioural recommendations. This discomfort, especially regarding breastfeeding, frequently causes them to steer clear of such topics.

"I don't think I've ever had a conversation about breastfeeding."

Sub-theme 2: lack of knowledge about other professionals

Foundation Dentists' uncertainty was further heightened by their limited awareness of the roles and responsibilities of other healthcare professionals involved with young children:

"You know about night-time bottle feeding… do GPs actually tell parents it's bad for their teeth? That would make things much easier for us. Many patients are quite surprised."

Another participant stated: "They don't always see the GP…"

Reply: "Exactly… I don't really understand how that works."

Throughout the discussions, Foundation Dentists expressed confusion regarding the guidance provided by General Practitioners, health visitors, and other child-focused professionals, emphasizing that knowing how different healthcare providers contribute to child development is essential for tailoring oral health advice effectively.

Some participants suggested practical strategies, including working alongside experienced Dental Nurses who were comfortable discussing issues like breastfeeding and bottle feeding with parents:

"The dental nurse sometimes steps in. Mine is more like a parent herself, so she really helps."

The support was not only professional but also personal, as the nurses often had similar life experiences to the parents/caregivers, which strengthened rapport. Shared local backgrounds and experiences such as being parents themselves made parents more receptive to preventive oral health messages. By letting dental nurses communicate guidance on breastfeeding and weaning, Foundation Dentists felt that parents/caregivers were more likely to understand and follow the advice:

"One of the nurses helps me with the breastfeeding discussions… she has two kids, so she can add to what you said while taking notes."

Theme 2: parental receptivity

Many Foundation Dentists reported feeling frustrated by some parents'/caregivers' responses when attempting to provide guidance on healthy oral practices for their children. Two key areas of difficulty emerged, forming the following sub-themes: Strongly ingrained beliefs and Confusion over control and responsibility.

Sub-theme 1: strongly ingrained beliefs

Foundation Dentists expressed concern when parents'/caregivers' pre-existing beliefs conflicted with recommended oral health practices. For example, some parents viewed primary teeth as less important than permanent teeth or believed tooth decay was primarily inherited rather than diet-related:

"…they say things like 'My older child had weak teeth, so it's normal'."

Some parents/caregivers appeared unconcerned about the state of their child's primary teeth:

"I've seen children who don't see a dentist until age six because their mothers were like, 'oh, they're just baby teeth,' and the child ends up with decay everywhere."

Participants noted that parents often did not understand the true causes of their child's oral disease, even after dental treatment such as extractions under general anaesthesia:

"I had a patient whose parents said the kid had enamel defects and that's why he lost all his teeth under GA. But actually, it wasn't that—it was definitely caries."

Sub-theme 2: confusion over control and responsibility

Foundation Dentists observed that parents/caregivers sometimes struggled to recognize their role and

responsibility in their child's oral health, often feeling they had little influence over dietary habits:

"I'm quite worried about the diet. So making sure that parents are really involved… I don't know, where I work, parents often blame their children, saying, 'I told them and told them'… they're quite accusatory."

Participants highlighted the need to clearly communicate parents' roles in supporting behavioural changes for oral health. However, these discussions can be challenging and require sensitivity, as illustrated by one Foundation Dentist's experience with parental reactions to diet advice:

"But when you try to ask how they're accessing [chocolate bars], the parents can get upset. I've even had complaints suggesting I was rude about their diet… that makes you hesitant to give dietary advice in the future because you don't want complaints, it doesn't reflect well."

Some parents/caregivers were uncomfortable with advice, which led Foundation Dentists to sometimes avoid addressing diet in subsequent consultations. To improve receptivity, some participants reported engaging in two-way, personalized conversations with both children and parents/caregivers. This approach allowed them to understand daily routines and tailor advice, creating a collaborative effort rather than giving generic instructions that might seem judgmental:

"I think it works when you individualize it… tailor it to their routine. Guidelines exist, but you have to adapt them because everyone has different schedules and diets… tailoring it really helps."

While personalized advice was seen as effective, Foundation Dentists noted that time constraints often limited rapport building and delivery of tailored guidance. Engaging high-risk families remained particularly challenging, and they were unsure how best to support behavioural change in these vulnerable groups.

Theme 3: motivation for changing behaviours

Foundation Dentists emphasised that motivation is a key factor in supporting health behaviour changes, recognising that any successful modification starts with the parent's willingness and drive. Across discussions, participants highlighted that being able to inspire parents/caregivers is an important skill for helping implement changes to a child's daily oral health routine:

"…it really depends on your own motivation, how much you're personally driven to make a change. If you show enthusiasm and guide them step by step, then you can actually make it happen."

"So I tend to focus on finding something that motivates them, latch onto that, and then you've got their engagement."

Two sub-themes were identified: Parents' motivation to change and practitioners' motivation to engage in behaviour change conversations.

Sub-theme 1: parents' motivation to change

Foundation Dentists often faced parents/caregivers who seemed difficult to motivate. Diet diaries were commonly used to track habits, but many parents/caregivers appeared to undervalue them, either failing to return them or completing them inaccurately:

"You can get really detailed insights from diet diaries, but if they're not genuinely motivated, they won't follow through."

"A big hurdle is actually getting diet diaries back. They don't bring them, or they don't complete them honestly, even after reminders."

Dentists described feeling frustrated after spending appointment time giving evidence-based advice, only to see little change in children's oral health habits:

"…you deliver all the advice, they nod along, but then I see them go straight to a shop nearby and buy a Red Bull, right after I've just done fillings on the child."

Sub-theme 2: practitioners' motivation to engage in a behaviour change conversation

Foundation Dentists noted that parents/caregivers' lack of engagement often made delivering oral health advice feel ineffective, which in turn reduced their own motivation:

"Ideally, oral health advice should take at least 10 minutes. But if they start cutting you off or clearly don't want to listen, you have to know when to stop, otherwise you're just preaching…"

"Sometimes, depending on their response… you can be talking, but they're not paying attention… they just want to leave, so it depends on how much they're willing to engage."

Another participant added: "some just dash out the door…"

Many participants found it difficult to give advice effectively when parents/caregivers were distracted, which affected their confidence and motivation, making them feel like they were "preaching" rather than facilitating meaningful behavioural change.

Theme 4: information content and inconsistency

Foundation Dentists described using a variety of approaches to deliver oral health information. Verbal guidance was often combined with demonstrations using models, toothbrushes, or other props. Tools such as plaque disclosing tablets and diet diaries were

popular because they allowed advice to be tailored to individual patients. Resources differed across practices, with some Foundation Dentists noting the use of dedicated "Oral Health Education" rooms and qualified team members providing separate appointments focused on oral health education. Advice given in the clinic was reinforced through accessible resources, including leaflets, freebies like toothbrushes and toothpaste, and digital media applications.

Certain topics received greater emphasis, particularly diet and toothbrushing, with occasional advice on fluoride and toothpaste selection. While most Foundation Dentists based their guidance on the public health resource Delivering Better Oral Health (DBOH) [11], some aspects—such as the correct amount of toothpaste or sugar-free medicines—were less frequently discussed. Challenges included the volume of information to cover within limited appointment times and variations in how different practitioners delivered DBOH guidance.

Sub-theme 1: lengthy information

A key challenge was determining how much information to provide to parents/caregivers and children. Some participants felt that DBOH covers too many topics to address in a single appointment, leading them to question how best to prioritise guidance based on what seemed most relevant:

"At the first appointment, if you give too much information, they'll only remember a little. So maybe it's best to focus on key points like fluoride toothpaste and brushing, then gradually add extra advice… You don't want to come across as lecturing them."

Given the volume of information, Foundation Dentists struggled to balance content delivery with keeping families engaged, often selecting key points to focus on. Leaflets or online resources were sometimes provided so that parents/caregivers could refer back to the information later.

Sub-theme 2: inconsistencies between practitioners

Another challenge was the inconsistency in what and how oral health messages were delivered. Not all dentists within a practice had the time or up-to-date knowledge of DBOH guidance, resulting in mixed messages even within the same clinic:

"The thing is, we have time to go through tooth brushing, but my associates often book only 5-minute appointments for children. They can't demonstrate brushing, so they just give brief advice, say that I've covered it, and tick the box [to confirm DBOH guidance was delivered]."

Participants questioned the priority given to preventive care by different dental professionals, noting that parents/caregivers might feel overwhelmed if they received limited advice from some practitioners and more extensive guidance from others:

"Obviously, as foundation trainees, we have more time than associates. Parents may have seen an associate for years, and suddenly they get a large amount of information, maybe for their second or third child—it can be overwhelming."

Despite recognizing the time constraints faced by senior associates, participants felt that greater consistency in advice delivery could better influence parents and support effective behavioural change.

Theme 5: current NHS structures of general dental practice

Some Foundation Dentists acknowledged that the existing NHS framework may hinder the delivery of effective preventive care. These challenges are explored under two sub-themes: Time and funding, and Constraints to assistance.

Sub-theme 1: time and funding

Foundation Dentists anticipated that, as associate dentists, they would face increased time pressures and feel compelled to prioritise treatment over preventive care:

"I think time is a huge issue for many working under the NHS contract. That's going to be a real challenge next year."

Many participants suggested that limited time, coupled with a lack of incentives, often results in dentists either skipping oral health advice or only briefly addressing it. Spending additional time on demonstrations or building rapport with children and parents to support behaviour change was seen as dependent solely on personal motivation, with no external encouragement or reward. Some participants proposed potential solutions to address this barrier:

"I think something like targeted commissioning for OHI […]. If there's an incentive for GDPs, it benefits both our income and the community."

"Or having a dedicated slot for OHI, like a 5–10 minute appointment for oral health instruction, with funding attached so you actually get paid for it."

Funding was viewed as a key enabler to prioritising behaviour change conversations, and allocating specific time for oral health advice was suggested to make it a standard part of dental treatment.

Sub-theme 2: constraints to assistance

Although Foundation Dentists saw involving the wider dental team as a potential solution to time and funding limitations, current structures within general practice restricted this approach. They highlighted inequalities

in the time and effort nurses put into developing additional skills, as well as the minimal financial incentives for doing so:

"My nurse completed training to apply fluoride varnish and can also talk about it with patients. She's qualified, but only gets an extra 5p per hour for actually using her skills. In some practices, time is too tight, but theoretically, many nurses could help with this. At the end of the day, if money matters, there's little incentive."

Participants also noted structural barriers that limited nurse-led oral health advice. Training often coincided with clinical duties, and even when nurses completed courses, they were sometimes unable to apply their skills because of other responsibilities:

"I don't think my practice gives them the time either. They enjoy doing something different, but since my nurse is paired with me, she doesn't get the chance to practice what she learned in her courses."

This study aimed to explore the barriers and facilitators influencing the delivery of oral health advice to parents/caregivers and their children aged 0–11 years in general dental practice. Analysis of the data identified five overarching themes with several sub-themes: (1) Lack of knowledge around parenting skills and child development; (2) Parental receptivity; (3) Motivation for behaviour change; (4) Information content and inconsistency; and (5) Current NHS structures of general dental practice. Notably, even without the pressures of the NHS dental contract, Foundation Dentists have begun to develop attitudes and behaviours toward delivering oral health advice that mirror those seen in more experienced general dental practitioners [16, 28, 31, 38]. Using the socio-ecological model [39], these themes can be interpreted across individual, interpersonal, organisational/community, and environmental levels to better understand behaviour. This framework can guide training for Foundation Dentists to ensure they are well-prepared, skilled, and committed to providing effective oral health guidance to parents/caregivers and their children.

Lack of knowledge around parenting skills and child development

Foundation Dentists displayed limited insight into the daily demands of parenting, which may also reflect a lack of empathy towards families. This is concerning given evidence that parents/caregivers often feel misunderstood and perceive dental professionals as lacking appreciation for the challenges of daily family life [40]. Additionally, Foundation Dentists had limited awareness of the role of the broader early-years workforce in promoting oral health. As a result, they questioned their own competence and often felt uneasy providing oral health advice, particularly for children aged 0–3 years. This aligns with previous research showing that Foundation Dentists felt their undergraduate training did not adequately prepare them for real-world practice and that they were uncomfortable in the educator role, worried about patronising patients or damaging the patient-dentist relationship when advising on child oral care [33].

These findings highlight the need for training focused on knowledge, insight, and empathetic communication, particularly when discussions fall outside Foundation Dentists' comfort zones, to prevent avoidance of important conversations. Such training should encompass knowledge of children and parenting at individual, familial, and societal levels, recognising that behaviour change at this stage involves a shared effort between parent and child. Foundation Dentists also noted the value of teamwork in ensuring DBOH guidance is delivered effectively and empathetically. Engaging the wider dental team is critical, as some members may have more personal experience with parenting or greater familiarity with the local community, enabling a deeper understanding of parents'/caregivers' backgrounds.

Importantly, communication should be a dialogue rather than a one-way lecture, which is a common pitfall in clinical appointments [40]. As highlighted by Kay *et al*. [41], the effectiveness of oral health advice depends on alignment between the "sender" and "receiver," reinforcing the need for a collaborative conversation. Similarly, Foundation Dentists reported limited awareness of the roles of other health professionals, such as GPs, and the information they provide to children and families. They expressed that inter-professional collaboration is crucial to ensure consistent messaging. Integrating this knowledge into undergraduate and Foundation Dentist training could help address these gaps and promote a more coordinated approach to patient care.

Parental receptivity

Parental receptivity emerged as a significant barrier to delivering oral health advice. Foundation Dentists reported feeling unprepared to engage with parents/caregivers who appeared uninterested or held strong, sometimes inaccurate, beliefs about oral health, such as attributing tooth decay primarily to genetics. They also lacked understanding of the non-linear, cyclical process of habit formation and change, which requires repeated efforts over time [42]. These findings underscore the importance of interpersonal skills and

the need for dentists to appreciate the wider familial and social factors that influence parents'/caregivers' behaviours. Building rapport is essential, and multiple interactions may be needed before behaviour change occurs [40]. Consequently, there is a clear need for training and resources to support Foundation Dentists in having effective, empathetic behaviour change conversations with parents/caregivers [40].

The findings also suggest that Foundation Dentists may avoid engaging in behaviour change discussions, particularly with parents/caregivers perceived as resistant. Training that helps dentists identify early signs of resistance and manage ambivalence empathetically can enhance confidence and improve receptivity during these conversations [43].

Motivation for changing behaviours

The study highlighted that Foundation Dentists perceive a strong link between motivation and the success of behaviour change interventions. When they feel their efforts are ineffective, they become demotivated, often providing only brief advice and focusing on parents/caregivers who appear already engaged. This aligns with previous research indicating that motivation often dictates the approach of many general dental practitioners [16, 28, 33, 40, 44]. For example, Humphreys *et al.* [33] reported that Foundation Dentists felt powerless to change adult patients' behaviours, while Barnes *et al*. [6] found that dental practitioners' motivation to maintain oral health education was influenced by patient compliance, with non-engagement leading to frustration.

Foundation Dentists described unresponsive parents/caregivers as "unmotivated." Understanding that motivation to change health behaviours develops in stages [42], with ambivalent individuals often in the "pre-contemplation" phase, can inform evidence-based approaches to elicit self-motivation [45]. This is especially relevant for targeted interventions in lower socio-economic groups but is applicable across populations. Without sufficient experience, knowledge, and skills in motivational techniques, oral health advice risks becoming one-directional, inappropriate, or omitted entirely.

Training should also prepare Foundation Dentists for the inherent challenges of behaviour change conversations, setting realistic expectations and building resilience. Motivation is a key predictor of effective advice [38], and developing skills through patient-centred, evidence-based counselling can improve practitioner competence. When combined with practice-based feedback [46], this training during the Foundation Dentist year offers an ideal opportunity to equip young dentists with the skills, confidence, and realistic expectations needed to support effective behaviour change conversations.

Information content and inconsistency

Foundation Dentists reported difficulties not only in explaining the importance of oral health to parents/caregivers but also in guiding them on how to care for their child's teeth. There was considerable variation in "what is discussed" and "how it is delivered," leading to inconsistencies both within and between dental professionals. Diet diaries and props were frequently used to support discussions, a practice less common among more experienced dentists [29]. Foundation Dentists also felt compelled to cover all age-specific guidance from DBOH, which often resulted in a "mini-lecture," overwhelming parents/caregivers rather than fostering a dialogue where they could identify solutions suited to their circumstances [40]. This echoes Humphreys *et al.* [33], where participants felt obliged to deliver all oral health information in a single appointment, despite knowing patients are unlikely to retain everything, particularly if engagement is low.

Training in psychological communication approaches can help shift from simply giving advice to conducting behaviour change conversations that are tailored to each patient and family. This approach prevents information overload and ensures the key challenges for each family are addressed with guidance at the right time. Participants in this study highlighted the benefits of an individualized approach, particularly when discussing solutions, allowing advice to be adapted to the family's routine.

These findings underscore the importance of training that sets realistic expectations for behaviour change conversations. The diversity of individual and interpersonal (family, friends, wider community) barriers faced by parents/caregivers reinforces the need for listening, allowing families to identify their own solutions, supported by gentle guidance. Training and resources can support dental professionals in developing a structured and consistent approach that is likely to enhance behaviour change outcomes.

Current NHS structures of general dental practice

Within the wider NHS framework, time and funding constraints limit what dental professionals can achieve. Many feel restricted by the NHS contractual system, and although Foundation Dentists have not yet experienced the pressures of this system fully, they are aware of its implications. These concerns regarding time, staffing, and facilities align with previous research [16, 29-31]. While many dental professionals

welcome the support of others to deliver preventive advice [31], limitations in dental nurse availability and lack of incentives to develop additional skills remain barriers. Without financial incentives for preventive care, delivering oral health education often becomes reactive rather than proactive [33].

These findings highlight the critical role of teamwork in dental practices and the potential benefit of expanding the responsibilities and funding for dental team members. Recent NHS initiatives, such as the Starting Well: A Smile4Life programme [19] (https://www.england.nhs.uk/commissioning/primary-care/dental/starting-well/) and the In Practice Prevention Programme (http://inpracticeprevention.org.uk/ipp/) provide direct funding to support patient-centred preventive care for parents/caregivers of young children delivered by Dental Care Professionals. Feedback from these initiatives reinforces similar training needs for dental teams as identified for Foundation Dentists.

Building on these insights, our team has developed a communication and behaviour change course delivered to over 500 Foundation Dentists and 200 dental team members in the Yorkshire and Humber region over five years. The programme has evolved to focus on engaging individuals perceived as resistant to change, integrating communication skills, behaviour change theory, and "rolling with resistance" techniques through hybrid learning formats (e-learning, online sessions, small group teaching) and forum theatre exercises with actors to practice challenging conversations [47, 48].

Future considerations

The themes identified in this study were derived from Foundation Dentists working in General Dental Practices across the Yorkshire and Humber region. This area provides a broad spectrum of experiences, localities, and demographics. The study included approximately 10% of all Foundation Dentists in the UK. As the foundation year places graduates in practices nationwide, often away from their dental schools, the participants' diverse educational backgrounds reflect the variety of training experiences of Foundation Dentists across the country. An upcoming study (in preparation for publication) investigates Foundation Dentists' communication and behaviour change conversation skills with parents/caregivers of young children, both before and after a training intervention. Early results highlight substantial differences in undergraduate training in behaviour change communication skills depending on the institution attended. Such heterogeneity in early-career dentists' knowledge and skills leads to inequalities in post-qualification confidence and in patient/parent exposure to effective behaviour change conversations.

The need for standardized and effective training in behaviour change communication is not limited to the UK. Canadian research has also demonstrated significant differences in graduate communication skills, supporting the idea that standardised training enhances patient outcomes [49]. Similarly, a study in Germany identified that dental undergraduates often leave their programs with clinical skills intact but with limited experience in soft skills such as communication. These skills are essential for engaging confidently in conversations with parents/caregivers and children, and in behaviour change discussions in dentistry. Haak *et al.* [50] found that communication skills improved substantially following dedicated courses focusing on understanding patient concerns, developing rapport and empathy, involving patients in discussions, and using body language effectively. These findings align with the concerns raised by Foundation Dentists in the present study and provide clear guidance for future educational planning. Consequently, there is a strong case for integrating communication strategies and oral health behaviour change training into both Foundation Dentist programs and the undergraduate dental curriculum.

Limitations

While this study highlights key perspectives on barriers and facilitators to improving oral health practices, some limitations should be noted. First, the focus group interviews were brief (25–30 minutes) due to constraints of the wider training event, limiting the depth of discussion on some topics. However, each facilitator ran four consecutive focus groups, allowing points raised in earlier groups to be explored further in subsequent ones. This approach ensured a broad sampling of opinions from Foundation Dentists across Yorkshire and the Humber. Second, participants were only six months into their training year, so their practical experience was limited; interviews conducted later in the year might yield richer reflections. Additionally, this study focused exclusively on Foundation Dentists. Expanding interviews to include other dentists (associates and practice owners), dental team members, and patients (and their parents/caregivers) could provide a more comprehensive understanding of barriers and facilitators to oral health practices. Nevertheless, identifying the specific training needs of newly qualified dentists, who will eventually lead dental

teams, is essential for professional development and aligns with findings in the international literature.

Conclusion

This study identified five primary themes as barriers to Foundation Dentists delivering oral health advice to parents/caregivers of children: knowledge gaps, parental receptivity, motivation, information quality, and the current NHS structure. Nevertheless, several facilitators emerged from the findings, including: leveraging the entire dental team to build rapport and provide preventive guidance, using two-way conversations to understand daily routines and tailor messages, relying on intrinsic motivation to deliver advice effectively, employing physical resources to demonstrate practices and encourage behaviour change, and ensuring funding and mandatory time allocation for oral health advice within treatment courses. As Foundation Dentists are in the early stages of their careers within general dental practice, their perspectives are particularly valuable. The study indicates that some behaviours and attitudes toward oral health advice, often observed in more experienced practitioners, begin to emerge during the first year of practice. Enhancing knowledge, training, and resilience in delivering oral health guidance in real-world settings could equip Foundation Dentists to adopt, maintain, and disseminate effective practices. These findings emphasize the need for training programs to address key barriers, thereby promoting prioritisation of prevention and fostering consistent, empathetic, patient-centred, two-way behaviour change conversations in the first postgraduate year, ultimately supporting the embedding of best practices to improve children's oral health.

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