

Performance Optimisation – The Synopsis

Learning Objectives

- Stress - describe its effects on the physiology and psychology of our performance
- Outline a Threat Versus Challenge assessment
- Describe strategies to increase self-awareness to help optimize performance
- Outline strategies to optimize performance - before, during and after the stressful event for the individual and the team

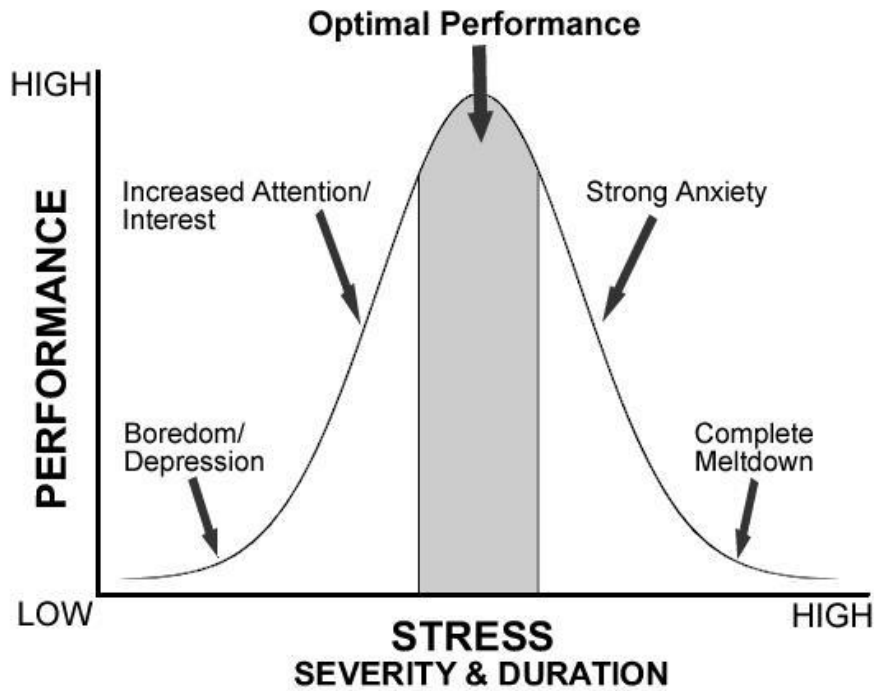
Stress - describe the physiology and the psychology of what it is and why it affects us?

Stress is defined as a state of mental or emotional strain or tension that results from adverse or demanding circumstances.(Dictionary, 2017)

Stress causes a series of useful physiological and psychological reactions that allows our body to perform at peak levels in order to survive the perceived threat.

This is the fight-flight response that has allowed humans to survive all of the things that have tried to kill us during our evolutionary process.

The stress- performance curve shown below demonstrates how humans function most effectively when faced with a moderate degree of challenge.



Stress- Performance Curve (Bradbury, 2014)

Physiological

Complex set of cardiovascular, neurological, respiratory, cutaneous and gastrointestinal effects.

Psychological

Stress can impair the following 5 psychological factors -

- Perception of problem
- Analysis of problem
- Decision making
- Motor action.
- Situational awareness.

The long term impacts of stress can be significant for the health of the individual, both physical and psychological. How we think about and prepare for stressful

situations may have a significant influence our own wellbeing and performance throughout our lives.

Stress as a concept of neither good or bad.

In her Ted Talk, Kelly McGonigal discussed about the fact that perhaps it's not about stress being good or bad. (McGonigal, 2013)

Stress itself may be neutral

It is how we interact with the stress which determines it's effect.

That if you experience stress and do not believe that stress is harmful - the stress itself may actually be protective!

Perhaps, the question that we need to ask is - Is it the belief that stress is bad for you that is causing you harm rather than the stress itself?

Simon Sinek also explores our interpretation of stressful stimulus further , as listed in the resources below, discussing that nervousness and stress can be reframed in some situations as excitement. (Sinek, 2014)

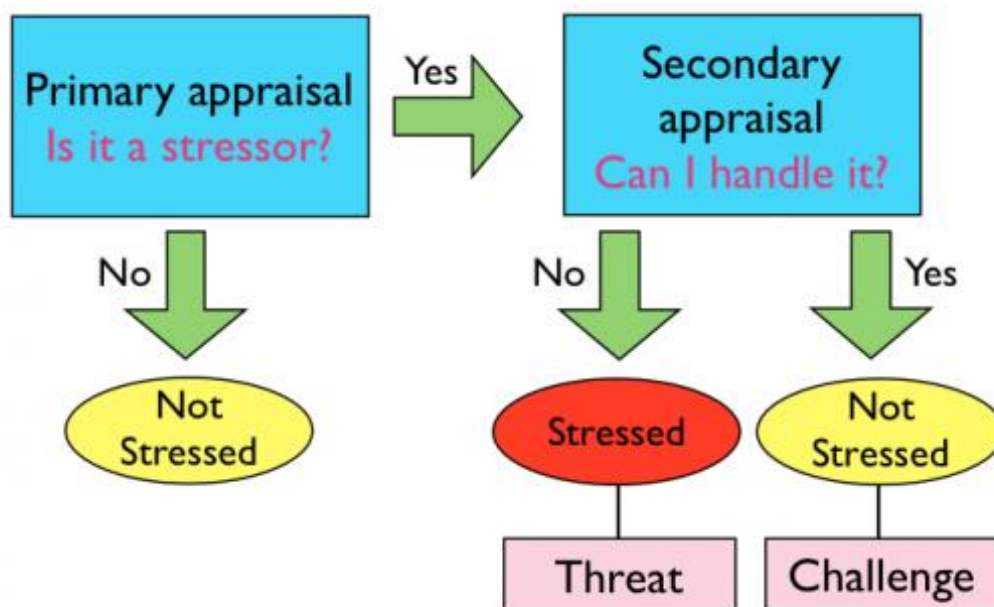
In his extensive post on his First10inEM Blog, Justin Morgenstern discusses that the interaction between the physiological and psychological factors may be modulated through Stress Inoculation Training.(Morgenstern, 2017) He discusses the difference between feeling Threatened and Challenged in the setting of performance.

Threat Versus Challenge assessment

Different individuals can perceive a single difficult or demanding event in different ways. It may be perceived as either a threat or a challenge. People feel that something is a challenge when they feel that they have adequate resources to meet the demands.

In contrast, when the individual feels overwhelmed by what is asked of them, or feels that there is actual personal danger involved, then the event is perceived as a threat.

Threat or Challenge



The Psychology Headquarter - <http://www.PsychologyNotesHQ.com>

Challenge

Resources > Demand

Emergency and critical care staff will recognise this, even if sometimes with increased demands and decreased resources, it can feel a bit more rare post COVID. It's the ideal day at work. The day flies by, we've had a busy but manageable day at work and leave our departments tired but happy/exhilarated. These days are the reason we do, what we do.

Threat

Demand > Resources

These are the days we are under staffed, overcrowded and seem to have every sick patient in the State appear in one shift!

We finish the day exhausted, disgruntled and unable to find satisfaction in any of the work we have achieved.

These days, when we have a few or a few weeks of them in a row, sometimes it's hard to remember why we persevere.

But why does this even matter?

No-one is suggesting that we just accept the second shift as the reality of our job.

PO is about taking back what is in our circle of control. It would be wonderful if we could fix the system in one day. However Departmental and System level change takes time and a lot of the change required is outside of our direct circle of control.

By developing strategies to optimise our ability to work in the challenged state, we better prepare ourselves to perform effectively at times of heightened stress, in a system under stress.

This allows us to perform temporarily in the heightened state, then recover and return to the challenged state when the threat has passed.

References to start with for the above

McGonigal - The Effect of stress - it's not all bad

<http://www.bouncebackproject.org/all-about-stress/>

Simon Sinek - Nervousness versus excitement

<https://www.youtube.com/watch?v=GBF9xXhSFRc>

Morgenstern -First 10 EM Blog

<https://first10em.com/2017/03/13/performance-under-pressure/#more-4078>

Describe strategies to increase self-awareness to help optimize performance

In order to maximise our performance, we need to first look inward and assess our own state as being one of either challenge or treat.

In other words, we need to develop skills in self-awareness of our emotional state. Self-awareness is a very active process and takes practice.

This section can be applied to any work setting in your hospital - it is particularly relevant to those working in busy Critical Care settings.

Know Yourself first, know your response next.

Know yourself first

How are you going to check in with yourself in your unique life, in your unique work place?

Here are a few practical tools to consider

When can you self-assess ?

- When you get to work and turn of the car ignition
- When you sit back into the car after work
- When you get a Resus call and have 5 minutes to prep
- After you take a referral and put down the phone

Ask yourself 5 short questions to help optimise you state of performance

'Am I HALTS'?

- Hungry
- Angry
- Late
- Tired
- Stressed

Know you self and your distractions - Social Media and email

- Assess your need for constant contactibility and updates
- Manage expectation of those around you
- Ensure you colleagues, family and friends know that if somebody really wants you, they can call you
- Consider only checking your email and social media on your break
- Avoid getting work emails to your home account.

(Morgenstern, 2017)

Now your response next

“Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.”

Viktor Frankl

See section below on Performance for further information

Please also see WRaP EM Mindfulness Module

References to start with for the above

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<https://first10em.com/2017/03/13/performance-under-pressure/#more-4078>

Outline strategies to optimize performance - before, during and after the stressful event for the individual and the team.

Stress Preparation - Individual Technique

Prevention is better than cure!

Take back what is in your circle of control

How can you prepare for a high performing state before you even come across a stressful event?

Optimise self-awareness

- What is your current state?
- What is your optimal state?
- What factors trigger a threat response for you?

Optimise general health

- Nutrition
 - Fill the fridge before a run of nights or evenings
 - Make a healthy meal that will feed you and your family for 3 days!
 - Have a healthy snack with your morning coffee
- Move your body
 - Exercise - in particular outside in green space
 - Optimise your Cardiovascular fitness (eg exercise before a late shift so that you sleep better whilst on-call.)
- Rest
 - Optimise your rest period before a stressful stimulus.

Mental Rehearsal and Visualisation

- Mentally rehearse how you would perform a difficult procedure like a surgical airway.
 - By running through the steps in your head, you will perform better when you come to do the task under pressure.
- Visualisation can be used before or during stressful even to optimise performance
 - PETLEPP is one model to consider

The steps of PETLEPP are as follows

Physical

- Clothes, stance

Environment

- Similar environment

Task

- Each task being performed at the skill level of the person doing the task

Timing

- Same time frame to complete the task

Learning

- Evolve the process over time

Emotion

- Noise - beeping of a monitor. Can use sim man for this if required

Perspective

- Either doing it your self to looking at yourself doing it

Use your breath

- Optimise your parasympathetic nervous system
- Consider Square/Combat Breathing
- Close your eyes or you can do it with your eyes open if on the floor at work
 - Breath in for 4 secs
 - Hold in for 4 secs
 - Breath out for 4 secs
 - Hold out for 4 secs.
 - Each round takes 16 secs.

I do this when to work in the car and turn off the ignition. I do it with my sunglasses on but you will just look like you're having a nap in the car park even if you don't do this!

Optimise your thinking

- Cognitive reframing
 - This is a useful strategy to overcome negative self-talk and for turning negative (stressful) emotional states into more positive ones.
 - Often, we are subject to an internal dialogue which may tell us that we are not good enough or don't have the skills to handle a certain situation.
 - This mindset does not allow us to perform at our best.
 - By using cognitive reframing, you can question these reactive emotional thoughts and feelings, calm ourselves and then reframe the thoughts in a more rational way.
 - By recognising our reactions when they occur, we give ourselves the opportunity to question the truth of these thoughts and to choose our response.
 - The link to Mindtools website listed below shows a good example of this technique.
- Task chunking
 - Divide a task into it's individual part to make it less overwhelming
 - eg your shift, a procedure, a difficult conversation
- Avoid aiming for perfection
 - It's the enemy of good

Mindfulness

Please also review the strategies outlined in WRaP modules on Mindfulness for more information about using this technique for stress management.

Stress Preparation - Team based Techniques

Practice with your team

- Simulation
 - Immersive, resus based events

- Ideally in situ in
- Practice with a degree of difficulty that creates a challenge state
- Advanced planning and drills.
- Develop your team's shared mental model

Example: Performing a run through of your failed airway drill at the start of a shift with the airway doctor & nurse allows them to develop a shared mental model of that situation in case it comes up later in the shift.

Task Chunking

- The ability to take large complex tasks and break them down into more manageable chunks can decrease the stress levels in the team.
- Get to know your team
- When you arrive at work assess what the skill mix of your team is
- What is the team's intrinsic resilience?
- Is anyone on the team in need of support on this shift?
- Organise your breaks early
 - The nurses are masters at this organisational strategy
 - Prioritise your team's comfort and wellbeing and they will perform better on the shift.
- Make it OK for your team members to speak up with they are Hungry/Angry/Tired/Late/Stressed.

(Morgenstern, 2017)

During stressful stimulus

Know yourself

- Again, ask yourself - Am I HALTS?
- Fix it
 - Go to the toilet

- Have a snack before the Resus Ambulance gets to your ED.

Know your environment

- Reassess the skill mix of your team
- Call for help early if skill mix isn't sufficient.
- Familiarise yourself with local protocols and policies.

Cognitive off loading

- Use algorithms ie ACLS
- Have a standard airway trolley and intubation approach throughout the entire work place

Avoid multi-tasking if possible

(Morgenstern, 2017)

Consider using Mike Lauria's excellent mnemonic to encompass the above 'Beat The Stress Fool'

- Breath (Square breathing)
- Talk (Self Talk)
- See (Visualisation)
- Focus

(Weingart, 2014)

After stressful event (particularly a resuscitation)

Anticipate and acknowledge the adrenaline dump or parasympathetic backlash after the stressful event

Create a Mental Gap between work and home

- Efficiency is key.
- Techniques which may help include
 - Prolonged mindful hand wash before leaving work
 - Square breathing when you sit into your car or the bus home
 - Journaling for 10 mins before you leave work,
 - Consider the concept of The Third Space as outlined by Adam Fraser

Debriefing and reflective practice also are key.

Please see current and future WRaP modules and Blog Posts for further information on this topic.

Be grateful - say Thank You

- To your team
- Your family
- The man at the check-out counter in the shops on your way home from work.

(Morgenstern, 2017)

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SMACC Podcast 27 Feb 2017 (28 mins) Christopher Hicks

Into the Deep: Developing the Resuscitative Collective Unconscious

Discusses the roots of grit, resilience & poise under pressure and takes a deep dive into the challenging, sometimes ugly world of emotions, fear, anxiety and expectations. The good news is the science of human performance has evolved, and offers insight into how to train for a focused and enlightened team mindset.

Mindtools Website

Cognitive Restructuring

https://www.mindtools.com/pages/article/newTCS_81.htm

Thought Awareness & Positive Thinking

https://www.mindtools.com/pages/article/newTCS_06.htm

Lauria, M. J., Gallo, I. A., Col Stephen Rush, L., Brooks, J., Spiegel, R., & Weingart, S. D. (2017). Psychological Skills to Improve Emergency Care Providers' Performance Under Stress. *Annals of Emergency Medicine*, 1-7.
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