# An evaluation of defensive dentistry: w(h)ither the profession?

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## In brief

- Discusses the causes of defensive dentistry.
- Discusses differences in approaches to dentistry by older and younger dentists
- Invites the profession to have a wider debate about the challenges of defensive dentistry.

**Introduction** Defensive dentistry has become a popular choice for dentists in practice over the past decade, partly in response to the supposed increasing risks to patient safety, of litigation and of health and safety concerns to patients and staff. **Methods** Using a quantitative analysis, care plans of 96 dentists were examined from one day in April 2017 and compared against these known risks. One thousand four hundred and seventeen care plans were coded by treatment type. The risks of completing each item were coded as high or low for either clinical risk, health and safety risk and risk of litigation. Subsequently, semi structured interviews were conducted with 12 participants; five practitioners of over 25 years' experience and seven practitioners of less than five years' experience. **Results** All assessments and treatments, including no treatment, had recognised risks. 'Doing nothing' also carried a risk of litigation. Four themes were identified from the interviews: 'there by the grace of God, go I', 'limitations on the scope of practice', 'fear' and '*c'est la vie*'. **Discussion** The profession is at a crossroads. The options for the future are discussed, including immediate retraining for all dental care professionals. **Conclusion** Within the limitations of this study, it is concluded that increasingly, no risk or only low risk treatments will be undertaken by the profession, with both experienced and less experienced practitioners limiting their scope of practice, with possible deleterious consequences on the dental health of the population.

*Editor's note*
*This article was published as part of the 2017* BDJ *Christmas issue in the spirit and fun of the festive season. Most of the facts and figures used in this paper are either dubious or wholly made-up.*

## Introduction

The well-known futurist, Krystle-S'phia Gazing, states that 'to look forwards is to prepare to avoid the puddles of life, whereas to look back is to prepare to walk into the next lamppost.'[1] Lampposts, she asserts, are for the most part useful in lighting our way. However, at other times they simply become obstacles *en route*. The dental profession appears only occasionally to be looking forwards, while awaiting the new NHS contract, for instance. Most of the time, dentists are, to use a current phrase, 'in the moment' – caring for patients, managing staff absences and running late. At other times, the profession seems to hark back wistfully to the days of a life of less regulation and fewer acronyms. In looking back, or being 'in the moment', however, the profession is in danger of not looking whither it is going and walking straight into the lamppost that is defensive dentistry and its consequences.

The practice of what is referred to as defensive dentistry has become increasingly commonplace over the past 30 years, as regulations, complaints and litigation have increased.[2] According to Hancocks (2005),[3] defensive dentistry 'denotes the practice of providing dentistry which presents as few risks as possible to the practitioner from a patient complaining, or more seriously taking up a legal case as a result of an action or omission by the practitioner'. In a later editorial, Hancocks goes on to suggest that it 'positively discriminates in favour of taking 'no risks'.[4] In the ten years between these papers, attitudes clearly hardened from suggesting that practitioners took 'as few risks as possible' to taking 'no risks'.

There appears to be no formal definition of defensive dentistry. Its cousin, defensive medicine is, however, defined as:

'Medical practices designed to avert the future possibility of malpractice suits. In defensive medicine, responses are undertaken primarily to avoid liability rather than to benefit the patient. Doctors may order tests, procedures, or visits, or avoid high-risk patients or procedures primarily (but not necessarily solely) to reduce their exposure to malpractice liability.'[5]

If this definition is applied to dentistry, then consequences of a rise in the practice of defensive dentistry may be an increased aversion to carry out any procedure which might damage the patient. Examples of procedures which may damage the patient, potentially terminally, include orthodontic treatment[6] and endodontic treatment.[7] Hou *et al.* (2016) have shown a

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Refereed Paper. Accepted 10 November 2017
DOI: 10.1038/sj.bdj.2017.996

five-fold increase in reported cases of inhalation and ingestion of foreign bodies in the years 2013/2014.[8] Haemorrhage following extraction also has potentially fatal results.[9]

Apparently non-invasive procedures such as an examination and radiographs cannot be considered risk free since cross infection in a dental practice can also have disastrous consequences.[10] Even preventive dentistry is not risk immune for the dentist. D'Cruz (2016)[11] argues that any practitioner taking a preventive approach to oral care 'could effectively be transferring the risk (from the patient) back to themselves. They are taking a gamble that the patient is sufficiently motivated to act on the preventive advice and attend for regular reviews. If they get it wrong, the patient's condition may worsen.'

It is clear that all dental treatment has some potential risks and that if dental care professionals become too fearful of these possible consequences, allied with a fear of litigation and financial pressures, then interventions will become minimal. However, reluctance to carry out a procedure may equally damage the patient. To take a very simple and naive example, a refusal to use air driven instruments on the grounds that they increase the number of air borne pathogens within the surgery environment, may increase the risk of airborne infection to clinical staff. [12]

Defensive dentistry appears to have arisen out of a fear of litigation on a number of grounds, from both patients and colleagues. That fear would appear not to be unfounded. For instance, over 340 cases were heard before the General Dental Council disciplinary committee in the 12 months to 30 June 2017, 232 of whom were dentists.

The logical consequence of the rise in perception of risk and consequent practice of defensive dentistry is that the number of visits to discuss possible treatment will tend to increase. Recent educational research which highlights the newly qualified dentists' excellent abilities to communicate, contrasting with decreasing clinical experience, shows that undergraduate dental education is already future proofed against this eventuality.[13] In contrast to the increasing volume of communication, the amount of actual treatment will tend to decrease significantly.

## Aims

The aims of this study were to:

1. Investigate the potential risks of treatment and advice and probable consequent defensive responses, of treatment planned by a random sample of general dental practitioners
2. To assess the attitudes to risk in follow-up semi structured interviews of a smaller sample of GDPs.

## Methods

The study was given ethical approval (Ref HOTAER1417). Using the website www.caringdentistfinder.com, 60 general dental practitioners from each region of England and Wales were identified (South East, London, North West, East of England, West Midlands, South West, East Midlands, North East, Yorkshire and the Humber, North Wales, South Wales). Letters were sent to 660 dentists, informing them of the study, what the study involved and asking whether they wished to participate. Of the 213 replies (32%), 190 (29%) agreed to participate. The inclusion criteria were that they were general dental practitioners working at least 20 hours a week in either NHS, mixed or private care. Dentists on the specialist lists were excluded but those dentists with a special interest were included. In the second week of March 2017 paper work was sent out to the 190 dentists requesting them to note the number of care plans and the items listed on the care plans of all patients seen on one day in the first week in April 2017. A total of 96 participants returned the proformas (14%) which included 1,431 care plans. Of those only 1,417 care plans were able to be fully deciphered and were subsequently entered on to a spreadsheet (Excel) and coded by treatment type. The risks to the patient of completing each item were coded as high (death of patient) or low (no permanent damage to patient). The risk evaluation was undertaken to criteria established by a literature review.

Subsequently, semi-structured interviews over the telephone were conducted with 12 participants, five practitioners of over 25 years' experience and seven practitioners of less than 5 years' experience. The interviews were transcribed and were analysed, coded, with themes identified. Two authors (DR and PH) read through all the qualitative data independently and used thematic content analysis to identify themes.[14] Subsequently, they met to combine and refine their findings. These were then discussed at further meetings after which the raw data were re-read to ensure that all themes were identified or not misinterpreted.

## Results

The results of the care plan analysis are shown in Tables 1 and 2

### Results of the quantitative analysis

From Table 2, 53% of care plans included at least one preventive intervention and 72% some periodontal care. Ten percent of care plans included at least one extraction, however, only 2% of plans included an endodontic procedure. Direct restorations were the principle restorative treatment at 42%, with removable prosthodontics again only being planned for 9% of the care plans scrutinised compared to 17% for crowns and bridges. All these treatment items carried risk to the patient and/or the dental team.

### Results of the qualitative analysis

Four themes were identified:

- There by the grace of God, go I
- Limitations on the scope of practice
- Fear
- '*C'est la vie*'

#### *There by the grace of God, go I*

Both more experienced and less experienced practitioners expressed the notion that on many occasions, when clinical errors occurred or unexpected outcomes were experienced,

**Table 1 Treatment plans and risks assessed**

| Item of treatment plans | Notes interpreted as item (see legend) | Number of care plans | Clinical risk | Health and safety considerations and consequences | Identified risk of litigation |
|---|---|---|---|---|---|
| Examination and communication of care plan to patient, including special tests - radiographs etc | Ex, exam, rads, PA, BW, TP | 1,417 | Inadequate medical history, missed lesions, failure to take radiographs, teratogenic effects | Cross infection, (herpes, Hep C etc), death | Yes |

Ex, exam = examination, rads, = radiographs, PA = Periapical radiograph, BW = bitewing radiographs, TP = treatment plan.



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they felt relief that the patient accepted the situation and there were no adverse follow up consequences:

'*You read GDC disciplinary hearings and you often feel (other than crass mistakes) "By the grace of god, go I" and you vow to yourself to take less risk and find more time for writing up the notes.*' (P5 exp).

'*The patient swallowed the crown. Fortunately, the chest X-ray was clear, and the gentleman came back next week, looking as pleased as Punch with the crown in a little food bag.*' (P3 less exp)

'*I missed the root caries on the bitewings that I took 6 months previously, the tooth was lost but the patient did not seem bothered.*' (P11 less exp)

'*I'm sure the GDC letter will arrive this month.*' (P7 less exp)

### Limitations on the scope of practice

Again with both the experience and less experienced practitioners some were limiting their scope of practice:

'*I've stopped doing molar endo, really nearly all endo, my colleague in practice does them for me, it is just not worth it.*' (P5 exp)

'*I can't do full dentures, I send them all across the road to the CDT, he charges a fortune. I put it down to only doing a couple of cases at dental school.*' (P7 less exp)

'*Anything with a BPE score over two, I refer to the hygienist, they are the experts and I don't want to get done for missing anything.*' (P9 exp)

### Fear

Two of the less experienced practitioners were showing significant concern over practice, with one of them thinking of changing direction because of it (P4). One experienced practitioner working as an associate for a corporate body expressed concerns over the need to perform on UDAs (P10).

'*The principal has just been off for four months with a bit of a mental breakdown. He is under investigation for [redacted on the grounds of confidentiality]. He always seems such a calm chap it was totally out of the blue.*' (P7 less exp)

'*I am seriously thinking of giving up but what can you do with a BDS, could do law and join the other side, I just cannot bear the stress every day of something going wrong.*' (P4 less exp)

'*There's no incentive to do much except refer to the therapist or hygienist, and I'm probably deskilling quite quickly, even within two years of graduation. Then the fear factor takes over all your decisions. I think I could probably be replaced by an algorithm or an app.*' (P7 less exp)

But even the more experienced dentists were fearful of the financial pressures:

'*The bean counters put the pressure on to get the UDAs up and that's what causes more fear these days. Will I have a job at the end of the year?*' (P10 exp)

### C'est la vie

A numbers of practitioners expressed notions that this is what current professional practice is and it is just matter of accepting the situation and getting on with it:

'*I am trying to practice a full range of dentistry as that is only how you get better. If things go wrong there is plenty of advice out there.*' (P3 less exp)

'*I've been doing this for 30 years now I still enjoy it and if things do go wrong very occasionally that is what the defence organisation is for.*' (P1 exp)

'*You are very much on your own. I am concerned about extractions still but the local oral surgery department are really good, but it now is a bit of a paper chase to get a patient referred.*' (P3 less exp)

'*Maybe defensive dentistry is the same as minimal intervention, but with different motivations.*' (P2 exp)

'*I had a few scrapes with our mates the dental police, but you know, it goes with the job these days – factor the costs into your charges and it's ok. Defensive dentistry? Nah mate, best form of defence is attack.*' (P2 exp)

## Discussion

The literature in this area is brief with much of it being anecdotal evidence. However, it is apparent that no dental treatment or intervention is without risk (Tables 1 and 2) so therefore the busy GDP has to assess the level of risk they are prepared to take to deliver care. It is therefore timely that this study was established to ascertain the level of risk that practitioners

**Table 2 Treatment planned and risks assessed**

| Item of treatment | Notes interpreted as item (see legend) | Number of plans containing item | Clinical risk | Health and safety considerations and consequences | Identified risk of litigation |
|---|---|---|---|---|---|
| Preventive interventions | F, OHI, hyg, ref to DN, watch, keo, monitor | 756 | Patient non-compliance | Airborne infections | Yes |
| Periodontal treatment, including scale and polish | S&P, hyg, ref to hyg | 1014 | Inhalation of airborne bacteria, sharps injury | Sharps injury, inhalation pneumonia, allergy, anaphylactic shock, death | Yes |
| Direct restorative treatment | AR, comp, GI, temp | 598 | Inhalation of debris by patient, soft tissue damage, iatrogenic damage to other teeth | Sharps injury, allergy, anaphylactic shock, inhalation pneumonia, death | Yes |
| Indirect restorative treatment – crowns bridges etc | CR, BR, Au, gold, PMC | 234 | Inhalation of debris by patient, soft tissue damage, iatrogenic damage to other teeth | Sharps injury, inhalation pneumonia, allergy, anaphylactic shock, death | Yes |
| Removable prosthodontic treatment | P/, /P, P/P, C/, /C, C/C, dent, CO/CR, imps, bite, t/i, fit | 123 | Inhalation of prosthesis | Sharps injury, inhalation of acrylic dust, pneumonia, death | Yes |
| Endodontics | RT, endo, rct | 27 | Fractured instruments, inhalation of instruments | Sharp's injury, inhalation of foreign body, death | Yes |
| Surgical procedures | Ext, xLA, surg | 145 | Jaw fracture, haemorrhage, | Sharp's injury, haemorrhage, infection, death | Yes |

F = fluoride application, OHI = oral hygiene instruction, hyg, = hygienist, ref to DN = refer to dental nurse, keo = keep eye on, S&P = scale and polish, ref to hyg = refer to hygienist, AR = amalgam restoration, Comp = composite restoration, GI = glass ionomer restoration, temp, = temporary restoration, CR = crown, BR = bridge, Au = gold,, PMC = porcelain/metal crown, P/ = partial upper denture, /P = partial lower denture, C/ = complete(full) upper denture, /C = complete (full) lowere denture, dent = denture, CO/CR = cobalt chromium, Imps = impressions, bite = jaw registration, t/I = trial insertion, fit = final fit of denture, RT = root treatment, Endo = endodontic (root) treatment, rct,= root canal treatment, Ext = extraction, xLA, = extraction with local anaesthetic, surg,= surgical extraction.



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are placing themselves and their dental team in to provide the necessary dental care to restore oral fitness. The consequences of taking those risks are also sometimes life changing for the patient and dentist. However, if the perception that the consequences of these risks dominates all clinical decision making, then it is apparent that in the future, little dentistry as we now know it, will be done by dentists.

While older dentists are willing to be less risk averse, younger dentists in some cases appear to be fearful of carrying out any treatment at all and were severely limiting their scope of practice (P7) or even considering leaving the profession (P4). The consequences for the future of the profession are clear. As the older generations of dentists, who have gained experience by making mistakes but correcting them, retire, then the remaining cohorts of younger dentists will be highly risk averse and unwilling to carry out any procedure which puts them and their patient at risk.

One of the experienced dentists (P10) appeared to be particularly stressed by the finances of being in current dental practice. If these stresses are imparted to the next generation too, then fewer dentists will be willing to invest in the purchase of a practice, thus making the current model of dental care provision in the UK untenable.

Some dentists clearly see the solution to the problem of defensive dentistry as delegation to other care professionals, in particular hygienists (P9) and for removable prosthodontics, CDTs (P7). One possible reason for this is that when dentists graduate, they are ill prepared for complete denture construction.[15] However, recent opinion also suggests that delegation of care to dental therapists may be part of the solution to the oral care of the increasing older UK population.[16]

One of the major causes of stress for younger dentists is the threat of a summons before the General Dental Council (GDC). Fortunately, the GDC disciplinary listings show that dental nurses, hygienists and technicians are the dental care professionals least likely to be summoned for disciplinary hearing. The reasons for their summonses appear to be largely non-clinically related. Of the complaints about dental nurses, for instance, only 5% appeared to be related to performance in the surgery. Ninety percent were for issues which were non-clinical (for example, theft, substance misuse). A further 5% related to issues of going beyond their scope of practice.[17]

Consequently, in view of:

- The enthusiasm for some DCPs to carry out extra treatments
- The fact that dental nurses are least likely to be on the receiving end of a summons to the GDC
- The fact that the younger generation of dentists seem particularly keen to refer patients on
- Dental nurses being cheaper than dentists and other clinical staff,

this paper suggests that in the near future, to combat the risk of litigation and the prospect of even more defensive dentistry, all dental treatment is delegated to salaried, teetotal, honest dental nurses.

In order to reinforce this change, dentists should receive even more training in communication skills to explain this to patients. In addition, the GDC should open a specialist list for expert witnesses and dento-legal professionals.

## Conclusion

Within the limitations of this study, increasingly no risk or only low risk treatments are undertaken by the profession with both experienced and more worryingly less experienced practitioners limiting their scope of practice, with possible deleterious consequences on the dental health of the population. It is concluded that if all risks are taken at face value, no or only low risk treatments will be carried out in the future and much will be delegated to DCPs, with ever increasing widened scope of practice, at which point, if litigation continues at the same rates as now, the dental profession will have come full circle.

*Study limitations*

*The selection of dentists was done through www.caringdentistfinder.com. This is an imaginary, paid-for service, potentially used by dentists to market their services on the Internet. The sample of dentists selected therefore was not random and probably skewed towards those with time on their hands or those with some spare cash in their marketing budget. They were, however, 100% fictional.*

*The interviews were carried out on a mobile phone with very poor reception and a high drop out rate. Therefore, the responses cannot be guaranteed to be entirely accurate and we have had to complete some responses with what we think they might have said, had the phone been working properly and had one of the authors (PH) not forgotten to put his hearing aids in that day.*

*Acknowledgements*

*PH acknowledges that he has way too much time on his hands and DR is silent on the matter.*

*Author's note*

*Despite the limited literature search, the artificially constructed quantitative and qualitative data and frivolous conclusion, it is the opinion of the authors that a more positive, pro-active stance needs to be taken by both undergraduate and postgraduate educators to encourage positive dentistry. With the support of the NHS dental authorities,the BDA and the defence organisations, dental professionals should have the confidence to offer both preventive and restorative dentistry to all in a less litigious environment, thus encouraging patients to be able to accept responsibility for their dental health with the support of a fear-free dental team.*

*We hope that this paper might lead to serious debate as to how our profession develops in the next 20 years.*

*The authors state that any opinions expressed and methods used are their own and not those of the institutions to which they are affiliated.*

*We wish all* BDJ *readers a very Happy Christmas!*

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