Doing a good job and getting something good out of it: stress and well-being in anaesthesia

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Key points

- Chronic stress that trainees with low self-efficacy can experience may lead to burnout.
- Anaesthetists can reduce stress effect of difficult clinical situations by redefining them through reappraisal.
- Avoiding difficulties may be tempting but this is a maladaptive coping strategy and obstructs learning. Trainees need support to stay in demanding situations and learn from them.

Summary. The anaesthetist’s work, aimed at giving safe anaesthesia to patients, can do both harm and good to the anaesthetist. Research on stress in anaesthesia has traditionally focused on how the negative effects of stress can be avoided and much effort has been put into improving anaesthetists’ work environment to reduce the level of stress. In this review, however, we give attention instead to what the individual anaesthetist can do to improve his or her well-being at work. Stress is, and will remain, an inevitable aspect of the anaesthetist’s occupation but, as for any professional working in a stressful environment, adaptive coping can make a big difference in outcome. The choice between construing a difficult clinical situation as threat or challenge is important here because of the difference in the resulting stress response. The anaesthetist can reduce the stress effect of a potentially stressful situation by thinking of it in a new way, by redefining it through reappraisal. We describe here some lines of thought that experienced anaesthetists use to buffer the effects of work stress on physical health and mental well-being. By reframing a situation, they can reduce its stress content even if the problem at hand cannot be successfully solved. Trainee anaesthetists, who experience much stress at work and are at risk of burnout, would benefit from learning about these coping strategies.

Keywords: anaesthetists; coping skills; stress

Anaesthetists die at a younger age than doctors in other specialities; this was the main finding of a Swedish study reported in 2002.1 The results, when first presented at a meeting with Swedish anaesthetists, resulted in front page headlines in daily newspapers and caused much worry among Swedish anaesthetists. It gave rise to widespread discussions about stress and working conditions for anaesthetists. Even though the conclusions from the study were soon questioned,2 stress in anaesthesia had become topical and remains so today. Focus in the discussions has mostly been on the negative aspects of stress and much effort has been put into improving anaesthetists’ work environment to reduce the level of stress. In this review, however, we will give more attention to what the individual anaesthetist can do to improve his or her well-being at work. We will start with a brief description of the stressors in anaesthesia and how stress is perceived and experienced by anaesthetists.

Potential stressors in the anaesthetist’s work environment

One of the hallmarks of anaesthesia is the making of rapid decisions in critical situations and swiftly and safely carrying through necessary actions. When the anaesthetist makes a patient unconscious for an operation he or she takes on a great responsibility. Even if most anaesthetics follow expected routine, deviations do occur; the anaesthetist then must bring the situation back on track. In anaesthesia, most activity takes place during induction and emergence. During the operation, there is often a period of lower activity for the anaesthetist and the main task is then to supervise the patient’s physiological well-being. However, more than half of reported adverse events occur during this period and sustained vigilance is necessary.

Even if safety should always come first, anaesthetists are also affected by productivity demands.3 Lack of time can make anaesthetists feel stressed and they may be tempted to cut corners by not adhering to prescribed security standards. However, the public demand safe care and mistakes are not tolerated.4

The most stressful aspect of work as perceived by anaesthetists

How anaesthetists think about stress at work has been investigated in a number of studies. Coomber and colleagues5 in a questionnaire survey among ICU physicians in the UK found that the two most important stressors were ‘bed allocation
when ICU is full' and 'being over-stretched at times'. Two stressors reported as frequent ('talking to distressed relatives' and 'dealing with death') were judged by the physicians as only moderately significant.

In a study on Belgian anaesthetists, Nyssen and colleagues found that the major sources of stress were the lack of control over work and difficulties in communication with surgeons. Trying to manage time was especially stressful: overtime, difficulty in getting a break, and difficulty in getting time for non-clinical tasks. However, the stress level among the anaesthetists was no higher than in other groups of working people.

In a Finnish study, time constraints also were a main stressor, especially combining being on call with family life. Work place atmosphere and organizational issues were important for how stress was experienced. The anaesthetists expressed fear of harming patients and concerns about the great responsibility that they had to carry.

According to Kinzl and colleagues, the inability to control work is an important stress factor and increases the risk of burnout. Female anaesthetists more often than male anaesthetists experience stress caused by lack of control. Moreover, they see intelligence and physical constitution as important attributes for coping with stress, whereas male anaesthetists rely more on their professional skills.

In a qualitative study by Larsson and colleagues, trainee anaesthetists were interviewed about difficulties at work. Their narratives gave a picture of a work situation that was sometimes extremely stressful. The difficulties were presented in five themes: high demands, a difficult role to play, a feeling of insufficiency, lack of support, and feeling lonely and helpless. In a similar study with specialist anaesthetists, the tone in the interviews was less emotional and the interviewees were, in general, content with work.

According to two studies on acute stress, anaesthetists experience only minor manifestations of acute physiological stress, notwithstanding the stressful character of their work. Kain and colleagues studied acute stress reactions in anaesthetists and found only slightly higher values for arterial pressure and heart rate during days at clinical work compared with days of non-clinical work. Malmberg and colleagues studied thyroid stimulating hormone (TSH) as a marker for the metabolic stress response, comparing anaesthetists with a group of paediatricians and ENT surgeons. Both groups showed a decrease in TSH blood levels after a night on call; however, the levels were in the normal physiological range and the differences between the specialist groups were minor. Most of the anaesthetists in these two studies, showing little signs of acute stress, were quite experienced. However, chronic stress, as can be experienced by trainees with low self-efficacy and with low degree of control, can lead to negative long-term effects such as burnout.

Burnout is a chronic reaction to stress at work with emotional exhaustion as the most prominent feature. It has been reported in several studies to be a significant problem for anaesthetists. Lack of control over work increases the risk of this syndrome, and young anaesthetists are more frequently affected. Reducing anaesthetists' stress at work therefore has been considered important. However, if well controlled, stress can even be pleasant and rewarding, and whether reducing the overall stress level will really improve the anaesthetist's well-being at work is not known. In the section to follow, we will instead focus on what creates well-being at work, discussing experienced anaesthetists' strategies for living well with their work, demanding and stressful as it may be.

**Well-being at work**

In an interview study on stress and well-being at work, trainee and specialist anaesthetists were asked to answer the following question: 'What is difficult or what hinders you in your work?' In the interviews with trainees, the question gave rise to narratives touching on existential issues, about feelings of insufficiency and loneliness. The same question to experienced anaesthetists gave answers with a more neutral emotional tone. The specialists did report a number of difficult situations, albeit some of them only after probing questions like 'What makes the anaesthetist's work demanding?' However, difficult situations could usually be handled by them and seldom caused undue stress. The most conspicuous finding came from a group of consultants who explicitly declared that they could see no difficulties in being an anaesthetist, exemplified by the following quote:

Do you sometimes reflect on what hinders you from doing a job as good as you'd wish to?

'No, well, it would then be my own lack of knowledge or skill. I can see no external obstacles'.

Do you ever feel that it is difficult to be an anaesthetist?

'No, I don't think so. I've been in this profession for so long, I know what usually works and what doesn't work'.

This observation, trainees being much stressed at work and experienced anaesthetists generally content and stimulated by work, is not self-evident and deserves to be explained. Specialist anaesthetists also live in a work environment with strong potential stressors, because as their expertise grows, their work tasks increase in difficulty accordingly. They are, just as trainees, exposed to situations that cannot be mastered or controlled.

Why are some anaesthetists content and stimulated by work whereas others experience undue stress? Discussing this, we will focus on coping from a theoretical point of view and on how coping is used in practice by anaesthetists. Traditionally, research on stress has mostly focused on how negative effects of stress can be avoided or, at least, attenuated. We want to point to another perspective from which stress can be seen: coping with stress as a way of generating positive affect. Some anaesthetists manage to create eagerness and curiosity in the most stressful work situations. If we can understand which coping strategies these anaesthetists use, we will be better equipped to tutor trainees in their learning to live well with work.
Dealing with potentially stressful situations

Stress is an inevitable aspect of the anaesthetist’s condition. It is coping that makes the big differences in outcome.

This somewhat adapted quote (‘anaesthetist’ replacing ‘human’) from stress researchers Lazarus and Folkman will serve as a starting point for a discussion on why some anaesthetists are content at work and experience little, or no, stress.5

When an anaesthetist encounters a clinical situation, the first step in the appraisal process is defining whether it is potentially stressful. If so, the next step is to define it as a threat or a challenge. Seeing the situation as a threat means that there is a risk of an unfavourable outcome that may harm the anaesthetist. Negative emotions such as fear and anxiety may arise and even a flight reaction can be provoked. On the other hand, if the anaesthetist sees the situation as a challenge, mobilization of coping efforts will follow and positive emotions such as eagerness and curiosity are more likely to arise.

The distinction between threat and challenge is important because of the difference in the resulting stress response. This depends not only on the situation as it is objectively but also on how the situation is construed and how it is appraised. The stress-reducing effect of coping can be registered as an attenuation of the metabolic stress response. We, therefore, may assume that if situations are appraised as challenges, they are less likely to lead to negative stress responses and, in the long run, to stress-related disorders.

After a primary appraisal of a difficult situation, the next step for the anaesthetist (‘second appraisal’ in coping theory) is to decide what should be done and reflect on whether he or she will succeed in performing the necessary action. If much is at stake (e.g. if the patient is a child with a good chance of being cured) and if there is a risk of not succeeding, fear and anxiety may be the result.19

Reappraisal

Even expert anaesthetists will sometimes encounter difficult clinical situations that they cannot deal with satisfactorily. The anaesthetists then can reduce the stress effect of the situation by thinking of it in a new way, by redefining it through reappraisal.20 Using this cognitive process, the anaesthetist may change the meaning of the situation even if the situation has not been changed objectively.

We will now describe how experienced anaesthetists avoid stress at work by using structured ways of solving difficult problems. Subsequently, we will discuss how they reduce the stress content of difficult situations by thinking of them in a different way, by reappraisal.

Problem solving in anaesthesia

The anaesthetist’s work has three main categories of difficulties: medically difficult situations, moments of work overload, and difficult ethical decisions.10 Anaesthetists’ strategies for handling medically complex situations consist in first simplifying, starting with the obvious and simple; second asking for advice without prestige; and third getting support from colleagues. Moments of work overload are handled by, first, prioritizing between work tasks; second, delegating work to nurses or other doctors; and third, getting help even in unconventional ways, for instance, by calling colleagues not on call in their home.

With increasing experience, anaesthetists develop their capacity for solving problems of these two categories, medically complex situations and moments of work overload. However, when it comes to the third category, ethically difficult situations, the situation is different. Ethical problems differ from most acute medical problems, in that they do not have a well-defined best solution. The most common ethical difficulties in anaesthesia and intensive care are about making decisions about the level of care, either in the ICU (e.g. how much should be done when the patient’s chances of being cured are very small?) or in the operating theatres (e.g. should the patient be exposed to a risky operation when the chance of cure is minimal?). Such decisions are perceived as difficult even for experienced anaesthetists, who do not seem to develop their capacity for handling such problems with increasing experience. However, dealing with ethical problems can be successfully trained, and physicians can learn to make ethical decision both quickly and adequately.21 Clinical ethics committees have been widely used.22 Furthermore, ‘ethical rounds’ where nurses and doctors reflect on experiences of difficult ethical situations have been shown to increase the understanding of the role of ethical principles and how to use them in clinical decision-making.23

Reappraisal as a way of avoiding undue stress

In an interview study on how specialist anaesthetists solve different kinds of difficulties, the experienced anaesthetists talked not only about problem solving but also about coping reappraisal.10 These doctors had no training in stress coping, they were not even familiar with the concept of coping. Still they had developed a few lines of thought, which they used to reduce the stress effect of difficult situations at work: seeing difficulties as inherent in the specialty; accepting limits of own competence; accepting limitations of what health care can do; and seeing moments of high demands as part of work.

By reframing the situation, the anaesthetists could reduce its stress content even if the problem at hand could not be successfully solved. What was shown in these interviews was a cognitive process intervening between the encounter (with a difficult situation) and the reaction (which could be fear or anxiety). The meaning of the situation was changed by the anaesthetists thinking of it in a different way.
Living well at work as an issue in anaesthesia training

The anaesthetist’s work, aiming at giving safe anaesthesia to patients, can do both harm and good to the anaesthetist. Even if the work as such is stressful, the effects on physical health and mental well-being can be buffered by effective coping strategies. In this review, we have described what may lie behind the fact that many anaesthetists enjoy work, whereas others become victims of undue stress and burnout. This should be one aspect of training in anaesthesia: how a young doctor can learn to live well at work, avoiding undue stress and the unwanted negative effects of work such as burnout.

Inexperienced trainees may be tempted to avoid difficult clinical situations, which is illustrated by this quote from a young trainee:

One part of me wants to flee away from these problem situations but then I also realize that I will never learn to master this work if I don’t experience problems …

Avoidance is, however, an inadequate coping strategy and is linked to bad outcome in terms of mental health. Trainees therefore must get the support they need to be able to stay and do their best in demanding situations.

In conclusion, anaesthetists are engaged professionals who put much effort into their job and some are at risk of burnout. By taking control over work, using effective coping strategies, they can buffer the negative health effects of chronic stress. Programmes for anaesthesia training should, therefore, aim not only to make trainees expert professionals but should also facilitate their learning the successful coping strategies of experienced anaesthetists. This kind of learning may be best achieved in supervision sessions where supervisors and trainees together reflect on recently experienced demanding situations.

Conflict of interest

None declared.

Funding

This work was supported by institutional funds only.

References

4 Gaba DM. What makes a ‘good’ anesthesiologist? Anesthesiology 2004; 101: 1061–3
24 Thiøs PA. Stress, coping, and social support processes: where are we? What next? J Health Soc Behav 1995; 53–79