Contemporary views of dental practitioners' on patient safety

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VERIFIABLE CPD PAPER

RESEARCH

IN BRIEF

- Focus groups were held to gather the views of dental practitioners on patient safety.
- The 12 practitioners who contributed all held part time university teaching contracts.
- Suggestions for maintaining and improving patient safety were recorded.
- The practitioners were largely knowledgeable on the subject of patient safety.

Background There is little known about general dental practitioners' (GDPs) views on patient safety in dentistry; we believe this to be the first paper describing their opinions and ideas for maintaining or improving safe practices. **Methods** Focus groups were used to gather the views of 12 GDPs (who also hold university teaching contracts) on the following topics: Defining patient safety, the important issues in patient safety, safeguards and tools for maintaining safe care, never events and research priorities. Thematic analysis was performed on the verbatim transcripts. **Results** Key themes from the practitioners included: Medical history (polypharmacy and co-morbidities), competence and skill level, the use of safeguards and tools to ensure safety, the importance of effective communication (including working with a chaperone) and the role of reflective practice. Suggestions for improvement included: effective sharing of information with other healthcare professionals, easy access to guidelines and educational tools, adoption of practice protocols, team working and the use of universal charting systems to limit ambiguity. **Conclusions** GDPs are well versed in the concept of patient safety and are keen to implement evidence based tools and/or interventions designed to improve safety for their patients.

BACKGROUND

The use of focus groups for scientific research was pioneered in the social sciences some 40 years ago,[1] although the earliest users were advertising companies and market researchers.[2] In the medical literature, early published work on focus groups included discussions with patients who were infected with HIV/AIDs;[3–5] focus groups were used as they were felt to be non-discriminatory and they could be used to encourage participation from people who were reluctant to be interviewed alone.[6] There are several examples in the dental literature demonstrating the use of focus groups for various purposes, including dental team interactions,[7] junior dentist training[8] and gathering the opinions of dental practitioners on new contract arrangements.[9]

The function of any focus group is to 'suggest ideas, clarify potential options, to react to ideas, to recommend a course of action, to make a decision, or to plan or to evaluate.'[2,10]

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Focus groups have previously been used to discover patient and carers' attitudes to safety in general medical practices[11] and their experiences of inpatient care;[12] however, we have been unable to find any similar articles describing their use in discussions on patient safety in general dental practices.

The aim of this project was to gain insight into the opinions and attitudes of practitioners to patient safety specific to dentistry.

METHODS

Three focus groups were held at the University of Manchester during May 2014 to establish the views and priorities of GDPs in regard to patient safety. Thirty-five members of the university teaching staff who also work as GDPs were approached by email to take part in this study.

The views of the GDPs were gathered during these focus groups. They were recorded and transcribed verbatim with confidentiality of the information disclosed maintained by the researchers.

Discussion schedule

The questions asked in the focus groups were:

1. What is patient safety?
- Prompts: in relation to primary care dentistry, think about your own practicing career.
2. What are the issues that are most important in this field?
- Prompts: think of events that have occurred that could be considered as patient safety incidents, are any of these frequent occurrences?
3. What safeguards or tools do you have in place to minimise the occurrence of patient safety incidents?
- Prompts: do you use checklists in your practices before surgical procedures, are you aware of the WHO surgical safety checklist that is used in hospital operating theatres?[13]
4. What would you consider to be a 'never event' in dentistry?
- Prompts: the Department of Health never event definition was provided to the group: 'serious, largely preventable patient safety incidents that should not occur if the available preventative measures have been implemented by healthcare providers'.[14]
5. What should we be doing to improve patient safety in dentistry?
- Prompts: our research is funded by NIHR to look at ways of improving patient safety in dentistry; we are very keen to have your input into this research programme.

Nvivo 10 (QSR International) software was used to perform thematic analysis[15] on

the verbatim transcripts: Two researchers worked through the transcripts and themes were identified, these were then placed into 'nodes'. These nodes were then compared and the most frequently cited areas for discussion were identified with further analysis performed on the quotes with reference to previously published literature on these themes. Disconfirming views were identified and included in the analysis and discussion.

RESULTS

We received twelve responses and all twelve practitioners consented to taking part in the focus groups. The characteristics of the participants are provided in Table 1; on the whole, they were a group of highly experienced dental practitioners with a mean of 25 years of experience since initial qualification with a range of 11 to 37 years of experience, and the vast majority were male (10 out of 12).

In this section, we will discuss the key themes which were identified through qualitative analysis of the verbatim transcripts. These will include quotes from focus group participants with reference to the frequency of the concept being discussed. A wide variety of concepts were debated by the groups with significant overlap, it is difficult to code the responses to the five questions detailed above, instead, the responses were ordered into themes using NVivo.

Defining patient safety

We know from the literature that there are several definitions of patient safety in relation to dentistry. A working definition was suggested by Bailey *et al.*: 'Providing healthcare which minimises the risk of unnecessary harm to the patient.'[16]

The groups discussed several definitions of patient safety which were similar to the definition above: [patient safety is] '[the patient] *Leaving no worse off than they came in*' (P1 [Participant no]); and '*I think the whole basis is avoiding iatrogenic damage.*' (P5)

Some participants discussed the constituent factors in describing patient safety as a concept: '*you've got patient factors, you've got practice factors, you've got operator factors.*' (P1)

In other groups, there was a feeling that the dental practice is a safe environment: '*I think because the standards professionally imposed or just within yourself, I think it's a pretty safe environment for patients to be in....it's self-regulated and externally regulated quite highly I think, dentistry. And I think the people who go into it aren't the sort of people who generally are laissez faire with other people's health and safety.*' (P6). Another participant stated '*So, I think that generally it's a safe environment. I've been practicing for 35 years.*' (P12)

Important themes: medical history

The participants were encouraged to discuss the issues in patient safety which they considered to be of importance. Medical history was the single most frequently mentioned topic in the discussions and was mentioned by all three groups. Sound knowledge of a patient's medical history is known to have a positive impact on patient safety and the prevention of adverse events in dental care settings.[17] The GDC states that registrants 'must make and keep complete and accurate patient records, including an up-to-date medical history, each time that [they] treat patients.'[18]All of the groups described the protocols and procedures they had in place for recording and updating medical histories.

Other issues were mentioned including the reluctance of some patients to disclose specific or sensitive information relating to their medical history in a dental setting. This dilemma has previously been studied in relation to the disclosure of HIV status and diabetes; with the authors citing experience of stigma as one of the most frequent reasons for patients not disclosing their HIV status to dental staff.[19] The following quotes were recorded in relation to this:

- '*Are you taking* [any medication]*? Nothing at all: Are you taking aspirin? Yes.' (P1)*
- *'The patient assumes it's not relevant to you... that's why they don't tell you.' (P3)*
- *'If you're taking medical histories, then if the patients are assured of confidentiality they will tell you. Now, I know a dentist around this table who's had a patient that didn't tell them he had AIDS.*' (P7)

Other discussions in this field included concerns relating to ageing populations, polypharmacy and drug interactions becoming more problematic for dental practitioners leading to uncertainties: '*I also think that sometimes because of the way that pharmacology has expanded, is that some of the interactions are much more dubious to dentists, aren't they? ...I'll hold my hand up, sometimes I don't even know really if that's going to affect them or should I be giving this? Can you imagine spending hours looking through the BNF...polypharmacy is a massive issue in some people.*' (P6) Another participant stated, *'And so it frightens me a little bit that, when you get some little 80 year old lady in and they need a tooth out and you're thinking hmm, it's probably pretty easy but...*' (P6)

Table 1 Characteristics of the participants

Coded Participant	Gender	Year of qualification	Years since qualification
P1	M	1977	37
P2	M	1979	35
P3	M	1998	16
P4	F	1997	17
P5	M	1977	37
P6	M	1993	21
P7	M	1977	37
P8	M	2003	11
P9	M	1980	24
P10	M	1981	23
P11	M	2003	11
P12	F	1979	35

Although there was awareness that polypharmacy does not frequently prohibit general dentists carrying out routine treatments; there was mindfulness of the importance of referral to specialist services if there was uncertainty about the safety of performing a certain procedure in light of a patient's medical co-morbidities: '*But, then again there are very few things these days even with all the cocktails of drugs that people are on that preclude you from doing...something like bisphosphonates, the patient has undergone radiotherapy, those are the people who are at risk. Then you're generally going to refer them on unless you're a bit stupid, quite frankly, because why take on that responsibility?*' (P12)

The above quotes by P6 and P12 are disconfirming to the earlier quote by P12 who stated that: '*So, I think that generally it's a safe environment. I've been practicing for 35 years.*' (P12)

Competence and skill level

Leading on from the discussion on referring patients with complex medical histories, there was debate as to how skill level and working outside of one's competence can potentially lead to patient safety issues: '*Appreciating one another's skill level, when to refer. You know, that's got to be safe, if you start something that you can't finish. So, I behove it with the students, you've got to get involved before you get into foundation dentistry, you've got to be aware of what your skill level is.*' (P1)

Referring patients for treatment may not always be a straightforward process, especially in areas where there is not a dental hospital in close proximity or in situations where patients cannot afford specialist

treatment: '*I guess location for some patients, if they are 200 miles away from the nearest dental hospital, maybe that practitioner will be keen to do things themselves, rather than referring it on. So, sometimes the patients put pressure on you* [the practitioner]'(P11); and, '*Financially, patients can't go to a private specialist, which may or may not be available.*' (P12)

Discussion also covered skill mix in dentistry and the role of dental care professionals: '*If a patient enters a building that they see as a dental practice, they will make an assumption that everybody is suitably qualified. They don't know the slight differences between the denturists and the therapist, the dentist*' (P9); and '*I think patients when they come in to see anybody, if they have direct access to hygienists or they want a scale and polish, some patients assume that they have had a check-up at the same time, and they don't actually...unless it's spelt out to them that they haven't.*' (P8)

Never events

There was active discussion about what never events are and every group had ideas as to what would constitute a never event in dentistry. Never events are defined by the UK Department of Health as 'serious, largely preventable patient safety incidents that should not occur if the available preventative measures have been implemented by healthcare providers.'[14] The groups were given this definition; the following ideas were recorded:

- '*Taking the wrong tooth out.*' (P2)
- '*Taking a tooth out for somebody who you know is taking Warfarin* [without checking the INR].' (P10)
- '*Anything that causes harm to the patient should be a never event.*' (P3)
- '*I think inappropriate treatment would be another one, in the ideal world it should never happen, but we can all make a misdiagnosis.*' (P2)
- '*Treating patients without chaperone, should be a never event.*' (P1)

Two of the groups discussed the lack of an appropriate chaperone being a never event in general dental practice:

- '*It's good to have another person there who actually knows what's happening.*' (P11)
- '*We're left in compromised situations when your nurse decides to leave the room without even saying anything to you.*' (P1)
- '*I had it* [when] *a nurse had gone to the loo, for example, when we were doing a filling. While you're in the process of it and you think, well I can't stop...* [within that time frame] *anything could have happened there, so it is a never* [event], *it should never happen.*' (P4)

In the UK, the GDC mandates that registrants must 'Be appropriately supported when treating patients';[18] this is interpreted as practitioners requiring chairside support when operating on patients (a chaperone). Participants were aware of this recent change in regulatory standards.

Safeguards and tools used to minimise patient safety incidents

Several of the practitioners had some system in place to attempt to reduce the number of patient safety incidents occurring; the major topic of discussion in relation to this was around avoiding the incorrect tooth being extracted, especially when part of an orthodontic treatment plan:

- '*It's all about risk assessment and risk management.*' (P12)
- '[When carrying out orthodontic extractions], *upper four* [the letter states], *I say, upper four, and I look at the tooth, upper four, and I get my fingers on it and the nurse says, yes, upper four, get the forceps on it.*' (P2)
- '*Whenever I get a referral letter from an orthodontist stating the teeth need to be extracted, I put that on my chart straight away, so that I can check that it needs to be extracted. If I query it, a patient comes in and I think, oh this tooth is lingually placed or palatally placed or doesn't sound right...then I telephone the orthodontist ... just to be sure, is this the right one you want me to remove.*' (P11)

Following explanation of the WHO surgical safety checklist[13] to the focus groups, there was brief discussion about how it could be used in dental practices: '*I think they're not dissimilar because in practice the wrong teeth are taken out; there's not a massive difference between secondary and primary care.*' (P9)

Communication

The importance of good communication in patient safety was emphasised by the focus groups: '*We've got to bring communication into safety*' (P1); '*The same problems occur and it's all about communication.*' (P9)

Specific examples of poor communication being a risk to patient safety included discussion of referrals to other practitioners and misunderstandings in terms of the actual treatment requested. One participant recalled a recent event where a patient had been referred for root canal treatment on one molar and extraction of the more distal molar; another practitioner had already extracted the tooth planned for extraction, then the patient went to their original referral appointment for sedation and had the molar which had recently been root filled extracted erroneously. Issues identified here included a lack of continuity of care and poor record keeping: '*It was probably a culmination of a lot of little misunderstandings.*' (P6); '*A series* [of events]. *They're meeting other people when you've sent someone off to referral for extractions for orthodontics.*' (P5)

There was also some criticism of the way in which referrals are managed by certain hospital departments: '*But, there's also the risk that some of the things get sent back and practitioners feel embarrassed because the consultant has written them back a snotty letter, why did you send* [the patient]? *Well, I think..., that's what you're there for, I want your opinion, I'm going to send you more rubbish, because one day it won't be rubbish.*' (P12)

Reflective practice

It is known from the literature that reflective practice is important in learning from the errors that occur in healthcare.[20] The participants were familiar with this style of learning and the advantages of discussing these incidents with colleagues along with the role of audit:

- '*In our dentist meetings, we have them about every two or three months, we each come along with a case in which something might have been prevented or changed* [to lead to an improved outcome].' (P8)
- '*If something does go wrong in our practice, whether it is due to the environment we work in or just a clinical case* [that] *goes wrong, we often bring it up at practice meetings, and then sort of realise where things went wrong, how do we prevent that from happening again.*' (P11)
- '*Having audits as well, I think is important, people have to realise where things are going wrong.*' (P12)

The importance of peer support and a need for a culture of openness when dealing with safety incidents was also discussed: '*There's not one of us here who's never made a mistake. Well, there isn't, is there? ... I think it can only help and be positive rather than drive it underground like people going oh, I'm not saying that. Because then again nobody learns anything then, do they?*' (P6)

Although this was disconfirmed with discussions regarding litigation, often in a negative sense: '*But the thing is if you don't do something you can get sued, if you do*

do something you can get sued.' (P5); '*The threat of litigation can be adverse to patient safety because it can actually stop you doing* [treatment]...' (P8)

Reflective practice is much harder or even impossible for single handed practitioners; this was also a topic of discussion:

- '*I think the other thing about it is if you're a single handed practitioner, how can you discuss it, if you see what I mean? It's a bit difficult, isn't it?*' (P6)
- '*Someone's in complete isolation without any sort of policing by their colleagues.*' (P5)
- '*I think often the singlehanded practitioner who hasn't got anybody to see what's going on is more likely to be a maverick and do things that are questionable.*' (P5)

Improving patient safety in dentistry

The practitioners had several suggestions for how to improve patient safety in dentistry; these included the following:

Sharing of information digitally

More sharing of information digitally was suggested, with specific references made to the sharing of medical history information from GPs to other healthcare professionals, with an onus on patient responsibility for secure storage of the records to maintain confidentiality.

There was an awareness that computerised records have the potential to lead to complacency and, therefore, errors: '*The use of computerised records and proforma templates which are pulled down. I think there are huge* [patient safety] *implications for that, because it's so easy to click on a proforma template as if something has been done and it's not necessarily been done.*' (P12)

Co-morbidities and polypharmacy

Easy to access guidance on treating patients with specific co-morbidities or polypharmacy was suggested: '*Somebody you could ring up and say, do you know, I've got this 80 year old lady, her blood pressure's this, she's on this, this and this, do you think I'd be alright taking this out or do you think I should refer the patient?*' (P6)

Drug interactions in dentistry

Reference was made to an existing system which can provide information to dental practitioners on drug interactions specific to dentistry[21]: '*There's a number in the front of the BNF that you can ring up and you just read out the medication to them and they'll tell you after a few seconds whether it's okay.*' (P8)

Teamwork protocols

Introducing protocols that encourage teamwork in order to prevent erroneous procedures being carried out (such as incorrect tooth extraction) were suggested: '*You could organise a protocol whereby you and your nurse both read the letter of referral. You then point out to them and check the tooth you're taking out, and they check it with you.*' (P12)

Universal charting systems

The use of universal charting or notation systems in order to minimise confusion when communicating with other practitioners was proposed: '*I think you should develop a universal way of charting teeth that everyone accepts.*' (P9)

DISCUSSION

The practitioner focus groups have informed us what the issues in patient safety are from their view points. The key themes are as follows:

- Knowledge and upkeep of medical histories (including polypharmacy)
- Competency, skill level and knowing when to refer
- Never events, including wrong site surgery and working without appropriate chairside support (chaperoning)
- The role of reflective practice in reducing the risk of adverse events occurring.

Perhaps the most interesting finding from these groups was that practitioners are already using reflective practice to attempt to minimise the frequency of patient safety incidents. There appears to be no centralised incident reporting system available to general dentists,[22] so it appears that many issues are resolved on a local basis in practices. This is in contrast to the culture in NHS hospitals where reporting of patient safety incidents is actively encouraged[23] with online systems in place to enable any member of staff to report anonymously on any incident which concerns them. These reporting systems are known to be prone to under-reporting of incidents when compared to case note reviews;[24] although recent evidence has shown that incident reporting is perceived as having a positive effect on safety, not only by leading to changes in care processes, but also by changing staff attitudes and knowledge.[25]

Discussion of patient safety incidents with other professionals cannot occur in single handed practices. Concerns about single handed practitioners are not new; in the early 1990s, a survey demonstrated that single handed practitioners were less likely to wear gloves for clinical dental work than those working in multi-dentist practices.[26] Single handed GP practices are apparently more likely to make prescribing errors,[27] however, there is evidence that patients satisfaction levels are higher in these practices than in larger group ones.[28,29] In 2008, it was estimated that 17% of dental practices were single handed;[30] interestingly, a 35% reduction in the number of single handed GPs was noted during the period 2004-2009.[31]

The role of dental care professionals (DCPs) in relation to patient safety is a subject of recent research.[32,33] There was concern from the participants that patients may believe that they are being seen by a dentist when in fact they are being seen by a dental care professional that is not trained to the same level. Direct access to DCPs was introduced by the GDC in March 2013 and is an area of continued debate within the profession.[34]

The focus groups discussed the digitisation of patient records and concerns they had with regard to confidentiality and accuracy of these records. These concerns are echoed in the literature with discussions on the ethical implications of electronic health records.[35] However, a recent review concluded that IT implementation in healthcare leads to improvements in quality, safety and efficiency.[36]

Guidelines in clinical dentistry have been in use for some time now, with early national examples including the NICE guidelines on third molar removal;[37] guidelines have been used previously as part of an electronic records system in an attempt to improve patient safety in dentistry.[38] There is some concern regarding the difficulties in the adoption of evidence based guidelines to primary care dentistry, including the lack of good quality evidence and barriers to access and understanding of guidelines.[39]

There was some discussion of protocols or procedures which could be used to prevent patient safety incidents such as wrong tooth extraction, although the discussion did not extend to the use of checklists. These are used extensively in hospital settings for preventing incorrect site surgery; most of these are based on the World Health Organization's Safer Surgery Checklist from 2008,[13] although an earlier paper demonstrated that the introduction of a correct site surgery policy with staff training at implementation helped to reduce the number of wrong tooth extractions.[40]

CONCLUSIONS

Our focus groups have demonstrated that dental practitioners have an understanding of what patient safety is and are able to give several examples of issues which relate to patient safety in primary dental care; including medical histories, reflective practice, communication, competence and skill level. In terms of improving patient safety,

the practitioners were keen to obtain support from other professionals in terms of publishing easily accessible guidelines, providing advice and introducing protocols.

We appreciate the limitations of this research: the practitioners all held part time university teaching contracts, and had been working as dentists for a considerable number of years (mean = 25 years); they were self-selected to take part in the focus groups; and the sample size was small (12), with a male: female ratio of 10:2. This ratio is not representative of the GDP population. These practitioners may have been influenced by the safety culture of the hospital in which they work, therefore, their views may not be typical of those of full-time GDPs.

This study should encourage further research into both practitioners' and patients' attitudes to improving patient safety as it is imperative that their opinions are integrated into any tool or protocol introduced to improve or maintain patient safety in dentistry.

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1. Morgan D L. Focus Groups. *Ann Rev Sociol* 1996; **22:** 129–152.
2. Krueger R A, Casey M A. *Focus Groups: A Practical Guide for Applied Research.* 4th ed. Los Angeles: SAGE Publications, 2009.
3. Kitzinger J. Qualitative research. Introducing focus groups. *BMJ* 1995; **311:** 299–302.
4. Munodawafa D, Gwede C, Mubayira C. Using focus groups to develop HIV education among adolescent females in Zimbabwe. *Health Promot Int* 1995; **10:** 85–92.
5. Robinson N. The use of focus group methodology with selected examples from sexual health research. *J Adv Nurs* 1999; **29:** 905–913.
6. Gill P, Stewart K, Treasure E *et al.* Methods of data collection in qualitative research: interviews and focus groups. *Br Dent J* 2008; **204:** 291–295.
7. Reeson M, Walker-Gleaves C, Jepson N. Interactions in the dental team: understanding theoretical complexities and practical challenges. *Br Dent J* 2013; **215:** E16E16.
8. Clark J, Thomas M, Robertson L. A novel approach to promoting change in SHO training in a dental teaching hospital. *Br Dent J* 2002; **193:** 167–171.
9. Baird W, Jackson R, Worthington L *et al.* Perspectives of dentists in primary care ahead of the 'new ways of working'. *Br Dent J* 2007; **202:** E24E24.
10. Stewart D W, Shamdasani P N. *Focus groups: Theory and practice.* 3rd ed. Los Angeles: Sage, 2014.
11. Hernan A L, Walker C, Fuller J *et al.* Patients' and carers' perceptions of safety in rural general practice. *Med J Australia* 2014; **201:** S60–S63.
12. Rathert C, Brandt J, Williams E S. Putting the 'patient' in patient safety: a qualitative study of consumer experiences. *Health Expect* 2012; **15:** 327–336.
13. World Health Organization. *Implementation Manual Surgical Safety Checklist.* Geneva: World Health Organization, 2008.
14. National Health Service. *The never events policy framework. An update to the never events policy.* London: Department of Health, 2012: **17:** 891.
15. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; **3:** 77–101.
16. Bailey E, Tickle M, Campbell S. Patient safety in primary care dentistry: where are we now? *Br Dent J* 2014; **217:** 339–344.
17. Yamalik N, Perea Perez B. Patient safety and dentistry: what do we need to know? Fundamentals of patient safety, the safety culture and implementation of patient safety measures in dental practice. *Int Dent J* 2012; **62:** 189–196.
18. General Dental Council. *Standards for the Dental Team.* London: General Dental Council, 2013.
19. Edwards J, Palmer G, Osbourne N *et al.* Why individuals with HIV or diabetes do not disclose their medical history to the dentist: a qualitative analysis. *Br Dent J* 2013; **215:** E10.
20. McIntyre N, Popper K. The critical attitude in medicine: the need for a new ethics. *Br Med J* 1983; **287:** 1919–1923.
21. Joint Formulary Committee. *British National Formulary.* 66 ed. London: BMJ Group and Pharmaceutical Press; 2013.
22. Thusu S, Panesar S, Bedi R. Patient safety in dentistry state of play as revealed by a national database of errors. *Br Dent J* 2012; **213:** E3.
23. Vincent C. *Clinical risk management enhancing patient safety.* 2nd ed. London: BMJ Books, 2001.
24. Sari A B, Sheldon T A, Cracknell A *et al.* Sensitivity of routine system for reporting patient safety incidents in an NHS hospital: retrospective patient case note review. *BMJ* 2007; **334:** 79.
25. Anderson J E, Kodate N, Walters R *et al.* Can incident reporting improve safety? Healthcare practitioners' views of the effectiveness of incident reporting. *Int J Qual Health Care* 2013; **25:** 141–150.
26. Burke F J, Wilson N H, Wastell D G *et al.* Glove use in clinical practice: a survey of 2000 dentists in England and Wales. *Br Dent J* 1991; **171:** 128–132.
27. Brekke M, Rognstad S, Straand J *et al.* Pharmacologically inappropriate prescriptions for elderly patients in general practice: How common? Baseline data from The Prescription Peer Academic Detailing (Rx-PAD) study. *Scand J Prim Health Care* 2008; **26:** 80–85.
28. Baker R, Streatfield J. What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. *Br J Gen Pract* 1995; **45:** 654–659.
29. Campbell S M, Hann M, Hacker J *et al.* Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001; **323:** 784–787.
30. Brunton P A, Burke T, Sharif M O *et al.* Contemporary dental practice in the UK: demographic details and practising arrangements in 2008. *Br Dent J* 2012; **212:** 11–15.
31. Goodwin N. Improving the quality of care in general practice: Report of an independent inquiry commissioned by the King's Fund. London: King's Fund, 2011.
32. Dyer T A, Robinson P G. Exploring the social acceptability of skill-mix in dentistry. *Int Dent J* 2008; **58:** 173–180.
33. Bullock A, Firmstone V. A professional challenge: the development of skill-mix in UK primary care dentistry. *Health Serv Manage Res* 2011; **24:** 190–195.
34. Turner S, Tripathee S, MacGillivray S. Direct access to DCPs: what are the potential risks and benefits? *Br Dent J* 2013; **215:** 577–582.
35. Spriggs M, Arnold M V, Pearce C M *et al.* Ethical questions must be considered for electronic health records. *J Med Ethics* 2012: **38:** 535–539. 36. Jones S S, Rudin R S, Perry T *et al.* Health information technology: An updated systematic review with a focus on meaningful use. *Ann Intern Med* 2014; **160:** 48–54.
37. National Institute for Health and Care Excellence. *NICE technology appraisal guidance 1: Guidance on the extraction of wisdom teeth.* London: National Institute for Health and *Care* Excellence, 2000.
38. Fricton J, Rindal D B, Rush W *et al.* The effect of electronic health records on the use of clinical care guidelines for patients with medically complex conditions. *J Am Dent Ass* 2011; **142:** 1133–1142.
39. Fox C, Kay E, Anderson R. Evidence-based dentistry–overcoming the challenges for the UK's dental practitioners. *Br Dent J* 2014; **217:** 191–194.
40. Chang H H, Lee J J, Cheng S J *et al.* Effectiveness of an educational programme in reducing the incidence of wrong-site tooth extraction. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2004; **98:** 288–294.

COMMENTARY

The formal academic study of patient safety risks in healthcare is a relatively new endeavour. We once thought that the patient's co-morbidities and the clinician's technical competence were the sole determinants of safe and effective outcomes. We now understand that ensuring patient safety is more complex than that. In medicine, several learned journals are dedicated solely to academic papers relating to patient safety, however, dentistry has been slower to study this issue. This may be because of the generally lower patient morbidity that occurs in dentistry when things go wrong, or it might be a reflection that the majority of dentists practice singlehandedly or in small groups, rather than the larger collectives in hospitals where medical patient safety research has mainly been focused.

Patient safety is frequently explored and measured in 'hard' quantitative metrics such as weekend mortality rates or incidence of wrong tooth extraction. Such metrics, however, only give one part of the story and there is increasing interest on other 'soft' forms of intelligence in exploring safety issues in healthcare.[1] This study by Bailey *et al*., is the first to consider patient safety in general dental practice using a qualitative approach. Focus groups made up of general dental practitioners were used to elicit views on patient safety issues in general dental practice. It is reassuring to note that awareness of the effects of a patient's medical history on the practice of dentistry was clearly recognised as important, together with the risks involved in polypharmacy and drug interactions. An interesting discussion was generated regarding the practitioners' understanding of 'never events' as defined by the NHS, with wrong tooth extraction being correctly identified. Wrong tooth extraction also featured in the discussion on safeguards and tools to reduce risk, with an awareness that misunderstanding of an orthodontic treatment plan was of particular concern. The importance of good communication as a patient safety issue also emerged as a recurring theme, which strongly concurs with research evidence from elsewhere in medicine. The science of 'human factors', including communication, as applied to safety in dentistry has many facets yet to be explored.

Patient safety research in dentistry is still in its early stages. Despite all the limitations of this study that the authors acknowledge, this paper is a welcome addition to the literature.

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1. Martin G P, McKee L, Dixon-Woods M. Beyond metrics? Utilizing 'soft intelligence' for healthcare quality and safety. *Soc Sci Med* 2015; **142:** 19-26.

AUTHOR QUESTIONS AND ANSWERS

Why did you undertake this research?

I completed this qualitative piece as part of my NIHR grant funded project on patient safety in dentistry. I was keen to find out what the views of dentists were on patient safety as this is an area of research that is largely unexplored. In the focus groups, we discussed definitions of patient safety, safe guards which can be used to maintain safe treatment and the concept of 'never events' in relation to dentistry in general. The information from the focus groups was collated and discussed with reference being made to the current evidence base.

What would you like to do next in this area to follow on from this work?

I think that it is important that we gather the views of service users (patients) in relation to patient safety in dentistry. This information will help to inform both researchers and policy makers on the priorities in this field. We are also interested in tools or interventions which have been trialled in order to maintain safe patient care or to prevent adverse events from occurring. With this in mind, we have performed a systematic review which is currently in press. We are also working on dissemination of our research findings to a wider audience within dentistry.