The opinions of GDPs on the challenges of managing tooth wear in primary dental care

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Key points

- Tooth wear is recognised as a common clinical condition by experienced general dental practitioners and their colleagues.
- A number of challenges exist, in relation to funding models, clinical training and prioritisation of other dental conditions, that limit the management of tooth wear patients in general dental practice.
- A significant gap exists between the academic recommendation for how tooth wear should be managed and how it is actually managed in the primary care setting, and controversially, whether tooth wear should be prioritised alongside other dental conditions and in competition for public finances.

Abstract

As patients access most of their dental care within the primary care setting, it is relevant to consider how the experience and opinions of general dental practitioners (GDPs) influence the diagnosis, monitoring and treatment of their patients with tooth wear. This paper records the agreed outcomes of semi-structured discussions with three experienced GDPs. The aim is to continue the broader debate about how patients with tooth wear currently are and ideally could be managed within the primary care settings in England. The outcomes are also likely to be applicable to other countries, regardless of the local funding models for routine patient care.

Introduction

Three general dental practitioners (GDPs), each with over 20 years' experience in a variety of healthcare settings, but predominantly in general dental practice, were interviewed about their opinions of how patients with tooth wear are managed in primary care. The interviewees were included on the basis that they worked in differing primary dental care settings in England, had significant professional experience themselves and worked with other colleagues of varying ages and experiences. Their practices models were: 1) majority NHS-funded; 2) majority private, fee-per-item; and 3) majority private, capitation and insurance scheme (Table 1).

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The interviewees had mostly worked in either the North or the South of England and their practice colleagues had experience in several other areas of the country. None had pursued post-graduate studies related to the management of tooth wear, which was important to attempt to avoid opinions of those which are likely to differ from most GDPs.

A series of ten questions to be discussed was developed in advance, with contribution from and agreement with the interviewees. They were encouraged to discuss the questions and likely responses with other colleagues working at their practices before the interviews.

Two weeks later, an initial semi-structured group discussion with the three interviewees was held via a virtual meeting, with the questions presented and discussions moderated by the authors and the dialogue recorded for later transcription. The transcription was shared with the interviewees.

Two weeks later, a second group discussion was held via a virtual meeting, with each question and previous response discussed again. The transcription was again shared within the group, to ensure the responses correctly represented their views.

Interview

Are you seeing younger people with a lot more tooth wear presenting or is it older people who are just keeping their teeth for longer?

- *'People are certainly keeping their teeth longer, so they are wearing out more and we see some more tooth wear, sensitivity and facial pain'*
- *'Over my 20-plus years in practice, there is a pattern of increasing numbers of younger patients and some worrying features, such as combined erosion and attrition with really damaged occlusal surfaces of their posterior teeth. The older patients tend to either have a mouth full of restorations or a lifetime of tooth wear. Tooth wear is a long-term condition for our older patients, with an occasional acute problem'*
- *'In our practices, despite the majority of patients having at least some tooth wear, most just don't see it as a problem. If they have a cavity and toothache, they know they have something wrong. But the tooth wear is rarely an issue for them, until they have symptoms or an aesthetic concern'.*

What would prompt you to start discussing your patients' tooth wear with them?

- *'I rarely consider low-level wear to be an issue and don't often mention it – it is usually just physiological tooth wear. For moderate and severe tooth wear, whether the patient has noticed a problem or not, it is important to mention this with them. I offer the opportunity to have further discussions about treatment, when the patient is ready to consider it'*
- *'NHS practices aren't funded for working like this. We think about whether to get into a conversation about tooth wear, including explaining the diagnosis and how to prevent and treat it. Considering how quickly we all have to work in general practice, I have to just ask myself "am I worried by what I'm seeing?" due the extent of the damage or because of their symptoms: "is this active tooth wear or are we seeing the long-term gradual changes in a stable mouth?" Most patients are usually just not that bothered by tooth wear. The challenge is to explain the condition and to go through the prevention and consequences of treating or not treating it, with the minority who are concerned'*
- *'I ask myself that if I don't talk about the tooth wear and it deteriorates, will I be in trouble? Secondly, is there going to be a reasonably easy way to treat this, or will I wish I'd never mentioned it?'*

How do you and your colleagues monitor a patient's tooth wear?

- *'I don't have a structured, "scientific" way of monitoring it. For example, I don't take serial study models. If someone has significant attrition, then the only treatment I would feel capable of giving is a soft splint. I don't think I'm qualified to do anything more than that. The only time I intervene is when people have an aesthetic issue with their teeth'*
- *'We don't repeatedly monitor tooth wear at all. We are a mainly UDA-based [Units of Dental Activity] practice. We struggle to do everything we need to do in a check-up under one UDA, never mind monitoring tooth wear. It is mostly based around highlighting and informing the patient about the condition. Rarely, if everything was done and we had a very interested patient, you might offer to do some study models and photographs for their own awareness and to be kept for monitoring'*
- *'We don't often use the Smith and Knight index,[1] BEWE[2] [Basic Erosive Wear Examination] or anything similar. I just describe it as early, moderate or severe and comment whether it is into dentine, pulp seen or at gingival level. There is just no funding or resource for it under UDAs, unfortunately'.*

If you thought the patient may have an undiagnosed gastroesophageal problem, would you contact their general medical practitioner?

- *'Perhaps, especially if the teeth are showing signs of erosion but the diet isn't particularly acidic'*
- *'Only if I am really concerned and just advise them to discuss it next time they attend with their GP. I wouldn't refer them myself unless I was concerned that they weren't capable of doing so themselves'*
- *'I wouldn't write to the GP myself. Whether it is reflux problems for tooth wear or assessing diabetes in a patient with periodontal disease, I would just advise the patient to speak to their GP'.*

What would prompt you to start offering treatment?

- *'The likelihood to intervene is much higher in a younger person. I'd be more worried about a 17-year-old with erosion and attrition that a 70-year-old with buccal abrasion cavities. We are less inclined to intervene with the older patient for two reasons: they don't see it as an issue and they question whether it is going to make a significant difference to them keeping their teeth'*
- *'If a patient isn't interested, motivated or even aware when we mention it, they are not normally going to want to do anything about it. I feel uneasy talking to them about treatments that they have said they feel are unnecessary or unimportant for them. However, when they are aware of an aesthetic issue, it is much easier to discuss treatment'*
- *'My initial treatment step would be preventive, to stop the tooth wear getting worse. I would ask about diet if I was worried about erosion. The only other intervention I might do for a bruxist is to give a splint. If the patient is not motivated, if they don't see the benefit of the splint, they are never going to wear it. The only tooth wear patients who seem to wear a splint really well, are either those with facial pain or those who chose cosmetic treatment and want to protect it'*
- *'If I am considering offering treatment to a patient, I am also thinking about what I will do when this fails in the future. For a younger patient, this is the first step in their cycle of treatment through their life. It is a big issue when treating a chronic condition such as tooth wear. Who has responsibility to maintaining a case?'*

Is tooth wear something your practice team has a focus on?

- *'No, it is low on our list of priorities. There are no national policies to push practices to think about it. We do have assessment of tooth wear on our practice template. Our patients have other problems, such as caries and periodontal disease. I don't know of any NHS*

Table 1 The main primary care funding models used in general dental practices in England

Practice funding model	Patient charges and dentist remuneration	Relation to number of restorations and complexity and cost of treatment
NHS funded	• Patient pays a contribution towards treatment costs unless exemption applies • Dentist also receives fixed fee payment from the NHS – based on Unit of Dental Activity system (currently under review)	• Fixed patient contribution and dentist remuneration levels, regardless of number of restorations, clinical time or laboratory costs • A higher charge band and remuneration level applies for indirect restorations
Private, fee-per-item	• Fee-per-item of treatment delivered. Patient pays full cost of treatment and laboratory costs	• Patient charge increases in relation to number of restorations and complexity of treatment, usually dependent on clinical time required and laboratory costs
Private capitation and insurance schemes	• Patient pays a regular monthly contribution for some or all the treatment costs (with additional charges for specific items) • Monthly payments are dependent on the anticipated complexity of treatment need	• Patient monthly charges increase in relation to number of restorations and complexity of treatment, usually proportional to clinical time required and laboratory costs

practices that focus on tooth wear, although some private practices take specialist referrals for patients with tooth wear and occlusion problems'

- *'I agree. Tooth wear is probably the last thing we would focus on, at the bottom of the list of other priorities'*
- *'This week we had our first ever practice meeting in over 20 years related to tooth wear and that is because I was discussing this with you all. We have sometimes spoken about a case we are struggling with, but not about tooth wear as a subject'*
- *'From my point of view, when I see tooth wear, apart from making a soft splint, there isn't really anything I can do. I will restore teeth for a patient who has an issue with aesthetics. I don't know anything about things such as deprogrammers etc. I wouldn't know where to start with complex occlusal problems and severe tooth wear'.*

It is important that we as professionals still focus on an issue such as tooth wear, even if it is probably irrelevant for many patients. Our experience normally tells us who are the 10% of patients we need to ask more questions to. What is an acceptable standard of dental care for tooth wear?

- *'This isn't spoken about enough. There needs to be some level of public health understanding. Not everyone is going to be perfectly healthy. People are going to have all sorts of chronic conditions and it is then just a case of making them aware. As long as the patients are aware and have some input into how to manage it, we shouldn't feel a pressure to fix everything. Some patients are always going to grind their teeth, they are not going to wear a splint and they're always going to break most of what we use to restore their teeth. As long as they know their options and agree with our approach, we are practising safely and professionally'*
- *'Many dentists are trained with a big medico-legal worry that if we can't fix it, we are not treating the patient correctly. We have got to accept that there are a lot of people who will be affected by tooth wear, for the rest of their life'*
- *'From a medico-legal perspective, we are much more focused on periodontal disease. Diagnosing it, making sure the patient is aware of it, treating it or referring the patient'*
- *'Record keeping for tooth wear isn't as comprehensive as is it for periodontal disease, soft tissue assessment and medical history'.*

What restrictions are there for managing tooth wear in your practices?

- *'I am not sure that many GDPs have the experience and knowledge of what to do for their patients. The cost of treatment and the time required to complete the treatment are also problems. Our associates said that as they can't do any comprehensive treatment for tooth wear under UDAs, they feel less confident and are probably deskilled. They wouldn't want to try some treatment they're not going to do very often. If treating tooth wear cases with composite and using direct Dahl approaches was more commonly performed or was an allowable thing within our NHS contract, for a severe tooth wear case, they would be more confident to do it'*
- *'I think we have the same concerns and I'm sure many of our younger dentists will also be worried: "once I start this, where am I going with it?" Managing tooth wear just doesn't fit with the NHS UDA system at all'*
- *'I'm quite patient-led with tooth wear cases. Someone is only going to have that treatment if they feel their tooth wear is an issue for them, especially a cosmetic problem. If it is a complex case, even from the perspective of private practice, most aren't likely to be able to spend that sort of money on their treatment'*
- *'My practice is mainly private, and we have more time with our patients, but I still don't treat tooth wear as you may think we would do, without the NHS UDA constraints. I would only treat them if they didn't like the appearance of their teeth. I wouldn't even talk about a splint unless they were a severe bruxist'*
- *'We use a capitation system for our patients. This lends itself better to managing some issues such as tooth wear, as we have more time and fewer financial restrictions'.*

What have been your experiences of referring tooth wear patients into a dental hospital for treatment? What is your confidence with maintaining these patients?

- *'Over the years since I qualified, I have had some good experiences and usually just expect a treatment plan to be sent back. More recently, most referrals are now returned, and the patients are rarely, if ever, taken on for treatment. We've not been given a lot of help'*
- *'For a patient treated elsewhere, I would usually offer minor repairs myself. Anything more than that and I have to consider the consequences of what will I become responsible for, if I do any more. I usually advise the patient that they need to go back to whoever provided their treatment, as that colleague will know what was planned, in case the first treatment approach failed'*
- *'We don't have a dental hospital nearby for that sort of referral, so I can't really comment. Our nearest hospital would be at least an hour away. We only refer privately to a local specialist prosthodontist'*
- *'My practice colleagues said they have almost given up referring. Since COVID-19, just about everything gets rejected. Even before COVID, the patient would be returned with a treatment plan that was beyond what they are capable of doing or that was impossible to do in primary care, within the UDA system. Primary dental care is meant to be for prevention and for more simple and achievable treatments'.*

Can tooth wear be effectively managed in primary dental care?

- *'There are two aspects to this: managing prevention of tooth wear and managing treatment of tooth wear. At present, neither of these are resourced well in this country and the biggest NHS focus is improving access for any dental care'*
- *'I don't know if there are any healthcare systems in the world that have worked out how to fund or incentivise prevention. So, we either work out a way to improve the prevention side or we must accept we can only treat some patients who have an advanced condition. These patients must be motivated through either symptoms or appearance or have enough understanding of why intervening earlier is worthwhile. That makes it such a challenging area. The public has a better understanding of tooth decay and to some extent, periodontal disease. But not tooth wear'*
- *'There isn't enough funding for Tier 2 services and Managed Clinical Networks for tooth wear. Under the UDA system, there would need to be a separate band for complex treatments, such as this. It needs something like the old "prior approval" system, where we do an additional, more detailed assessment, demonstrating why this is an advanced case, requiring extra UDAs and get that approved before starting'*
- *'At a public health level, we need to consider what the public money is spent on. We need to ask: "should NHS dentistry only be for the essentials, such as tooth decay, gum disease, simple tooth replacement, mouth cancer screening etc?" If you happen to come across some tooth wear when examining a patient, is the dentist's only role to explain that it is*

happening and make the patient aware of the problem but not actually to try to fix it? Perhaps the NHS has got more important things to spend the public's money on than tooth wear'

- *'Let us be pragmatic about the budget required to manage tooth wear, the complexity of the treatments, the longevity of restorations and the burden of maintenance. Is it "only tooth wear" for most people? Most people don't complain about their ability to eat. Very few are really affected by sensitivity. It really is just a cosmetic problem for most of these patients'.*

Discussion

Even by involving experienced colleagues, it is not possible for these discussions to accurately represent the views of all GDPs, especially those much more recently qualified. However, each of those that contributed, work alongside several other colleagues and have awareness of a wider view within the profession.

The participants all confirmed that their patients are affected by tooth wear, but in general, justify their decisions in how they manage tooth wear by their belief that:

- The large majority of their patients have no concerns and express no symptoms related to tooth wear
- A smaller proportion of patients present with tooth wear that requires intervention, due to their age, the extent of tooth wear, or their concern about their symptoms and appearance
- Dentists have other, more important priorities to focus on, such as patient access, caries and periodontal disease
- Other public health issues may be of a greater priority for public funding
- Current practice business models and remuneration systems limit the clinical management of tooth wear
- Dentists may lack clinical knowledge and confidence in treatment methods
- Inadequate capacity for support from secondary care services.

Other authors have identified similar themes related to management of tooth wear in primary care. O'Hara and Millar[3] in 2020 evaluated currently available methods for assessing and monitoring tooth wear in a general dental practice environment. They concluded 'dentists do not seem to be aware of the current guidelines but do make reasonable attempts to monitor tooth wear'.

Condon and Eaton[4] in 2020, recognised that 'restoring complex tooth wear cases is technically challenging and not well-remunerated under the NHS general dental service contract. Therefore, numbers of referrals to secondary care are increasing, but these are often rejected as dental hospitals have a high workload. This may make it difficult for patients with tooth wear to access appropriate care unless paying privately, which may be costly for them. Their study found low confidence in restoring complex tooth wear cases: only 21% of practitioners stated they would treat complex cases under the current NHS contract and 62% reported that they had experienced difficulty referring these cases to hospital.

In 2018, O'Toole and co-workers[5] assessed charting, risk assessment and treatment-planning of tooth wear between four recently qualified and seven experienced dentists in general dental practice. Their findings identified that: there are significant differences between patient management between recently qualified and experienced dentists; improvements are required in recording (48% versus 5%), risk assessing (51% versus 1%) and preventive treatment planning (62% versus 1%) of erosive tooth wear; and experienced GDPs may benefit from re-training in this area.

In 2020, Mehta and co-workers[6] assessed the habits of tooth wear risk assessment and charting using a tooth wear index, by UK and non-UK dental practitioners. Based on a sample of 297 responses, 81% agreed to the need to undertake risk assessment for all dental patients attending for a first-time consultation. In total, 59% undertook risk assessments for patients previously identified with signs of severe tooth wear. The routine use of a clinical index to perform tooth wear charting was described by 13.5%, with 5% documenting the frequent use of the BEWE tool. The paper found that specialist dental practitioners or those with further post-graduate training were more likely to use a tooth wear index.

Conclusion

Understanding the opinions and perceptions of experienced GDPs is important when the management of patients presenting with tooth wear is considered, as almost all patients will be either initially or only ever seen in the primary care environment. A number of challenges to delivery of treatment are identified and discussed.

There is a large body of academic work related to tooth wear, including text books[7] and guidelines from the Royal College of Surgeons of England,[8] much of which explains and recommends what would be considered 'best practice'. The opinions expressed by the interviewees in this study and other recent studies suggest that a notable and perhaps alarming gap exists between the management of tooth wear in general dental practice in England compared to the published guidelines. The opinions of the interviewees in this study can also be interpreted as suggesting, controversially, that, as the management of most patients with tooth wear is not prioritised within commissioned NHS funding models, by GDPs, by dental hospitals receiving referrals or by most patients, perhaps it is not currently of importance outside academic environments.

Further, cross-profession discussions are required, related to both commissioning NHS primary and secondary care services and to addressing the lack of dentists' confidence to manage patients affected by tooth wear.

Ethics declaration

The authors declare no conflicts of interest. The three general dental practitioners consented to participate in the study and to have their responses used in the manuscript. After discussion, they preferred to remain anonymous, rather than co-author the manuscript.

Author contributions

Martin Ashley and A. Johanna Leven both contributed to the concept, question development, interviews and manuscript preparation.

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