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# The inter-personal work of dental conscious sedation: a qualitative analysis

Running head: conscious sedation inter-personal work

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## ABSTRACT

**Aims** Whilst there is a considerable body of literature examining the pharmacology of conscious sedation, the social tasks required to successfully provide conscious sedation have not been reported. This paper discusses data regarding the inter-personal work integral to effective conscious sedation provision, from a larger qualitative study exploring how patients and clinicians engage with secondary care conscious sedation provided within UK.

**Method** Semi-structured interviews were conducted with thirteen conscious sedation providers and nine patients within UK-based secondary care sedation settings. Digital audio-recordings were transcribed verbatim and subsequently analysed using a constant comparative method within NVivo Data Analysis Software.

**Results** Four main themes of inter-personal work were reported by participants: displaying care, containing emotions, demonstrating competence and maximising the effect.

**Conclusion** This study shows that performing conscious sedation requires more than technical delivery, and involves the projection of attributes in a literal 'performance'. The importance of managing outward emotional appearance reflects previous dental research. The need to manage outward appearance, and the emotional impact this has, is of relevance to all clinicians.

## INTRODUCTION

High dental anxiety is present in approximately 12% of the general UK population,<sup>1</sup> and approximately 5% of patients attending primary care settings within the United Kingdom (UK) are deemed anxious enough to require conscious sedation for treatment.<sup>2</sup> Although dental conscious sedation has been extensively examined pharmacologically, and regular guidelines and regulatory documents have been published, there is no available research on the interpersonal work required for successful provision. The interaction between dentists and patients significantly impacts patient anxiety.<sup>3,4</sup> Emotional distance, and lack of emotional or physical care have been found to negatively affect patient experience,<sup>5,6</sup> whilst positive communication, empathy, calmness, care and competence have been found to positively affect it.<sup>4-7</sup> The emotional work involved in treating patients has been

implicitly<sup>8-11</sup> and explicitly<sup>12,13</sup> identified by clinicians. This study aimed to explore some of the people-work, integral to conscious sedation, which augments technical delivery. The findings are applicable to all dentists treating patients under conscious sedation, and are also of relevance to those treating patients without pharmacological anxiolysis.

## METHOD

The research was undertaken as part of a larger study of secondary care dental sedation clinics in the UK. Secondary care services provide health care following referral from primary care providers, such as general medical and dental practitioners, who have initially assessed and diagnosed the patient. Treatment is usually provided in community or hospital based clinics.<sup>14</sup> A qualitative approach was taken to explore participants' reported interpretations and experiences.<sup>15-16</sup> Following ethical approval from the South East Wales NHS Research Ethics Committee, semi-structured interviews were conducted with a purposive sample of 31 participants (9 patients, 9 referring clinicians and 13 secondary care dental professionals) chosen based on their usefulness to address the wider research question "*how do patients and clinicians engage with conscious sedation provided in UK Secondary Care Sedation Clinics?*". The aim of this paper is to discuss data regarding the inter-personal work reported by the thirteen sedation providers and nine patients whilst addressing the constituent research question "what actions are involved in conscious sedation provision?" Patient participants (5 female, 4 male; age 23-76) were chosen who had completed at least one course of dental treatment aided by conscious sedation within one specific UK hospital secondary care sedation clinic. Treating professionals (7 female, 6 male) provided such treatment within five UK hospital secondary care sedation clinics, and had at least three years' experience. They were identified through discussion with colleagues, membership of specialist interest society committees, presentations at specialist society meetings, and publications within the dental literature. All participants were initially contacted by letter or email, which provided an invite to participate and information about the study. A second invite was sent a fortnight later if no response was received, and participants were finally contacted by telephone a week later. If invited participants declined to take part, no further contact was made with them.

Research interviews were chosen as they are useful for candidly exploring behaviours, understandings and experience.<sup>17</sup> Following the development of an interview topic guide (Figure 1), semi-structured interviews were undertaken by one dentally qualified author (SW) at a setting chosen by the participant. At the start of each interview the researcher's aim to understand participants' personal experience was emphasised, and a conscious effort was made to reflect on the process to prevent familiarity affecting the areas of interest pursued. Interviews were digitally recorded and transcribed verbatim. Interviews and analysis occurred concurrently, and sampling stopped once saturation (the point at which data no longer develops analysis) occurred. Analysis was undertaken using Grounded Theory- a constant comparative method of data analysis which inductively develops theories from data.<sup>18-</sup><sup>19</sup> QSR International NVivo 8 qualitative analysis software was used to facilitate coding and management of transcript data. The initial transcript was 'open coded' by giving descriptive labels to sections of data (Figure 2). Codes were subsequently compared to other codes and further data, grouping them around 'axial codes' and then developing overarching categories in an iterative process. Samples of coded transcripts and developing categories were reviewed by another author (LP) to ensure validity. Representative quotes were chosen to illustrate developed concepts. Data were anonymised with codes or pseudonyms.

## RESULTS

In addition to the technical provision of sedation, such as cannulation, drug titration etc., participants identified four interrelated forms of inter-personal work with patients, integral to treatment:

- Displaying care
- Containing emotions
- Demonstrating competence
- Maximising the effect

This work facilitated and augmented the technical work, and illustrates that performing dental conscious sedation is in some ways a literal dramatic ‘performance’ to a patient audience.

### Displaying care

Providers described projecting a benign persona to encourage trust and overcome reticence to treatment.

*I am trying to portray a relaxed, confident, assured, safe, image. Somebody who is empathetic, who understands your issues and is here fundamentally to help you confront them, and I think that that hopefully will give the patient a sense of “this is a safe technique, this is something that is going to work for me”. [Provider 11]*

*you are putting a lot more into getting your patient to try and relax, make sure that they are more comfortable. [Provider 9]*

The caring, patient-centred manner patients perceive is deliberately projected by sedation providers to emphasise their internal approach. Patients do not know whether a dentist is a threat, so must judge that based upon their perception. Clinicians manage patients’ anxiety by putting effort into overtly showing concern and interest. The need for such work was deemed essential by both patients and providers.

*You’re much more likely to achieve a satisfactory result than if you’re monosyllabic and just kind of “Come in, sit down, give me your arm”, squirt, and off you go. [Provider 2]*

*A top of the range dentist, if he’s all, (uses monotonous tone) “alright how are you come in”: people just don’t want to know...[The sedation providers] have got affection for their patients, they are concerned what happens to you. [Thomas (patient)]*

In addition to empathy, an accommodating approach was also reported as a way of displaying care.

*Dentistry tends to attract people who like to fiddle with things: getting it all to fit together nicely to smoothly run across each other. You can't do that with the type of patients that we manage. There has to be a certain amount of give and take with them. [Provider 11]*

*You've got to be adaptive to different circumstances, because it changes all the time, everyone is unique and every fear is unique. [Provider 6]*

Providers aim to flexibly engage with patients, adapting to their specific dental, psychological and sedation needs, and managing the work required accordingly rather than making them conform to an imposed plan.

Although the display of concern aims to manage and reduce patients' feelings of anxiety, the ability to impact another's emotions is a two-way process. Another aspect of performing sedation is the prevention and containment of emotional influence from the patients back towards clinicians.

#### Containing emotions

The treatment of anxious patients significantly impacts providers. As they experience their patients' 'fight or flight' behaviours, they risk becoming stressed and anxious themselves.

*If you've got a particularly demanding patient, it does put a bit of a strain on everyone. ... it takes a lot out of you. I suppose people start getting a little bit stressed...I think it's the reaction of the patients that affects everybody. [Provider 1]*

*It is very difficult to treat a very anxious patient, I think their anxiety imparts onto the dentist slightly. [Provider 10]*

Clinicians working in a clinic which specifically treats anxiety have the stressors provided by its manifestation, as well as coping with the stressors of normal clinical dentistry and of the additional technical sedation provision such as successfully cannulating etc. Such situations place a demand on providers whilst simultaneously requiring them to prevent the transmission of personal anxiety and stress in order to display care.

*No matter how experienced you are, there's always this background anxiety of treating anxious people – you've got to be careful that you don't impart any anxiety onto them. They are already pretty anxious – so you don't want to make matters worse. I think you've always got to give the appearance of being quite calm and relaxed about things. [Provider 10]*

*[You need to] be fairly thick skinned because you get people who say "I hate dentists, and I hate you in particular"...you have to compartmentalise that and think "well that's just their anxiety making them talk like that". [Provider 2]*

Providers actively contain emotions: quarantining or contextualising patients' emotions, whilst guarding their own to prevent themselves from emotionally converging with their patients. To achieve this they deliberately 'give the appearance' of calm concern, whilst maintaining a detachment to avoid taking things personally.

### Demonstrating competence

In addition to the emotional work of sedation provision, the demonstration of personal confidence and clinical competence is also important. The manner in which sedation is delivered can imply aspects of the clinician's ability, so treatment is influenced by the providers' projected image as competent clinicians.

*I do remember one instance was a little bit different to the others...I wonder sometimes if that person was more nervous than I was. It was the body language they would use: tenseness awkwardness. When you're nervous*

*around somebody, we all do it- you're fiddling with things or you drop things or you knock something. [Olivia (patient)]*

*A lot of sedation, I believe, fails not because of lack of [technical] competency but because of lack of confidence as a practitioner. [Provider 13]*

The way in which clinicians perform sedation conveys a message to patients about their overall competence. Like empathy, competence is therefore consciously *projected* as relaxed confidence. By portraying this confidence providers hope to engender it in patients.

*If you're constantly (makes pathetic dithering sound), it makes people nervous anyway. If you're [coming across as] anxious and apprehensive yourself before you've even got started with an anxious and apprehensive patient, they're just going to think "what on earth is going on here? This is not a pleasant experience at all". I think if you're a bit wishy-washy then you're not going to cut the mustard really. I think you've just got to be structured and confident and well prepared. [Provider 2]*

*When I reflect on situations where I have felt frightened, what were the qualities of the people that were helping me that I thought "that is really good, this makes me feel assured, I am still frightened but I feel that I am confident enough to approach that"?... The sound of the pilot's voice on the intercom when they tell you that you are going to go through some turbulence, you know there are ways of phrasing things...[You] don't want somebody who is running around like a headless chicken, who is getting panicked...whose heart is racing and looks like they are concerned. They have got to be relaxed. Everything is going to be ok, you know there is a reassurance about it but of course that can't just be simple rhetoric there has got to be substance behind it as well and that is kind of what we try to do, to give to the patient. [Provider 11]*

Providers seek to project an air of decisive confidence to reassure patients that everything is going to be ok despite their fearful anticipation.

### Maximising the effect

As well as influencing personal perception, sedation providers also seek to align the requirements of treatment with sedatives' pharmacological effects in order to achieve the best short and long term outcome. Participants reported the importance of interpersonal work and good communication skills to enhance sedatives' effects and mitigate for unwanted side effects in order to achieve a satisfactory result. This involves bolstering relaxant effects to facilitate treatment, as well as helping patients subsequently interpret their experience and memories.

*The best sedationists recognise that sedation isn't just a question of putting a drug in, waiting for it to take effect and then carrying on with the treatment, I think that good sedationists help the sedation along by the way that they talk to their patients and react with their patients. [Provider 12]*

The work of projecting a calm, caring and confident image doesn't just manage patients' experiences, it enhances the pharmacological effect and so is integral to successful treatment.

*I don't think you can just sedate a patient and carry on as if they are fine just because they are sedated, because they are still conscious...if you are not reassuring them that everything is going to be okay, I don't think your patient is going to be very relaxed when it actually comes to doing the treatment. [Provider 9]*

*[With IV sedation] you use a calm voice, and obviously that keeps the mood...for inhalation sedation you do more of the suggestive language...I think it makes the sedation a lot more profound if you can calm them down. [Provider 6]*

The importance of such work was seen as evidence of experience and skill.

*Sometimes the students who actually have the conscious sedation technique off-pat,...they can do the dentistry but actually they can't get the treatment done. So it fails, we have failed sedation. And then somebody more experienced sees the patient, does exactly the same thing, same cannulation, same drug and gets the treatment done. What is the difference? Behaviour management. [Provider 13]*

Effective sedation technique requires more than technical skills. To achieve a successful outcome, clinicians need to augment treatment by managing patients' responses, aligning them to the sedation's chemical effects in order to 'keep the mood' and make it more 'profound'. Whilst behavioural management is necessary during treatment, successful provision of sedation also requires the management of how patients interpret treatment afterwards.

*[W]hen patients leave we give them some feedback, almost [as] the very last thing that happens. You are feeding back to them "you did really well", so when they are leaving their memory should be of somebody saying how well they have done. And what should happen at that point is they know that they have had some treatment, because invariably they can still feel the fact they're numb, they have had a filling, [and think] "hey that is brilliant!" [Provider 11].*

*...before we start the treatment we say that the drugs that you had last time produce amnesia and so you probably think that you were asleep last time but you were not, you were conscious throughout. We are going to use exactly what we did the first time this time.. [Provider 13]*

By discussing patients' immediate and previous sedation experiences, providers seek to encourage agency. The end of an appointment provides an opportunity to show patients that they can tolerate treatment. Clinicians try to make patients aware of their successful dental experience to orientate them towards future treatment. In contrast to providing positive information at the end of appointments, the start may involve interpersonal work to make up for an information deficit such as that induced by intravenous midazolam. By explaining patients' anterograde amnesia, providers aim

to address incorrect interpretations and expectations of deeper sedation. By reassuring patients that conscious sedation is adequate, they seek to facilitate the current appointment.

## DISCUSSION

Participants reported a variety of interpersonal work augmenting technical conscious sedation provision, namely displaying care, containing emotions, demonstrating competence, and maximising the effect. Though these have been reported as separate themes for ease of illustration, participants discussed interpersonal work in a way which reflected the interaction between each facet in practise. Whilst empathy and clinical ability are seen by anxious patients as important in supportive clinicians,<sup>4-7</sup> clinicians' motivations and skills are not easily assessable by patients. Clinical ability is judged by surrogate markers such as clumsiness, whilst empathy is judged by demonstrations of positive emotion. The intentional display of care and competence to overcome patients' anxiety, *'help the sedation'* they receive, and mitigate for anterograde amnesia by providing positive memories and explanations demonstrates how conscious sedation requires more than just technical and impersonal drug provision. 'Medical' work is socially organised, requiring articulation,<sup>20</sup> and conscious sedation does not negate the need for effective behavioural management.<sup>21</sup>

As part of displaying care, the recognition that clinicians should adapt to their patients reflects research by Kulich *et al.*<sup>12</sup> who showed that dentists working with anxious patients adjusted their approach depending on the specific situation. Whilst expressing flexibility and adapting to patients, such dentists aim to avoid becoming emotionally affected themselves. The stress of providing treatment for anxious patients has been previously reported in studies of dentists' stressors.<sup>8,9,13,22</sup> Although both patients and referrers expect a degree of emotional investment and care from sedation providers, the flip-side of this empathy is *'emotional contagion'*,<sup>23-24</sup> the picking up and mirroring of another's emotions as a consequence of reflecting back the physical manifestations of those emotions. Dentists undertake a variety of approaches to cope with emotionally charged situations such as treating anxious patients, and whilst hiding emotional expression has been thought of as a 'less helpful' coping strategy because of a risk of burnout,<sup>13</sup> it is integral to sedation provision. The management of

others' emotions through such acted outward appearance as part of one's job is called 'emotional labour'.<sup>25</sup> Effective sedation provision depends on emotional labour, as staff portray a caring environment and prevent the communication of negative feelings. Such work may be completely invisible to others not doing the job.<sup>26</sup>

Patients' trust in a clinical setting occurs because clinicians act credibly.<sup>27</sup> The idea of self-presentation as a kind of theatrical performance<sup>28</sup> has been useful for analysing patient-clinician interactions,<sup>29</sup> and anthropological research has highlighted the importance of healers' personal manner to enhance treatment.<sup>30</sup> Studies of medical students illustrate the importance of portraying the 'clinician' role whilst undertaking clinical tasks.<sup>31-32</sup> Likewise the portrayal of confident competence was seen as important for sedation providers. The success or failure of sedation was deemed contingent upon the trust that could be engendered by such a demonstration.

The enhancement of sedatives' effects has long been recognised as an important part of effective provision. The Poswillo report<sup>33</sup> critiqued reliance upon pharmacological central nervous suppression whilst failing to address patients' underlying anxiety. In contrast, it emphasised the role of sedative agents to augment a hypnotic and reassuring interpersonal technique. This approach, and its difficulty, were recognised by providers who thought that good sedation provision involved the clinician '*help[ing] the sedation along*' [Provider 12], a skill that developed with experience.

The 'ideal' sedative should be free from interactions and side-effects.<sup>34-35</sup> Intravenous midazolam induces anterograde amnesia, temporarily preventing patients from acquiring long-term memories.<sup>36</sup> This may be useful for traumatic treatment, but may affect subsequent appointments if patients misinterpret their lack of memory as being due to unconsciousness. To counter this, providers reframe patients' experiences. Such discussions seek to encourage patients' reflexive acquisition of control, in order to reduce future feelings of powerless threat.

This study examined the inter-personal work involved during conscious sedation. It identified four strands of interpersonal work: displaying care, containing emotions, demonstrating competence and maximising the effect. Such work may be invisible to clinicians who do not use sedation, but are integral to provision. The report of the UK

Intercollegiate Advisory Committee for Sedation in Dentistry<sup>21</sup> asserts that '*conscious sedation is not a substitute for effective behaviour management*' (p. 8). This study demonstrates that successful sedation interlinks the two approaches. The findings reflect aspects of research on different clinical settings.<sup>7-9,12,13,20,22,27,29,31</sup> The results of this study are transferable to clinicians providing conscious sedation regardless of location, as the treatment setting does not negate the social nature of treatment. Whether the categories described are exclusive to treatment under sedation, or are transferable to other settings, warrants further investigation. The general need to manage outward emotional appearance reflects previous dental research,<sup>13,37</sup> so is also of relevance to clinicians who are not providing conscious sedation to measurably anxious patients. Whilst emotional labour is essential to sedation provision, there is a link between it and the emotional exhaustion facet of burnout.<sup>38-39</sup> Difficult patients (which anxious patients might be classified as) are one of the work environment factors which influence dentist burnout.<sup>40</sup> The relationship between emotional labour and burnout in dentistry warrants further research, as do the strategies and impact of treating patients amongst sedation providers to contrast with published research on general primary dental care providers.<sup>13</sup> Although analysis was reviewed by a non-dentist to ensure validity and prevent familiarity bias, the interviews were undertaken by a qualified dentist which may have affected areas of interest pursued during the interview. Further investigation by non-dental investigators may be useful to corroborate the findings.

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- **Clinic conceptualisation:** What thoughts come to you when you think of this clinic? ; How would you describe this clinic to someone else? ; Describe a typical appointment to me.
- **Purpose of the clinic:** What would be a “successful outcome” for the clinic from your perspective?
- **Pressures/demands are on the clinic:** Who do you feel affects what you do? ; What impact do they have on you? ; Do you ever feel conflicting demands? ; Are there any pressures in your work? ; How do you resolve demands and pressures?
- **Staff attitudes:** Can you describe your colleagues for me? What would the ‘ideal’ sedationist be like?

Figure 1. Provider interview topic guide

Excerpt from Transcript	Codes
<p><i>I think somebody in Perio should have driven up to that rather than pursuing some bloody silly treatment plan that came from a dental text book. I mean we do a lot of treatment, we do do things that perhaps are not in textbooks, you know we make it up as we go along to suit that patient. We patch fillings, we do all manner of stuff that we feel is appropriate for that patient. We are treating the patient not the tooth. All dental courses talk about the importance of treating the patient, and then the next thing they are talking about cavo-surface line angles! I would rather have second rate dentistry but a patient who wants to come back, than first rate dentistry and a patient so anxious that they never want to be seen by a dentist again.</i></p> <p>[Provider 13]</p>	<p>Taking responsibility to go ‘off plan’</p> <p>Following textbooks</p> <p>Going off-canon</p> <p>Making things up</p> <p>Treating to suit the patient</p> <p>Patching up</p> <p>Patient-appropriate treatment</p> <p>Treating the patient holistically</p> <p>Using cliché (pt not tooth)</p> <p>Paying lip-service to PCD</p> <p>Losing perspective to technique</p> <p>Compromising dentistry for patient acceptance (first rate care, second rate dentistry)</p> <p>Compromising patient acceptance for dentistry (first rate dentistry, second rate care)</p>

Figure 2. Example of open coding