

fentanyl patch for several weeks prior to her death.² In this sense at least, the patient was not opioid nontolerant. Second, although we agree that the individual variation of tolerance is substantial, we were also quite surprised that a nonopioid-naïve patient could commit suicide with her standard patch. This may be an effect of the quicker rate of increase in blood concentration by oral ingestion, rather than the absolute concentration. And third, given that chronic pain itself is an independent risk factor for suicide, withholding pain therapy in acute episodes of any sort is probably not a good idea and an aggressive multimodal approach – as emphasised by Ruan and colleagues – is warranted.

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Psychological distress, burnout and personality traits in Dutch anaesthesiologists

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Editor,

We read the article ‘Psychological distress, burnout and personality traits in Dutch anaesthesiologists’ by Van der Wal *et al.*¹ that was recently published in the *European Journal of Anaesthesiology* and we must congratulate the authors on their work and efforts to raise awareness of burnout in anaesthetists. We would like to come forward with some contributions, as it is in line with the current work we are developing.

Although burnout as an overall research topic has been present in anaesthesia journals for more than a decade, it continues to be a problem without an effective solution. A recent publication by Shanafelt² seems to confirm this, showing that burnout is increasing toward epidemic

levels with potential implications for society in general, and anaesthesia is no exception.

Interestingly enough, the article by Van der Wal *et al.* presents a prevalence of burnout in Dutch anaesthetists lower than published results from other countries.^{2,3} This raises the question whether Dutch anaesthetists are more resilient or whether their organisations are more adequate, thus preventing them from developing higher levels of burnout? It would be worthwhile to perform a multicentre study in different countries to explore which are the characteristics of the countries with the lowest percentage of burnout. This research may in turn reveal important factors for burnout management, which depends not only on organisational factors but also on individual factors. The multiple organisational measures that have been widely recommended appear not to be effective in overcoming this problem. Moreover, anaesthesiology has inherent and unique characteristics that make it stressful. Studies including specific stressor evaluation in anaesthesia could be promising for a better understanding of true inducers of stress in the daily life of anaesthetists.

Many factors contribute to the vast array of ways in which each individual experiences, reacts and regulates stress. One of these factors is personality traits. Consistent with studies in other areas⁴ Van der Wal *et al.* found that burnout in anaesthetists is related to neuroticism; and drew attention to the fact that personality traits are usually considered stable over time and are hard to change.

However, there is now increasing consensus that personality traits also continue to develop throughout adult life,⁵ and personality theory also shifts in that direction. Van der Wal *et al.* suggest personality testing in the selection of anaesthesia residents to reduce burnout in future anaesthesiologists. As personality traits are not static and can be dynamically influenced by work life, assessing personality traits may be useful in detecting individuals at risk of developing burnout but should not exclude them. Physicians can evolve naturally or use psychological strategies to regulate stress and become good professionals.

Neuroticism is a rather general, nonspecific trait that has been associated with multiple psychopathologies, thus it is not at all surprising to find an association with burnout. To better understand the processes underlying burnout, research should focus on recent, more refined constructs, such as self-compassion and mindfulness. These constructs have been also described as personality traits and are emerging as interesting topics for research. Emotional regulation mechanisms are complex and these traits should not be considered independently, but their relative impact should be explored. In fact, emotional regulation skills appear to be centrally important in understanding how individuals respond to workplace stressors. These traits, as well as the interventions designed to promote them, seem to enhance better

Eur J Anaesthesiol 2017; **34**:22–48

emotional regulation profiles, improving stress outcomes and promoting well-being.⁶ Standardised programmes such as Mindfulness-based Stress Reduction have also proved to benefit personality traits of neuroticism.⁷

Determining the differentiated influence of these psychological traits and processes in explaining anaesthetists' stress outcomes is a key step in the development of interventions to improve stress and burnout management. Therefore, in future studies of burnout in anaesthetists, mindfulness and self-compassion traits should be evaluated. Mindfulness and self-compassion based stress reduction programmes for anaesthetists need to be evaluated and their impact, not only upon professional well-being but also in clinical care outcomes.

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Reply to: psychological distress, burnout and personality traits in Dutch anaesthesiologists

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Editor,

We would like to thank Lapa *et al.*¹ for showing interest in our article 'Psychological distress, burnout and personality traits in Dutch anaesthesiologists'² and for acknowledging

in their letter to the editor our efforts to raise awareness about burnout in anaesthesiologists through our work. They came forward with some interesting contributions, which we would like to address in this response.

Indeed our results show a lower prevalence of burnout in Dutch anaesthesiologists compared with other European countries. Our study pointed out that the prevalence of burnout in the general Dutch population is among the lowest in Europe.³ It would be mere speculation to discuss explanations, which could be as miscellaneous as research methodological reasons, like the questionnaires or sample selection bias, or social or organisational factors. As to the latter it would certainly be interesting to compare work-related stressors and factors causing satisfaction (which are protective against burnout⁴) between countries in a multinational study. We recently submitted a second study that includes an analysis of the importance of work-related stressors and factors causing satisfaction in the daily life of the anaesthesiologist. Job satisfaction was related to good relationships with patients and families, and being appreciated by colleagues.

Lapa *et al.* argue that personality traits may not be written in stone, as once thought in psychological theory, and that individuals can evolve during their work life. They further state that for this reason, individuals should not be excluded on the basis of personality tests indicating they may be at risk for developing burnout. Indeed it is known that, for example, the general personality trait of neuroticism tends to gradually diminish over life.⁵ Also people experience personal growth and develop during their professional life, but the ease in which they naturally adopt stress-relieving strategies or learn psychological means to regulate stress will be dependent on the type of person they are to begin with.^{6,7} So individual susceptibility remains an important factor in the development of burnout. Of course, as an instrument of selection, the 'Big Five' personality trait model may be too general to use in the selection of future anaesthesiologists, let alone exclude them from the training programme. More refined personality constructs are needed in that respect. Identifying those constructs is a field of research that may yield results we can use, together with other instruments, to select people best suited for the inherent and unique characteristics that make anaesthesia stressful.

We endorse the positive effects Mindfulness-based Stress Reduction programmes can have on stress management and burnout development. Training in holistic self-care activities such as the introduction of life coaches and mindfulness meditation can be most valuable. The same holds for managerial interventions such as limited case loads and restructuring organisations to optimally support human development.⁸

In conclusion, burnout management depends, as Lapa *et al.* also indicate, both on organisational and on individual factors. To address the important problem of

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