Understanding emotionally relevant situations in primary dental practice. 3. Emerging narratives

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IN BRIEF

- Reviews current concepts of coping with stressful situations.
- Demonstrates the use of CBT (cognitive behavioural therapy) formulations to structure and analyse stressful situations and suggests that this will enhance reflective learning.
- Suggests that dentist-patient communication and shared decision-making may improve as a result of the use of the technique.

RESEARCH

Background and aims Dentists experience considerable occupational stress. Stressful clinical situations can provoke high levels of negative emotions, and situations which are associated with positive emotions tend to be overlooked by practitioners. Reflection regarding difficult situations is encouraged to facilitate learning. Cognitive behavioural therapy (CBT) formulations may be applied to situations appraised both positively and negatively. Analysis and interpretation of the dentist's coping behaviour and the consequent outcomes facilitate learning and reflection upon individual interactions with patients. **Method** Twenty primary care dental practitioners in the greater Lincoln area participated in a semi-structured interview which explored their stressful and positive clinical experiences. Some of the episodes were analysed to create CBT formulations. **Results and discussion** CBT formulations are presented and the learning points highlighted by this structured presentation are discussed. In particular, it is suggested that this structured reconstruction of events, which highlights dentists' emotions, responses and the transactional effects of coping responses, might well facilitate objective reflective learning either individually or as part of peer to peer support. It should facilitate dentists' emotional processing of events and may thus contribute to stress reduction. **Conclusion** CBT formulations of positive and negative dental scenarios may be constructed. It is proposed that this is a useful technique to foster reflection and learning in clinical situations and should lead to improved communication skills and shared decision-making, resulting in fewer complaints and thereby reduced stress. It should also improve dentists' emotional processing.

INTRODUCTION

This is the third in a series of papers exploring the nature of primary care dentists' emotions, coping and effects on their decision-making in the clinical situation. The first two papers have discussed the stressors and accompanying emotions and the effects and coping strategies used.[1,2]

Previous research with primary care dentists has considered the nature of stressful situations and the coping strategies used via questionnaires.[3–5] This research is of limited usefulness as the responses are often generic, trait coping strategies. Examples of the strategies included in these measures are 'interactions with people, sports and forgetting about work'[3] or 'try to control the situation, pursue outside interests and re-interpret the situation positively.'[5]

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However, these questionnaires fail to determine which coping strategy is used to cope with specific stressors. This is crucial as the coping strategies necessary to deal with different emotions may vary.

As previously described,[1] many participating dentists referred to 'stress' as the major emotion they experienced at work. However, 'stress' is the perception of an overwhelming underlying emotion.[6] Identification of this underlying emotion is essential in order to be able to address any differences in the way difficult situations are handled by dentists. The clinical situations previously described by dentists and reported in earlier papers[1,2] were initially interpreted within Lazarus and Folkman's model of stress, appraisal and coping (Fig. 1).[7]

Lazarus and Folkman[7] define coping as 'constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands [stressors] that are appraised as taxing or exceeding the resources of the person.' Coping includes all purposeful attempts to 'manage' stress, 'whatever their effectiveness.' The resultant outcomes can include minimising, avoiding, tolerating/acceptance of a stressful situation, as well as mastering it. These outcomes may be helpful or detrimental in the outcome they produce. In other words, outcomes may match the intended purpose, or not, and that may differ in the short and long terms (Fig. 2).

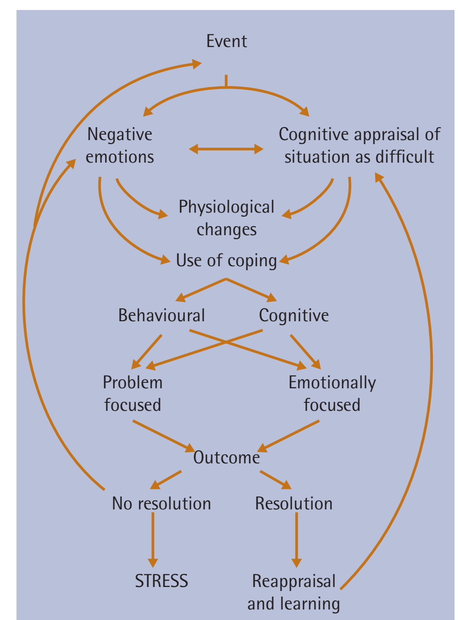

Fig. 1 An integrated model of coping[7]

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As most commonly represented, Lazarus and Folkman's model[7] is, essentially, linear. An event is subject to a primary appraisal or evaluation. Having established that a threat is present, the person then assesses whether s/he has the skills to deal with the situation; the process of secondary appraisal. If the person concludes that the situation will be difficult to cope with, a feeling of stress is generated.

Situation → primary appraisal → threat present → secondary appraisal → coping strategy.

However, Lazarus and Folkman[8] acknowledge that the process can become circular, with the outcomes of one strategy, (for example, the response of another person or the consequences of a behaviour) becoming the antecedent or stressor for the next attempt to manage the situation. The transactional nature of the coping process was further developed by Aldwin.[9] These interactions can form a 'vicious circle.'[10] The possibility of emotional vicious circles was previously reported by dentists.[1]

An alternative model of coping is given by Power[11] who emphasises the importance of the functionality of coping strategies over an analysis of the behavioural or emotional focus. Strategies can be internal to the self, as in trying to slow one's breathing rate, or external, such as ensuring one writes thorough, contemporaneous notes (Table 1). This system is simple in comparison to Folkman and Lazarus' model and may facilitate reflection on coping effectiveness.

Cognitive behavioural models of the stress and coping process have been developed[6] and allow a dynamic conceptualisation of the interactional nature of the cognitive and behavioural strategies used and the transactional feedback effects (in/effectiveness) of these strategies (Fig. 3), as implied by the Power and Lazarus and Folkman models. During the thematic analysis for this study it became apparent that, while this type of generic CBT model is helpful, some of the evolving situations could not be truly represented by them and that a full cognitive behavioural formulation would serve better, particularly when the situations described detailed ongoing interactions with patients. (A CBT formulation is a diagrammatic representation of events.) These idiosyncratic formulations can be cross-sectional or longitudinal. They serve to 'tease apart' the dynamics of a situation, allowing identification of moments in time and processes which have been less than helpful and might be amenable to change in the future.[12] A basic, five areas, cross-sectional formulation template is presented in Figure 4.[13] This is commonly referred to as the 'hot cross bun' model which aims to convey the interactions between the string of unhelpful thoughts (negative automatic thoughts), behaviours, emotions and physiological changes which happen in response to a precipitating event. The situation is subject to the influence of environmental factors present.[13]

This cross-sectional model can then be expanded to reflect the evolving situation or 'story'.[14] Reflection on case stories is encouraged in general medical practice[15] as 'clinical practice requires person management, system management and self-management, as well as case management. Only stories can integrate and expand all these dimensions.'

Strategy →	Function →	Outcome
Refer surgical XLA →	Reduce Anxiety →	Reduced anxiety at time (match) No change in skills & thus anxiety long-term (mismatch)
Nag patient to clean teeth →	Reduce irritation Reduce anxiety that dentist may be viewed as providing 'supervised neglect' →	Feel you have done job properly (match) Patient leaves practice (mismatch)
Breathe slowly →	Reduce anxiety →	Reduced arousal, be calm, complete difficult treatment (match)
Leave surgery →	Hide emotion & regain control →	Succeed (match) Patient thinks you're rude (mismatch)

Fig. 2 Examples of possible coping outcomes indicating whether a match or mismatch of intended purpose of coping occurs

Table 1 Power's model[11] of emotional regulation strategies

	Internal	External
Dysfunctional	Stop thinking.	Snap at nurse.
Functional	Pause before acting/saying. Plan ahead.	Listen to the patient. Get advice from a colleague.

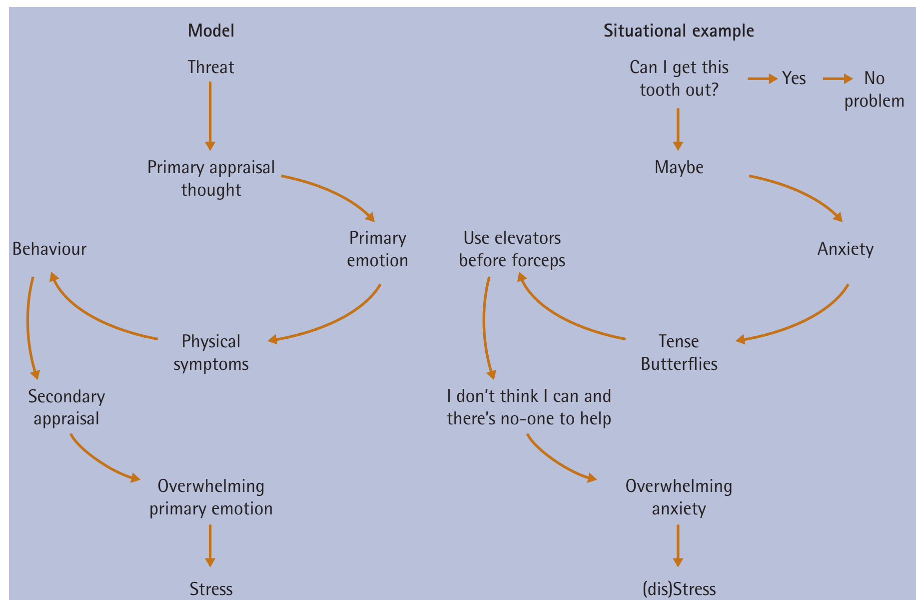

Fig. 3 A cognitive behavioural model of a stressful situation

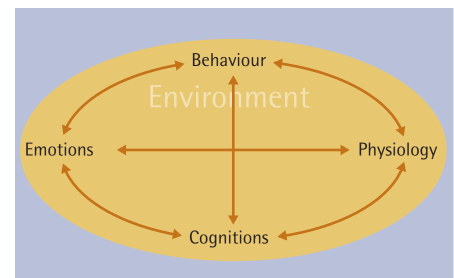

Fig. 4 A cross sectional cognitive behavioural formulation template based on Greenberger & Padesky.[13] Reproduced with kind permission from Padesky C A, Mooney K A. Clinical tip: Presenting the cognitive model to clients. *International Cognitive Therapy Newsletter* 1990; 6: 13–14

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It is also held that, 'examining one's responses, beliefs, and premises in the light of the situation at hand' forms an integral part of reflective practice.[16] This is often via participation in a 'Balint Group' which enables them to 'learn (1) to take responsibility for their own feelings and thoughts, (2) to realise how hard it is to observe their feelings and thoughts, and (3) to understand how easy it is to miss what other people say.'[17]

This process has recently been suggested as a basis for reflection among dentists.[18] However, these groups:

- are often based within psychoanalysis,;[19,20] a concept outside most dentists' experience.
- require a group for participation
- require a a trained supervisor
- members of the group usually receive training in how to effectively feedback within the group situation.
- Recently these supervised groups have lost the psychodynamic element and tend to focus on 'stories as case knowledge.'[15]

CBT formulations are useful for dentists as they are based in an analysis of events, thereby structuring experiences as recommended for reflective practices.[21] Recall of events is often haphazard and this technique allows an accurate sequence of events to be created. This can enhance the ability to identify problems such as communication failure with patients. The technique is easily learned by non-specialists, as indicated by their wide use within the self-help literature.[22,23] It is, therefore, suggested that these formulations can be used by the individual dentist alone or with the help of trusted colleague/s to reflect upon and understand how difficult situations arose and might have been handled differently, thus learning from experience.[15,16] It has the additional advantage of being accessible within minutes or hours of the situation, without the delay of waiting for the next group session. This means that memories are fresher.

This study illustrates the application of CBT formulations to positively and negatively appraised dental scenarios in order to provide an analysis and interpretation of the events in terms of the dentist's coping behaviour and the consequences this produces. This process facilitates learning and reflection upon individual patient interactions. When an event is recounted, the retelling may not be completely logical and this is reflected in the quotations used and should help illustrate how the construction of a formulation reveals the decision points, chain of events, interactions and responses. It should also facilitate access to the technique by dentists.

METHOD

A detailed methodology is described in previous papers. [1,2]

Participants

Following ethical approval from the University of Lincoln, School of Psychology Ethics Committee, primary dental care practitioners within a 50 mile radius of the University of Lincoln were contacted via BDA section secretaries, editorial features in the dental press and 'snowballing'.[24] Twenty dentists were contacted by telephone and interviews arranged at their practice.

Procedure

Semi-structured interviews covering positive and negative situations in the dental surgery, the emotions experienced, coping strategies used and their impact on decision-making were conducted (SC), recorded and transcribed verbatim. They were then analysed and coded by HC. The developed codes were organised into overarching themes. This was reviewed by SC and RB. Representative quotations, which are identified below as [participant: interview paragraph], were chosen by the three researchers.

One author (HC) then constructed the formulation diagrams which were reviewed by RB.

RESULTS AND DISCUSSION

Demographics

Of the 20 dentists interviewed, 11 were female (55%). Seventeen were general dental practitioners, of whom six were dental foundation (DF1) dentists and three worked for the community dental services. The mean year of qualification was 1993 (range 1966-2011) with a mean number of years in primary dental care practice of 17.25 years (SD 13.23; range 1-46). Full details were given in a previous paper.[1]

Thematic analysis

Once dentists had described an emotionally relevant situation, a variety of probes were used to establish any responses used to manage the emotional situation and how the emotion affected the dentist.

The thematic analysis has been described in detail in two previous papers.[1,2] However, as the details of situations were elicited, 'stories' emerged and it became apparent that some of these could best be summarised diagrammatically as cognitive behavioural (CBT) formulations. Representative formulations and the descriptions are presented here. The description of the situation will be presented in the dentists' own words. Some of the speech order has been edited for the sake of clarity. The dentists are identified as female to disguise identities.

Case formulations and discussion of coping

1. Positive emotions

As described previously,[1] the experiences or challenges that were accompanied by these emotions were less well differentiated and were often reported as generic examples. The most common events which elicited positive emotions were successful skills transfer to patients and the success of technically difficult clinical work, especially if accompanied by a patient display of appreciation.

Case1: Happiness (Fig. 5)

Many dentists '... *love doing the technical side*, [getting] *the technicals right*' [1:1] as illustrated in the following statement:

'The [new patient] *ha*[d] *some absolutely* [poor] *fillings* [in] *her front teeth. and we got rid of them. That's really exciting, 'cos ... she looked in the mirror and sa*[id] *'you've really made a difference.' So ... where the patient's response is so positive ... that's the bit that gives you the buzz...* [and] *extreme excitement 'cos I love what I do.'* [1:1]

A strong sense of pride in a job well done is implied. As noted in an earlier paper,[1] pride was often viewed as hubristic by dentists. Perhaps the apparently crucial appreciation by patients allows dentists to take delight, labelled as 'happiness' or 'excitement', in their work without feeling that they are 'blowing their own trumpets.'[1] The other function which explicit appreciation might address, is to counteract the burden of the perceived negative image of the dentist.[25]

The recognition and mental noting of this type of event is important as it fosters psychological resilience[26,27] and may well serve to reduce stress and improve health.[28] A detailed analysis may help to elicit more

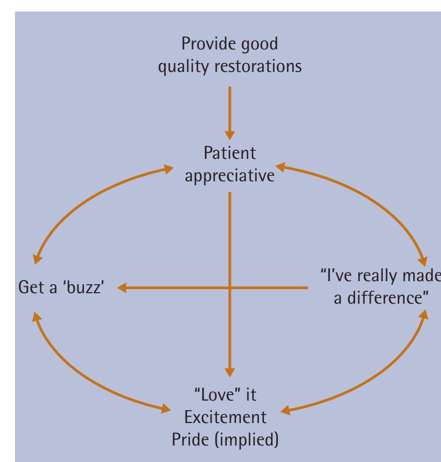

Fig. 5 Case 2 – Happiness

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details, thus fostering the development of an analysis which could be compared with a similar situation where the outcome was negative.

2. Negative emotions

As previously described[1] a range of negative emotions are generally described as 'stress' by dentists. Identification of the underlying emotion is important as the coping strategies which are likely to be effective may differ between emotional experiences.[1,7,29]

Case 2: Anger (Fig. 6)

This lengthy description demonstrates just how destructive clinician anger can be in the dental surgery.

'[The patient] *was having a lot of pain with his tooth, so we had a long chat about it and said, do we want to take the out tooth* [or] ... *start a root canal treatment. We got him out of pain by starting the root canal treatment. We're going to try and see him in a couple of weeks' time once it's settled down a bit and if the tooth is wobbly we were going to get rid of it, if it wasn't wobbly we were going to try and save it. He didn't book that next appointment, and he came a month later in pain and he confessed, I'm in loads and loads of pain, I want a prescription.*

'Alarm bells were ringing in my head already because he's already said he wants a prescription, so anything else I knew he's not going to be happy with [sic], *he doesn't want me to touch him today. So I had a look at the tooth* ... [and] *there was no way I could save it. So I said, look you need this tooth out and ... he agreed. He said, 'I don't think you're going to be able to do it today, I don't think you'll be able to get me numb.' I said, 'There's always a chance I won't be able to get it numb' and he kept saying this, and I said it'd be wrong for me to give you a prescription and not try to take this tooth out and eventually he agreed, we'll try to take the tooth out.*'

The patient's request for a prescription and his insistence that the dentist would not be able to 'numb' him, threatened the dentist's professional self-esteem. Coupled with an entrenched and inflexible belief that a prescription was totally inappropriate in these circumstances, the dentist's only coping strategy was to 'stick to her guns' and doggedly pursue a path towards extraction, using explanations and clinical justifications (behavioural and problem-focused coping [and in this case] dysfunctional).

'Every time after I gave him an injection, he kept saying over and over again, 'that's not enough, you've not given me enough, I always have more than one injection' and I'd said, 'you're probably going to need more than one injection, but I need to give it you [sic] *one at a time' and I really tried with him. I tried to discuss the nerve distribution and everything, and so he just kept saying, 'I need more, I need more,' and so I tested that he was numb, and he wasn't, and at that point he said quite aggressively to me, 'I told you I'd need more anaesthetic.' And at that point I was really angry and I tried not to show it, and I said, 'Look I've explained to you what I'm trying to do,' and at this point he was furious, I was obviously angry and I gave him a different injection. While he was in the room I was trying to explain it to him, I mean it's not normal that I explain the anatomy of nerves to a patient, but after he'd said, I told you it wouldn't be enough and everything, and I gave him another injection ...*'

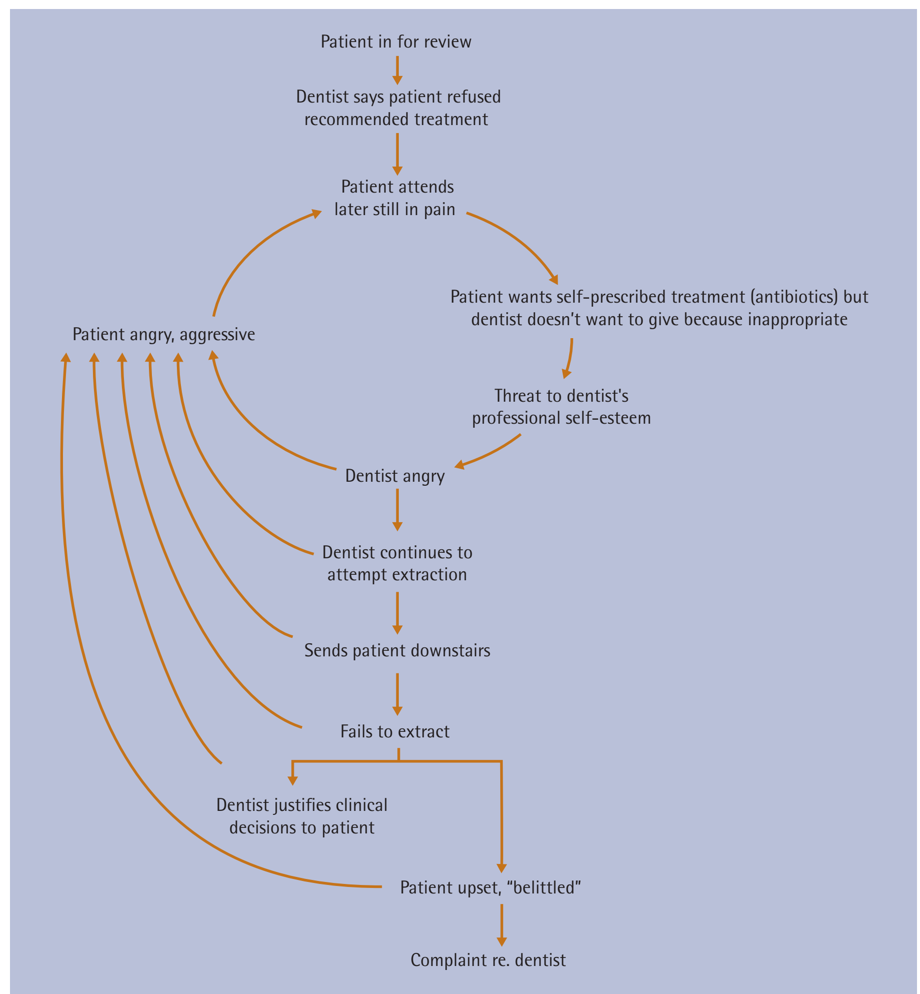

Fig. 6 Case 2 – Anger

Once exhausted by the apparent battle of wills and the lack of success in achieving anaesthesia, the dentist turns to emotion-focused coping and sends the patient downstairs to wait for the anaesthesia to work, allowing her to distract herself (avoiding the emotion) by writing up the notes. One can only view this as dysfunctional, behavioural, emotion-focused coping as a patient who is this distressed is most likely to view this behaviour as rejection. '*I wanted to give it a good five or ten minutes to see if it was going to kick in a bit later on, so I did actually say, I'd be grateful if you could wait in the waiting room because this is going to take a bit longer and so I sent him downstairs. But I think our communication had broken down so much at that point that, he was only going to sit in the chair feeling a bit angry, I would rather write up the notes at that point.*' And then the dentist finally capitulated: *'To cut a long story short, I couldn't numb the tooth and I had to give him a prescription.*'

The threat to this dentist's self-esteem (a common precipitator for anger-type emotions)[1,30] and the consequent highly focused approach to get the tooth extracted meant that she didn't pause and consider, or ask, why the patient was so insistent that he would not go numb and needed a prescription. She failed to establish if this was based on previous experiences of difficult extractions and she failed to consider the possibility that this might be based in fear. This 'blinkered vision' that accompanies intense emotions, particularly negative ones, results in cognitive errors and poor decision-making in clinicians.[31,32]

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To make matters worse, the dentist did not let matters rest; she had to have the final word: '*As he was walking away, I said to him, "I know you're not happy with today because you wanted a prescription and you're walking away with one and you didn't want the bit in between, but it would've been wrong for me to have given you a prescription without trying to take the tooth out. [The problem] is going to come back and you need to take it out' and he didn't look happy but he seemed to understand and he walked off, and apparently I got told later that he was* [complaining] *to reception about it, saying that all he wanted was a prescription; I should've given it to him.*'

The parting shot of the dentist was based on the contemporaneous, widely held interpretation of clinical guidelines that one should not use antibiotics as a first choice of treatment in these circumstances. While this guideline was introduced to counteract the overuse of antibiotics in situations where other treatments were possible, the current GDC guidelines[33] (which have been made more explicit since the interview) do allow for a certain amount of clinical discretion, as long as valid clinical reasons are recorded. Would it have been appropriate to prescribe antibiotics immediately at the second visit? It is not possible to make that judgement as the dentist failed to establish the reasons and beliefs underlying the patient's adamant request. If the patient were phobic with a previous history of failure to achieve adequate anaesthesia and/or difficult extractions, it possibly might have been.

And, of course, what many would view as the inevitable, occurred: '*Anyway because he was in a lot of pain with it, I'd booked him in up here, I'd gone to extra lengths so that I could see him within a week to take the tooth out after his prescription had started. ... On the day of the appointment he actually phoned my boss and made a complaint about me. The complaint being that he wanted a prescription and I didn't give it to him and he thought I'd belittled him because I kept saying, I knew what I was doing and I was trying to numb him up* [sic]. *So anyway it went back and forth, and I had to send letters and this, that and the other and it disappeared.*'

And despite all of this the dentist shows very little insight: *'I was angry at the time and I'm still quite angry about it. I'm glad he didn't come back because ... I would've had to pass my emotions ... I still felt like I gave him the best possible treatment, I felt like I tried to explain why I was doing what I was doing and he still didn't want to listen.*' [10:20-6]

The dentist obviously feels that she has communicated properly as she explained what she was doing. Unfortunately, communication in dentistry is often viewed as the ability to convey information to the patient.[34] However, an ability to listen is equally essential.[35] Asking pertinent questions allows elicitation of the patient's knowledge (which may not be accurate), beliefs (which may be idiosyncratic and based on inappropriate information) and values (which may be surprising). Analysis of the situation via a CBT formulation allows a more objective reflection on events and allows identification of points in the time line where things might have been handled differently and the escalation of events curtailed.

Dentists often deal with the intense emotion of this type of event by 'venting' to colleagues.[2] Unfortunately, the research evidence[36,37] suggests that it is a counterproductive coping strategy which leads the person to subjectively feel better in that moment, but actually increases objective measures of anger in the longer term. Venting has been found to be associated with the 'overload' aspects of burnout.[38] Structured reflection using a CBT formulation allows the processing of the emotion.[39,40]

Using CBT formulations as a dentist

The process of CBT formulation construction as part of therapy with a trained CBT therapist is a collaborative process; as part of self-help CBT, it is a personal process. The therapist can take another, less emotionally involved, perspective on the situation, reflect on what has happened and ask questions of the subject to encourage them to 'think around' what happened. In self-help CBT, the individual has to undertake this process on their own. This has the advantage of being entirely private and may save embarrassment and shame on the part of the individual, which might act as a deterrent to sharing information. On the other hand a fresh pair of eyes, especially if far more experienced, can generate alternative interpretations of what happened and alternative examples of coping strategies which might have been used. This process might be of particular advantage to foundation dentists. Written, and ideally, face to face training should be received so that the process is understood before use in the clinical situation. Both methods of training have been piloted, as part of a selection of non-compulsory coping skills, with a mixed group of dentists (foundation and experienced primary dental care practitioners) as part of the evaluation of a coping skills package[41] based on the needs identified in this study and a subsequent one.[1,2,42] At six month follow-up, 7% of dentists who had written instructions only and 20% of those who attended additional face to face training were still using CBT formulations to reflect on, and understand, difficult scenarios as a coping skill of choice. This technique warrants further detailed evaluation, particularly with foundation dentists and their trainers.

CONCLUSION

As can be seen from these illustrated examples, situations as they arise in the dental surgery can be complex and on-going. The benefit of drawing out a CBT formulation of the over time is that it allows events to be placed in sequence and accompanying emotions and thoughts to be sought and placed in context. A structured reflection regarding the events (self-directed or as part of a peer-support process) can then occur, and can be used as a functional behavioural coping strategy in its own right. Such reflection should lead to improved reflection, learning, communication skills and shared decision-making within clinical practice, resulting in fewer complaints and thereby reduced stress.

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COMMENTARY

This manuscript describes how the process of drawing up a formulation of a problem process, commonly used in cognitive behavioural therapy (CBT), could be used as a tool to encourage dental practitioners to reflect on events both positive and negative in their practice life. The authors suggest that the use of such a process could ameliorate the pervasive effects of stress. There is no doubt that CBT has an important role to play in stress management, however, there are perhaps some questions to address before such an approach could be recommended in all instances. First, there is the question of the proportionality of the intervention. The creation of a formulation requires both training in the technique and time to apply the technique. Would it be sensible perhaps to reserve the use of CBT for those situations which have the highest degree of threat to the individual – for example, critical incidents in the practice, or for individuals where the stress experienced is having a marked impact on their life. Interventions such as ensuring sleep hygiene, mindfulness, regular exercise and maintaining a healthy work environment are low level interventions which might be more widely applicable. Second, it is difficult to isolate one component of CBT from the approach in its entirety. Most CBT practitioners would argue that formulation alone is not sufficient to engender change, and that the process of examining and reinterpreting the cognitions identified, as well as modifying unhelpful behaviours, is key to long term benefit. These latter processes are implicit in the approach adopted by the authors. Finally, we must not let approaches based on treating individual dentists facing high levels of stress to blind us from the consideration of talking about the broader systemic determinants of the stress of dental practice. Is the changing context in which dentistry in the United Kingdom is practiced leading more practitioners to experience high levels of stress and burnout, and what is the role of the profession in seeking to protect itself from the demands consequent upon those changes?

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