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Title

Stress, burnout, depression and work-satisfaction amongst UK anaesthetic trainees; a qualitative analysis of in-depth participant interviews in the SWeAT study.

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Short title

Satisfaction and Wellbeing in Anaesthetic Training (SWeAT) part II: an in-depth interview study

Keywords

Anaesthetic training; work stress; burnout; work-satisfaction; wellbeing

Summary

Anaesthetists experience unique stressors. Recent evidence suggests a high prevalence of stress and burnout in trainee anaesthetists. There has been no in-depth qualitative analysis to explore this further. We conducted semi-structured interviews to explore contributory and potentially protective factors in the development of perceived stress, burnout, depression and low work-satisfaction. We sampled purposively among participants in the Satisfaction and Wellbeing in Anaesthetic Training study, reaching data saturation at 12 interviews. Thematic analysis identified three overarching themes: (1) factors enabling work-satisfaction; (2) stressors of being an anaesthetic trainee; (3) suggestions for improving working conditions. Factors enabling work-satisfaction were: patient contact; the privilege of enabling good patient outcomes; and strong support at home and work. Stressors were: demanding non-clinical workloads; exhaustion from multiple commitments; a 'love/hate' relationship as trainees value clinical work but find the training burden immense; feeling 'on edge', even unsafe at work; and the changing way society sees doctors. Suggested recommendations for improvement include: having contracted hours allowed for non-clinical work; individuals taking responsibility for self-care in and out of work; cultural acceptance that doctors can struggle; and embedding wellbeing support more deeply in organisations and the specialty. Nearly all trainees discussed feeling some levels of burnout, which were high and distressing for some, and high levels of perceived stress. Yet trainees also experienced distinct elements of work-satisfaction and support. Our study provides a foundation for further work to inform organisational and cultural changes to help translate anaesthetic trainees' passion for their work, into a manageable and satisfactory career.

Introduction

Anaesthetists often manage high-risk patients and situations in complex, demanding work environments [1-3]. Trainees may be particularly susceptible to work stress and burnout [4-7]. The nature of training is inherently demanding, with potential pressures including frequent rotations, long hours, and trainees' relative lack of clinical knowledge and experience in managing difficult situations [8-10]. The recent industrial action and unilateral introduction of a new employment contract in England highlighted the wellbeing of junior doctors, including anaesthetic trainees. A 2017 report by the Royal College of Anaesthetists found that 61% of anaesthetic trainees felt that their job negatively affected their mental health and that 85% were at higher risk of burnout [7]. Within that report, qualitative data collected during listening exercises highlighted that a lack of appropriate facilities, difficulty accessing flexible working patterns, the burden of examinations and assessments, and system-wide pressures, can all impact the morale and welfare of UK anaesthetic trainees. There is, however, a lack of targeted in-depth qualitative research to explore in detail which factors are associated with, and which are protective against, the development of stress, burnout and poor work-satisfaction in UK anaesthetic trainees.

The current study is the second part of the Satisfaction and Wellbeing in Anaesthetic Training study (SWeAT). Part 1 surveyed anaesthetic trainees and non-training grade junior anaesthetists in three UK postgraduate Deaneries and established a concerning prevalence of high perceived stress, high risk of burnout and high risk of depression [11]. This part of the study aims to explore further, using qualitative methods, which specific personal and professional factors are associated with the development of these issues, and which factors may be protective. This knowledge complements the quantitative data we have reported and may have benefits in guiding trainee recruitment, management and mentoring, and in informing resources designed to support UK anaesthetic trainees.

Methods

Consenting anaesthetic trainees who had participated in the SWeAT study and had provided contact details were interviewed by a trained psychologist using semi-structured telephone interviews.

Regulatory approvals for the SWeAT study were obtained via the Health Research Authority and Health and Care Research Wales for NHS sites in England and Wales, respectively. Ethical approval was obtained from Bath Spa University.

Interviews were conducted by a research psychologist, with experience of using this technique safely and effectively with sensitive topics [12-13]. The study protocol stated that if serious welfare concerns were identified, participants would be directed towards appropriate support organisations and withdrawn from the study. The study was formally supported by the Professional Support Unit (PSU) within each participating Deanery, which agreed to assist any trainees in whom potential welfare concerns were identified.

The SWeAT study contacted all 619 anaesthetic trainees and non-training grade junior anaesthetists within South West England and Wales. Once participants had completed the anonymous survey (Part 1), they could opt-in to being contacted by a University-based researcher to discuss participating in a telephone interview (Part 2), designed to further explore their experiences of work stress and work-satisfaction. As part of efforts to protect participants' identities during the study, the interviewer was independent of the respondents' hospitals, deaneries and the clinical research team members. Recruitment and interviews occurred August-November 2017.

Questionnaires were completed by 397 participants (64.1%), with 209 (52.6%) consented to contact for in-depth interviews, whereas 188 (47.4%) preferred to remain anonymous. While 47.4% of all participants completed the forms anonymously, in the groups with high perceived stress, high risk of burnout, high risk of depression, and low work-satisfaction, the proportion reporting anonymously was 70%, 89%, 96% and 65%, respectively.

To select potential interview candidates from those who had consented, we used purposive sampling, in which the researcher strategically selects to enable inclusion of information-rich, appropriate cases [14]. We sampled from both ends of the questionnaire response spectrum, to explore relevant associated factors; particularly the likely protective and risk factors for the development of poor job satisfaction, burnout, stress and depression. We therefore contacted a group of participants who were in the lower range of work-satisfaction [15-16] and who, where possible, also scored 'high' for overall risk of burnout [17]. Similarly we contacted a group of participants scoring in the higher range for work-satisfaction who also, where possible, had lower range scores for perceived stress [18] and depression [19]. We allowed three contact attempts per person. Fourteen potential participants responded to interviewer contact, two decided against participation, and informed consent was gained from twelve participants who were all interviewed with concurrent iterative analyses being conducted before saturation occurred.

In qualitative research, data saturation occurs when researchers judge no new themes are arising and is a common method of determining sample size, focusing on the richness or otherwise of data in fulfilling study aims [20]. The interviewer stopped contacting new participants once it was judged saturation had been reached, at twelve interviews. The interviewer did not look at participants' survey scores prior to interview, to reduce bias. Saturation was judged purely based on narratives and codes, not on participants' scores.

Thematic analysis was used to structure data collection and interpretation [21]. We used semi-structured telephone interviews which have been shown to encourage respondent participation with sensitive topics [13] including work stress [22]. A question schedule was developed by the research team, enabling us to respond to participants' leads while gaining similar information from all interviewees. The interview schedule was informed by our literature review and piloted on two trainees, without requiring substantial changes. We used open questions designed to enable exploration of trainees' work stress and work-satisfaction e.g. 'How do you feel about your work?' The only specific question related to the junior doctors' contract dispute, since that context was so important at the time of study design and recruitment (see Appendix 1 for questions). Interviews were conducted whenever suited the participant, lasting a mean of 55 minutes. EW conducted all 12 interviews, which were digitally recorded, transcribed verbatim, and anonymised before analysis.

An inductive approach was adopted to analysis, so that the themes identified emerged from the data rather than from a pre-conceived coding scheme. Analysis was done primarily by EW. Prior to the commencement of coding, the coder immersed herself in the data through repeated readings of transcripts and initial interpretations were recorded. Initial codes (salient features), were used to organise the data into meaningful segments. The main analytic phase entailed considering how different codes combined to form broader themes, which were reviewed and named. The whole process was checked by an external, highly experienced qualitative researcher to ameliorate bias. Research team members then accessed and debated the first set of coding and themes. The coding titles did not change substantially but team members negotiated which ones were most salient, based on number of times they appeared within and across interviews, and the intensity with which they were expressed. We debated differences until consensus was reached, and we had defined, named and exemplified all themes.

Results

Ten interviewees were in the 'finding things harder' group (of whom, most were in the higher risk groups for burnout and depression) and two in the 'finding things easier' group. No participant was withdrawn from the study, but in some cases, the interviewer checked that they had already accessed support, or reminded them of sources of support. Table 1 provides details of participants. It is important to note that *a priori*, we wanted to recruit a balanced mix of those who scored high and those who scored low for work-satisfaction and burnout risk. In practice, even though those who had provided contact information were statistically significantly more likely to be in low risk groups, it was almost impossible to recruit from the satisfied group (n=2), perhaps because those who *had* struggled were more likely to judge it important to discuss this, to improve future training conditions. We reiterate that the interviewer did not look at participants' scores prior to interview, to reduce bias. Later analyses showed that participants who scored as 'satisfied' still discussed many elements of work stress, and those who scored as 'dissatisfied' also discussed work-satisfaction. The mismatch between scores and individual narratives confounded our expectations.

(Table 1 near here)

Thematic analysis identified three main themes: '*factors enabling work satisfaction*', '*stressors of being an anaesthetic trainee*' and '*suggestions for improving trainee working conditions*'. These themes and their sub-themes are presented with some short exemplifying quotations; longer ones are presented in boxes and Appendix 2 provides further examples.

Factors enabling work satisfaction

This theme had three strands:

Patient contact

Many participants enjoyed the skill of establishing patient contact quickly, exemplified by Anaesthetist 4: "*As an anaesthetist, you have a very small window of time to get to know someone well enough that they will trust you to give them quite risky therapies. I love that relationship building that you have to do quite quickly.*"

The privilege of enabling good patient outcomes

Most participants appreciated the technical skills and intellectual satisfaction concomitant with seeing patients improve, even describing "*miracles*" of care (see Box 1). Many participants gained great satisfaction from learning highly specialised skills: "*you've done it well, you've dealt with an*

emergency, they've come through the other side...for the most part, many of them have been completely unaware of how scary that should have been for them. That's what you take home and go 'This is why I do this job'" (Anaesthetist 8).

Strong support at work and home

This was critical for all participants in order to achieve job satisfaction and be somewhat protected from job strain. Most participants greatly valued the high levels of contact, learning and support they got from consultants (although a minority criticised decontextualised, late feedback).

Anaesthetist 12 commented *"we are very lucky in anaesthetics that we get that one-to-one training time compared to other specialties"* and some linked high support to high demand, feeling trusted to do a job (Box 1). Most participants discussed the importance of sharing the experience of the training programme with peers, and most stated they simply could not undertake training without family and friends' support. For many, work encroached significantly on personal lives, and they were indebted to loved ones for listening to them offload about work issues or taking over household chores.

(Box 1 near here)

Stressors of being an anaesthetic trainee

This theme had five strands:

Non-clinical workloads are too high without allocated time.

Almost every participant discussed this as a significant stressor, highlighting the need to complete audit, research and management projects, exemplified by Anaesthetist 8, Box 2. Some participants thought that this was worse within anaesthesia (Anaesthetist 7, Box 2) whereas others thought that the issue was common to *"all training programmes"* (Anaesthetist 4, Box 2). Many trainees felt that audits were just *"ticking boxes"* and not serving any useful purpose such as results implementation.

Exhaustion due to multiple commitments

Nearly all participants discussed how demand to fill rotas, coupled with the non-clinical workload, led to bouts of exhaustion, exemplified by Anaesthetist 2: *"I was sleeping like three or four hours a night tops and I was...running on empty. I literally think I did six weekends in a row and I was just dead."* Trainees described that anaesthetics is a challenging specialty in this respect (Anaesthetist 7, Box 2). Some trainees felt pressurised into filling rota gaps and were then aggrieved when they could

not book study leave. They discussed needing to be *'in two places at once'* (Anaesthetist 2) to fulfil job demands.

The 'love/hate' relationship with work

Nearly all felt what was called a *'love/hate'* relationship by Anaesthetist 1 as they valued clinical work but found the overall burden of training immense. This was summed up by Anaesthetist 6: *"What helps me is I really love my job, which I think is hugely important. What doesn't help me is the frequent rotations and the amount of extra-curricular work that we're required to do."* But for some trainees, these feelings of *"what helps"* and *"what doesn't help"* were heavily weighted towards the latter, such that the training experience was experienced as overwhelming (Anaesthetist 1, Box 2).

Feeling 'on edge', even unsafe, on the job.

Job demands which could be almost overwhelming led to some participants feeling *'on edge'* and even that there might be safety issues for patients. These were powerfully expressed by a minority. Trainees discussed the stress of feeling they could be blamed if something went wrong: *"so for anyone who dies on the operating table they will be in the Coroner's Court and the surgeon will be in court too. So yes, I found that quite a stressful aspect of it"* (Anaesthetist 10). One trainee was vehement that training is inadequate, giving two specific examples and implying there are more (Anaesthetist 10, Box 2).

The changing way society sees doctors

This theme was primarily concerned with the junior doctors' dispute with the government, although participants mentioned wider issues regarding how the medical profession is viewed less highly since they started training. No-one suggested that changing societal views single out anaesthetists in particular, rather that all doctors are affected. Such views contributed negatively to all participants' training experiences. Four mentioned benefits of the new contract (forcing Trusts to create better rotas, having to be at work longer meaning less of it was taken home, bringing colleagues closer via camaraderie in their opposition to the contract). The other eight participants were entirely critical of not only the contract but how it had been presented in the media and reported that this impacted on their wellbeing. For example, *"you feel hopeless. I've done ten years post-grad, I'm slogging my guts out literally every day and for what, to get to the end and find that you've got a government that doesn't appreciate you, the NHS is about to collapse having no staff, then a pay cut, then they're trying to change consultant contracts too"* (Anaesthetist 2). Many participants commented on generational changes whereby doctors are no longer accorded respect (Anaesthetist 4, Box 2).

(Box 2 near here)

Suggestions for improving trainees' working conditions. This theme had four strands:

Need time within the working day for non-clinical activities

Almost every participant suggested this, Anaesthetist 5 noting *"it does strike me that a training job should incorporate time for book training"*; see also Anaesthetist 4, Box 3.

Adequacy of trainer supervision and feedback

Participants suggested that all supervisors should be trained in spotting differences between natural anxiety and distress in trainees, signposting onwards for the latter, and in giving timely, higher quality contextualised feedback that was not anonymised, e.g. *"nobody feeds this back to you in person at the time. Which is when you need it actually. You need to be able to sit down in a room and, you know, talk about things"* (Anaesthetist 3).

Cultural shift to acknowledge and support distress at work.

Participants felt a cultural shift to acknowledge that trainees may struggle psychologically was needed in order to open up practical support avenues e.g. *"change the culture by making it a bit more open, so having a peer support group and having it as something which is advertised in emails or newsletters"* (Anaesthetist 3). Some participants discussed how they would like mentors who look out for their wellbeing as well as their career progression, since they felt mentors focus much more on the latter, and suggested regular, brief wellbeing checks.

Take responsibility for self-care

Some participants discussed how they protect themselves in work, e.g. making criticism they receive constructive, changing their lists to enable better exposure to relevant training opportunities. Most participants discussed ways they manage what they termed their *"work-life balance"* (e.g. one refused to stop dancing lessons, even when advised to do so in order to revise; others discussed watching movies and exercising).

(Box 3 near here)

Discussion

Literature suggests that anaesthetists can find work demanding [1-3, 23]; two recent surveys of UK anaesthetic trainees reported high risk of burnout [7, 24]. Our findings confirm this, and add detailed examples of this emotional and physical exhaustion. This is the first in-depth qualitative exploration of UK trainees' work stressors and work-satisfaction. Our five thematic findings about '*stressors of being an anaesthetic trainee*' are concerning since whilst protective factors against work stress were highly valued, they did not mitigate negative effects greatly. Our themes about the 'love/hate' relationship, engendered love for clinical aspects but the immense overall pressure, and feeling on the edge, relate to the concept of burnout, since there was ample evidence of trainees feeling emotionally exhausted and with a sense of reduced personal accomplishment. Seven interview participants were in the high overall burnout risk group. Our themes explore individual manifestations of burnout risk not explored by quantitative data alone.

However, almost all trainees found elements of professional satisfaction. Most discussed feeling supported by consultants in their learning, and often more so than in other specialties; most valued doctor-patient relationships and enjoyed learning technical skills. These findings are consistent with previous research showing there can be high levels of professional satisfaction amongst anaesthetists, including trainees [25-29].

Our study explored in-depth trainees' own suggestions for improvement. This is important, since previous work shows healthcare professionals are more likely to consider modified work practices if they know that peers were consulted as part of intervention development [30]. Participants did not offer solutions to their perceived problem of worsening societal views of doctors but concentrated on improving issues specific to anaesthetic training, and did discuss changing the culture *within* medicine, so trainees can freely seek help if needed. The solutions trainees offer are a mix of changing organisational practice and changing internal responses to ongoing stress. Whilst it is useful that participants engaged in self-care (and this is to be encouraged) it is important to research how organisational and cultural factors can be modified in order to achieve sustainable improvements without stigmatising individuals who are not coping with ongoing stress and highly demanding workplaces [31].

Our analysis strongly suggests that trainees want more time within training for essential non-clinical work. This was the single biggest issue arising, in terms of the number of participants mentioning it (all) and the impact it had on their working lives (it caused physical and emotional exhaustion, it was

related to high stress levels, and at times negatively affected the delicate effort-reward balance). This particular issue was recently reported on a national scale by the Royal College of Anaesthetists (RCoA), so our analysis reinforces and expands their recommendation that anaesthetic departments throughout the UK should provide work schedules which enable trainees to develop personally and professionally, including specifically, consideration of allocated Supporting Professional Activities time for trainees [7].

Our analysis suggests some trainees need more time so that they feel that the care they routinely deliver is of the same standard that their workplace-based assessments say they have achieved. It is vital that trainees are competent. Confidence issues are a separate problem but if trainees are competent and feel confidence in their competence too, these two things together should reduce the feelings of 'running on empty' and exhaustion that trainees described. One way to achieve this is to extend training, which would be challenging. Another approach could be a more individualised sign-off process, with trainees stating when they felt they were ready to be signed off on a particular skill. This would require dual sign-off to confirm the doctor was both competent and confident. While the perceived readiness to undertake clinical work is probably linked to self-perception and confidence, clinician stress (and performance) are likely to be improved when a doctor is both competent and confident of that task.

No participant spontaneously mentioned Professional Support Units despite many describing exhaustion, and issues of burnout. Awareness of Professional Support Units could be increased at times outside induction, as previous research has shown trainees do not take in information about the Units then [32]. Trainees' suggestions for wellbeing mentors could build upon this awareness. The RCoA survey [7] also recommended regular wellbeing and morale checks, similar to those our participants suggested here. A minority of participants reported consultants gave delayed, decontextualised feedback, so more trainers could access training themselves, in line with recent reports that both trainers and trainees want this [7, 25].

Our study has limitations. Firstly, our participants are only from three UK postgraduate training Deaneries. However, it is likely there are commonalities between their experiences and other UK anaesthetic trainees. The description of our participants, and methodology, enables readers to decide how the sample here relates to the population in which they are interested.

Secondly, we undertook only twelve interviews. Our sample was weighted (ten versus two) towards doctors who had scored high on measures of job dissatisfaction and risk of burnout. However, individual narratives were considered in isolation from these scores when deciding if saturation was reached (indeed the participant who felt so privileged at seeing ‘miracles’ was from the ‘dissatisfied’ end of the spectrum). Twelve cases is likely too small a number to determine how participants’ narratives differed between the high/low group. This is important for this study and for other studies that seek volunteer interviewees. However, an experienced researcher judged saturation, and empirical evidence suggests that twelve in-depth interviews may enable saturation [33] with a recent review of healthcare studies reporting a median of 13 participants [34]. Finally, telephone interviews have been criticised for lacking face-to-face nuance [35] but also found to enable extremely sensitive talk via their relative anonymity [36]; that appeared to be so here.

In conclusion, we identified three overarching themes amongst anaesthetists in training: factors enabling work-satisfaction; stressors of being an anaesthetic trainee; and suggestions for improving working conditions. Suggestions included: having contracted hours allowed for non-clinical work; individuals taking responsibility for self-care in and out of work; cultural acceptance that doctors can struggle; and embedding wellbeing support more deeply in the specialty. Our exploratory study provides a foundation for further studies to translate what anaesthetic trainees say about making the work most clearly love more manageable, into organisational and cultural changes for the better.

Competing interests

The authors declare that they have no competing interests.

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Table 1: Summary of participants' characteristics (n=12)

Stage of training	ST6-ST7	ST3-ST5	CT2
Number	4	5	3
Gender	2M; 2F	3F; 2M	3F

Box 1 Factors enabling work-satisfaction

Sub themes	Illustrative quotations
1.1 Patient contact	Anaesthetist 7: <i>"Sometimes the patients, if you go and see them a few days afterwards, or their families even, and they just give you a hug and, sort of, well-up and say, 'Thank you so much. Thank you.' To me, well, that's why we do it, really, isn't it?"</i>
1.2 The privilege of enabling good patient outcomes	Anaesthetist 4: <i>"I feel a huge sense of privilege because we get to see things with anaesthesia that most people don't and that's even within healthcare. You genuinely get a chance to see miracles happen I think"</i>
1.3 Strong support at work and home	Anaesthetist 9: <i>"Anaesthetists are well supported and also I think certainly more in anaesthetics and intensive care, because you tend to do things more autonomously.... I think compared to other specialties we're actually fairly well supported"</i>

Box 2 Stressors of being an anaesthetic trainee.

Sub themes	Illustrative quotations
2.1 Non-clinical workloads are too high without allocated time	<p>Anaesthetist 8: <i>"I don't think I'd ever really grasped how much extra work there was on top of the day job. And all the exams and things and I think it's really important to get that out there, make sure that people really know what they're taking on because it is a stressful job".</i></p> <p>Anaesthetist 7: <i>"I've got quite a lot of friends in other medical specialties. They don't have any of these pressures, on their CVs and things. So, I think that is worse in anaesthetics. Like my med reg friends are absolutely horrified by the stuff that we have to do"</i></p>
2.2 Exhaustion due to multiple commitments	<p>Anaesthetists 7: <i>"I think particularly the amount of on-calls is worse in anaesthetics than say, for example, medicine, or GPs...We do a really high proportion of nights compared to other specialties."</i></p>
2.3 The 'love/hate' relationship with work	<p>Anaesthetist 1: <i>"It's like an abusive partner. You give everything and you love so much of what you do and the actual getting somebody better is fantastic. But it takes its toll on you. It comes at such a cost of your own life."</i></p>
2.4 Feeling 'on edge', even unsafe, on the job.	<p>Anaesthetist 5: <i>"how can you say you have had training in paediatric anaesthesia over three days? I certainly would not anaesthetise a child on my own, so what was the point in doing it? Well in theory I have done my core paediatrics anaesthetics training, yes. So it is in terms of professional satisfaction but it is more about how the process trumps the actual reality. And I think that there is a lot of that. I think it is a recurrent theme throughout training...I was an ACCS anaesthetics trainee...and just because of the hospital that we were in, [PLACE] does not receive trauma patients...but you still need to get your trauma management signed off so we ended up manufacturing artificial situations in order to get them signed off. And ad infinitum."</i></p>

	<p>Another trainee felt there was inadequate time to review patients in order to safely anaesthetise them:</p> <p>Anaesthetist 10: <i>“I think before you anaesthetise someone you have to be quite detailed in your history-taking...And you have got to go and quickly assess like nine patients or seven patients who are going to be on your afternoon list in a time of half an hour. I think that is quite a challenge because you have to sift through loads of notes and I think that was a huge weight, a huge burden that I felt. And that I didn’t feel I knew enough about my patients to anaesthetise them. And if you miss something you can potentially kill someone if you don’t know some little detail.”</i></p>
<p>2.5 The changing way society sees doctors</p>	<p>Anaesthetist 4: <i>“there has been a cultural shift in the patients as I look after them in that, if I go back ten years, my average patient was exceptionally grateful to see me and was relatively contrite about wasting my time. You had that almost, I’m terribly sorry to trouble you doctor, that type mentality, and I would say that the vast majority of my patients now are incredibly entitled.”</i></p>

Box 3 Suggestions for improving trainees' working conditions

Sub-themes	Illustrative quotations
3.1 Need time within the working day for non-clinical activities	<p>Anaesthetist 4: <i>“The big system change that I think we need is to have allocated time within the working week to build our CVs. I would be more than comfortable if that was still you must attend your normal place of work but you don’t have to be doing clinical... I’ve got no problem if they want to manage it to that level. That would be fine. I’d happily sit in the department and work on my laptop on whatever I’m doing. In essence, I think we need a similar arrangement to consultants that we get maybe half a day a week or something that we can just sit down and use as our time to do, and happy to demonstrate that we’re actually doing it, this kind of work that otherwise falls into evenings and weekends.”</i></p>
3.2 Adequacy of trainer supervision and feedback	<p>Anaesthetist 8: <i>“Once a year you get completely anonymised consultant feedback where they, they basically send an email out to everybody and say, ‘Can you all comment on these trainees’. I mean, it’s variable who will comment, so we’ve got about forty consultants. I think I had eleven responses, but it’s completely anonymous and they can basically write anything they want...and their comments, you know, there’s absolutely no context to them so you’ve no idea about what scenario they might be referring to, so, you know, sometimes you can have, you can sit and think, ‘Oh my God, when did I do that? That’s really stupid, why would I do that?’ It’s not very constructive....And I was in tears, I nearly left my training after that feedback.”</i></p>
3.3 Cultural shift to acknowledge and support distress at work.	<p>Anaesthetist 4: <i>“To me it feels, talking to my colleagues out there, there’s probably a tranche of people that feel that going to the professional support unit is a sign of failure or a sign of weakness”</i></p>

	<p>Anaesthetist 2: <i>“You can have some sort of like a wellbeing check in with someone who’s genuinely not...like each hospital, each department had someone who was actually just nice and caring... like the college tutor or someone and it's all kind of ... 'cause I know that's what the mentor is meant to be but lots of people don't kind of want that. And well, I feel as if most people love talking about themselves if you give them a chance, so if you sit them down and say, tell me about you, how are you doing, how is your life, and just listen then ramble away after a while and I guess that’s probably what a mentor is meant to be. But if you’re in a situation where you kind of you really don't want to talk to your mentor 'cause you've got them for the wrong reasons [career building reasons] then you kind of ... I kind of miss that, I'd really like to have that opportunity. But it's not something that’s even available to me at the moment, I don't think.”</i></p>
<p>3.4 Take responsibility for self-care</p>	<p>Anaesthetist 1: <i>“So what I tend to find I do now is if there's been a bit of criticism in the handover that I think has been unfair, and they've left to go over HDU or ITU, they're going to start their ward round. I just give a couple of moments then I go over and say, ‘Do you mind if I just ask you, I just want to make sure you said about this in handover, I just want to make sure I don't make the same mistake again. ‘And try and put it ... I try and put the onus back onto me, so it's not like ‘Oh I think this is unreasonable.’ But it's ‘can I just be certain, so I don't disappoint you again’, kind of situation. So it gives them the control back in the situation, but it similarly means that I offload a little bit of why this has happened and why the criticism's happened. And it means that ... well quite often what's happened with this particular one, the two times I've done it, they've actually gone, ‘I'm really sorry, I didn't mean to be so critical.’ “</i></p>

	<p>Anaesthetist 8: <i>"I've had to stop exercising because I've not had time but I've been very clear that I will not give up my weekly yoga class"</i>.</p>
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Appendix 1: Interview schedule

1. How do you feel about your work?
2. What helps you in your work?
3. What gives you professional satisfaction? What hinders and helps this?
4. What hinders you in your work? What would improve these issues?
5. What coping strategies do you use?
6. Has there been any impact on your work-satisfaction and wellbeing from the junior doctors' employment contract [not relevant to Welsh trainees who remain on existing Ts and Cs]?
7. Is there anything you would like to say that we have not covered?

NB For all questions, the interviewer will use their judgement and expertise to employ the following probes as needed:

Elaborative

For answers which might initially be "yes" or "no" – add "why?" "why not?" then further probes:

Can you give me an example of that?

Do you think that this is typical of x?

Can you tell me a bit more about that?

What did you think/feel about that?

Why is that/why do you think that is?

Retrospective

Can I take you back to something you said earlier?

You said...could I ask you a bit more about that?

Comparative

How does that compare with your experience of?

How could things have been different?

What advice would you offer to someone in a similar position to you?

How would you improve x?

Probes and question styles adapted from:

Banister, P. et al. (1994) *Qualitative Research Methods in Psychology: A Research Guide*. Buckingham: Open University Press.

Bowling, A. (2002). *Research Methods in Health: Investigating Health and Health Services*. Second Edition. Maidenhead: Open University Press.

Kreuger, R. (1998) *The Focus Group Kit*. Thousand Oaks: Sage.

Richardson, J.T.E. (1996). *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*. Oxford: Blackwell.

Silverman, D. (1997) *Qualitative Research: Theory, Method and Practice*. London: Sage

Appendix 2

Table 2: Further Illustrative quotations for themes and sub-themes

<i>Theme and sub-themes</i>	<i>Illustrative quotations</i>
Theme 1: Factors enabling work-satisfaction	
1.1 Patient contact	Anaesthetist 12: <i>"I think that gives me a massive buzz in actually seeing positive results of what I do at work. And I am someone who quite likes having awake patients so I don't need all my patients to go to sleep. There is the thing said that anaesthetists like patients because they get to put them to sleep to make them stop talking! But I actually love talking to people"</i>
1.2 The privilege of enabling good patient outcomes	Anaesthetist 4: <i>"I feel a huge sense of privilege because we get to see things with anaesthesia that most people don't and that's even within healthcare. I've seen people come in and have a heart lung bypass and open heart surgery and have open brain surgery and you just get to see some absolutely incredible stuff that just makes you completely humbled. I've seen people who go to theatre with a (inaudible) brain tumour and they come out of theatre and they can move one side of their body they haven't been able to move for days. You genuinely get a chance to see miracles happen I think. That is just a massive</i>

<p>1.3a Strong support from peers</p>	<p><i>privilege, absolutely huge privilege.”</i></p> <p>Anaesthetist 10: <i>“there is quite a lot of satisfaction in someone getting well relatively quickly”</i></p> <p>Anaesthetist 4: <i>“I really enjoy just the technical hands on side of the job. I really love putting patients off to sleep and doing it well and I enjoy doing all the lines and the procedures and things so the satisfaction of doing a job well. I like the fact that they’re in Recovery and awake and breathing and soon you go home guilt free. With anaesthesia that’s a real benefit that if a patient is awake, you’ve done your job okay.”</i></p> <p>Anaesthetist 10: <i>“[there is] quite a lot of satisfaction in the practical things that go alongside it, so getting to put lines in people, so central lines and arterial lines and it is quite nice to have the practical skills.”</i></p> <p>Anaesthetist 11: <i>“being in a situation that’s an emergency-based situation where actually we’ve got some skills that other people don’t necessarily have, and we can also help to calm the situation down. So I quite enjoy those situations as well when you’re sort of almost thrown into the deep end..[I] quite like it.”</i></p> <p>Anaesthetist 8: <i>“I think things that help in work are having good colleagues that you can talk to, actually, I work in quite a good team at the moment where, you know, we (inaudible section) trainees we can all sit and have a good cry together and talk through stuff and everything’s fine.”</i></p> <p>Anaesthetist 6: <i>“I love my colleagues. From a social perspective, it’s a very large specialty, so there are lots of us. But it’s also quite a close specialty, so we all rotate and work together repeatedly throughout our training. So it means that we’ve probably got lots of friends in any</i></p>
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1.3 b Strong support from consultants

individual workplace, that we always know somebody, which is nice.”

Anaesthetist 9: “So I think in anaesthetics you tend to have a lot of consultant contact, so you tend to see consultants fairly regularly, it tends to be fairly well staffed, compared to other areas at the hospital. And you ... some of the time ... well, actually a lot of the time, you tend to ... you do a similar, or the same job, as the consultant, so when you’re doing anaesthetics you’re actually doing the same job as if the consultant was doing that. So I think it’s easier to feel like you’re there for a reason and that you’re valued. But on the whole I think anaesthetists tend to occupy positions in the hospital ... more supportive positions, I think the work that we do tends to lend itself to that. So I’ve always felt fairly well supported in that.”

Anaesthetist 2: “But for anaesthetics especially when you’re more junior you’re doubled up with a consultant every single day, one-on-one with the boss you sit with them, you do everything with them, you have coffee, you talk, like you have much more of a closer, well I want to say peer relationship but it’s not but it’s more that you’re spending lots of quality time one-on-one which you don’t really get in other specialties. And so for that reason a lot more down to earth, there’s less of a hierarchy I guess in some senses. But there’s differences between some consultants will just use you as a tool to do the work and have coffee whilst you babysit. But all of them are very dynamic, they’re very interested in learning and teaching so they’re interested in helping you progress. There’s a lot of very good personalities in anaesthetics. And that’s a really ... like the one-on-one time with consultants is not like in any other specialty I don’t think.”

Anaesthetist 1: “One of my consultants said the thing with anaesthetics particularly, it’s all peaks and troughs. He said it’s just the only thing that changes is as you get more experienced, you get more time between the troughs. So I think maybe the fact that people

<p>1.3c Strong support from family members</p>	<p><i>who are more senior, people who I look up to, have acknowledged and say that this happens to everyone, that makes me feel a bit better."</i></p> <p>Anaesthetist 7: <i>"the work life is very stressful. I mean, some of the people may say they find work an absolute breeze, but I feel very lucky that my husband's brilliant because, if he wasn't, I think it would be a lot harder. He does everything. He does the food shop, the housework."</i></p> <p>Anaesthetist 1: <i>"And again, if it wasn't for the fact that I've got family nearby, I wouldn't be able to do my job, because the sort of hours that come with our job...because the day-care centres aren't open."</i></p> <p>Anaesthetist 12: <i>"I think I am lucky in that I have an understanding husband which is something that massively helps me."</i></p>
<p>Theme 2: Stressors of being an anaesthetic trainee</p> <p>2.1 Non-clinical workloads are too high without allocated time</p>	<p>Anaesthetist 4: <i>"one of the problems with anaesthetic training, and actually with all training programmes in the UK, if you have your core working hours, which are usually 48 hours a week, that just accounts for your time where you are in the hospital providing direct clinical care. On top of that there is an expectation that all trainees complete audit and research projects, have some kind of role in management things like writing rotas or doing quality improvement and are involved in education at some level."</i></p> <p>Anaesthetist 5: <i>"Trying to do your day job whilst revising for exams is very difficult. And particularly with the anaesthetic exams because they happen later in our training career than for example the GP exams or surgical exams. I think that is an issue which affects anaesthetists more because they have more responsibilities and they</i></p>

<p>2.2 Exhaustion due to multiple commitments</p>	<p><i>are older by the time they sit their exams.”</i></p> <p>Anaesthetist 1: <i>“So then when I failed my exam in MONTH, I then tried to book that study leave ... literally I booked it in MONTH, before the next course in MONTH, and again they wouldn't let me have the leave. And you think, well, hang on, I'm trying everything here, trying to help, I'm trying to do my job, I'm trying to also help you with service provision and all I'm asking for is a couple of days and you're saying I can't do it because you can't cover two night shifts, when I go out of my way to take locums for you.”</i></p> <p>Anaesthetist 2: <i>“Well I just kind of kept going and now I've just fallen in a heap.”</i></p>
<p>2.3 The love/hate relationship: Valuing clinical work but finding the overall training burden immense.</p>	<p>Anaesthetist 1: <i>“It's a love/hate relationship I think. I love most of what I do and the actual clinical job is fantastic. The things I don't like, the hours... and the fatigue can be pretty tough. The extra hours you've got to put in, I mean the exam is just hideous. And that's when I start to think, actually I kind of resent my job a little bit because it takes so much away from home. And so much of yourself.”</i></p>
<p>2.4 Feeling on the edge, even unsafe, on the job</p>	<p>Anaesthetist 7: <i>“I've come so close to quitting so many times, just because I want to have a life. I look at my GP friends who have such a good work/life balance, but the only reason I haven't really is because I'm so close to the end now, and I've worked so hard to get here, that I just need to keep my head down. As I say, everyone says that once you get your consultant job, it's all a lot better. So, you've, sort of, got your job, so you don't have to continually be trying to beat everybody else.”</i></p>

<p>2.5 The changing way society sees doctors, exemplified by the new contract</p>	<p>Anaesthetist 1: <i>"I laugh at my [close relative] because she seems to be so proud of the fact that I'm a doctor and goes on about how it's a really big deal. And I just think, no it isn't, it's not. We get paid a crap wage, we work horrendous hours. When you break down the hourly rate, it's nothing for what you're doing. And at the end of it all, you might get sued for manslaughter, you know. It's not anything particularly special. And I think it's only going to get worse as time goes forward."</i></p> <p>Anaesthetist 6: <i>"All you've got to do is open a newspaper and it's ... some are worse than others, but doctor-bashing and slating people for having been seen having a cup of coffee on their shift, or people report you for wearing your uniform to the carpark. It's a constant barrage of pressure and what you should not be doing and what you can't do, rather than what you can."</i></p> <p>Anaesthetist 5: <i>"I think that the implementation of the contract has been a disaster. I mean everyone says it was poorly thought out and poorly written and we are at the pointy end of that now as nobody knows what their salary is meant to be. Nobody knows how it is meant to progress and it certainly makes planning very difficult from this time."</i></p>
<p>Theme 3: Suggestions for improving trainees' working conditions</p> <p>3.1 Need time within the working day for non-clinical activities</p>	<p>Anaesthetist 3: <i>"We should have time released within our contracted hours for other projects, in the same way as a consultant or a staff grade would. I suppose the difficulty with that would be that then they would argue that we're getting less clinical exposure. But I see that as an important part of our professional development as well."</i></p>

<p>3.2 Adequacy of trainer supervision and feedback</p>	<p>Anaesthetist 2: <i>“Just to kind of know what you're aiming for and what to expect, and what's expected of you 'cause you never quite know if you're living up to people's expectations until you get your anonymous feedback and if you get some bad feedback you're trying to work out who it is and it all sort of kind of ... you never feel like you can relax, you're always trying to make a good impression, you can never just relax and be yourself.”</i></p>
<p>3.3 Cultural shift to acknowledge, support and reduce distress at work</p>	<p>Anaesthetist 12: <i>“it is also the trainee's responsibility that they ring the consultant of the day and go, 'I will need a lunch break at such and such a time.' But I think the issue is that we are quite a proud bunch of people who like to be shown that we are coping and ringing someone to say you want a thirty-minute break....?”</i></p>
<p>3.4 Take responsibility for self-care</p>	<p>Anaesthetist 4: <i>“I do mindfulness quite a few days of the week when I remember and have time. So, I think, I'm quite a big believer in that...it was self-motivated”</i></p>