

Leadership through crisis: fighting the fatigue pandemic in healthcare during COVID-19

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ABSTRACT

COVID-19 presents many challenges to healthcare systems internationally, none more so than the significant reporting among healthcare workers (HCWs) of occupational fatigue and burnout or Long COVID related symptoms. Consensus on the extent of HCW fatigue during the pandemic remains largely unknown, as levels of Long COVID related fatigue in HCWs appears to be on the rise. What is known is that, among current levels, impacts of fatigue on HCW well-being and performance is likely. Developing strategies to mitigate fatigue are the responsibilities of all healthcare system stakeholders. Leadership that goes beyond organisational efforts of mitigating fatigue through mandated working hour limits alone are needed. A process to facilitate identification, mitigation and prevention of fatigue is likely to be best suited in this regard. This might involve development of operational systems modelled off successful industries, such as aviation, for performance optimisation. These system-based designs provide the foundation for systematic yet innovative approaches to enable effective design of macro-level to micro-level interventions for fatigue mitigation. Shifts in organisational culture have occurred in healthcare since the onset of the pandemic, with increasing agility and embracing of innovation. Creating a culture whereby we recognise and support people in being malleable through a pandemic and beyond is at the level of leadership. Leveraging this cultural shift allows an opportunity for organisational change. One focus of such a leverage within systems could be the incorporation of the evidence-based practical recommendations informed by the authors of this paper.

report living with longer term consequences of COVID-19 such as Long COVID.³ Coupled with this, and prior to the pandemic, HCWs had higher risks of experiencing high levels of emotional exhaustion syndromes such as ‘burnout’.⁴ Fatigue is the common symptom experienced with from both medical and occupational causes.^{3,5}

With an unprecedented lack of clarity and certainty on the course of the pandemic, transformational leadership,⁶ defined by traits of challenging social and cultural norms, being innovative in restricted systems and inspiring others to facilitate required change, is needed to maintain and sustain a healthy workforce. Innovation in times of difficulty, such as the increased provision of telemedicine, is testament that healthcare systems are malleable. Such innovation of workplace interventions can be drawn from parallel high-stake industries that face similar issues on performance management such as aviation. In this practical commentary, clinicians, academics and practitioners living with Long COVID discuss the existing and emerging issues of fatigue in healthcare. It is argued throughout that tackling fatigue is an issue of needing to motivate groups at all levels within healthcare systems to think in new ways about the way we currently work and the way we could work. This all-encompassing stakeholder engagement process—from junior staff to senior management—may be best explored through the lens of ecological systems theory.⁷ In this instance, the authors argue for the development of a macrosystematic to microsystematic programme of intervention for tackling fatigue.

INTRODUCTION

Oftentimes, the required change we need in society comes when change is unavoidable. The COVID-19 pandemic is one of those times in society when such unavoidable change occurred. The WHO has identified healthcare workers (HCWs) as a cohort of individuals who are particularly vulnerable and susceptible to the effects of pandemics,¹ in relation to both their both physical and mental health.

The health and well-being of HCWs, alongside sufficient resourcing of healthcare systems, is imperative in order to deliver, maintain and increase the provision of essential health and care services. In order to serve communities at this time, the health workforce needs to be performing optimally, but one of the consequences of both the disease and the burden of managing it on the health workforce is fatigue. HCWs are at higher risk of contracting COVID-19² compared with population norms, and like others who contract COVID-19, they also

Long COVID fatigue

The long-term consequences of ‘Long COVID’³ can onset after any severity of acute illness, with multi-dimensional clusters of often episodic symptoms. While Long COVID⁸ definitions remain blurred, a recent review suggests that it may be made up of four separate syndromes.⁹ Fatigue is one symptom that can be found to relapse and remit throughout the Long COVID trajectory and has been cited as a common symptom across both acute and chronic phases.¹⁰ Long COVID fatigue can draw parallels to reported literature describing myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) with those living with the condition commonly describing persistent and disabling exhaustion, exercise intolerance, cognitive difficulty and musculoskeletal/joint pain.³ Long COVID fatigue has longer term implications for individuals and society. One study, with a sample size of 128 participants, conducted in the initial phases of the pandemic reported over half (52%) of participants experiencing persistent levels of fatigue 10 weeks after catching the virus.



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This culminated in a third being unable to return to work.¹¹ An important characteristic of Long COVID fatigue which is similar to cardinal features of ME/CFS is postexertional malaise (PEM), where there is an inability to produce sufficient energy on demand.¹² Previous epidemics such as SARS, H1N1 and Ebola saw large proportions meet ME/CFS diagnostic criteria as a result of virus contraction.¹³ Additionally, higher incidences of ME/CFS have been reported in HCWs¹⁴ compared with the general population. Drawing from past experience, an opportunity exists to potentially mitigate against long-term consequences of COVID-19 for HCWs or, where not possible, support recovery through meaningful intervention.

Occupational fatigue

HCWs can be exposed to higher levels of stress, disturbed sleep and increased cognitive demands in times of pandemic.¹⁵ While ordinary levels of day-to-day fatigue are a normal emotional state resulting from time-on-task demands,¹⁶ chronic levels of occupational fatigue characterised in this instance as ‘burnout’ is not. Defined by WHO in the International Classification of Diseases, 11th Revision, as a syndrome, this chronic fatigue is conceptualised as resulting from longer term workplace stress that is not successfully managed, resulting in emotional exhaustion, mental distance from one’s job and reduced professional efficacy.¹⁷ This may be influenced in the pandemic through the increased working hours of HCWs and, most detrimentally, greater disruption to sleep quality¹⁸ likely due to increased rumination. Consistent levels of increased stress have been associated with cognitive dysfunction, such as impairment to the learning and memory regions of the brain,¹⁹ which can have impacts on work performance and ability. Neglecting occupational-based stressors may also result in higher levels of clinical depression and anxiety.²⁰ These psychological symptoms often go unnoticed within complex and busy systems whereby fatigue management of HCW is not prioritised.

Leadership responsibilities to tackle fatigue

We suggest a number of preventive and proactive approaches to tackle fatigue for leaders at all levels seen in figure 1 based on literature to date and learning from other industries. While not within the remit of this paper to discuss minimising physical exposure to the virus as a preventive measure, discussion on all other measurements are discussed with tangible interventions.

Leadership at a macrosystem level: screening and training programmes

Screening for fatigue programme

Clinical and organisational leadership would benefit from collaborative commitments to implement uniform fatigue screening programmes throughout occupational health and clinical departments with the view to monitoring performance within health systems. In the absence of Fatigue Risk Management Systems (FRMS) in healthcare, drawing on best practice from parallel industries such as the International Civil Aviation Organisation (ICAO) FRMS task force²¹ could be an innovative approach in identifying fatigue among individuals in the workplace. Such systems require mandates to screen for fatigue and identify at what point fatigue becomes decremental for personal well-being and professional performance. In the context of the COVID-19 pandemic, no screening outcome tools have been widely endorsed to identify fatigue in healthcare, but screening for ME/CFS through tools such as the DePaul symptom questionnaire may be useful.²² Monitoring fatigue through fatigue

logs, which include aggravating and easing factors, may be useful in helping to differentiate triggers of fatigue. Using tracking devices to track known physiological variables such as heart rate monitoring for PEM management or psychological variables such as stress, nutrition and sleep may highlight the influence of such lifestyle factors on their own fatigue. In doing so, it can assist in feeding into a greater system of data collection to inform empirical timely intervention and mitigation.

Structured training

Ensuring training of all levels of stakeholders is important to maximise cultural shifts of buy-in to fatigue reporting and mitigation. Training on fatigue and risks associated with fatigue can develop institutional capacity and resilience in adapting to the required behaviour changes. It can also encourage self-regulation of individuals performance in identifying when ‘at risk’ of performance decrement. An example of a tailored fatigue education programme, modelled off the ICAO programme²¹ and adapted to a healthcare setting, is seen in box 1 below. Learning and development departments could lead organisations through structured implementation of training programmes for all levels of the healthcare ecosystem with emphasis placed on tangible responsibilities for different stakeholders.

Leadership at an exosystem level: local return-to-work structures

Reasonable accommodations

Employment legislation varies internationally, with differing implications for areas, such as sick leave entitlements and reasonable accommodations. Payment during sick leave is not obligated within a minority of states, and while public sector healthcare organisations typically do offer payment, these safeguards are not necessarily guaranteed for HCWs within the private sector. This financial pressure may expedite return to work, even if the individuals are not physically, mentally or cognitively ready to return, potentially amplifying Long COVID related fatigue. The World Health Professions Alliance has campaigned for

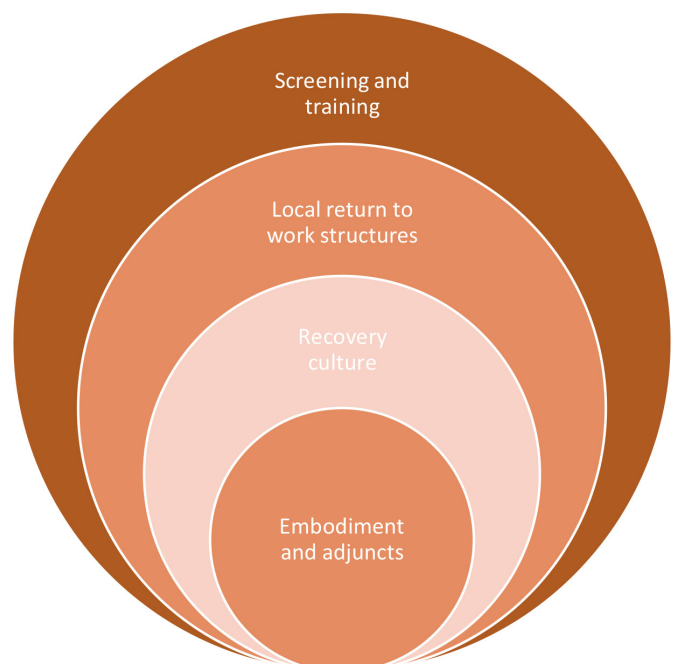


Figure 1 Preventive and proactive leadership responsibilities to tackle fatigue.

Box 1 Example of a training curriculum on fatigue risk management for healthcare workers

Training programme

- ▶ An overview of fatigue risk management structure within the hospital, including the concepts of shared responsibility and encouraging effective reporting.
- ▶ Information about health consequences of fatigue.
- ▶ Information about social and environmental consequences of fatigue.
- ▶ Psychological training through evidence-based approaches embedded in psychological resilience to workplace stressors.
- ▶ The importance of self-regulation of fatigue in performance in management.
- ▶ How to identify fatigue in themselves (self-awareness) and in others.
- ▶ Mitigation strategies available to individuals for fatigue management (legislatively, institutionally, structurally and individually).

‘Positive Practice Environments’, making the case for healthy and supportive work environments. Improving staff retention through reasonable accommodations are widely recognised as being associated positive health benefits.²³ These accommodations can vary in nature and could include a graded return to work, flexible hours, ergonomic modification or change of role. Reasonable accommodations should be tailored to HCWs and developed in collaboration with a professional specialised in the area, for example, occupational physician, occupational health nurse or occupational therapist.

Graded return to work

So as to achieve a workload balance and prevent delayed onset of fatigue symptoms due to overload, resulting from increased physical demands, a number of safeguards are recommended for HCWs. This advice is founded in energy envelope theory and posits advice that those with fatigue should not expend more energy that they perceive themselves to have.²⁴ Establishing a graded return-to-work programme, such as the National Health Service (NHS) return-to-work mentoring scheme,²⁵ is important for those experiencing Long COVID fatigue and draws on the energy conservation principle of pacing. Issues can arise where the ‘goalposts’ for a full return to work are set prematurely. Instead, it can be useful for HCWs to continually review their status with their employer. Two-way communication between employer–employee is key. Establishing a minimum time for rest should PEM exist, and allowing fatigue only to reach agreed levels on graded return to work may offer the best means in working within the limitations of an individual’s fatigue. This is facilitated by ensuring that surveillance of all exposed HCWs is consistent and that individuals are provided with additional psychological and work-related support. Considerations should also be given regarding the type of work that HCWs are completing both in the context of day-to-day work and graded return to work plans. Tasks should be considered in respect to how physically, cognitively and emotionally demanding they may be through self-reported outcome measurements, such as those previously used in healthcare.²⁶ Ergonomic changes to reduce physical exertion and ‘cognitive off loaders’, such as experience of having a team to support in decision-making, may assist in managing and pacing in occupational settings. Examples of known ‘cognitive loaders’ modelled from the aviation industry²¹ and adapted to

healthcare are described in [box 2](#). These have applicability for individuals in self-management of performance but also organisation systems such as planning on-call rotas in conjunction with a screening programme to detect ‘at risk’ personnel.

Leadership at a mesosystem and microsystem level: recovery culture

Stress mediation

Interventions at the department level must recognise the interplay between recovery and performance to make a meaningful difference in tackling fatigue levels. One area of managing stress is using positive behavioural and psychological based interventions, such as increasing self-awareness and emotional regulation, training in resiliency building and mindfulness-based behaviour change practices.²⁷ These challenge conventional norms of viewing stress as a harmful activity, that is, a ‘threat’ and mediates the impact of stress in a way that protects professional performance. Given the known increase in psychological stress from the pandemic, mindfulness-based stress reduction within clinical settings may be useful.²⁸

Cultures of sleep and rest

Removing the structural barriers, particularly in settings where continuity of patient care is required, may optimise rest opportunities and reduce fatigue levels within the constraints of a system that requires 24-hour work. In the case of on-call work, individuals and departmental efforts should be made in scheduling to minimise continuous hours of wakefulness before and during duty periods that are unscheduled. This means an end to 24-hour call rotas or more and a greater level of consistency in scheduling, which is biomathematically modelled. The data informed by screening for fatigue will inform this new modelling process. Enabling structural environmental barriers that facilitate recovery is also important. If HCWs feel fatigued in work, opportunities for rest and sleep could be provided through sleep pods or napping rooms and having a protocol for returning to work following a rest period that controls for sleep inertia. In the same vein, optimising sleep conditions during rest periods is also important, and procedures to minimise interruptions during non-work periods should be established and disseminated widely. From a viral perspective, there has been evidence suggesting sleep enhances immune defence, both as a preventive and in reaction to viral infection. This is known as the immunological memory formation²⁹ suggesting the potential multipurpose role of fatigue mitigation. These changes, in practice, require a cultural shift in how we think about staff well-being and its link to healthcare provision and is currently being advocated for through the ‘People Promise’ initiative in the NHS.³⁰ Modelling this shift from resource to individualised approaches requires good management and leadership in a context where there are

Box 2 Workload considerations in healthcare setting in management of fatigue

Variables on work-related cognitive load

- ▶ Emergency tasks.
- ▶ Higher level of difficulty of task.
- ▶ Poor knowledge of patient condition.
- ▶ Poor collegial support.
- ▶ Postprandial dip/night-shift work.
- ▶ Poor communication with patients.
- ▶ High level of patient caseload.

ever increasing demands and limited resources. Emphasis on educating staff on the link between preventive measures and performance optimisation, providing goal-orientated activities to track changes in culture and showing future opportunities for improved healthcare system provision is key to ensuring stakeholder buy-in.

Leadership at an individual level: embodiment and adjuncts Embodying individual leadership traits

Transformational leadership is defined as embodying the traits of modelling, inspiring a shared vision, challenging processes, enabling others to act and recognising contributions and successes.⁶ Leaders identify opportunities within society for most effective change and guide innovation in resource-efficient manners to maximise such change. By facilitating changes at the higher levels of the ecological system and encouraging cultural shifts towards fatigue management being a collective responsibility, individual leaders can support sustainability organisational change by being part of the process and by inspiring others to be also.

Adjuncts

Beyond the remit of this editorial but worth noting is that while fatigue stemming from COVID-19 shares parallels with aspects of ME/CFS, it has been cautioned that recommendations should not be generalised across the two conditions. To date, there is no evidence base for or against any pharmacological or non-pharmacological interventions for Long COVID related fatigue.³¹ Instead, an individualised approach to fatigue reflecting energy conservation techniques, appropriate nutrition and paced activity engagement has been recommended,³² prompting an interdisciplinary approach.

REFLECTION AND CONCLUSION

With growing pressures being placed on healthcare systems, particularly with the increasing 'reactiveness' of healthcare systems that are faced with challenges beyond resource capability, fatigue in healthcare personnel remains a significant concealed risk to sustainability of healthcare provision. Transformational leadership ensures a productive workforce, which is linked to work engagement.³³ Work engagement is the antithesis of occupational fatigue, defined by vigour, dedication and absorption.³⁴ By showing leadership through systemic engaged efforts at all levels of organisational hierarchies, there are more benefit outcomes than not. Leadership is associated with acquiring additional job resources³⁵ which has positive implications for sustainability of operational systems of fatigue monitoring. Similarly, through improving staff engagement by focusing on effective fatigue management strategies, there is evidence of strong association of recovery of the workforce³⁶ to sustain further phases of the impact of the pandemic.

One of the leading healthcare innovators of our time, Atul Gawande, said '*better is possible. It does not take genius. It takes diligence. It takes moral clarity. It takes ingenuity. And above all, it takes a willingness to try*'. With the increased focus on healthcare systems during the pandemic, one which praised healthcare workers as the front-of-the-frontline, this is an opportunity to lead in challenging long-standing issues of occupational fatigue and emerging Long COVID fatigue—let us not waste it.

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