



## Building resilience in the face of adversity: the STRONG surgeon

Surgeons are already under stress but the last few months of bushfires, the White Island eruption and now coronavirus disease 2019 (COVID-19) have made things only more difficult for surgeons in New Zealand and Australia. Thus, there is now need more than ever for surgeons to build greater levels of resilience and systems and support frameworks to enable them. There are a myriad of publications on how professionals should handle these external threats but only a few have synthesized the literature in a way that is relevant to surgeons in Australasia.<sup>1-4</sup>

There is a strong body of research that has identified the core components in building optimal resilience and well-being that have been captured in the following evidence-based STRONG model.

### Staying STRONG

#### S: strengthen relationships

*Strong and supportive relationships are the number one predictor of well-being. Investing in, reaching out towards and cultivating healthy relationships is a core resilient behaviour.*

In the midst of challenges and pressure at work, nothing is more critical to well-being than staying connected to others.<sup>5</sup> Yet, when pressure mounts, a common reaction is to withdraw and end up isolated and overwhelmed.

Building a supportive network of understanding and empathetic friends and colleagues is probably one of the most important ways that surgeons can stay resilient. Having colleagues who will cover, swap call or scrub in on a difficult case is vital in a high-pressure job especially when balancing this with family and other commitments.

High levels of social support have been associated with improved psychological and physiological health: benefits include a reduction in stress-related illness, increased self-confidence and improved problem-solving. Humans, and that includes surgeons, are wired for connection.<sup>6</sup>

Resilient surgeons have learned to hold tighter to their social support in times of pressure. They create opportunities for connection and they are intentional and deliberate about creating time to receive and offer support. Not only does this contribute to well-being and happiness, but also they are more productive, engaged and have more energy available to them and their patients and colleagues.

#### T: take control

*Concentrating attention and resources on the things that matter most and that you can influence and change increase one's sense of control and agency.*

There will be things that disrupt and go wrong in the surgeon's working life. At the best of times, healthcare organizations, along with the patients that present, are complex, ever-changing and unpredictable. When faced with additional high-pressure situations such as COVID-19, it is easy to succumb to feelings of being overwhelmed and lacking control as it unfolds.

How a surgeon experiences the world is shaped by perceptions and interpretations of events and triggers. The most successful people are those who have an internal locus of control and the belief that their actions affect their outcomes. People with an external locus, on the other hand, are more likely to see circumstances and events as largely steered by external forces, which they perceive they have little or no control over.<sup>7</sup>

Research has shown that these internals, who believe that they can work from their zone of influence, experience greater levels of success and are much happier at work.<sup>8,9</sup> At its simplest, what one focuses one's attention on matters. Concentrating on the things one can influence and control fuel a positive upward spiral, as the direct impact of actions is seen leading to these successful outcomes.

A feeling of control, or mastery of one's own destiny, is one of the strongest drivers of well-being and performance and capacity to cope with life's challenges and adversities. Identifying the areas where actions and behaviour will have a real impact will ultimately be of personal benefit and of benefit to colleagues and patients.

#### R: recharge and restore

*Restoration practices boost mood, concentration and cognitive ability – much needed during times of pressure.*

As busy surgeons, the pace and demands of working life can be frenetic. With systemic and patient demands occupying the reality of the day, surgeons often find themselves operating in an optimum high arousal zone. Staying in this peak state for prolonged periods may be based on beliefs surgeons hold about what resilient clinicians look like, that resilience is about pushing on to do more and more. However, this conception has been shown to be flawed.<sup>10</sup>

The very lack of a recovery period might be holding back collective ability to be as resilient and effective as surgeons, and the teams they work with, could be when working in high-pressure situations. Moreover, there is a direct correlation between lack of recovery and increased risk of health and safety.<sup>11</sup> The key to staying resilient is working hard, then stopping, recovering and then getting back to work.

Building resilience at work is about identifying suitable internal and external recovery periods. Internal recovery refers to the shorter periods of relaxation that take place within the workday in the form

of short breaks, sometimes known as micro-breaks. Examples of micro-breaks might be seizing a moment during the day to pause, breathe deeply, engage with a colleague or take a short brisk walk.<sup>12,13</sup>

External recovery refers to actions that take place outside of work such as in the time between workdays, and during downtime periods. It is about giving the brain a break from high mental arousal states. Switching off the phone, along with its intense commentary, might be a great first step. Think about things that lead to feeling energized and refreshed such as connecting with loved ones, a mindfulness practice, exercising or engaging in a favourite hobby.<sup>4,13</sup>

## **O: optimize mindset**

*How one interprets events determines the choices made in responding to these. Adopting an optimistic mindset is a skill that can be learned which enables one to choose helpful ways to examine and interpret life's challenges and setbacks.*

Believing that positive outcomes are possible during times of struggle can be difficult. The surgical brain is trained in a way that allows surgeons to spot weaknesses, problems or risks but it generally is not as well equipped when it comes to identifying what is right about a situation.<sup>14,15</sup> Realistic optimistic thinking is a skill that can be learned and developed by consciously choosing more helpful beliefs and interpretations about adverse events no matter how difficult the circumstances are.

People who have an optimistic explanatory style tend to look first for what is right and tend to hold a belief that in the majority of cases, things will work out for the best. This is not a naïve rose-tinted glasses mentality, but what psychologists refer to as grounded, or rational, optimism. An optimistic explanatory style acknowledges that the landscape is hard, but that ultimately, one's behaviour and mindset matter and can impact how these events are interpreted and acted upon. Optimists believe it is local (that it is contained) and it is temporary (it will pass or get better).<sup>16</sup>

Those with a more pessimistic explanatory style tend to see the event as universal or all-encompassing and permanent. This tends to take thinking into a downwards spiral which impacts levels of confidence, motivation and the desire to stop trying and a belief that their behaviour or the behaviour of others does not matter. Becoming more aware of one's thinking and its impact on emotions and subsequent actions is key to cultivating an optimistic mindset.

So when negative thinking occurs, asking the following questions can help to strengthen mindset and create more helpful thinking:

- What are the advantages associated with the situation?
- What are the opportunities presented to the surgeon, the team and the organization by the present situation?
- What new beliefs or thinking can one have about the situation?
- Which aspects of this are in one's control?
- How has the current halt on surgery enabled focus on other things that may have been neglected – things that really matter – such as family/downtime?

Choosing one's focus influences the emotions felt which impacts the actions taken and ultimately the type of results achieved, benefiting not only the surgeon but also surgical teams and patients.

## **N: nurture: nourish, move and rest**

*Making healthy food choices, sleeping well and moving regularly throughout the day contribute to building vital energy and long-term physical well-being for building resilience.*

Combining diet, exercise and rest determines and leverages their overall impact on health and well-being. Physical health underlies every other aspect of life: not just what you do, and what you are capable of achieving, but how you think and feel as well. Effective resilience building habits lie in the choices made about the food eaten, and decisions made about the frequency of exercise and amount of restorative sleep, particularly when under pressure.

Stress changes appetite, eating patterns shift and craving for certain foods increases including those containing sugar, caffeine or those which are high in carbohydrates, inhibiting sustainable levels of energy throughout the day. A diet high in refined carbohydrates may lead to conditions such as diabetes and obesity which may have a negative effect on neurocognition.<sup>17</sup> A good diet, including the replacement of sugary, fatty, snacks may yield positive benefits.

Exercise is an important tool for managing pressure and building resilience. Changing physical state can help to change mental state.<sup>13</sup> Exercise benefits the brain by aiding concentration, reducing tension and improving well-being, mood and sleep quality. Exercise is also good for almost every part of the body. It helps to condition the heart and lungs, helps activate the genes which produce proteins that protect the cells from damage and disease and burns up chemicals produced during the stress response. Even brief physical efforts in the working day such as standing up, stretching, taking the stairs and replacing the traditional meeting with walking meetings can all have cumulative benefits by increasing movement throughout the day.<sup>18</sup>

The effects of fatigue and sleep deprivation on performance are well known. Lowered judgement and decision-making, diminished situational awareness and lowered emotional control have been linked to preventable errors.<sup>19</sup> If lifestyle makes sleep restriction a common occurrence, the ability of the surgical team to function well is likely to suffer. Moreover, this may be exacerbated by a culture at work that undermines the critical role that sleep has to maintain optimal well-being. Making sleep a priority and aiming for the recommended 7–9 h will contribute to enhanced cognitive functioning, sustained energy, stable mood and better immune functioning.<sup>20</sup>

Making small, daily adjustments across each of these three areas to prioritize healthy food choices, incorporate regular movement and optimizing sleep in combination lead to significant, lasting and measurable gains.<sup>21</sup>

## **G: grow and develop**

*Challenging and stretching oneself in new and unknown situations can enable adaptation and growth – which contributes to growth and well-being. Optimum areas of growth lie in one's areas of strength – not weakness. New research about how adversity*

strengthens can help surgeons view challenging times as opportunities for growth and evolution rather than setbacks that limit.

Conventional wisdom has it that, in order to grow and develop to one's fullest capabilities, one must actively focus on rectifying weaknesses. In fact, it has been shown that people's area of greatest potential and growth lies within their areas of unique strength and not in correcting weaknesses.<sup>22</sup> Strengths are the underlying qualities that energize and contribute to optimal development and best performance. Typically, when using one's strengths leads to increased feelings of engagement and immersion in work, more authenticity and a tendency to want to contribute more because it is energizing and fulfilling. Being able to articulate strengths and apply these intelligently on a frequent basis strengthens individuals, boosts self-confidence to overcome life's challenges and leads to higher levels of performance.<sup>22</sup>

Finally, a key resilience factor is that of growth from adversity. Recently, psychologists have devoted research to the examination of what is referred to as post-traumatic growth. This refers to how adversity can often be a catalyst to a new and more meaningful life in which individuals re-evaluate their priorities. They deepen their relationships, and discover new levels of self-awareness. Post-traumatic growth is common in survivors of illness, disasters and accidents, and in many cases survivors report positive life changes as a result of their experience.<sup>23</sup>

Surgeons can learn to cultivate growth in themselves by deciding on the story they tell themselves when facing hardship and how they discuss it and construct meaning from it. So, recalling a time that was really challenging, one that really put resilience to the test – there are some questions that can assist in facilitating this kind of thinking:

- How did this strengthen or deepen key relationships?
- What new perspectives have been gained?
- What is there to be grateful for?
- What renewed sense of meaning has this resulted in?

## Conclusion

Surgeons are currently facing difficulties and challenges not foreseen in their training. New techniques and ways of coping are becoming key tools in the surgical armamentarium. By fusing together the above-mentioned key evidence-based elements that contribute to resilience and well-being, surgeons can apply the science of human flourishing to their own lives to strengthen themselves, the people around them and ultimately benefit their patients.

Ruth Robertson,\* MSc

Andrew G. Hill,† MBChB, MD, EdD, FRACS 

\*Executive Strength, Christchurch, New Zealand and †Department of Surgery, The University of Auckland, Middlemore Hospital, Counties Manukau District Health Board, Auckland, New Zealand

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