

Anaesthesiologists' Professional Health and Well-being

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QUESTIONS

Before continuing, try to answer the following questions. The answers can be found at the end of the article, together with an explanation. **Please answer True or False:**

1. Regarding stress in the field of anaesthesia:

- Stress is always perceived negatively
- Stress is only inherent in the field of anaesthesia
- The body reacts to stress by involving only mental responses
- Incidence is estimated to be around 20%
- Lacking professional qualification is a risk for occupational stress

2. The following statements are correct with regards to coping skills:

- Emotion-focused coping is useful when dealing with sudden death in the family
- Problem-focused coping generates anxiety, fear and frustration
- Confrontation is an effective way to reduce the undesirable symptoms of stress
- Patient care is affected when anaesthesiologists develop longstanding maladaptive coping
- Poorly coping individuals are at risk of cardiovascular diseases

3. Concerning methods to reduce occupational related stress:

- Occasional optimistic thinking is a good strategy to de-stress
- Writing down a stress journal is effective for keeping a mental account
- Taking a pause is helpful
- Overworking is justified as long as it is accounted by adequate financial gains
- Setting up a taskforce to safeguard professional well-being is helpful

Key Points

- Occupation-related stress is common in anaesthesia and the presence of multiple risk factors increases the risk of burnout
- Anaesthesiologists should be aware of the need to handle stress throughout their career
- Adaptive coping skills should be encouraged as a way to maintain professional well-being
- Medical organisations have the executive power and duty to provide a state of positive professional well-being for their staff

INTRODUCTION

Providing safe anaesthesia is challenging. Most healthcare providers in anaesthesia are expected to maintain efficient patient care and are subjected to intense occupational related stress as a routine. Their needs are often not considered due to the nature of their work environment. The Code of Ethics states that physicians have an ethical responsibility and duty to preserve and improve their own physical, social and mental health¹. This article aims to promote insight about professional health and well-being amongst health care providers in the field of anaesthesia.

MENTAL HEALTH

Over the years, efforts to define mental health comprehensively have been divided. Some identified obstacles have been due to cultural barriers, variation in societal understanding and ignorance as well as opposing ideologies. The first formal attempt to define mental health came after the International Congress on Mental Health in 1950². Since then, the World Health Organization (WHO) has appropriately revised its Constitution's definition of mental health as a state of well-being in which every individual realizes his or her potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community³. This emphasises the mental component of health which is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

STRESS

The term stress is familiar to all and used on a daily basis. The three components below highlight the dynamic definition of stress⁴:

- [1] Deviation from a normal environment
- [2] Evaluation of the changes in the environment
- [3] Body's natural protective mental, emotional or physical response

The components can be summarised into an equation shown below:

$$1 + 2 = 3$$

The definition features the importance of stress as a positive motivation and is an integral part of life⁵. However, the individual becomes strained when the arousal stress response becomes too great and has a negative impact on the individual, as shown in Figure 1. Stress may be cyclical, repetitive or chronic. Unchecked, the impact can be lasting and deleterious.

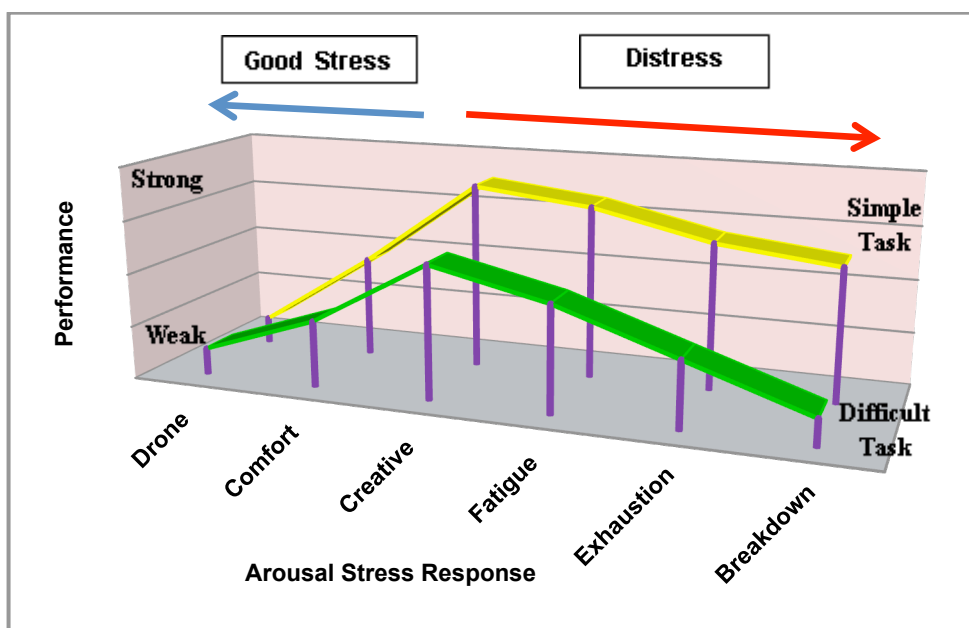


Figure 1: Yerkes-Dodson Law. Relationship between professional performance and arousal stress response

ANAESTHESIA & STRESS

Individuals who are inclined towards a career in medicine are often intelligent, compassionate and sensitive. Unfortunately, they also commonly exhibit type A personality traits such as increased hostility, impatience, ambition and obsession⁵. Such character traits are possibly required to complete medical training and to endure daily professional challenges. However, these characteristics may also make individuals prone to maladaptive coping when encountering repetitive or extremely difficult situations.

Most occupations are associated with stress as it is an inherent part of work commitment and responsibility. While occupational related stress level is generally reported by 18% of individuals, studies have shown higher levels at 28% in the medical profession⁶. Specifically, the incidence is more alarming in anaesthesia. Some regions have reported 50-96% of anaesthesiologists suffering from high levels of stress⁷.

Risk factors for stress and burnout in anaesthesiologists are listed in Figure 2^{5,7-8}. The presence of multiple risk factors increases the risk of burnout.

Individual	
<ul style="list-style-type: none"> • Female gender • Age 30-50 years • Domestic responsibility (children, household) • Conflict at home • Sedentary • Lacking the title of specialist • >7-10 years in profession 	<ul style="list-style-type: none"> • Public employee • Unfulfilled work achievement • No authority or control • Not attending courses or activities unrelated to medicine • Competence related factors • Professional conflicts
Nature and expectation of the profession	
<ul style="list-style-type: none"> • Sleep deficit <ul style="list-style-type: none"> ○ Night shifts ○ On-calls • Imbalance work schedules <ul style="list-style-type: none"> ○ Long working hours ○ Irregular working hours ○ Inadequate or inappropriate places to rest • Interpersonal relationships <ul style="list-style-type: none"> ○ With surgeons ○ Lack of patient recognition • Fear of litigation • Production pressures <ul style="list-style-type: none"> ○ Lack of resources for purchasing safer equipment or drugs ○ Pressure for always getting good results regardless of conditions • Physical and emotional needs of patients <ul style="list-style-type: none"> ○ Specialised skills: Cardiothoracic, paediatrics, neurosurgery ○ Complex cases: ASA grade >III • Keeping updated <ul style="list-style-type: none"> ○ Continuous medical education ○ Minimum current standards of practice 	<ul style="list-style-type: none"> • Exposure risks <ul style="list-style-type: none"> ○ Noise pollution ○ Anaesthetic gases ○ Drugs and addictions ○ Radiation ○ Laser ○ Latex ○ Infections ○ Excessive cold/heat ○ Fire ○ Electrocutation ○ Postures and ergonomics • Multiple responsibilities <ul style="list-style-type: none"> ○ Service work ○ Academic work ○ Research work ○ Administrative responsibility • Lack of supportive colleagues <ul style="list-style-type: none"> ○ Lack of manpower in district/community hospitals ○ Busy tertiary hospitals

Figure 2: Risk factors for professional stress and burnout in anaesthesiologists

COPING SKILLS AND CAPACITY

Coping describes the dynamic thought and physical reactions required to solve disagreements related to the perceived threat(s) in the environment. It is a problem-solving technique that aims to reduce negative stress. Folkman and Lazarus described common methods of coping in 1985 (Figure 3)⁹.

Emotion-focused coping depends on managing emotions triggered by the stressful environment. The unwanted negative emotions are fear, anxiety, embarrassment, depression and frustration. This coping method is used when the perceived threat is beyond the individual's control and is aimed at reducing the exaggerated emotional response. Problem-focused coping depends on deriving an active solution to solve a specific problem. It is best applied on modifiable stressors. This coping style is not useful if the individual perceives the threat as non-controllable. Both forms of coping are mutually exclusive but can co-exist and can be complimentary. An individual may show simultaneous overlapping skills such as obtaining social support to solve a specific issue.

Emotion-focused coping methods			
<ul style="list-style-type: none"> • Self-discipline • Emotional disclosure • Prayers • Meditation 	<ul style="list-style-type: none"> • Journaling • Cognitive reappraisal • Accepting responsibility 	<ul style="list-style-type: none"> • Seeking emotional social support • Magical thinking • Minimization • Self-guilt or blame • Distraction 	<ul style="list-style-type: none"> • Avoidance • Suppression • Eating more • Drinking alcohol • Drug use
Problem-focused coping methods			
<ul style="list-style-type: none"> • Problem solving • Planning • Taking direct action • Working harder 	<ul style="list-style-type: none"> • Learning new information/expertise • Seeking other forms of fulfilment • Developing new behavioural values • Time management 	<ul style="list-style-type: none"> • Seeking instrumental social support • Suppression of competing activities • Restraint/Holding back 	

Figure 3: Types of coping mechanisms

Unhealthy forms of coping occur when the stressor is perceived adversely. Maladaptive coping only reduces undesirable symptoms temporarily. It does not remove the source of the stressor. This perpetuates the vicious cycle associated with strengthening of negative behavioural responses. The outcome for the individual may be poor, and/or they may neglect institutional responsibilities if the problem is not addressed (Figure 4).

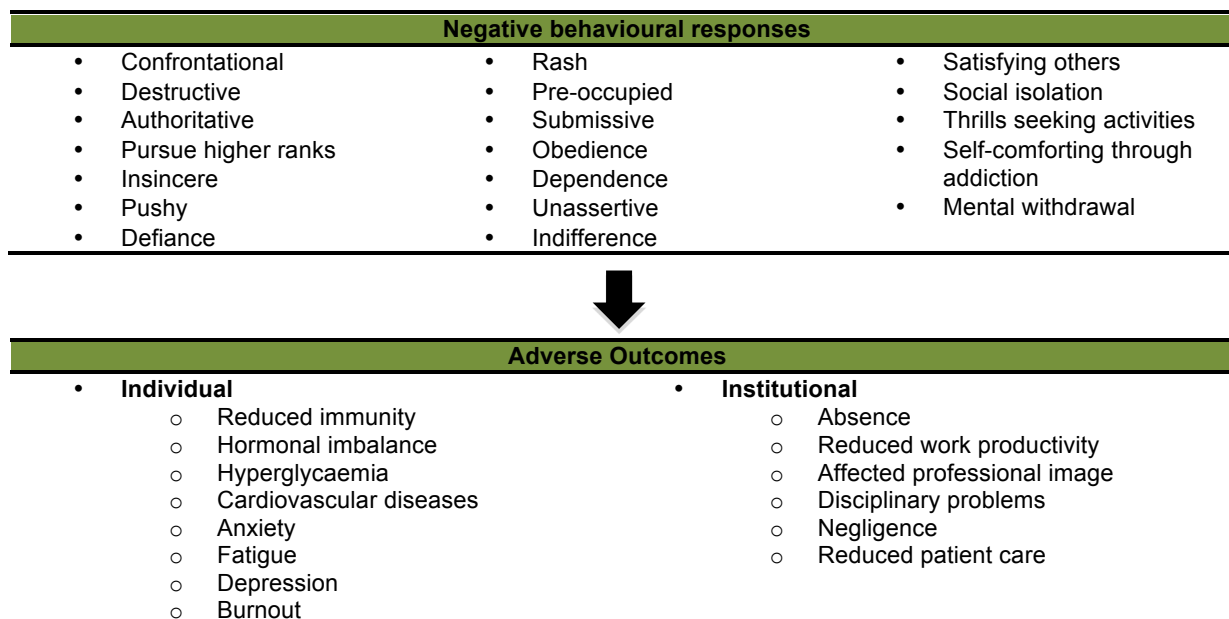


Figure 4: Types of maladaptive coping and its associated adverse outcomes

ASSESSING INDIVIDUALS AT RISK

There are various objective models to measure professional well-being. Unfortunately, most are aimed at measuring general tendencies to mental disorders amongst physicians, and none are robust enough to measure professional well-being specifically related to anaesthesiologists. Professional well-being is a broad multifaceted topic which poorly fits into current measurement tools. Scientifically, the concept of subjective well-being encompasses emotional response, domain satisfactions and global judgement of life satisfaction¹⁰. Hence, future research should look into producing validated, reliable and reproducible measurement tools relating to anaesthesiologists' professional well-being. Emphasis should be placed in these categories of subjective well-being while being relevant to the anaesthesiologists' occupational conditions.

INDIVIDUAL INITIATIVES: BE IN CHARGE OF YOUR STRESS

No person can control the stressors in their life. However, being in charge of one's own stress response is a conscious choice and effort. Taking control over one's stress response is an important way to ensure success in improving one's well-being. There is no validated or singularly agreed method to de-stress. There are a variety of techniques to help and improve those who feel overwhelmed. Below are some practical suggestions applying coping techniques (Figure 5)¹¹⁻¹².

Recognise the stressor
<ul style="list-style-type: none"> • Keep a weekly stress diary <ul style="list-style-type: none"> ○ Major life events (death, sickness, separation) ○ Daily events (traffic jam, datelines, arguments) ○ Write brief notes only • Identify the pattern of stress <ul style="list-style-type: none"> ○ Rate the category of stress from 0 to 10 (0 being no stress to 10 is the worst stress imaginable) ○ Rate your resilience towards stress in similar scale ○ Categorise the stress pattern (Work, Family, Social, Others) ○ Identify stress triggers
Change your perception of the stressor
<ul style="list-style-type: none"> • Adopt a positive attitude <ul style="list-style-type: none"> ○ Act and think like a winner ○ Have a sense of hope ○ Be emotionally aware ○ Looking after your physical self (exercise, nutrition, rest and sleep, safeguard own personal time, meditation, hobbies) ○ Cultivate a deeper relationship with yourself, other people and through your religious beliefs, if applicable (slow down, seek inner spiritual strength) ○ Know your purpose in life (choose your commitments, align your commitments with your purpose)

- Make a positive attitude routine
- Be mentally optimistic
- Reinforce the positive values regularly
- Use resources available to you to overcome stress
 - Reduce isolation by getting involved in social events or support
 - Have a sense of humour
 - Talk through problems with family or friends
 - Obtain trained professional psychological support
 - Know your limitations
 - Know the optimal stress that makes you most productive
 - Keep a well-balanced family, career and personal life

Master your own response

- Take command over your body's response
 - Mental and physical composure (deep breathing with awareness, systematic muscle relaxation, smile inwardly and outwardly)
 - Practice daily
 - Select your response
- Build a positive emotional state
 - Name the emotion you are feeling
 - Identify if it is a negative emotion
 - Adopt a positive emotion to replace the negative ones
 - Remember the associations with positive emotions (laughter, music, visions)
 - Swap negative emotions for positive ones by recalling memories associated with the positive emotions
 - Cultivate specific emotions: Gratitude, Hope, Enthusiasm, Confidence, Compassion, Tolerance, Love, Joy, Inner peace
- Affirm your beliefs
 - Write down as many positive beliefs you can think of
 - Choose 5 positive beliefs that will put you on track with your purpose
 - Give space in your heart and life for the beliefs
- Work up a strategy for key stressors
 - Time pressure (devote 10 minutes every morning to achieve peace and harmony in your body, mind and soul)
 - Start your day with positive emotions
 - Give time to the important people in your life
 - Organise your day with realistic expectation(s)
 - Take a break to relax
- Manage people you cannot stand (overlook their faults, choose your fights with care to optimise your energy, be aware of offensive people, take extra care to protect yourself, maintain your positive attitudes)

Figure 5: Techniques to manage negative responses to stress

ORGANISATION INITIATIVES: DUTIES & OBLIGATIONS

Medical Academies, Anaesthesiology Associations and hospitals have an executive duty to promote awareness and to lower the incidence of occupational stress. This includes adaptability and being aware of the importance of fulfilment in work-related activities, including medical education programmes. The ultimate goal is to ensure not only patients' but physicians' safety as well. The main issues that need to be addressed are included in Figure 6⁷.

Workload and work time balance

- Work schedule
 - Limit programmed work to 50 hours per week
 - Limit programmed work to 10 hours continuously per day
 - Assign regular 'off' days
- Night shifts/On-calls
 - Reduce in quantity and duration of actual working hours
 - Adjust work for anaesthesiologists aged 55 years and beyond
 - Establish clear protocols for out of hours work; only emergency surgeries to be performed
 - Allocate 24 hours sleep recovery following on-call duties
- **Involve all grades of staff in planning and constructing the most suitable work routine**

Create an awareness amongst upper level management

- **Raising awareness should be an official, prioritised and forewarned approach**
- Show appreciation, acknowledgement and thanks towards staff
- Identify, nurture and maximise potential and capabilities of staff
- Create a just and equal working environment

- Promote and provide funding for research related to factors and strategies for overcoming occupational stress. Incorporate evidence-based findings into institutional guidelines and protocols
- Arrange campaigns at national and international levels involving regulating bodies or authorities to create global awareness of occupational stress
- Create and emphasise unbiased, friendly and common goals-directed interdisciplinary discussion on patient management

Organise a locally based taskforce to reduce occupational stress

- Friendly exchange meetings between upper management and its subordinate staff
- Encourage individuals to reduce their caffeine intake
- Introduce standardised 45 minute rest periods
- Encourage individuals to speak up on matters related to occupational health
- Conduct regular assessments on occupational stress
- Provide professional, non-judgemental, specialised, confidential and dedicated support for those with undue occupational stress
- Promote a non-hostile environment and minimise conflict amongst staff
- Use preventive measures to reduce drug abuse and introduce strategies to identify staff with potential for drug abuse early

Figure 6: Organisational responsibilities to provide a healthy work environment for professional well-being

SUMMARY

Occupational related stress is inherent in all professions. The first step is to recognise that anybody, including senior ranking anaesthesiologists, may be subjected to profound stress. Addressing the issues related to professional well-being head-on brings awareness and empowers compassion towards ourselves and others. Most risk factors for burnout are modifiable. By acknowledging these risk factors, the individual and the institution can optimise their levels of stress and avoid undue fatigue. Cultivating adaptive coping techniques is an indispensable skill. This learned behaviour is the key to protect one's sanity. Ultimately, the content and happy anaesthesiologist will be more productive than the grumpy one.

ANSWERS TO QUESTIONS

1. Regarding stress in the field of anaesthesia:

- False:** Stress can be a motivation if interpreted positively.
- False:** Stress is inherent in all occupations to maintain work commitment and responsibility.
- False:** Mental, emotional and physical protective bodily responses occur during stress.
- False:** Occupational related stress level is reported by 18% of individuals, studies have shown higher levels at 28% in the medical profession, and reaching as high as 50-96% amongst anaesthesiologists.
- True:** Lack of the title of specialist contributes to occupational stress as it is associated with powerlessness over professional decisions.

2. The following statements are correct with regards to coping skills:

- True:** Emotion-focused coping is useful when the perceived threat is beyond the individual's control such as sudden death, which is irreversible.
- False:** Emotion-focused coping can reduce unfavourable emotions such as anxiety, fear and frustration.
- False:** Confrontation is a form of maladaptive coping which can transiently reduce undesirable symptoms but maintains the vicious cycle of negative behavioural responses.
- True:** Physicians' poor mental health has direct negative implications on patients' care and well-being.
- True:** Poorly coping individuals are exposed to adverse complications such as reduced immunity, hormonal imbalance, cardiovascular diseases and mental disorders.

3. Concerning methods to reduce occupational related stress:

- False:** Regular optimistic thinking instead of only occasional is a good strategy to de-stress.
- False:** Writing down a stress journal to keep a mental account only serves to reinforce the stress response. The objective of keeping a stress diary is to help individuals identify stress triggers in order to cultivate positive response to stress.
- True:** Slowing down and stepping back allow control over emotions and actions.
- False:** Adequate rest and relaxation are necessary for recharging and to recover from fatigue.
- True:** Medical regulators and institutions have the executive power to regulate service and academic workload to safeguard professional well-being.

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