

Written evidence submitted by The Healthcare Safety Investigation Branch (WBR0075)

The Healthcare Safety Investigation Branch (HSIB) conducts independent investigations into patient safety concerns in NHS funded care across England. Formed in April 2017, we are funded by the Department of Health and Social Care (DHSC) and hosted by NHS England and NHS Improvement, but we operate independently. HSIB's safety investigations identify the contributory factors that have led to harm or have the potential to cause harm to patients. Our safety recommendations aim to improve healthcare systems and processes, to reduce risk and improve patient safety in the NHS. We work closely with patients, families and healthcare staff affected by patient safety incidents and we never attribute blame or liability.

1. Introduction

- 1.1. HSIB welcomes the opportunity to contribute evidence to the Health and Social Care Committee's inquiry, *Workforce burnout and resilience in the NHS and social care*. Knowing how stress degrades human performance can help to support the design of more stress-tolerant systems. As the organisation established to provide independent systems-level patient safety investigations across the NHS, our role involves understanding the importance of providing staff with the appropriate working environment and conditions to deliver healthcare safely.

2. Key points

- 2.1. Prolonged, or intensified levels of stress can impair performance. The impact of stressors can be modulated by several factors including system design and individual factors.
- 2.2. Research HSIB conducted during the first wave of Covid-19 with our own staff returned to the frontline gave us direct insight into the environmental and operating conditions that were contributing to staff fatigue and risk of burnout.
- 2.3. The Committee's aim to identify ways of supporting NHS staff as best possible is very important. However, safety science has established that patient safety will gain more by looking at organisational resilience than staff resilience.
- 2.4. The Chartered Institute of Ergonomics and Human Factors' paper, *'Achieving sustainable change: Capturing lessons from COVID-19'*, outlines a workable approach to strengthening organisational resilience through engineering learning mechanisms, which can helpfully support NHS organisations with preparation for a resurgence of Covid-19 in the coming winter.

3. Impact of stress and burnout on human performance

- 3.1. Stress is an emotional state of heightened arousal. Stress is not always negative; in some circumstances it may serve as an energising force that improves performance. However, prolonged, or intensified levels of stress can impair performance, and, if severe enough, can have negative consequences for health (i.e., burnout). Although an individual's response to stress is complex,

degradation in human performance is generally marked by a reduction in information processing capacity, for example¹:

- Attentional narrowing: a reduction in the amount of information that is processed. In most circumstances, this 'tunnelling' is adaptive whereby attention is focused on those tasks of greatest subjective importance. However, tunnelling can lead to undesirable outcomes when information of importance is filtered and ignored.
- Distraction: stressors, including time pressure, serve as a distraction and may divert attention away from processing task-relevant information.
- Memory loss: stressors, including anxiety, can divert attention away from information to be held or rehearsed in memory and as such can impact on learning.
- Perseveration: high levels of stress may cause people to continue with a given action and fail to consider alternative approaches (as demonstrated in the case of Elaine Bromiley, Just a Routine Operation²).

3.2. The impact of stressors can be modulated by several factors including system design and individual factors such as skill and personality variables.

4. Impact of stress and burnout on staff during Covid-19

4.1. During the first peak of Covid-19 in spring 2020, some HSIB staff returned to clinical duties to support the NHS' response. HSIB developed a 'safety repository' – an intelligence gathering process - for these staff to log emerging patient safety risks and other issues they observed whilst working on the frontline. These are some of the feedback responses we received, that highlight the impact of the stress of the pandemic on staff well-being and performance.

- *"I had blood taken... and she accidently missed by a few inches!!! I think fatigue is setting in to our health care professionals... she apologised profusely"*
- *"I'm tired and not sleeping well. But I've never been able to phone in sick for work... That was never the done thing before this pandemic, let alone now. The managers need people to fill the slots on the rota, there isn't the option to... consider the skill mix or if people are in a fit state to practice."*
- *"I haven't been on a clinical shift today, but I've bumped into a colleague who has. She's exhausted. She's terrified that she made a mistake. She feels out of her depth. She's been a*

¹ Wickens, C.D., Hollands, J.G., Banbury, S., & Parasuraman, R (2013). Engineering Psychology and Human Performance (4th Ed). Boston: Pearson

² <https://www.youtube.com/watch?v=JzlvgtPlof4>

specialist but put back into the wards. I just hug her as she cries, how are you supposed to do social distancing when the best way to comfort someone is to hold them. At times this virus has taken everything away from the staff at the hospital. It's hard to see how clinical people can keep going for days, weeks, months of this."

- *"At the start of the large increase in cases I was called by my previous line manager. I was told that I needed to prepare for coming back and swot up. I was told that I could be placed anywhere in the unit... I'm terrified. I've never worked in those places. How can I swot up for everything? How can I prepare for patient care I've never given, with equipment I've never used, IT systems I haven't logged into for years, and an environment I've never worked in. I'm overwhelmed. I don't know where to focus."*

4.2. HSIB staff commented on some of the underlying factors they believed contributed to the burnout experienced. Factors included:

- unfamiliar working conditions - unknown environments, disease, and boundary of competence.
- reduced staff ratios and skill mix, which can compound other safety risks.
- lack of standardisation across wards for equipment, layout, and bed numbering systems.
- design of personal protective equipment (PPE) storage had unintended negative consequences (e.g. delays in donning, difficulty accessing PPE).
- escalation pathways not known or provided, or staffed, or the designated person for escalation was also inexperienced in that area or that task.
- rapidly changing guidance - for those who worked part time, procedures and guidance changed, often dramatically, during days off. There were challenges with version control on key guidance documents which made it difficult to interpret which is the most current document, and emails containing erroneous links to guidance.

4.3. When faced with such conditions, there is a high risk of staff experiencing moral hazard or moral distress – the feeling of being unable to deliver the standard of care they aspire to or that they are delivering an unacceptable standard or care, which is also recognised in research as a key source of burnout for healthcare staff.³

5. Safety benefits most from focusing on organisational resilience

5.1. HSIB recognises the Committee's intention to identify means of best supporting staff through the pandemic and this is to be welcomed – asking these questions now provides the opportunity for planning to incorporate what is known to work well. However, a significant risk with taking an exclusive focus on workforce resilience (i.e., the individual behaviours, thoughts and actions that promote personal wellbeing and mental health) is that it attributes the burden of meeting operating conditions on people instead of the healthcare system.

³ www.nuffieldtrust.org.uk/news-item/addressing-staff-burnout-a-moral-and-ethical-imperative

- 5.2. Although staff need to be psychologically well-supported, the idea that they can be trained to be 'more resilient' limits the potential benefit that this inquiry can achieve for the NHS. We would encourage the Committee to explore how Covid has shown where the system can be better designed, so that it can better adapt to demands and shift the burden from individuals on to the system.
- 5.3. Whilst it is true that the workforce must continually adjust and adapt to new demands, understanding their ability to achieve this safely requires an understanding of organisational resilience (i.e., the ability of a health care system (a clinic, ward, a hospital) to adjust its functioning prior to, during, or following events (changes, disturbances), and thereby sustain required operations under both expected and unexpected conditions⁴).

6. Improving organisational resilience through engineered learning mechanisms

- 6.1. Strengthening organisational resilience involves understanding how the system can effectively learn, monitor, anticipate and respond⁵. The NHS workforce is both enabled and constrained by the system in which it operates. There are recognised approaches to strengthening organisational resilience which are suitable for application in the context of preparing the NHS for a resurgence of Covid-19.
- 6.2. We recommend to the Committee a paper titled '*Achieving sustainable change: Capturing lessons from COVID-19*', recently published by the Chartered Institute of Ergonomics and Human Factors⁶. The document outlines an approach to strengthening organisational resilience through engineering learning mechanisms across the healthcare system. In the document, organisational learning is described as a social process that involves taking a step back, collectively making sense of experiences, and reflecting on and challenging assumptions to trigger change and improvement. This approach enables the development of an understanding of the pressures that staff are facing. This understanding allows for the identification of key work processes and how these can be better designed so that the system has the adaptive capacity to meet demand. The necessary work to achieve this must be driven at a local level by those working on or close to the front line. It also requires support and flexibility from organisational governance and the NHS regulatory environment to allow necessary changes to be implemented quickly and with appropriate resources.

7. Prioritise organisational learning to develop more effective ways of working

- 7.1. As described above, during the first peak of COVID-19 in spring 2020 some HSIB staff returned to clinical duties to support the NHS' response. When returning to HSIB, these staff further shared their insights about challenges, new ways of working and risks to patient safety experienced while working on the front line. Some HSIB staff noted that they were able to develop new and more

⁴ Wears R.L., Hollnagel E., Braithwaite J. (2015). Resilient Health Care, Volume 2: The Resilience of Everyday Clinical Work. Ashgate Publishing Ltd, Farnham, Surrey, UK2015

⁵ Hollnagel, E., Woods, D. D. & Leveson, N. C. (Eds.) (2006). Resilience engineering: Concepts and precepts. Aldershot, UK: Ashgate.

⁶ Chartered Institute of Ergonomics and Human Factors (2020). Achieving sustainable change: Capturing lessons from COVID-19. <https://bit.ly/HFSustainableChange>

effective ways of working because organisational learning was prioritised over meeting performance targets:

“Considering new ways of working and the pace of change is phenomenal – things that would usually takes weeks/months are being agreed overnight”.

- 7.2. Evidence suggests that stress degrades human performance and can lead to burnout and moral distress. HSIB would welcome an NHS-wide approach to staff well-being that focuses on organisational resilience, and explores how system design can be improved to better adapt to external pressures such as those exerted by the current pandemic.

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