

Burnout in healthcare: risk factors and solutions

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Conflict of interest statement:

Nancy Doyle runs a non-profit psychological consultancy, assessments and coaching company called Genius Within CIC. Genius Within specialise in supporting and promoting neurodiversity at work. Whilst Genius Within is not specifically directed at burnout for neurodivergent people, inevitably we are called to support those experiencing burnout as part of our service, including those working for the NHS and other government departments. Nancy is a founding member of the Special Interest Group in Occupational Psychology with SOM and a member of the Committee for Testing Standards for the British Psychological Society.

Neil Greenberg runs a psychological health consultancy called March on Stress (MoS) limited. Whilst MoS does not provide training/interventions specifically focused on burnout, it does provide healthcare support to a number of NHS organisations. Neil is also a trustee of both the Society and Faculty of Occupational Medicine.

There are no other conflicts of interest to declare.

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INTRODUCTION

Although people working in healthcare generally find their work meaningful and satisfying, they are at high risk of burnout – a psychological syndrome comprising three dimensions: a) emotional exhaustion, b) feelings of cynicism and detachment from the job, and c) a sense of ineffectiveness or lack of accomplishment. There is evidence that the challenges associated with the COVID-19 pandemic has intensified this risk.

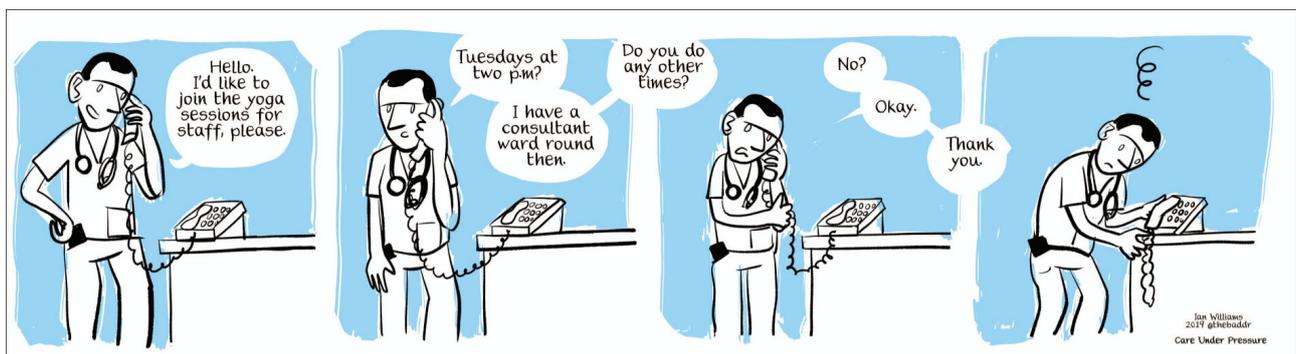
Burnout has serious implications for organisations and patients/service users as well as the health and wellbeing of practitioners, so it is essential to implement evidence-informed intervention strategies for its prevention and management. As burnout is a response to workplace stress, interventions are needed at the organisational as well as the individual level.

This guide is designed for people working in occupational health and associated roles, as well as those involved in managing wellbeing in the workplace. It provides a general overview of the causes, signs and symptoms and ways of managing burnout. It focuses on the healthcare sector but would be relevant and helpful for people working in other industries.

The guide initially considers the nature of burnout and provides a brief history of the development of the concept. The prevalence of burnout among healthcare professionals, and the reasons why they are at particular risk, are then examined. The organisational and individual level factors that can increase the risk of burnout in healthcare contexts are identified along with its implications for wellbeing and performance.

The signs and symptoms of burnout are identified and syndromes associated with burnout, such as embitterment, compassion fatigue and moral injury, are outlined. Also highlighted is the need to conceptualise burnout as a developmental process in response to challenging working conditions, rather than a discrete set of symptoms to be ‘treated’.

Examples of evidence-informed strategies to manage burnout at different levels (i.e. organisation, individual and tertiary) are provided. The key role played by occupational health professionals in reducing the risk of burnout and managing its negative effects is highlighted. Several case studies are included to illustrate key issues and identify best practice.

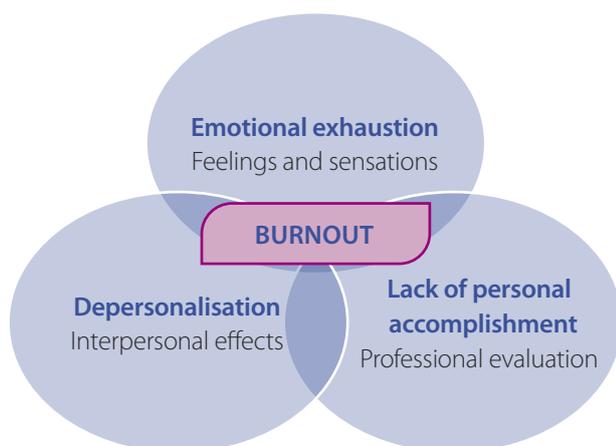


WHAT IS BURNOUT?

Burnout is a state of physical and emotional exhaustion due to excessive and prolonged interpersonal work-related stressors.¹ The term was first used in 1971 to refer to the exhaustion experienced by US air traffic controllers in response to long working hours, increased pressure and fatigue² and later used by Freudenberger³ to describe the damaging effects of work that is emotionally demanding and requires sustained compassion. Today, burnout is based on Maslach's work which recognises it as a syndrome with three components:

- Emotional exhaustion: feeling over-extended and drained of mental and physical energy – *'I feel emotionally drained from my work'*.
- Depersonalisation/cynicism: active disengagement from the job and negative attitudes towards patients, people accessing services, or colleagues – *'I feel that I treat some people I work with impersonally.'*
- Decreased sense of accomplishment and professional efficacy: poor sense of achievement and loss of purpose – *'I have not accomplished many worthwhile things in this job'*.

Fig. 1: The three dimensions of burnout



The 11th revision of the World Health Organization (WHO) International Classification of Diseases (ICD-11) recognises burnout as a syndrome resulting from chronic, unmanaged workplace stress rather than a medical condition.⁴ It should be recognised, however, that people who are burned out are at high risk of developing diagnosable mental health conditions, such as depression, generalised anxiety disorder or substance misuse.⁵

WHAT ARE THE SIGNS AND SYMPTOMS OF BURNOUT?

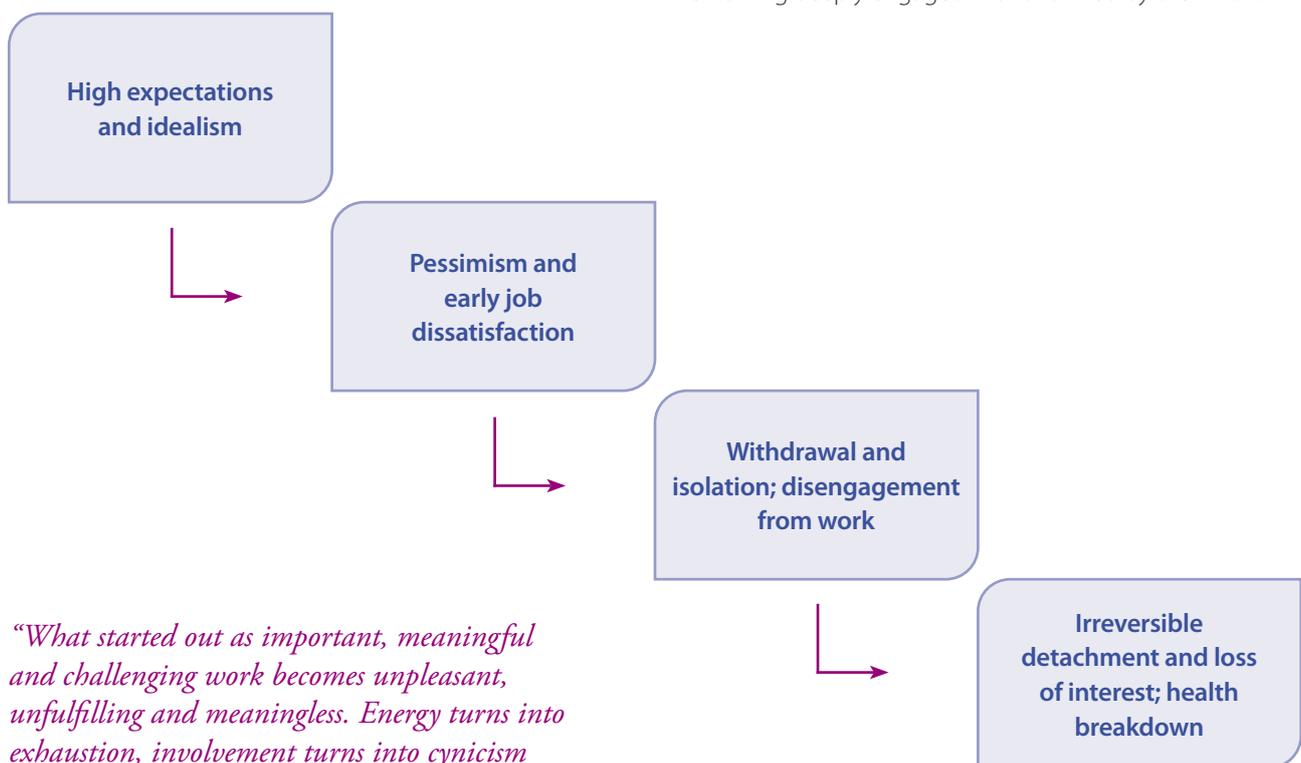
Burnout can manifest itself in many ways. Changes can be at a cognitive, emotional, attitudinal and behavioural level and have the potential to seriously compromise mental and physical health. As mentioned, while burnout is not in itself a diagnosis, it is crucial to be aware of its signs and symptoms to enable intervention at an early stage.

Common signs of burnout

- **Emotional changes:** anger and frustration; anxiety, fear and panic; self-doubt and a sense of failure; feeling overwhelmed, helpless, trapped and defeated; emotional numbness or blunting; loss of enthusiasm and a sense of meaninglessness; feeling under-valued; loss of enjoyment of work and sense of doing a good job.
- **Cognitive changes:** lack of concentration; procrastination and difficulty making decisions; increased cynicism and criticism of others and suspicion of their motives; rumination over minor offences or perceived slights; doubts about competence and fear of making mistakes.
- **Physical changes:** insomnia and chronic fatigue; medically unexplained symptoms such as headaches and gastrointestinal disorders; increased vulnerability to infectious disease.
- **Social changes:** feeling alienated from other people; a sense of isolation and being alone in the world.
- **Behavioural changes:** loss of sense of humour; irritability and lack of empathy; self-medication with food, alcohol or drugs; neglecting personal needs; withdrawal from others and distancing oneself from work.

Longitudinal studies show that burnout is a *developmental process* rather than a discrete set of symptoms.^{6,7} The development through the stages of burnout is similar to the response to stress identified in Selye's General Adaptation Syndrome,⁸ which has three phases: alarm, resistance and exhaustion. Thus, a job that is highly emotionally demanding can deplete a worker's emotional resources, causing *emotional exhaustion*. As a form of self-protection, the worker may then distance themselves psychologically from others by engaging in *depersonalisation and/or cynicism*. In turn, this can lead to feelings of *professional inefficacy* and lack of fulfilment, as the worker feels unable to forge emotional connections in the helping role – a key aspect of the job and a major source of satisfaction. These negative self-evaluations can then intensify emotional exhaustion and reinforce the burnout experience over time.

Fig. 2: A 'typical' burnout trajectory



“What started out as important, meaningful and challenging work becomes unpleasant, unfulfilling and meaningless. Energy turns into exhaustion, involvement turns into cynicism and efficacy turns into ineffectiveness.”

- Agha, endocrinologist

The case studies provided in this guide illustrate some situations commonly seen in healthcare organisations. A ‘typical’ burnout trajectory is shown in Figure 2, but the pattern of symptoms can vary. Based on scoring patterns on the Maslach Burnout Inventory (MBI), which is the measure that is most commonly used, a study of healthcare employees identified five distinct burnout profiles:⁹

- **Burnout** (high on emotional exhaustion, depersonalisation/cynicism and inefficacy).
- **Engagement** (low on all three dimensions).
- **Over-extended** (high on exhaustion only).
- **Disengaged** (high on depersonalisation only).
- **Ineffective** (high on inefficacy only).

This person-centred approach can capture the variation in the burnout experience between individuals and how this unfolds over time, enabling more precisely targeted interventions. It also explains why some people can experience high levels of emotional exhaustion while remaining deeply engaged in and fulfilled by their work.

BURNOUT IN HEALTHCARE

Healthcare professionals are particularly vulnerable to burnout. The reported prevalence varies across studies, however, which can be due to differences in how burnout has been defined and measured across a wide range of cultures and organisational contexts.

According to the 2022 NHS workforce survey, 34% of participants reported feeling burned out because of their work and 37.4% found it emotionally exhausting.¹⁰ Data were obtained from 636,348 NHS staff working in different roles in 264 NHS organisations across all 215 trusts in England. Staff in clinical roles were more likely to report burnout, but particularly high rates were found among those in ambulance roles.¹⁰ Other studies have examined the prevalence of burnout among different healthcare roles.

Physicians: A review of studies examining the mental health of UK doctors¹¹ reported that up to 54% showed signs of emotional exhaustion, up to 45% depersonalisation and up to 40% feelings of low professional efficacy. Even higher rates were found in a systematic review that extracted prevalence data from 182 studies of physicians: 72% for emotional exhaustion, 68% for depersonalisation and 63% for low personal accomplishment.¹² General practitioners (GPs) seem particularly vulnerable to burnout, with a recent systematic review and meta-analysis of 31 studies concluding they are at moderate to high risk.¹³ Of particular concern are findings that many trainee and junior doctors are showing signs of burnout so early in their career. In 2022, the General Medical Council¹⁴ reported that 63% of trainees and 52% of doctors who worked as trainers were at moderate or high risk of burnout – an increase from 2021 and the highest levels found since the questions were included in the survey.

Nurses: Research has also found a high prevalence of burnout among nurses. The findings of the 2022 NHS staff survey reported that 39.7% of nurses and midwives said that they 'often' or 'always' felt burned out from their work, compared with an average of 34% across the entire workforce. As with physicians, estimates of burnout levels vary but a review of studies¹⁵ found that up to 51% of nurses sampled reported emotional exhaustion, up to 32% depersonalisation and up to 30% low personal

accomplishment. Few differences were found in burnout rates reported by nurses in acute and mental health settings, but those in critical care appear more vulnerable.

Ambulance and paramedic services:

The 2022 NHS survey found that around half of staff in ambulance (operational) roles (49.3%) reported feeling burned out because of their work. More specifically, a recent study of burnout in frontline ambulance staff⁶ found that more than half (53%) showed signs of burnout and fatigue at a moderate or high level, with almost nine out of ten (87%) reporting moderate to high depersonalisation. The finding that 94% of respondents also showed high levels of personal achievement shows that the work can be simultaneously stressful and satisfying. A higher risk of burnout was found among clinicians who were lone respondents than those who worked in a double-crewed ambulance.

Measuring burnout

Burnout among health and social care professionals is frequently measured by the 22-item Maslach Burnout Inventory (MBI)¹⁷ which uses a seven-point frequency response scale (from never to every day). Scores for each of the three dimensions (i.e. emotional exhaustion, depersonalisation/cynicism and reduced personal accomplishment) can be identified and comparisons made with normative samples. An abbreviated MBI is available (with nine items across the three dimensions), but the risk of false positives may be higher.¹⁸

As mentioned, emotional exhaustion is a particular concern in healthcare. A recent study of consultant and trainee surgeons in the UK suggests that a single item can measure this effectively.¹⁹ Although the measure needs validation in different healthcare contexts, the authors suggest it could help identify 'at risk' employees at an early stage, enabling rapid intervention. It could also be used at the group level to monitor trends over time, with the findings used to guide resource allocation to coincide with peak periods.

1. The NHS staff survey uses items from the Copenhagen Burnout Inventory (Kristensen et al., 2005) that includes three subscales: personal, occupational and client-related.

WHAT ARE THE RISK FACTORS FOR BURNOUT?

Major risk factors for burnout among healthcare professionals are professional cultures that require sustained compassion from their employees while overlooking the need for self-care and stigmatising help-seeking (see below). The key triggers of burnout can, however, be classified into two broad categories: organisational and individual.

Occupational cultures and burnout

"In training, we learn to believe that our value is in our sacrifice. Prioritising our own wellbeing is selfish. We do not take time off when we are unwell, we are strapped for time to exercise, eat well and nourish our relationships. We learn to be cogs in a giant wheel, one that we dare not slow down – even at the cost of our own lives."²⁰

To reduce the risk of burnout in healthcare it is crucial to understand the role occupational culture plays in driving it. Practitioners are regularly exposed to the suffering of others, sustained compassion and empathy are required and selflessness can be seen as 'just part of the job'.

Research with physicians, in particular, has identified several cultural obstacles to their wellbeing including: *medical exceptionalism* (seeing medicine as a self-sacrificing profession), *medicalisation* (viewing physicians who experience mental health challenges as 'sick') and *individual responsibility* (believing that physicians are personally responsible for remaining healthy).²¹

A culture of self-sacrifice has also been highlighted in nursing, where self-sacrifice can be a sign of the 'ideal nurse' and burnout seen as an inevitable consequence of caring.²² Prioritising one's wellbeing can be seen as self-indulgent and they may feel they need 'permission' to do so.²³ An additional concern is that sickness presenteeism (working while sick) is commonplace among healthcare workers^{11, 15, 24} and they may not see stress, fatigue and burnout (even when severe) as 'legitimate' reasons to take time off.²⁵ Unsurprisingly, the risk of burnout is higher among employees who practice presenteeism where it is likely to lead to profound mental and physical exhaustion.^{26, 27}

Some organisational risk factors for burnout:

Studies of healthcare professionals^{11, 15, 28, 29, 30, 31, 138} have identified the following risk factors at the organisational level:

- High work demands, high caseloads; intensification of work; pressure to meet targets.
- Long working hours; shift work, high rotations or frequent overtime; little choice over shift length; little opportunity to take breaks.
- Low staffing levels; lack of cover while on leave; inadequate resources.
- The emotional labour of 'helping' work.
- Not having enough time to spend with patients.
- Lack of autonomy and little influence over decision-making.
- Poor social support from managers or colleagues; bullying, harassment and aggression.
- Lack of respect; not valuing practitioners' achievements and efforts.
- Role ambiguity (not knowing what is expected); role conflict (where the demands of different roles are incongruent or incompatible).
- Poor leadership and management; lack of skills and time for line managers to identify people experiencing difficulties and to support their wellbeing.
- Excessive and poorly managed change.
- Poor communication.
- Job insecurity; precarious employment.
- Dysfunctional organisational politics; bureaucratic demands; a metrics culture.
- Value conflicts and inability to provide the standard of care required.
- Feelings of injustice and unfairness; favouritism among workers.
- Poor psychological safety climate (where employees feel that their psychological health and safety is not prioritised).
- Stigmatisation of help seeking; physical or cultural barriers to accessing support.

WHAT ARE THE RISK FACTORS FOR BURNOUT?

Some individual risk factors for burnout:

- *Job experience:* less experienced practitioners may be more vulnerable to burnout. A recent longitudinal study of hospital healthcare workers found depersonalisation reduced and feelings of personal accomplishment increased over a three-year period.³² Nonetheless, it is important to acknowledge the healthy worker survivor effect, as those less able to cope with the demands of the job and/or those who experienced poor health are likely to have left.
- *Orientations towards the job and relationships with people:* 'dysfunctional' workaholism; high levels of engagement, over-involvement with patients or clients, and a 'rescuing' orientation (see box opposite).^{33, 34}
- *Personality traits:* neuroticism (emotional instability); 'Type A' personality (high achievement orientation, competitiveness and impatience), and 'Type D' personality (inhibiting negative emotions to avoid rejection or disapproval).^{35,36}
- *Other individual difference factors:* external locus of control (where people believe external forces are responsible for their circumstances); low psychological capital^{33, 37} and lack of confidence in one's abilities.³¹
- *Coping styles:* avoidance, the use of emotion-focused rather than problem-focused coping and lack of flexibility in coping strategies used.^{38, 39}
- *Background:* a personal history of trauma; an insecure and avoidant attachment style where people crave acceptance and are sensitive to social rejection.⁴⁰
- *Emotion regulation skills and boundary setting:* low emotional intelligence and under-developed reflective abilities; affective rumination (worrying about work issues after the working day) and poor work-life balance.^{41, 42, 43, 44} Work-life interference in relation to burnout risk is discussed further on the next page.
- *Neurodiversity:* this term refers to the different ways that a person's brain processes information. Neurodiverse conditions include autism, attention deficit hyperactivity disorder (ADHD), dyslexia, dyspraxia and Tourette syndrome. People who are neurodiverse can experience mental health challenges. There is also some evidence that they may be at greater risk of occupational burnout due to the additional effort involved in managing external stimulus and masking or camouflaging their traits.⁴⁵ While the experience of burnout for neurodivergent and neurotypical employees may be similar, the job demands that increase their vulnerability to burnout can differ⁴⁶ and support should be tailored to individual needs.

Rukhsana's case study (p. 26) illustrates the challenges that people with neurodiversities can experience and the support that is likely to be helpful.

The Rescuer Syndrome

This is an individual predisposition (and internal stressor) relevant to people in the helping professions. It can be seen as a form of 'pathological altruism'⁴⁷ involving a strong sense of social responsibility, high empathy, an inner-directed, action-orientated approach to work, and a drive to maintain exceptionally high standards. While such qualities are desirable in healthcare, rescuers (also known as 'fixers' or 'white knights') struggle to differentiate between their own needs and those of others.

Rescuers may take personal responsibility for resolving other people's difficulties, become absorbed by them and have difficulties setting boundaries, meaning they are particularly vulnerable to exhaustion and burnout.⁴⁸ It is also recognised that pathological altruism, i.e. striving to reach internal and external professional ideals in altruistic acts, can also unintentionally harm those people they intend to help.⁴⁹ Although it is important for healthcare practitioners to recognise and manage rescuing tendencies, this can be challenging as they are often reluctant to seek help from others.

Natasha's case study (see p.26) illustrates how organisational and individual factors can contribute to burnout.

WHAT ARE THE RISK FACTORS FOR BURNOUT?

Studies of healthcare practitioners show that organisational factors make a much stronger contribution to burnout than individual differences.¹¹ Nonetheless, some of the organisational and individual risk factors highlighted above can combine to further increase a practitioner's vulnerability to burnout, for example:

- If they experience high demands but do not have the autonomy and support (or other resources) required to meet them.
- Where organisational factors, such as bureaucratic demands, that may be considered less legitimate, impede their ability to deliver good quality patient care.
- If they perceive an imbalance between the effort they put into their work and the rewards they receive, especially if they are highly committed to the job.
- If maladaptive habits acquired during training are reinforced by working in a highly pressured environment and a 'self-sacrificing' culture.

As many of the studies described above are cross-sectional and correlational, causality cannot be established. Nonetheless, a meta-analysis of longitudinal studies did observe that higher levels of job demands (e.g. workload and role conflict) and lower levels of job resources (e.g. social support and control) were linked with a greater risk of emotional exhaustion in doctors over time.⁵⁰

More longitudinal research is needed to demonstrate cause and effect, as healthcare practitioners who are experiencing burnout or mental health challenges may be more likely to perceive, for example, a more demanding workload, less support and appreciation from others, less autonomy, reduced confidence in their abilities and a poorer work-life balance. Moreover, challenges in one's personal life are also likely to compound the pressures that can increase the risk of burnout.

Work-life interference

Many studies show that healthcare practitioners often struggle to maintain a healthy work-life balance.¹¹ A recent study of UK doctors⁵¹ found that 70% reported their work negatively affected their personal relationships and 87% their hobbies. Doctors in training, particularly women with small children and those lacking support, are at particular risk of work-life conflict.⁵²

Conflict between work and personal life can increase the risk of burnout, especially emotional exhaustion.⁵³ Job demands and long working hours can lead to time-based conflict (where time spent working means that there is little left for other activities) and strain-based conflict (when negative emotional reactions to work 'spill over' into the personal domain, or people ruminate excessively about the job). The emotional demands of working in healthcare can make it difficult for workers to switch off from the job (both physically and mentally), limiting people's ability to rest and recover. To reduce the risk of burnout, therefore, maintaining firm boundaries between domains and prioritising recovery are essential.

"You're almost not viewed as a human being who has the right to have a family, to be involved in society, you know, involved with church or local charities or whatever."

- Junior doctor, quoted in BMJ

BURNOUT AND THE PANDEMIC

Burnout was already a serious problem for healthcare professionals before the COVID-19 pandemic, but it has posed additional hazards. Research findings show that practitioners experienced a general deterioration in their quality of working life during this time, increasing their vulnerability to burnout and trauma.^{14,54} A recent study reported that healthcare professionals were over three times more likely to be burned out during the pandemic than those doing other types of work, with those dealing directly with patients at greater risk.⁵⁵ Moreover, a recent analysis of caller data by Samaritans⁵⁶ showed that the number of contacts from healthcare workers increased during the pandemic and its aftermath, with them being five times more likely than other contacts to raise concerns about extreme pressures of work causing them stress, exhaustion and burnout.

A combination of factors increased the vulnerability of healthcare practitioners to burnout during the pandemic: organisational hazards (such as increased workloads, long working hours, decreased staff numbers, lack of support, difficulties taking breaks and rapid change and uncertainty) along with individual vulnerabilities (such as concerns about personal and family safety and feelings of helplessness and embitterment).^{31,57,58,59} Professionals working with older people often experienced additional emotional strain from taking the place of the family and loved ones who could not visit in person, even during end of life.

“The pressures that many clinicians face in the NHS is impacting on their ability to deliver safe and effective care. In relation to general practice, the impact of this stress is causing doctors to experience burnout so they become despondent and think about leaving the profession (either by retiring early or leaving the NHS). This also impacts on how they deliver care to patients, with doctors who experience burnout more likely to make errors that result in patient harm.”

*- Professor Aneez Esmail,
Manchester University*

THE IMPACT OF BURNOUT

As well as threatening wellbeing, the cycle of emotional exhaustion, depersonalisation and feelings of professional inefficacy that characterises burnout can also impair the quality of working life and influence career decisions. Studies of healthcare practitioners have found strong relationships between burnout and job dissatisfaction, disengagement and lack of commitment.⁶⁰ A review of 170 research papers conducted by Hodkinson et al., 2022⁶¹ found that doctors who experienced burnout were up to four times more likely to be dissatisfied with their job and more than three times as likely to regret their career choice. The healthcare sector in the UK is currently experiencing major recruitment and retention challenges and burnout is a common reason for leaving.⁶¹ A two-wave study of 1,688 nurses found that levels of burnout increased over time, with each unit increase in scores for emotional exhaustion being associated with a 12% increase in a nurse leaving.⁶² For physicians, research conducted in the USA showed those who reported burnout were more than twice as likely to have left their institution within a two-year period at an estimated cost of between \$15,544 and \$55,506.⁶³

Burnout also has serious implications for job performance in the healthcare sector. Strong links have been found between burnout and reduced empathy and compassion fatigue,^{64,65} as well as poor-quality patient interactions.^{29,66} A recent review of 170 studies conducted with physicians across America and Europe found that those who experienced burnout were twice as likely to be involved in a patient safety incident.⁶¹ Another review found burnout among physicians to be associated with lower levels of clinical care and patient safety.⁵⁰ It should be emphasised, however, that links between practitioner burnout and patient outcomes are not always found, as they make considerable efforts to ensure that patients and clients do not suffer, often at great personal cost.^{29,50}

Andrew's case study (p.27) illustrates the risks of burnout for retention as well as the mental wellbeing of valued healthcare employees.

SYNDROMES ASSOCIATED WITH BURNOUT

Several other occupational syndromes have similar symptoms to burnout and can also have a major impact on mental and physical health. As they are commonly found among healthcare practitioners, it is recommended that organisations also assess and manage these risks.

Compassion fatigue is a specific form of burnout, characterised by emotional and physical exhaustion which diminishes the ability to empathise or feel compassion for others. It is a particular risk for healthcare professionals and linked to their deep investment in helping others.⁶⁷ Like burnout, compassion fatigue has serious implications for the wellbeing of practitioners and patients.⁶⁸

Alienation involves feelings of estrangement from the caring role.⁶⁹ It can engender depersonalisation and cynicism among practitioners, reducing job commitment, encouraging counter-productive behaviours (such as provoking conflicts with colleagues and frequent sickness absence) and inducing self-harm (often through alcohol/substance misuse).⁷⁰ For helping professionals, feelings of alienation from work can stem from policy reforms they feel are 'imposed', which can engender a sense of powerlessness and meaninglessness and increase the risk of emotional exhaustion.⁷¹

Embitterment is a chronic mental condition involving feelings of injustice.⁷² It has several facets: emotional embitterment (dissatisfaction with life), performance-related embitterment (feeling that one's efforts are not acknowledged), pessimism/hopelessness (not looking forward to the future) and misanthropy/aggression (negative or aggressive thoughts towards others, or feelings of revenge). Similarities have been noted between chronic workplace embitterment and burnout,⁷³ as both conditions arise from a combination of contextual factors and individual characteristics or vulnerabilities, with people who care for others being at particular risk. As embittered individuals typically see themselves as powerless victims of external events and resist receiving help, they are also more vulnerable to mental health problems such as depression and anxiety.^{74, 75}

Moral injury refers to the distress resulting from actions (or inactions) that violate a person's moral or ethical code. It has been recognised as a key cause of burnout in healthcare. The inability to practice in a way that is congruent with one's moral expectations can cause distress, encourage cynicism and disengagement and reduce feelings of personal accomplishment.⁷⁶ Moral injuries were identified more frequently among healthcare workers during the COVID-19 pandemic in response to compromised care and the difficult decisions or actions that many were obliged to take.⁷⁷ This is discussed further below.

An alternative conceptualisation of burnout

Demerouti and Bakker⁷⁸ built on Maslach's approach to define burnout as involving two core dimensions: **a)** exhaustion, which is considered a consequence of prolonged exposure to intense physical, affective and cognitive strain from work and **b)** disengagement, which involves distancing oneself from work. An alternative approach, opposite to burnout, is work engagement, which is defined as a positive, fulfilling, work-related state of mind characterised by the following states:⁷⁹

- **Vigour:** high levels of energy and mental resilience while working – '*When I work, I usually feel energised*'.
- **Dedication:** a sense of significance, enthusiasm, inspiration, pride and challenge in one's work – '*This is the only type of work that I can imagine myself doing*'.
- **Absorption:** being fully engrossed in one's work – '*I always find new and interesting aspects in my work*'.

Assessing engagement as well as exhaustion can identify people that are thriving as well as struggling. This information can help to identify the organisational and individual resistance resources that could be optimised to reduce the risk of burnout in the workforce.

WHAT CAN BE DONE TO TACKLE BURNOUT?

The wide-ranging costs of burnout mean there is a strong legal, moral, business and social case for organisations to reduce the risks. Tackling burnout can be challenging, however, as it is caused by a complex interplay of cultural, contextual and individual factors. Interventions to address burnout and improve wellbeing are typically at the individual level, involving psychoeducation, counselling and resilience-building, or improving self-care or coping abilities. While people working in healthcare undoubtedly need effective coping skills, even the most resilient

practitioner will be unable to survive in an environment that fails to support their wellbeing. To reduce the risk of burnout and its negative effects it is therefore essential to identify and modify the causal factors, foster a healthy working environment and promote good quality work.

A multi-level, systemic approach is recommended where strategies are implemented at primary (organisational), secondary (individual) and tertiary (rehabilitation) levels. See Fig. 3 below.

Fig. 3: A systems or multi-level perspective to managing burnout

Primary interventions

Strategies that attempt to prevent burnout: e.g. identifying the risks (such as heavy workload and lack of support); implementing and evaluating interventions; monitoring the workforce; training managers and employees.

Secondary interventions

Strategies that attempt to improve people's ability to cope with challenging aspects of their work and reverse or reduce any ill-health caused by chronic exposure to such conditions: these initiatives can be at the team and the individual level.

Tertiary interventions

Strategies that seek to rehabilitate people experiencing burnout and adapt their working conditions to their needs and circumstances.



PRIMARY LEVEL INTERVENTIONS: CHANGING THE ORGANISATION

Most initiatives that aim to reduce the risk of burnout (and support wellbeing at work more generally) focus on the individual. Nonetheless, the most effective way to reduce the risk of burnout is prevention. Primary level interventions aim to identify and minimise (or remove entirely) the organisational risk factors for burnout. Reviews of studies conducted in the healthcare sector have highlighted evidence for the effectiveness of organisational interventions compared with individual interventions in reducing symptoms of burnout.⁸⁰

The following actions have been found to be helpful:

- Fostering a workplace culture where showing vulnerability is not stigmatised, self-compassion and help-seeking are encouraged and appropriate support, mentorship and supervision are available.
- Implementing processes to identify the risk factors for stress and burnout, using validated measures to assess whether there are any roles or groups of employees at higher risk and using the findings to target interventions.
- Ensuring that leadership is compassionate, inclusive and ethical.
- Training line managers to identify the signs and symptoms of stress and burnout, allowing sufficient time to support the wellbeing of their employees while ensuring their own wellbeing is protected.
- Communicating the signs and symptoms of burnout and its links with mental health conditions such as PTSD and substance misuse, and how employees can get support.
- Taking a person-centred, rather than a 'one-size-fits-all' approach to supporting wellbeing with a range of initiatives available to suit individual needs.
- Involving employees in shaping appropriate wellbeing initiatives and their implementation and evaluation.
- Providing high quality, evidence-informed psychoeducational workshops on enhanced coping, as well as opportunities for coaching and mentoring, counselling services for workers experiencing difficulties and referral to specialised occupational health professionals.
- Avoiding 'quick-fix' solutions that are not evidence-based. Wellbeing apps for smartphones have become particularly popular; while apps based on established

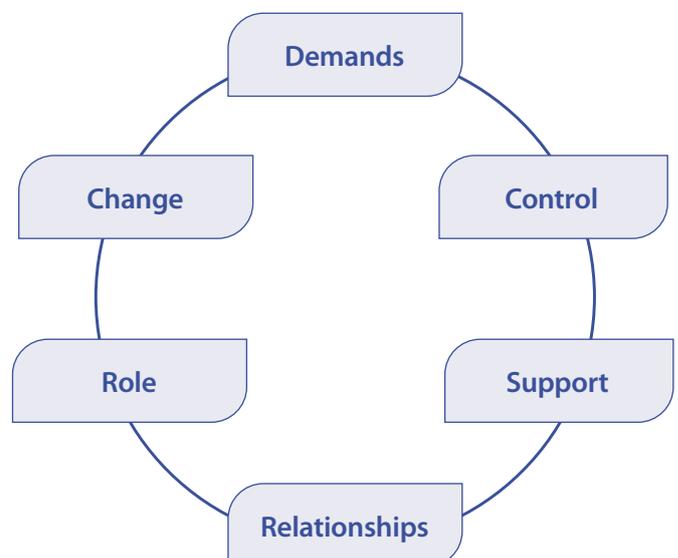
models and strategies can be effective^{81, 82, 83}, many are ineffective or only provide minimal benefits.⁸⁴

- Ensuring that employees experiencing burnout are supported and reasonable adjustments made to facilitate their rehabilitation back to the workplace.

Assessing the risks

The Health and Safety Executive (HSE) has developed a process to help employers manage wellbeing in their workforce. It is based on a set of benchmarks (known as the Management Standards) for measuring good practice across six key areas of work that, if not properly managed, can lead to poor health, higher rates of sickness absence and attrition and lower productivity.⁸⁵ The six areas are demands, control, social support from managers and colleagues, interpersonal relationships, clarity of role, and involvement in organisational change (see Fig. 4) and represent potential psychosocial hazards for the workforce. The HSE approach involves several stages: a) identifying the risk factors; b) assessing who can be harmed and how; c) evaluating the risks; d) developing and implementing interventions; e) monitoring the effectiveness of the interventions and reviewing. More information on the process can be [found here](#).

Fig. 4: The six areas covered by the HSE Management Standards



The Management Standards survey tool is used frequently in different occupational contexts including healthcare^{86,87} and is sensitive to burnout risks as well as work-related stress. The findings of a study of rehabilitation professionals show that the HSE risk assessment approach can inform targeted interventions to address burnout⁸⁸. Findings showed that the subscales 'demands' and 'role' predicted emotional exhaustion, whereas 'control' and 'role' were related to both depersonalisation and personal accomplishment. The HSE has also developed a '[talking toolkit](#)' that has templates for 'person-centred' conversations between managers and workers based on the six key areas included in the Management Standards Framework.⁸⁹ This toolkit could be used to help identify burnout at an early stage in individual employees and also inform a person-centred approach to work redesign or to modifying exposure to potential hazards.

Identifying the causes of burnout in healthcare

The HSE framework can help identify hazards and frame targeted interventions to support employee wellbeing more generally. Focusing more specifically on burnout, six pathways have been identified where organisations can reduce the risk and support optimum performance.⁹⁰ This approach is particularly relevant to highly socially connected, values-based organisations such as healthcare and could be used to inform interventions.²⁹

The six areas are:

- **Sustainable workload:** The heavy workloads prevalent in healthcare can limit opportunities for recovery. By managing workloads and recognising the need for a 'healthy' work-life balance, organisations can help practitioners remain healthy and effective.
- **Choice and control:** Lack of control is a key source of burnout, whereas opportunities to influence decision-making and exercise professional autonomy will benefit wellbeing and performance. Autonomy can help people manage their work to ensure demands are tolerable and they are able to engage in activities congruent with their core values. Job crafting (proactive changes made to one's work through balancing demands and available resources) can be particularly helpful, as it can help people avoid stress and burnout.⁹¹
- **Recognition and reward:** A powerful vulnerability factor for burnout is lack of recognition and reward, as it devalues both the work and the workers and can engender feelings of inefficacy. As well as more tangible incentives (such as pay and job security), intangible rewards (such as recognition for good work, feeling appreciated and feeling satisfied with one's efforts) are important for the wellbeing of healthcare practitioners.
- **Supportive work community:** Working relationships that are unsupportive and lack trust and civility, and conflict between individuals that is unresolved will increase the risk of burnout. A sense of belonging within a supportive, psychologically safe environment offers employees protection.
- **Fairness, respect and social justice:** Organisational justice refers to the extent to which people believe that their organisation allocates resources, makes decisions, and distributes rewards and punishments fairly and equitably. Feeling unfairly treated personally can lead to cynicism and feelings of anger, alienation and embitterment, whereas witnessing the unfair treatment of others can engender feelings of powerlessness and moral distress. People who perceive a stronger sense of justice and fairness in their organisation will be more satisfied, committed and trusting, whereas injustice is a major source of stress and burnout.
- **Clear values and meaningful work:** Feeling that the work they do is meaningful and congruent with their personal values can protect people against burnout even when demands are high. Feeling disengaged and alienated from the work they are required to do and from patients is a key aspect of burnout for healthcare practitioners.

Ensuring that there is a good 'match' between employees' expectations and the work they do across these six areas is crucial in reducing burnout, and action is needed to reduce any misalignment. The first step is to locate the problem as between the person and the job rather than within the individual – in other words, asking why people are burning out, not who is burning out.

Maslach and Leiter⁹² identify three steps to ensure better matches between the person and their job:

- **Collaborate:** involving employees in identifying and implementing solutions.
- **Customise:** modifying interventions to maximise their relevance to the type of job and organisational culture.
- **Commit:** ensuring that efforts are sustained and interventions are evaluated and modified where required.

Involving employees from different functions in shaping interventions (i.e. collaborating) to reduce the risk of burnout and improve wellbeing is highly recommended. Participatory work design approaches recognise that employees are expert in their own working environment and are often in the best position to guide change. Employee participative approaches can provide greater insight into the challenges experienced and identify potential resolutions, while their engagement helps facilitate 'buy-in' and reduce resistance. Methods such as appreciative inquiry and focus groups can be particularly useful in identifying the causes of burnout and pinpointing interventions that might be effective, as well as how they might be implemented and evaluated.

Training line managers

Line managers have a particularly important role in reducing the risk of burnout, as well as supporting the wellbeing of employees more generally. They are well placed to spot the changes in attitudes and behaviour suggesting that people might be burning out, and are often the first point of contact when they are finding it difficult to cope. Many managers, however, feel ill-equipped for this role; this is well illustrated by a recent survey reporting that only just over four out of ten employees would feel comfortable discussing their mental health with their supervisor.⁹³ It is crucial to ensure that line managers are equipped with the skills required to support the wellbeing of employees and are aware of the resources, pathways and infrastructures available. Guidance for line managers on managing stress and reducing the risk of burnout is available [here](#) and [here](#).

The HSE, in association with the Chartered Institute of Personnel and Development and Investors in People, has developed a toolkit to help managers assess whether they have the behaviours known to be effective in supporting wellbeing at work.⁹⁴ The process enables managers to reflect on their behaviour and management style and identify areas for development. There are three related tools that managers can self-rate or invite input from their team, colleagues, and senior leaders. Many organisations are using this framework to help them manage stress proactively by guiding management recruitment, selection and training. It will help leaders in healthcare organisations identify the behaviours that are likely to support wellbeing and reduce the risk of burnout.

There is also evidence that [training in active listening](#) can improve healthcare managers' confidence in recognising, speaking to and supporting employees who are distressed.⁹⁵ As well as training, managers need to be given the time and support required to fulfil this key role. Although line managers are in a good position to embed employee wellbeing into everyday operations, they cannot take full responsibility for implementing and supporting initiatives and a more systemic approach (outlined above) is required.

Taking a person-centred approach

As people respond differently to burnout, a person-centred approach will be particularly beneficial. Wellness Action Plans (WAPs) are designed to help managers support the mental health of employees and can be adapted to help identify the early warning signs of burnout. Formulated by Mind, WAPs are personalised, practical tools that can pinpoint what keeps people well at work, what threatens their wellbeing, and how to address a mental health difficulty at work if this occurs. WAPs are particularly useful when people return to work after experiencing health difficulties such as burnout, as they can facilitate structured conversations about the actions needed to support them and the adjustments that might be required. Guides are available on setting up WAPs for line managers and employees, and there are also WAPs for homeworkers and hybrid workers – [see here for more information](#). The section on signs of struggle below can also help line managers and colleagues spot when support is needed and the type of aid that is required.

SECONDARY LEVEL INTERVENTIONS: HELPING INDIVIDUALS TO COPE MORE EFFECTIVELY

Interventions at this level involve strategies that help individuals cope more effectively with the challenges they face at work. Both team and individually focused interventions can reduce the risk of burnout and its negative effects.

Team-level interventions

Social support gives powerful protection against burnout. Opportunities for social connectedness and reassurance were particularly important for healthcare practitioners during the COVID-19 pandemic, as work became more demanding, uncertainty was high and many felt a sense of isolation.^{96,97} Organisations can provide support formally via opportunities for reflective conversations and by introducing mentoring schemes. The individualised WAPs outlined above can be shared with colleagues as well as line managers (where appropriate), enabling them to provide appropriate support when needed.

This section describes Schwartz Rounds, which offers a group-level structured approach to help employees reflect on the emotional and social aspects of working in healthcare. Also examined is how work teams can provide a secure base or 'safe haven' to help practitioners manage emotional demands and reduce their vulnerability to burnout. Information on peer support programmes is also provided and a checklist that can help team members be vigilant for 'signs of struggle' among colleagues included.

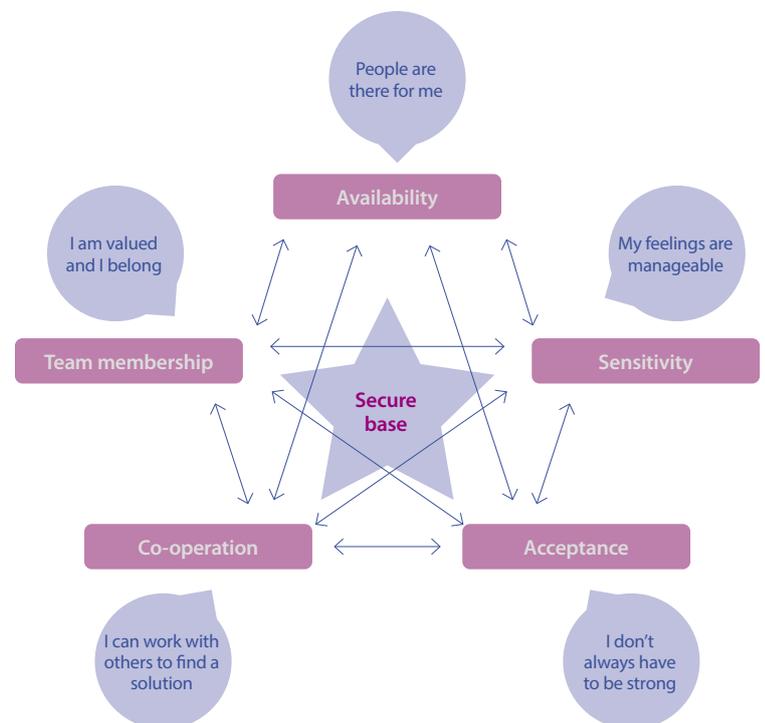
Schwartz Rounds®

Schwartz Rounds are regular one-hour sessions that enable employees (clinical and non-clinical) to share and reflect upon the emotional, ethical and social challenges they experience. Large-scale evaluations of Schwartz Rounds used in healthcare have found they can reduce psychological distress in attendees⁹⁸ and protect against compassion fatigue and emotional burnout.⁹⁹ Schwartz Rounds can also be a valuable source of support between colleagues, normalising emotional responses to practice, facilitating reflection, and enhancing empathy, compassion and understanding.¹⁰⁰ It is recognised, however, that Rounds are likely to be a 'slow intervention' with the benefits increasing over time.¹⁰¹ More information on Schwartz Rounds can be found [here](#).

The team as a secure base

Drawing on attachment theory, research with social care employees highlights the importance of the team as a 'secure' base that provides support during times of need.¹⁰² This 'safe haven' can also offer protection against stress and burnout in the healthcare workforce. The secure base model (see Fig.5 below) provides a framework for managers and teams to identify the behaviours that promote a secure base across the domains of availability, sensitivity, acceptance, cooperation and team belonging. These behaviours can then inform interventions to enhance a sense of belonging and psychological safety in the workplace.

Fig. 5: The team as a secure base (Biggart et al., 2017)



Scott's case study (p. 28) illustrates the importance of appropriate support and understanding from line managers in reducing the risk of burnout.

Peer support

Peer mentoring and support networks have particular promise in supporting the mental wellbeing of healthcare professionals. They can protect against stress and burnout by offering opportunities to talk to others in a similar situation, facilitating a sense of community, increasing knowledge about stress and burnout and effective ways of coping and reducing the stigma that can surround the disclosure of mental health issues in healthcare.^{103,104} Informal peer support groups may be particularly beneficial for trainee and early career healthcare professionals by instilling a sense of psychological safety to discuss challenges and trauma.¹⁰⁵

More formal approaches include the Trauma Risk management (TRiM) model, which is a psychological risk assessment and peer support framework designed to mitigate the risks associated with exposure to traumatic events at work, reduce vulnerability to stress and burnout and build a resilient workforce. Although originally developed and used in the UK armed forces, TRiM has informed the Supporting Our Staff (SOS) service in healthcare that provides peers with training to spot signs of distress that might otherwise go unnoticed and how to signpost people to support.¹⁰⁶ The model also helps break down the stigma of mental health difficulties, encouraging early intervention. More information on TRiM can be found [here](#).

Identifying signs of struggle

There is evidence that co-workers are adept in detecting early signs of burnout in others,¹⁰⁷ so a group of trusted colleagues is well placed to monitor each other for symptoms. Awareness of the early warning signs suggesting that people are struggling, as well as knowledge of the common symptoms of burnout, will help facilitate this process. The WAPs described above can provide an individually focused way to identify when support is needed. It can be particularly challenging to identify signs of struggle when an employee is new to the organisation or if people work remotely, as some familiarity with their 'usual' behaviour is required.

Signs of struggle can be emotional, behavioural and attitudinal – this checklist provides some key symptoms to watch out for:

Signs of struggle to watch out for in colleagues

- Changes in behaviour and attitudes
- Easily irritated and angry
- Emotional outbursts
- Confused and lacking in focus
- Intolerant and impatient; being critical of others
- De-sensitised and lacking empathy
- Uncooperative; more rigid or resistant
- Negative and disengaged
- Quiet and withdrawn
- Missing meetings and deadlines; deteriorating quality/quantity of work
- Absenteeism; arriving late/leaving early
- Regularly sending emails 'out of hours'
- Change in communication style
- Avoiding social contact
- Looking tired and 'zoning out'
- Change in appearance

Individual interventions

Interventions at the organisational and team level are essential to protect against burnout, but practitioners are also responsible for developing the skills and resources to help them manage a highly pressured working environment and support their wellbeing. Strategies are needed that help repair, maintain and grow wellbeing¹⁰⁸.

- **Repair:** the pre-emptive actions people take when first noticing signs of stress.
- **Maintenance:** strategies that enable people to operate at full capacity.
- **Growth:** strategies that people use to build their capacity for resilience, to invest in their future wellbeing.

Some useful evidence-informed techniques to help reduce the risk of burnout are:

Cultivate self-reflection

This is an essential skill, as reflection can help practitioners recognise their early warning signs of burnout and take preventative action. Reflection can also help people identify their personal needs and the self-care strategies that are likely to be effective, recognise signs of maladaptive perfectionism (see below) and, if necessary, realign their goals and self-expectations.

- Keeping a record of their mental, physical and behavioural responses to work can help practitioners recognise how they react to stress and the type of issues they find most challenging.
- Psychoeducation, that provides information about the psychology of burnout (and stress more generally), can aid reflection about individual patterns of response and potential remedial actions.
- Supervision, mentorship and coaching can build the capacity for self-reflection and promote the capacities underpinning self-compassion, such as self-kindness and recognition of shared experience and human fallibility.

- Emotional writing or journaling can foster self-reflection and protect against burnout. There is evidence that spending only two minutes a day writing about emotions can benefit health¹⁰⁹ and emotional writing can also reduce workplace embitterment.¹¹⁰ More information on journaling can be found [here](#).
- Mindfulness is a particularly effective reflection tool and is discussed further below.

Promote self-compassion

To protect against burnout, it is essential for practitioners to treat themselves kindly and support themselves when they are struggling. Self-compassion can protect against stress and burnout and has wider benefits for performance, as it can help people build better relationships and feel and act more compassionately towards others. Self-compassion is also the foundation of self-care and can also help people implement the lifestyle changes that can benefit health. Neff¹¹¹ has identified three elements of self-compassion:

- *Self-kindness vs self-judgment:* being warm, patient and understanding towards ourselves rather than self-critical and hostile when we are suffering and feeling inadequate.
- *Common humanity vs isolation:* recognising that personal suffering and feelings of failure are part of being human, and not due to 'weakness' or lack of resilience.
- *Mindfulness vs over-identification:* taking a balanced and accepting approach to the negative emotions we experience, so feelings are neither avoided nor exaggerated.



Some useful exercises for increasing self-compassion can be found [here](#).

Enhance self-appreciation

Self-appreciation is one of the foundations of self-esteem¹¹² and offers protection against burnout. Feelings of occupational self-esteem and self-appreciation¹¹³ are particularly important resources and can guide reflection and other interventions.

Self-appreciation includes several protective factors:

- *Activities*: undertaking pleasant activities as a reward for work that is achieved.
- *Cognitions*: valuing thoughts about one's work.
- *Emotions*: willingness to experience pride and satisfaction about one's work.
- *Attributions*: internal attribution for positive outcomes achieved in others.
- *Communication*: talking about one's own success with others.
- *Independence*: self-appreciation, independent of external esteem.

Prioritise self-care

People working in healthcare frequently neglect their own wellbeing in order to meet the needs of others, typically prioritising practices that enhance the wellbeing of their professional self (i.e. to enable them to support others). Nonetheless, maintaining good health via appropriate self-care strategies is an essential survival skill and will protect against burnout.

- Daily activities should include things that support the three 'pillars' of health: physical, mental and social, with regular and adequate sleep, proper nutrition and rest being particularly important.
- There is growing evidence that digital approaches can be beneficial in encouraging self-care among healthcare practitioners and help them cope more effectively. While apps are easy to access and low in cost, as highlighted earlier in this guide, it is crucial to ensure that they are informed by evidence and have been validated.

Be more mindful

Mindfulness involves paying attention in a particular way: on purpose, in the present moment and non-judgmentally.¹¹⁴ The wide-ranging benefits of mindfulness for wellbeing make it a particularly effective self-care and reflection tool.¹¹⁵

- Mindfulness is a key tool for promoting self-compassion and self-care and can help protect against burnout, compassion fatigue and maladaptive perfectionism and building emotional resilience.^{116, 117, 118} It can also support the development of key skills and values that are crucial for healthcare practitioners (such as enhanced listening skills, rapport-building and help with maintaining boundaries) and improve compassion satisfaction.^{116, 118}
- Mindfulness can also help practitioners avoid rumination and improve recovery and work-life balance.^{116, 118}
- Some mindfulness exercises can be [found here](#) and there are several apps available with strategies for different situations and preferences. [Headspace](#) is approved by the NHS and available free of charge with a valid NHS email address.

Promote emotional literacy

Emotional intelligence (the ability to monitor one's own and others' emotions, to discriminate between them, and to use the information to guide one's thinking and actions) can protect against burnout.

- Healthcare practitioners often work in intensely emotionally charged situations. This can deplete their emotional resources and encourage distancing behaviours such as cynicism and depersonalisation.
- Research findings show that emotional regulation skills and feelings of self-efficacy in managing negative emotions at work are particularly important in reducing the risk of burnout.⁴³
- Introducing emotional awareness and emotional management training in organisations can reduce the risk of burnout by enhancing self-reflection and self-compassion, facilitating effective workplace functioning, dealing with loss more effectively and building boundary-setting abilities.¹²¹

Build a supportive network

Social support is one of the most important health promoting resources and has been previously discussed in some depth in this guide.

- A strong network of supportive people (both inside and outside work) can protect against burnout.
- As highlighted above, supportive and nurturing professional relationships from colleagues and peer support groups are particularly important in helping practitioners maintain a sense of wellbeing and purpose in response to the emotional demands of practice.
- Supervision is an important mechanism to discuss wellbeing, any signs of burnout experienced and the additional support that may be needed.

Protect boundaries and prioritise recovery

Healthcare practitioners often struggle to maintain a healthy balance across their work and personal life.

- A range of factors can threaten work-life balance such as personal issues (e.g. caring responsibilities and financial worries), aspects of the job (e.g. workload, emotional demands, long working hours, short staffing and lack of support) and individual orientations to work (e.g. maladaptive perfectionism and a tendency to ruminate about work problems).
- An inability to switch off from work demands psychologically can lead to sleeping difficulties, fatigue and more serious complaints such as burnout over time. Research with healthcare practitioners has found that fatigue in response to long working hours and difficulties switching off can also increase the risk of errors at work.¹²²
- Setting clear boundaries between work and personal life, disengaging oneself mentally from work and implementing appropriate compensatory strategies can reduce early symptoms of burnout and the risk of more severe reactions over time.¹²³
- A range of strategies, such as effective time management, cognitive behavioural skills and mindfulness-based interventions, can be particularly effective in boundary setting, reducing rumination and worry and improving work-life balance.
- A recent study of doctors in training found that an evidence-informed digital intervention to enhance work-life boundary skills and wellbeing was received favourably, with some evidence for reducing burnout and improving boundary setting over time.¹²⁴

TERTIARY LEVEL INTERVENTIONS: FOCUSING ON TREATMENT

Tertiary interventions are initiatives that focus on the treatment of individuals who are experiencing burnout and how they might be supported to return to work. Burnout is a complex phenomenon and supporting employees back to work can be challenging. Research findings highlight several important factors:¹²⁵ monitoring staff wellbeing; initiating the return-to-work (RTW); planning RTW; providing tools to support recovery; monitoring progress of the RTW process; supporting re-engagement with work; and monitoring the employee's ability to cope with work following RTW. In supporting a successful RTW, it is recognised that there is a need for a common understanding of burnout in relation to the signs and symptoms, co-occurring illnesses and unpredictability of recovery, as well as insight into personality characteristics that might increase the risk of burnout, psychosocial risk factors in private life, conflicts within the work environment, and openness about burnout and its causes.

Occupational health professionals have a key role to play in reducing the risk of burnout. They can inform strategy and best practice in preventing and managing burnout at the organisational, leader, team and individual levels. Occupational health can also have input at various stages, from highlighting the specific risk factors for healthcare practitioners and raising awareness of the early warning signs of burnout, to developing evidence-informed frameworks to rehabilitate employees back to the workplace and negotiating phased approaches with line managers.

Awareness of signs and symptoms and mechanisms to identify burnout, and similar syndromes such as compassion fatigue, at an early stage will be particularly beneficial. Occupational health physicians and nurses also play a pivotal role in differentiating burnout from medical conditions, such as depression and trauma, as these will require alternative treatment. It is also crucial to recognise that burnout is a process, so, when supporting employees, it is important to take a detailed history of the progression to their current symptoms. As highlighted in this guide, for burnout to be managed effectively any individually focused intervention should be alongside (but not instead of) appropriate organisational change initiatives.

Research findings suggest that *positive psychotherapy* (such as the 'Three Good Things' approach delivered using technology) can be beneficial for reducing burnout symptoms.¹²⁶ *Professional coaching* can also be useful, as it often involves clarification of values, professional, and personal goals, along with providing strategies for accessing individual strengths and reframing negative thinking. A recent pilot randomised clinical trial with physicians found that coaching reduced emotional exhaustion and overall burnout symptoms and improved general quality of life.¹²⁷ Cognitive behavioural interventions can be particularly effective for burnout¹²⁸ and may be provided as one-to-one therapy, in groups or with other types of support. The use of digital games alongside 'traditional' therapy can also have positive results by enhancing intrinsic motivation to engage in exercises.¹²⁹

A person-centred, cognitive behavioural approach will help provide a holistic overview of their journey over time:

- *Cognitive factors*: follow the process of the patient or client's beliefs and how they might have changed over time from being positive and enthusiastic to being cynical and negative.
- *Emotional factors*: look for the timeline of emotional exhaustion and specific triggers.
- *Behavioural factors*: explore how coping behaviours have shifted from protective to more non-protective strategies (e.g. increased alcohol consumption, reduced social contact, other avoidance behaviours).
- *Biological factors*: describe the timeline of the deterioration in physical symptoms.

Jenny's case study (p.29) illustrates the value of cognitive behavioural interventions in managing burnout.

Enhancing understanding of moral injury

It is crucial to raise awareness of the risks of moral injury and encourage all healthcare practitioners to openly discuss the various moral and ethical challenges they are likely to encounter at work. A workplace culture that supports ethical practice is helpful but ensuring that there are sufficient opportunities to speak about potentially morally injurious events with colleagues is crucial. This is often best done in an informal setting with peers and supervisors. Discussions should not just focus on the events themselves, but also the impact they had on practitioners' wellbeing. Being assisted to recognise when their integrity is threatened and be aware of the actions needed to support ethical practice can also be helpful. There are several ways of improving practitioners' ability to deal with potentially morally injurious events:^{76, 77, 130}

- Preparing people for the moral challenges of healthcare work through frank discussions and realistic training that includes exposure to relevant scenarios.
- Ensuring that practitioners are aware that, despite their best efforts, undesirable outcomes (e.g. mistakes and deaths) may occur.
- Fostering a culture within which practitioners routinely talk about potentially morally injurious events and the impact on them.
- Encouraging practitioners to define or refine their personal moral compass by considering how they might react in ethically challenging situations they could experience.
- Defining a personal code of ethics: setting this out in writing can be helpful.
- Developing practitioners' coping skills; for instance cultivating mindfulness to improve focus and mental clarity.
- Helping practitioners enhance self-awareness and understanding that it is necessary to take a step back and adopt a broader perspective following morally challenging situations.
- Developing self-regulation skills to disrupt negative patterns of thinking and behaviour will help to restore balance when difficulties or ethical challenges occur.

Avoiding perfectionism

Healthcare workers often struggle with perfectionism. Although conscientiousness and high standards are expected in such work, unrealistic expectations of performance, striving for flawlessness and criticism of oneself and others can increase the risk of burnout, depression and self-harm.

'Self-oriented' perfectionism (having excessively high standards for ourselves) and 'socially-oriented' perfectionism (feeling that society has high expectations for us) can be a particular risk factor for burnout.¹³¹

Research with physicians has found that high self-critical perfectionism (a tendency to set unrealistic goals and experience feelings of self-doubt and fear of judgement) was strongly related to both emotional exhaustion and depersonalisation.¹³² A tendency towards maladaptive perfectionism can also destabilise self-care by encouraging punitive self-criticism, where striving to meet unrealistic standards by working longer and harder will inevitably lead to exhaustion.

A particular concern for healthcare practitioners and patient safety is that disclosing errors requires admitting personal failings to others, meaning that those with more perfectionist tendencies may be less likely to do so and can feel isolated and unsupported.

It is important to recognise maladaptive perfectionism in oneself and others and gain support. Organisational level interventions are likely to be effective, with particular focus on ensuring that the workplace culture does not encourage or overlook overwork, while managers should set out their expectations for performance and ensure that tolerance of errors is communicated.

At an individual level, mindfulness and cognitive behavioural strategies can reduce maladaptive perfectionism by addressing core irrational beliefs and critical self-evaluations, reducing rumination, and cultivating self-compassion.^{133,134} More information on maladaptive perfectionism and how it can be managed can be found in Shafran et al. (2018).¹³⁵

Where the client presents in the burnout 'process' will influence the intervention (see below):

Alarm phase

Cognitive: "This is challenging", "I hope I don't let myself down", "I hope I don't let others down", "These are exciting times."

Behaviour: increased working hours, reduced social contact, spending less time with family, increased alcohol intake.

Emotion: trepidation, performance anxiety, worry, excitement.

Biological: increased energy, sleep latency increase, ruminating and obsessing over work.

Resistance phase

Cognitive: "I mustn't fail."

Behaviour: avoidance of tasks that are not considered a 'priority'; reduced social contact, alcohol misuse, overcompensation at work.

Emotion: anxiety, guilt.

Biological: poor sleep (latency increases), fatigue beginning, irritability, reduced concentration.

Exhaustion phase

Cognitive: "I can't cope", "I'm a failure", "I'm letting colleagues and clients down", "I will lose my job".

Emotion: fear, anxiety, anger, sadness (loss).

Biological: akin to depression, but more fatigue.

This person-centred approach will be more effective in detecting and managing burnout than generic interventions but will undoubtedly be time consuming for occupational health professionals. There is great demand for occupational health services in general and many practitioners are struggling to meet demand. The risk of work-related stress and burnout, already high in healthcare, increased further during the pandemic in line with rising pressures and short staffing which is ongoing. This is likely to have increased the workload of occupational health professionals further.

To ensure that occupational health practitioners are able to fulfil their crucial role in understanding and communicating the effects of work on health and functioning, identifying and preventing work-related health problems and promoting healthy living and working conditions, occupational health provision must be adequately resourced. The wide-ranging costs of work-related stress to individuals, organisations and society means that investing in a 'healthy' occupational health service is crucial. See SOM's publication [Occupational Health: The Value Proposition](#) for more on this subject.



A HOLISTIC APPROACH TO SUPPORTING WELLBEING

The importance of introducing interventions at individual, organisational and tertiary levels has been discussed above and illustrated in the case studies and examples provided. The IGLOO model (comprising Individual; Group; Leader; Organisation; Overarching context) highlights the need to take a holistic approach to supporting workplace wellbeing.¹³⁶ The model provides a framework to identify challenges, issues and possible intervention activities that can be implemented at each level. For example, to address fatigue in a maternity service, activities were introduced at each of the levels:

Individual: Raising awareness of the dangers of fatigue and the role “power naps” can play.

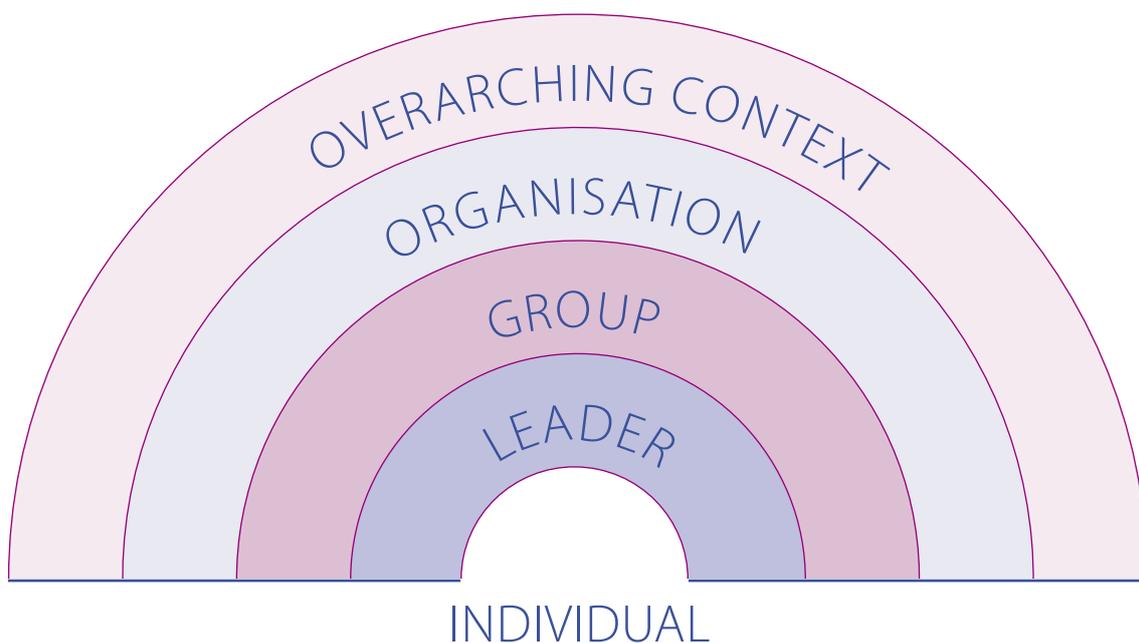
Group: Discussions around fatigue helped build peer support and challenge the stigma of not taking breaks or power naps. Work processes were also changed so that certain procedures were more likely to be delayed to the start of the day shift to reduce the workload of staff coming to the end of their night shifts.

Leader: Role modelling of power naps and taking breaks.

Organisation: Sofa beds were bought for staff to take power naps, with an additional staff member being on call and break patterns adjusted so that people could utilise the sofa beds provided. A new self-rota system is being trialled so that practitioners have more control over their shift patterns and night working.

Overarching context: This work has led to lobbying activities targeting politicians and stakeholders to change legislation around fatigue at work.

A holistic approach would operate across different levels, although it is not necessary to include all levels. What this approach encourages is a more sustainable approach, which recognises how issues and actions at one level need the support and actions at other levels. From the example above, training on fatigue awareness or the provision of sofa beds alone would probably have not been so successful if other changes to the working environment were not made that allowed staff to take better control over how they manage fatigue. This intervention is part of a series of case studies on effective interventions in healthcare contexts using the IGLOO model (see diagram below).¹³⁷



CONCLUSION

Organisations cannot afford to overlook burnout. Its direct and indirect costs to the healthcare sector are substantial. It not only poses a major threat to the health of practitioners but can also impair their performance, intensifying the risk of suboptimal care and more serious safety incidents. Burnout is also a common reason for turnover, which is a serious concern in light of the current staffing crisis in healthcare. Unfortunately, burnout is all too often seen as an individual 'illness', a failure to cope, or even a sign of weakness, which overlooks its true causes. This means that individually focused interventions are much more common than those that seek to tackle the unhealthy organisational practices that are the root cause of burnout. Awareness of how burnout can manifest itself and seeing it as a process that gradually unfolds over time will help identify signs of struggle at an early stage.

While individual focused solutions are undoubtedly important, they will not be effective in isolation unless organisational interventions are also embedded in policy and practice. Employee surveys can monitor levels of burnout and identify organisational risk factors over time, but particular attention is needed to early detection and management. This can be challenging as health and social care professionals often take pride in maintaining optimum performance even when they are burning out, meaning that the problems are often not detected until a critical point is reached. It is recommended that including burnout as a quality metric²⁹ will raise awareness of its wide-ranging costs and the need to implement evidence-informed interventions. Care should be taken, however, that any sector-level processes introduced to monitor burnout are adequately resourced and do not inadvertently increase the pressures experienced by managers and employees.

Managing burnout: key points to remember

- Prevention! Or failing this, early diagnosis and intervention.
- Seeing burnout as an organisational problem not a medical diagnosis.
- Identifying the root causes of burnout and taking appropriate action.
- Setting reasonable expectations for employees' workload and monitoring their working hours. Raising awareness among managers and employees of the long-term risks of overload and excessive working hours.
- Communicating information on the signs and symptoms of burnout.
- Conceptualising burnout as a gradual process, where signs may initially be subtle but can intensify over time.
- Being aware of syndromes similar to burnout, how they differ and how they can be managed.
- Appreciating that reducing stress may not be sufficient to tackle burnout.
- Ensuring active participation of all parties and commitment at all levels of the organisation.
- Using recommended measures to assess burnout at organisational, departmental, unit or team level to target interventions and evaluate their effectiveness.
- Ensuring change is at the primary level, but implementing a combination of organisational, team and person-focused interventions will be particularly effective.
- Providing training, support and time for managers.
- Raising awareness of the support that is available and ensuring it is accessible to all.
- Ensuring employees are assured of their value to the organisation.
- Encouraging informal support among employees and between peers.
- Identifying and reducing the barriers to improving wellbeing.
- Supporting people experiencing burnout back to work and making reasonable, person-centred adjustments.
- Ensuring that managing burnout is a continuous process of identification, intervention and evaluation.
- Realising that nobody is immune from burnout.

CASE STUDIES

Case study 1: Natasha

Natasha is a nurse who was redeployed from her usual role on a general surgery ward to work on an intensive care unit during the winter of 2020/2021. Although that role was challenging, at first it was also rewarding. The unrelenting and traumatic nature of the work, however, alongside the very limited opportunity for specialist ICU staff to mentor and support Natasha, made her feel emotionally drained.

After three months of working on ICU, Natasha felt immensely relieved to be told she would be going back to her general surgical role. Unfortunately, this move became an 'out of the frying pan and into the fire experience' as, rather than a chance to 'recharge', she found herself working alongside many other exhausted general surgical nurses and increasing numbers of temporary staff she did not know. Furthermore, the surgical department manager made it very clear to staff that they needed to "gear up" to deal with the huge backlog of operations that had built up because of the pandemic. Natasha's usual out-of-work support network had also become disrupted at this time, as she had recently broken up from her partner and her aging parents both had significant health issues of their own which meant she felt unwilling to speak to them about the stress she was experiencing.

Natasha tried to speak to her direct supervisor about her poor sleep, finding it hard to motivate herself and manage her exhaustion, but it became quickly clear that her manager was not interested and, instead of listening, started to tell Natasha how much pressure they were under to cut waiting lists and how important it was that Natasha did not let the team down - she was also asked whether she could put in some extra shifts. Feeling betrayed by her seniors, cynical that no one was willing to listen to her and exhausted, Natasha was getting little satisfaction from a job she had previously enjoyed. She decided to make an appointment to see her GP as she felt that something had to change.

Case study 2: Rukshana

Rukshana was a trainee dentist who had excelled throughout her education, achieving three A* A-levels and a first-class degree in dentistry. She was a diligent student, studying intensively and spending many hours revising and writing for exams and coursework. Rukshana was finding her Dental Foundation year training exhausting and finding she couldn't keep up with her administrative work. She was frequently missing deadlines and appeared distracted and sometimes distraught to colleagues. Rukshana was losing and misplacing equipment, only narrowly passed a key test and had failed to demonstrate competence on her review panel assessments. Rukshana's Health Education England (HEE) practice supervisor recommended that she consider an assessment for dyslexia and ADHD after she became tearful in a supervision meeting. Rukshana had admitted that she thought she had made a terrible mistake, felt a burden to her placement colleagues and wasn't sure she could ever become a dentist. The verbal assessments were the worst, she just didn't know how she had managed to get this far, she clearly knew nothing!

On assessment, Rukshana was found to have a very high general IQ, but with significant differences between her strengths in perceptual reasoning, visual-motor coordination, writing and reading. Her working memory was below average and while her processing speed and verbal comprehension were in the average range, they were far below her significant strengths. A behavioural interview and data collected from her father as an informant confirmed that Rukshana had ADHD, and some traits of Autism. She also undertook a sensory profile assessment and was found to be hypersensitive to noise and touch, but hyposensitive to interoception. In short, Rukshana was being overwhelmed by her senses and unable to self-regulate her internal needs such as hunger, thirst, pain and tiredness. As an undergraduate, she had been able to pace and structure her life with long periods of decompression time, over-rehearsal to support memory and working in quiet spaces. On placement, however, she was unable to access these scaffolds and was burning out.

Through her HEE supervisor, Rukshana was able to access a professionally trained, neurodiversity-affirming workplace coach. Together they developed a timetable and strategies for identifying Rukshana's natural rhythms and how to adapt her workload to fit. They agreed that her best time for thinking was in the morning, so she made sure she used this time of day to focus on admin and tasks where accuracy was essential. Rukshana negotiated with her placement a quiet corner in the office to write up notes and forms, so that she wasn't distracted during this time. They also worked through state setting exercises and role played in preparation for review panel interviews.

Rukshana realised that her major skill was in visual spatial reasoning – excellent for dentistry but less so for explanations and verbal interviews. Her coach helped her develop techniques to connect back anything she wanted to say to a recent experience, which she could then 'play back' in her mind like a video to orientate her in what she wanted to say. She also agreed that Rukshana could repeat back questions before answering them, and request to take each one a point at a time. Rukshana also worked on her sleep hygiene and nutrition, she developed a batch cooking routine so that she was never working whilst hungry, as this was the cause of much destabilisation.

Case study 3: Andrew

Andrew had an excellent reputation in the hospital as a senior staff nurse working in the Accident and Emergency Department in a large teaching hospital. At the start of the pandemic, he was asked to move to the Intensive Therapy Unit due to his experience and skills. Andrew viewed the request very positively, feeling that he was being recognised for his hard work and dedication to his job and felt motivated to take on the challenge. He used his spare time to read up on COVID to prepare for the pandemic.

After a few weeks on ITU it became obvious to Andrew that he could never have been prepared for what he was experiencing in terms of the pressure and sadness of his work. During a ward meeting, the ward manager said "we just need to mop it up and push on" and Andrew tried to do this while providing the best care to his patients he was able to. Andrew felt increasingly exhausted, helpless and hopeless in his role, however, due to the nature of the pandemic, managing the workload and struggling to deliver the best care he could. He became more isolated both at work and home due to fatigue and felt unable to share his thoughts and feelings with the team.

At the end of every shift, Andrew only had enough energy left to go to bed, often missing out on meals. He stopped meeting his friends, as he felt too tired and was trying to prioritise his energy for work. Andrew's sleep pattern became broken with early waking and he became increasingly tearful. He woke with a sense of dread for the coming day and ruminated over the ward manager's words weeks earlier: "we just need to mop it up and push on". Andrew eventually took sickness absence and, even after his recovery some six months later, he felt unable to return to his original role, taking a new position in another hospital at a lower grade.



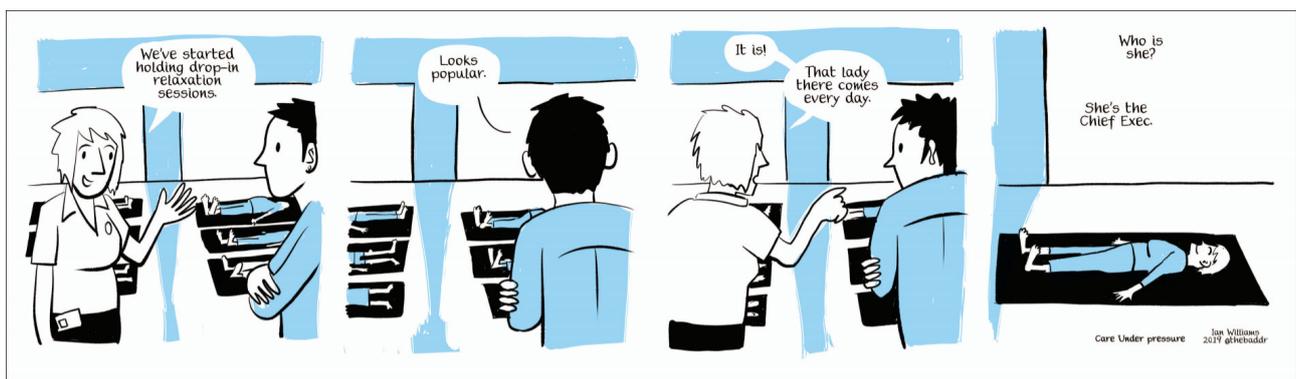
Case study 4: Scott

Scott is a staff nurse with three years of post-registration experience. He enjoys caring for patients and being involved in teaching student nurses. Scott was reflecting on his practice and considering the next step in his career. He was aware that a post of a higher banding was likely to become vacant in the next six months and planned to apply for this. Scott had a longer term aim of becoming a ward manager with an eventual career goal of moving into nurse education. He was looking forward to achieving this goal - life was good.

A new member of staff, Jed, then joined the ward team and quickly became very friendly with the ward manager. Scott felt that Jed had an issue with him; initially he made unpleasant comments to/about Scott and then took every opportunity to undermine him, particularly when he gave his patient report at shift handover. The ward manager did nothing to stop this. Scott discussed the issue with a colleague who had witnessed some of these incidents, who suggested that it was a type of bullying and that Scott should discuss it with the ward manager. Scott decided not to take it further, however, as he felt it would be a waste of time due to the relationship between Jed and the manager.

Scott lived in rented accommodation and was keen to buy his own home. Consequently, he was undertaking extra duties and agency work in order to save for a deposit. The time he was spending undertaking extra duties on the ward and also doing agency work affected his work-life balance. Scott's energy resources became depleted and he was experiencing signs of depression and had started receiving treatment from his GP. He no longer enjoyed his work, particularly as the bullying behaviour he experienced from Jed was becoming increasingly frequent and unpleasant.

The crunch came when Scott could no longer cope, felt totally de-motivated and no longer enjoyed his job. Scott tried speaking to his ward manager about Jed's bullying behaviour. Her response was that he should "man up"; he was being over-sensitive as Jed's comments were just banter. Her parting comment to Scott was that he needed to "get a sense of humour and behave like an adult not a child in the school playground". Scott was extremely disappointed at the lack of support from his line manager and felt she was not taking his experiences with Jed seriously. He felt aggrieved as he had been a hard-working member of the ward team and had supported the ward at times of staffing crises by accepting additional shifts. Scott was also concerned that the situation was starting to affect his job performance. He reflected on his experiences and decided that his only option was to go off sick. That was the start of a six-month period of sickness absence for Scott that was followed by his resignation from a post which had previously given him great job satisfaction but was now grinding him down to complete exhaustion and burnout.



Case study 5: Jenny

Jenny was a junior doctor working in a paediatric unit. She had wanted to be a doctor for as long as she could remember, so to have this opportunity was (in her words) “my dream come true”. After a few weeks into her allocation on the unit, Jenny nearly made a drug error. The error was found by a Staff Nurse who was very supportive and reassured Jenny that no harm had occurred, and it was written up as a ‘near miss’ accident.

The weeks that followed had Jenny constantly checking her prescribing, even though she was being supported by a qualified Staff Nurse. Jenny found her regular supervision with her consultant being cancelled or cut short due to work pressures and felt unsupported. She stopped taking breaks with the team and started to isolate herself in the office, feeling exhausted when she got home. Her sleep pattern deteriorated quickly and she woke regularly in the night ruminating on the near miss drug error. Jenny started to lose her sense of meaning in a job she had wanted to do since she was ten years old. Thoughts regularly intruded into her mind, such as “What’s the point?”.

Jenny started working longer and longer hours often staying very late going over and over the work she had done that day. Finally, on a day that her supervision was cancelled she felt she couldn’t cope anymore due to fatigue and constant anxiety and took sickness absence. Jenny was referred to occupational health and referred for cognitive behaviour therapy. She engaged well with the therapy and after four months started a graded return to work with regular supervision and support in place. The combination of support at the individual and organisational level was effective and Jenny was soon able to return to her role full-time.



REFERENCES

1. Maslach C, Leiter MP. Burnout. In *Stress: Concepts, Cognition, Emotion, and Behavior* 2016 Jan 1 (pp. 351-357). Academic Press.
2. Calabrese JA. The Patco dispute—a need for change in public employee labor settlements. *DePaul L Rev* 1971;20:699-728. <https://via.library.depaul.edu/law-review/vol20/iss3/4>
3. Freudenberger HJ. Staff burn-out. *Journal of Social Issues*. 1974 Jan;30(1):159-65.
4. World Health Organization. (2018) *International Classification of Diseases for Mortality and Morbidity Statistics (11th Revision)*. <https://icd.who.int/browse11/l-m/en>
5. Van Dam A. A clinical perspective on burnout: diagnosis, classification, and treatment of clinical burnout. *European Journal of Work and Organizational Psychology*. 2021 Sep 3;30(5):732-41. <https://doi.org/10.1080/1359432X.2021.1948400>
6. Lee RT, Ashforth BE. A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*. 1996 Apr;81(2):123. <https://psycnet.apa.org/doi/10.1037/0021-9010.81.2.123>
7. Taris TW, Le Blanc PM, Schaufeli WB, Schreurs PJ. Are there causal relationships between the dimensions of the Maslach Burnout Inventory? A review and two longitudinal tests. *Work & Stress*. 2005 Jul 1;19(3):238-55. <https://doi.org/10.1080/02678370500270453>
8. Selye H. *The Stress of Life*. 1956. McGraw-Hill.
9. Leiter MP, Maslach C. Latent burnout profiles: A new approach to understanding the burnout experience. *Burnout Research*. 2016 Dec 1;3(4):89-100. <https://doi.org/10.1016/j.burn.2016.09.001>
10. NHS Workforce Survey. 2022. <https://www.nhsstaffsurveys.com/results/>
11. Kinman G, Teoh K. *What Could Make a Difference to the Mental Health of UK Doctors? A Review of the Research Evidence*. 2018. Society of Occupational Medicine and the Louise Tebboth Foundation. <https://doi.org/10.53841/bpsopm.2018.1.40.15>
12. Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, Mata DA. Prevalence of burnout among physicians: a systematic review. *Jama*. 2018 Sep 18;320(11):1131-50. 2018;320(11):1131-1150. doi:10.1001/jama.2018.12777.
13. Karuna C, Palmer V, Scott A, Gunn J. Prevalence of burnout among GPs: a systematic review and meta-analysis. *British Journal of General Practice*. 2022 May 1;72(718):e316-24. DOI: <https://doi.org/10.3399/BJGP.2021.0441>
14. General Medical Council. *National Training Survey 2022*. <https://www.gmc-uk.org/education/how-we-quality-assure-medical-education-and-training/evidence-data-and-intelligence/national-training-surveys/national-training-surveys--doctors-in-training>
15. Kinman G, Teoh K, Harriss A. *The Mental Health and Wellbeing of Nurses and Midwives in the United Kingdom*. Society of Occupational Medicine and the Royal College of Nursing Foundation. https://www.som.org.uk/sites/som.org.uk/files/The_Mental_Health_and_Wellbeing_of_Nurses_and_Midwives_in_the_United_Kingdom.pdf
16. Beldon R, Garside J. Burnout in frontline ambulance staff. *Journal of Paramedic Practice*. 2022 Jan 2;14(1):6-14. <https://doi.org/10.12968/jpar.2022.14.1.6>
17. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory. In C. P. Zalaquett & R. J. Wood (Eds.), *Evaluating stress: A Book of Resources* (pp. 191–218). Scarecrow Education; 1997.
18. Lim WY, Ong J, Ong S, Hao Y, Abdullah HR, Koh DL, Mok US. The abbreviated Maslach burnout inventory can overestimate burnout: a study of anesthesiology residents. *Journal of Clinical Medicine*. 2019 Dec 26;9(1):61. <https://doi.org/10.3390/jcm9010061>
19. Houdmont J, Daliya P, Adiamah A, Theophilidou E, Hassard J, Lobo DN. Identification of surgeon burnout via a single-item measure. *Occupational Medicine*. 2022 Dec;72(9):641-3. <https://doi.org/10.1093/occmed/kqac116>
20. Lauderdale R. A Novel Approach to Burnout. *Journal of the Mississippi State Medical Association*. 2022 May 31;63(6/7). <https://jmsma.scholasticahq.com/article/35682-a-novel-approach-to-burnout>
21. Arnold-Forster A, Moses JD, Schotland SV. Obstacles to Physicians' Emotional Health-Lessons from History. *New England Journal of Medicine*. 2022 Jan 6;386(1):4-7.
22. Muir KJ, Wanchek TN, Lobo JM, Keim-Malpass J. Evaluating the costs of nurse burnout-attributed turnover: a Markov modeling approach. *Journal of Patient Safety*. 2022 Jun 1;18(4):351-7. DOI: 10.1097/PTS.0000000000000920

23. Egan H, Keyte R, McGowan K, Peters L, Lemon N, Parsons S, Meadows S, Fardy T, Singh P, Mantzios M. 'You before me': A qualitative study of health care professionals' and students' understanding and experiences of compassion in the workplace, self-compassion, self-care and health behaviours. *Health Professions Education*. 2019 Sep 1;5(3):225-36. <https://doi.org/10.1016/j.hpe.2018.07.002>
24. Presenteeism during the COVID-19 pandemic: Risk factors and solutions for employers. *Society of Occupational Medicine*. https://www.som.org.uk/Presenteeism_during_the_COVID-19_pandemic_May_2021.pdf
25. Chambers C, Frampton C, Barclay M. Presenteeism in the New Zealand senior medical workforce – a mixed-methods analysis. *New Zealand Medical Journal*. 2017 Jan 27;130(1449):10-21. PMID: 28178725.
26. Demerouti E, Le Blanc PM, Bakker AB, Schaufeli WB, Hox J. Present but sick: a three-wave study on job demands, presenteeism and burnout. *Career Development International*. 2009 Feb 20. <https://doi.org/10.1108/13620430910933574>
27. Pei P, Lin G, Li G, Zhu Y, Xi X. The association between doctors' presenteeism and job burnout: a cross-sectional survey study in China. *BMC Health Services Research*. 2020 Dec;20(1):1-7. <https://doi.org/10.1186/s12913-020-05593-9>
28. Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. *Human Resources for Health*. 2020 Dec;18:1-7. <https://doi.org/10.1186/s12960-020-00469-9>
29. Montgomery A, Panagopoulou E, Esmail A, Richards T, Maslach C. Burnout in healthcare: the case for organisational change. *BMJ* 2019 Jul 30;366. doi: <https://doi.org/10.1136/bmj.l4774>
30. Walsh AL, Lehmann S, Zabinski J, Truskey M, Purvis T, Gould NF, Stagno S, Chisolm MS. Interventions to prevent and reduce burnout among undergraduate and graduate medical education trainees: a systematic review. *Academic Psychiatry*. 2019 Aug 15;43:386-95. <https://doi.org/10.1007/s40596-019-01023-z>
31. Zhou T, Xu C, Wang C, Sha S, Wang Z, Zhou Y, Zhang X, Hu D, Liu Y, Tian T, Liang S. Burnout and well-being of healthcare workers in the post-pandemic period of COVID-19: a perspective from the job demands-resources model. *BMC Health Services Research*. 2022 Dec;22(1):1-5.
32. Antao HS, Sacadura-Leite E, Correia AI, Figueira ML. Burnout in hospital healthcare workers after the second COVID-19 wave: Job tenure as a potential protective factor. *Frontiers in Psychology*. 2022;13. <https://doi.org/10.3389/fpsyg.2022.942727>
33. Moyer F, Aziz S, Wuensch K. From workaholism to burnout: psychological capital as a mediator. *International Journal of Workplace Health Management*. 2017 Jun 5;10(3):213-27. <https://doi.org/10.1108/IJWHM-10-2016-0074>
34. Blanch JM, Ochoa P, Caballero MF. Over engagement, protective or risk factor of Burnout?. In *Sustainable Management Practices* 2018 Nov 23. London: IntechOpen.
35. Alarcon G, Eschleman KJ, Bowling NA. Relationships between personality variables and burnout: A meta-analysis. *Work & Stress*. 2009 Jul 1;23(3):244-63. <https://doi.org/10.1080/02678370903282600>
36. Gustafsson G, Persson B, Eriksson S, Norberg A, Strandberg G. Personality traits among burnt out and non-burnt-out health-care personnel at the same workplaces: A pilot study. *International Journal of Mental Health Nursing*. 2009 Oct;18(5):336-48. <https://doi.org/10.1111/j.1447-0349.2009.00623.x>
37. Gong Z, Chen Y, Wang Y. The influence of emotional intelligence on job burnout and job performance: Mediating effect of psychological capital. *Frontiers in Psychology*. 2019 Dec 10;10:2707. <https://doi.org/10.3389/fpsyg.2019.02707>
38. Jiménez-Fernández R, Corral-Liria I, Treviñón-Redondo B, Lopez-Lopez D, Losa-Iglesias M, Becerro-de-Bengoa-Vallejo R. Burnout, resilience and psychological flexibility in frontline nurses during the acute phase of the COVID-19 pandemic (2020) in Madrid, Spain. *Journal of Nursing Management*. 2022 Oct;30(7):2549-56.
39. Chen Y, Li X, Chen C, An Y, Shi J, Huang J, Zhao Y. Influence of avoidant coping on posttraumatic stress symptoms and job burnout among firefighters: the mediating role of perceived social support. *Disaster Medicine and Public Health Preparedness*. 2022 Aug;16(4):1476-81. doi:10.1017/dmp.2021.155.
40. Leiter MP, Day A, Price L. Attachment styles at work: Measurement, collegial relationships, and burnout. *Burnout Research*. 2015 Mar 1;2(1):25-35. <https://doi.org/10.1016/j.burn.2015.02.003>
41. Kravits K, McAllister-Black R, Grant M, Kirk C. Self-care strategies for nurses: A psycho-educational intervention for stress reduction and the prevention of burnout. *Applied Nursing Research*. 2010 Aug 1;23(3):130-8. <https://doi.org/10.1016/j.apnr.2008.08.002>
42. Kuhn CM, Flanagan EM. Self-care as a professional imperative: physician burnout, depression, and suicide. *Canadian Journal of Anesthesia*. 2017 Feb 1;64(2):158. DOI10.1007/s12630-016-0781-0.
43. Jackson-Koku G, Grime P. Emotion regulation and burnout in doctors: a systematic review. *Occupational Medicine*. 2019 Jan;69(1):9-21. <https://doi.org/10.1093/occmed/kqz004>

44. Sousa T, Neves P. Two tales of rumination and burnout: Examining the effects of boredom and overload. *Applied Psychology*. 2021 Jul;70(3):1018-44. <https://doi.org/10.1111/apps.12257>
45. Raymaker DM, Teo AR, Steckler NA, Lentz B, Scharer M, Delos Santos A, Kapp SK, Hunter M, Joyce A, Nicolaidis C. "Having all of your internal resources exhausted beyond measure and being left with no clean-up crew": Defining autistic burnout. *Autism in Adulthood*. 2020 Jun 1;2(2):132-43. <https://doi.org/10.1089/aut.2019.0079>
46. Tomczak MT, Kulikowski K. Toward an understanding of occupational burnout among employees with autism—the Job Demands-Resources theory perspective. *Current Psychology*. 2023 Feb 25:1-3. <https://doi.org/10.1007/s12144-023-04428-0>
47. Oakley B, Knafo A, Madhavan G, Wilson DS, editors. *Pathological Altruism*. Oxford University Press; 2011.
48. Kets de Vries MF. *Leadership coaching and the rescuer syndrome: how to manage both sides of the couch*. 2010. INSEAD Working Paper No. 2010/104/EFE/IGLC, <https://dx.doi.org/10.2139/ssrn.1722610>
49. Samra R. Brief history of burnout. *BMJ*. 2018 December 27;363. <https://doi.org/10.1136/bmj.k5268>
50. Teoh K, Singh J, Medisaukaite A, Hassard J. Doctors' perceived working conditions, psychological health and patient care: a meta-analysis of longitudinal studies. *Occupational and Environmental Medicine*. 2023 Feb 1;80(2):61-9. <http://dx.doi.org/10.1136/oemed-2022-108486>
51. Parida S, Aamir A, Alom J, Rufai TA, Rufai SR. British doctors' work-life balance and home-life satisfaction: a cross-sectional study. *Postgraduate Medical Journal*. 2021 Dec 16. <http://dx.doi.org/10.1136/postgradmedj-2021-141338>
52. Rich A, Viney R, Needleman S, Griffin A, Woolf K. 'You can't be a person and a doctor': the work-life balance of doctors in training—a qualitative study. *BMJ Open*. 2016 Dec 1;6(12):e013897. <http://dx.doi.org/10.1136/bmjopen-2016-013897>
53. Amofo E, Hanbali N, Patel A, Singh P. What are the significant factors associated with burnout in doctors?. *Occupational Medicine*. 2015 Mar 1;65(2):117-21. <https://doi.org/10.1093/occmed/kqu144>
54. Sharifi M, Asadi-Pooya AA, Mousavi-Roknabadi RS. Burnout among healthcare providers of COVID-19; a systematic review of epidemiology and recommendations. *Archives of Academic Emergency Medicine*, 2021, 9,1 <https://doi.org/10.22037/aaem.v9i1.100>
55. Kapil V, Collett G, Godec T, Gupta J, Maniero C, Ng SM, McIntosh I, Kumar A, Nair S, Kotecha A, Janmohamed A. Longitudinal comparisons of mental health, burnout and well-being in patient-facing, non-patient-facing healthcare professionals and non-healthcare professionals during the COVID-19 pandemic: findings from the CoPE-HCP study. *BJPsych Open*. 2022 Sep;8(5):e173. <https://doi.org/10.1192/bjo.2022.579>
56. *Coronavirus and healthcare workers*. <https://www.samaritans.org/about-samaritans/research-policy/coronavirus-and-suicide/one-year-on-data-on-covid-19/coronavirus-and-healthcare-workers/>
57. Vindrola-Padros C, Andrews L, Dowrick A, Djellouli N, Fillmore H, Gonzalez EB, Javadi D, Lewis-Jackson S, Manby L, Mitchinson L, Symmons SM. Perceptions and experiences of healthcare workers during the COVID-19 pandemic in the UK. *BMJ Open*. 2020 Nov 1;10(11):e040503. <https://dx.doi.org/10.1136/bmjopen-2020-040503>
58. Galanis P, Vraka I, Fragkou D, Bilali A, Kaitelidou D. Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of Advanced Nursing*. 2021 Aug;77(8):3286-302. <https://doi.org/10.1111/jan.14839>
59. Spiers J, Buszewicz M, Chew-Graham C, Dunning A, Taylor AK, Gopfert A, Van Hove M, Teoh KR, Appleby L, Martin J, Riley R. What challenges did junior doctors face while working during the COVID-19 pandemic? A qualitative study. *BMJ Open*. 2021 Dec 1;11(12):e056122. <https://dx.doi.org/10.1136/bmjopen-2021-056122>
60. Brown AR, Walters JE, Jones AE. Pathways to retention: Job satisfaction, burnout, & organizational commitment among social workers. *Journal of Evidence-Based Social Work*. 2019 Nov 2;16(6):577-94. <https://doi.org/10.1080/26408066.2019.1658006>
61. Hodkinson A, Zhou A, Johnson J, Geraghty K, Riley R, Zhou A, Panagopoulou E, Chew-Graham CA, Peters D, Esmail A, Panagioti M. Associations of physician burnout with career engagement and quality of patient care: systematic review and meta-analysis. *BMJ*. 2022 Sep 14;378. <https://doi.org/10.1136/bmj-2022-070442>
62. Kelly LA, Gee PM, Butler RJ. Impact of nurse burnout on organizational and position turnover. *Nursing Outlook*. 2021 Jan 1;69(1):96-102. <https://doi.org/10.1016/j.outlook.2020.06.008>
63. Hamidi MS, Bohman B, Sandborg C, Smith-Coggins R, De Vries P, Albert MS, Murphy ML, Welle D, Trockel MT. Estimating institutional physician turnover attributable to self-reported burnout and associated financial burden: a case study. *BMC Health Services Research*. 2018 Dec;18:1-8. <https://doi.org/10.1186/s12913-018-3663-z>

64. Newell JM, MacNeil GA. Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue. *Best Practices in Mental Health*. 2010 Jul 1;6(2):57-68. <https://www.ingentaconnect.com/content/follmer/bpmh/2010/00000006/00000002/art00006>
65. Pavlova, A., Wang, C.X., Boggiss, A.L., O'Callaghan, A. and Consedine, N.S., 2022. Predictors of physician compassion, empathy, and related constructs: a systematic review. *Journal of General Internal Medicine*, pp.1-12. <https://doi.org/10.1007/s11606-021-07055-2>
66. Tawfik DS, Profit J, Morgenthaler TI, Satele DV, Sinsky CA, Dyrbye LN, Tutty MA, West CP, Shanafelt TD. Physician burnout, well-being, and work unit safety grades in relationship to reported medical errors. *Mayo Clinic Proceedings* 2018 Nov 1, 93, 11, 1571-1580). <https://doi.org/10.1016/j.mayocp.2018.05.014>
67. Figley CR. Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology*. 2002 Nov;58(11):1433-41. <https://doi.org/10.1002/jclp.10090>
68. Sorenson C, Bolick B, Wright K, Hamilton R. Understanding compassion fatigue in healthcare providers: A review of current literature. *Journal of Nursing Scholarship*. 2016 Sep;48(5):456-65. <https://doi.org/10.1111/jnu.12229>
69. Kanungo RN. *Work Alienation: An Integrative Approach*. 1982. Greenwood
70. Iliffe S, Manthorpe J. Job dissatisfaction,'burnout'and alienation of labour: undercurrents in England's NHS. *Journal of the Royal Society of Medicine*. 2019 Sep;112(9):370-7. DOI:10.1177/0141076819855956
71. Tammelin M, Mänttari-van der Kuip M. Policy Alienation in Frontline Social Work—A Study of Social Workers' Responses to a Major Anticipated Social and Health Care Reform in Finland. *Ethics and Social Welfare*. 2022 Jan 2;16(1):19-35. <https://doi.org/10.1080/17496535.2021.1977836>
72. Sensky T. Chronic embitterment – its management in Occupational Health. *Occupational Medicine*. 2020 Aug;70(6):389-91. <https://doi.org/10.1093/occmed/kqaa108>
73. Sensky T. Chronic embitterment and organisational justice. *Psychotherapy and Psychosomatics*. 2010;79(2):65-72. <https://doi.org/10.1159/000270914>
74. Linden M. Posttraumatic embitterment disorder. *Psychotherapy and Psychosomatics*. 2003;72(4):195-202. <https://doi.org/10.1159/000070783>
75. Znoj H, Abegglen S, Buchkremer U, Linden M. The embittered mind. *Journal of Individual Differences*. 2016 Nov 22. <https://doi.org/10.1027/1614-0001/a000208>
76. Rosen A, Cahill JM, Dugdale LS. Moral injury in health care: identification and repair in the COVID-19 era. *Journal of General Internal Medicine*. 2022 Nov;37(14):3739-43. <https://doi.org/10.1007/s11606-022-07761-5>
77. Williamson V, Murphy D, Greenberg N. COVID-19 and experiences of moral injury in front-line key workers. *Occupational Medicine*. 2020 Jul 17;70(5):317-9. <https://doi.org/10.1093/occmed/kqaa052>
78. Demerouti E, Bakker AB. The Oldenburg Burnout Inventory: A good alternative to measure burnout and engagement. *Handbook of Stress and Burnout in Health Care*. 2008 Nova Science. <https://www.persistent-identifier.nl/urn:nbn:nl:ui:15-e66c9942-aece-4fff-9316-4b8b8f4a9bf6>
79. Schaufeli WB, Salanova M. How to improve work engagement?. In *Handbook of Employee Engagement* 2010 Aug 31. Edward Elgar Publishing. <https://doi.org/10.4337/9781849806374.00044>
80. Panagioti M, Panagopoulou E, Bower P, Lewith G, Kontopantelis E, Chew-Graham C, Dawson S, Van Marwijk H, Geraghty K, Esmail A. Controlled interventions to reduce burnout in physicians: a systematic review and meta-analysis. *JAMA Internal Medicine*. 2017 Feb 1;177(2):195-205. doi:10.1001/jamainternmed.2016.7674.
81. Ly KH, Asplund K, Andersson G. Stress management for middle managers via an acceptance and commitment-based smartphone application: A randomized controlled trial. *Internet Interventions*. 2014 Jul 1;1(3):95-101. <https://doi.org/10.1016/j.invent.2014.06.003>
82. Carolan S, Harris PR, Cavanagh K. Improving employee well-being and effectiveness: systematic review and meta-analysis of web-based psychological interventions delivered in the workplace. *Journal of Medical Internet Research*. 2017 Jul 26;19(7):e271. doi: 10.2196/jmir.7583.
83. Weber S, Lorenz C, Hemmings N. Improving stress and positive mental health at work via an app-based intervention: a large-scale multi-center randomized control trial. *Frontiers in Psychology*. 2019 Dec 6;10:2745. <https://doi.org/10.3389/fpsyg.2019.02745>
84. Goldberg SB, Lam SU, Simonsson O, Torous J, Sun S. Mobile phone-based interventions for mental health: A systematic meta-review of 14 meta-analyses of randomized controlled trials. *PLOS Digital Health*. 2022 Jan 18;1(1) <https://doi.org/10.1371/journal.pdig.0000002>
85. Health and Safety Executive. *What are the management standards?* <https://www.hse.gov.uk/stress/standards/>

86. Brookes K, Limbert C, Deacy C, O'reilly A, Scott S, Thirlaway K. Systematic review: work-related stress and the HSE management standards. *Occupational Medicine*. 2013 Oct 1;63(7):463-72. <https://doi.org/10.1093/occmed/kqt078>
87. Bruschini M, Carli A, Burla F. Burnout and work-related stress in Italian rehabilitation professionals: A comparison of physiotherapists, speech therapists and occupational therapists. *Work*. 2018 Jan 1;59(1):121-9. <https://content.iospress.com/articles/work/wor2657>
88. Carpi M, Bruschini M, Burla F. HSE Management Standards and burnout dimensions among rehabilitation professionals. *Occupational Medicine*. 2021 Jun;71(4-5):204-10. <https://doi.org/10.1093/occmed/kqab055>
89. Health and Safety Executive. *Stress Talking Toolkits*. <https://www.hse.gov.uk/stress/talking-toolkit.htm>
90. Leiter MP, Maslach C. *Banishing Burnout: Six Strategies for Improving your Relationship with Work*. John Wiley & Sons; 2005 Apr 29.
91. Shi Y, She Z, Li D, Zhang H, Niu K. Job crafting promotes internal recovery state, especially in jobs that demand self-control: A daily diary design. *BMC Public Health*. 2021 Dec; 21:1-3. <https://doi.org/10.1186/s12889-021-11915-1>
92. Maslach C, Leiter MP. *The Burnout Challenge: Managing People's Relationships with Their Jobs*. Harvard University Press; 2022.
93. BHSF. The Big Return. <https://www.bhsf.co.uk/thebigreturn/>
94. Health and Safety Executive. *Line Manager Competency Tool*. <https://www.hse.gov.uk/stress/mcit.htm>
95. Akhanemhe R, Wallbank S, Greenberg N. An evaluation of REACTMH mental health training for healthcare supervisors. *Occupational Medicine*. 2021 Apr;71(3):127-30. <https://doi.org/10.1093/occmed/kqab023>
96. Labrague LJ. Psychological resilience, coping behaviours and social support among health care workers during the COVID-19 pandemic: A systematic review of quantitative studies. *Journal of Nursing Management*. 2021 Oct;29(7):1893-905. <https://doi.org/10.1111/jonm.13336>
97. Yildirim M, Geçer E, Akgül Ö. The impacts of vulnerability, perceived risk, and fear on preventive behaviours against COVID-19. *Psychology, Health & Medicine*. 2021 Jan 2;26(1):35-43. <https://doi.org/10.1080/13548506.2020.1776891>
98. Maben J, Taylor C, Dawson J, Leamy M, McCarthy I, Reynolds E, Foot C. A Realist Informed Mixed Methods Evaluation of Schwartz Center Rounds in England. *NIHR Journals Library*. 2017. http://allcatsgrey.org.uk/wp/download/governance/clinical_governance_2/3011406.pdf
99. Allen D, Spencer G, McEwan K, Catarino F, Evans R, Crooks S, Gilbert P. The Schwartz Centre Rounds: supporting mental health workers with the emotional impact of their work. *International Journal of Mental Health Nursing*. 2020 Oct;29(5):942-52. <https://doi.org/10.1111/inm.12729>
100. Reed E, Cullen A, Gannon C, Knight A, Todd J. Use of Schwartz Centre Rounds in a UK hospice: Findings from a longitudinal evaluation. *Journal of Interprofessional Care*. 2015 Jul 4;29(4):365-6. <https://doi.org/10.3109/13561820.2014.983594>
101. Maben J, Taylor C, Reynolds E, McCarthy I, Leamy M. Realist evaluation of Schwartz rounds® for enhancing the delivery of compassionate healthcare: understanding how they work, for whom, and in what contexts. *BMC Health Services Research*. 2021 Dec;21:1-24. <https://doi.org/10.1186/s12913-021-06483-4>
102. Biggart L, Ward E, Cook L, Schofield G. The team as a secure base: Promoting resilience and competence in child and family social work. *Children and Youth Services Review*. 2017 Dec 1;83:119-30. <https://doi.org/10.1016/j.childyouth.2017.10.031>
103. Peterson U, Demerouti E, Bergström G, Samuelsson M, Åsberg M, Nygren Å. Burnout and physical and mental health among Swedish healthcare workers. *Journal of Advanced Nursing*. 2008 Apr;62(1):84-95. <https://doi.org/10.1111/j.1365-2648.2007.04580.x>
104. Chanchlani S, Chang D, Ong JS, Anwar A. The value of peer mentoring for the psychosocial wellbeing of junior doctors: a randomised controlled study. *Medical Journal of Australia*. 2018 Nov;209(9):401-5. <https://doi.org/10.5694/mja17.01106>
105. Behrman S, Baruch N, Stegen G. Peer support for junior doctors: a positive outcome of the COVID-19 pandemic?. *Future Healthcare Journal*. 2020 Oct;7(3):e64. <https://doi.org/10.7861%2Ffhj.2020-0069>
106. Flaherty M, O'Neil VE. Psychological peer support for staff: implementing the Trauma Risk Management model in a hospital setting. *Nursing Management*. 2022 Feb 3;29(1). doi: 10.7748/nm.2021.e1977.
107. Ericson-Lidman E, Strandberg G. Burnout: co-workers' perceptions of signs preceding workmates' burnout. *Journal of Advanced Nursing*. 2007 Oct;60(2):199-208. <https://doi.org/10.1111/j.1365-2648.2007.04399.x>
108. Kinman G. *Supporting Practitioner Wellbeing: Practice Guide*. 2022. <https://www.researchinpractice.org.uk/all/publications/2022/october/supporting-practitioner-wellbeing-practice-guide-2022/>
109. Burton CM, King LA. Effects of (very) brief writing on health: The two-minute miracle. *British Journal of Health Psychology*. 2008 Feb;13(1):9-14. <https://doi.org/10.1348/135910707X250910>

110. Michailidis E, Cropley M. Testing the benefits of expressive writing for workplace embitterment: A randomized control trial. *European Journal of Work and Organizational Psychology*. 2019 May 4;28(3):315-28. <https://doi.org/10.1080/1359432X.2019.1580694>
111. Neff KD. Self-compassion, self-esteem, and well-being. *Social and Personality Psychology Compass*. 2011 Jan;5(1):1-2. <https://doi.org/10.1111/j.1751-9004.2010.00330.x>
112. Leary MR, Baumeister RF. The nature and function of self-esteem: Sociometer theory. In *Advances in Experimental Social Psychology* 2000 Jan 1 (Vol. 32, pp. 1-62). Academic Press.
113. Nixon P, Ebert DD, Boß L, Angerer P, Dragano N, Lehr D. The Efficacy of a Web-Based Stress Management Intervention for Employees Experiencing Adverse Working Conditions and Occupational Self-efficacy as a Mediator: Randomized Controlled Trial. *Journal of Medical Internet Research*. 2022 Oct 20;24(10):e40488. doi: 10.2196/40488.
114. Kabat-Zinn J. *Coming to our Senses: Healing Ourselves and the World through Mindfulness*. Hachette UK; 2005.
115. NICE. *Using Mindfulness to Support Mental Wellbeing at Work for Children's Social Care Front Line Practitioners*. 2020. <https://www.nice.org.uk/sharedlearning/using-mindfulness-to-support-mental-wellbeing-at-work-for-children-s-social-care-front-line-practitioners>
116. Kinman G, Grant L, Kelly S. 'It's my secret space': The benefits of mindfulness for social workers. *The British Journal of Social Work*. 2020 Apr 1;50(3):758-77. <https://doi.org/10.1093/bjsw/bcz073>
117. McCusker P. *Mindfulness in Social Work Education and Practice*. University of Edinburgh. 2020 <https://www.research.ed.ac.uk/en/publications/mindfulness-in-social-work-education-and-practice>
118. Cascales-Pérez ML, Ferrer-Cascales R, Fernández-Alcántara M, Cabañero-Martínez MJ. Effects of a mindfulness-based programme on the health- and work-related quality of life of healthcare professionals. *Scandinavian Journal of Caring Sciences*. 2021 Sep;35(3):881-91. <https://doi.org/10.1111/scs.12905>
119. Querstret D, Cropley M, Fife-Schaw C. Internet-based instructor-led mindfulness for work-related rumination, fatigue, and sleep: Assessing facets of mindfulness as mechanisms of change. A randomized waitlist control trial. *Journal of Occupational Health Psychology*. 2017 Apr;22(2):153. <https://psycnet.apa.org/doi/10.1037/ocp0000028>
120. Althammer SE, Reis D, van der Beek S, Beck L, Michel A. A mindfulness intervention promoting work-life balance: How segmentation preference affects changes in detachment, well-being, and work-life balance. *Journal of Occupational and Organizational Psychology*. 2021 Jun;94(2):282-308. <https://doi.org/10.1111/joop.12346>
121. Carminati L. Emotions, emotion management and emotional intelligence in the workplace: Healthcare professionals' experience in emotionally charged situations. *Frontiers in Sociology*. 2021 Apr 6;6: <https://doi.org/10.3389/fsoc.2021.640384>
122. Bari A, Khan RA, Rathore AW. Medical errors; causes, consequences, emotional response and resulting behavioral change. *Pakistan Journal of Medical Sciences*. 2016 May;32(3):523. <https://doi.org/10.12669/pjms.323.9701>
123. Demerouti E. Strategies used by individuals to prevent burnout. *European Journal of Clinical Investigation*. 2015 Oct;45(10):1106-12. <https://doi.org/10.1111/eci.12494>.
124. Rich A, Aly A, Cecchinato ME, Lascau L, Baker M, Viney R, Cox AL. Evaluation of a novel intervention to reduce burnout in doctors-in-training using self-care and digital wellbeing strategies: a mixed-methods pilot. *BMC Medical Education*. 2020 Dec;20(1):1-1. <https://doi.org/10.1186/s12909-020-1961-8>
125. Kärkkäinen R, Kinni RL, Saaranen T, Räsänen K. Supervisors managing sickness absence and supporting return to work of employees with burnout: A membership categorization analysis. *Cogent Psychology*. 2018 Dec 31;5(1):1551472. <https://doi.org/10.1080/23311908.2018.1551472>
126. Guo YF, Lam L, Plummer V, Cross W, Zhang JP. A WeChat-based "Three Good Things" positive psychotherapy for the improvement of job performance and self-efficacy in nurses with burnout symptoms: A randomized controlled trial. *Journal of Nursing Management*. 2020 Apr;28(3):480-7. <https://doi.org/10.1111/jonm.12927>
127. Dyrbye LN, Shanafelt TD, Gill PR, Satele DV, West CP. Effect of a professional coaching intervention on the well-being and distress of physicians: a pilot randomized clinical trial. *JAMA Internal Medicine*. 2019 Oct 1;179(10):1406-14. doi:10.1001/jamainternmed.2019.2425
128. Lloyd J, Bond FW, Flaxman PE. The value of psychological flexibility: Examining psychological mechanisms underpinning a cognitive behavioural therapy intervention for burnout. *Work & Stress*. 2013 Apr 1;27(2):181-99. <https://doi.org/10.1080/02678373.2013.782157>.

129. Zielhorst T, van den Brule D, Visch V, Melles M, van Tienhoven S, Sinkbaek H, Schrieken B, Tan ES, Lange A. Using a digital game for training desirable behavior in cognitive-behavioral therapy of burnout syndrome: a controlled study. *Cyberpsychology, Behavior, and Social Networking*. 2015 Feb 1;18(2):101-11. <https://doi.org/10.1089/cyber.2013.0690>
130. Williamson V, Murphy D, Phelps A, Forbes D, Greenberg N. Moral injury: the effect on mental health and implications for treatment. *The Lancet Psychiatry*. 2021 Jun 1;8(6):453-5. [https://doi.org/10.1016/S2215-0366\(21\)00113-9](https://doi.org/10.1016/S2215-0366(21)00113-9)
131. Kinman G, Grant L. Being 'good enough': Perfectionism and well-being in social workers. *The British Journal of Social Work*. 2022 Oct 20;52(7):4171-88. <https://doi.org/10.1093/bjsw/bcac010>
132. Martin SR, Fortier MA, Heyming TW, Ahn K, Nichols W, Golden C, Saadat H, Kain ZN. Perfectionism as a predictor of physician burnout. *BMC Health Services Research*. 2022 Nov 28;22(1):1425. <https://link.springer.com/article/10.1186/s12913-022-08785-7>
133. Egan SJ, Wade TD, Shafran R, Antony MM. *Cognitive-behavioral Treatment of Perfectionism*. Guilford Publications; 2016.
134. James K, Rimes KA. Mindfulness-based cognitive therapy versus pure cognitive behavioural self-help for perfectionism: A pilot randomised study. *Mindfulness*. 2018 Jun;9:801-14. <https://doi.org/10.1007/s12671-017-0817-8>
135. Shafran R, Egan S, Wade T. *Overcoming Perfectionism 2nd Edition: A self-help guide using scientifically supported cognitive behavioural techniques*. Robinson; 2018.
136. Nielsen K, Yarker J, Munir F, Bültmann U. IGLOO: An integrated framework for sustainable return to work in workers with common mental disorders. *Work & Stress*. 2018 Oct 2;32(4):400-17. <https://doi.org/10.1080/02678373.2018.1438536>
137. Teoh K, Dhensa-Kahlon R, Christensen, M, Frost, Hatton E, Nielsen K. Organisational wellbeing interventions: case studies from the NHS. Technical Report. Birkbeck, University of London. 2023. <https://www.som.org.uk/supporting-nhs-staff-wellbeing-through-organisational-interventions>
138. Dall'Ora C, Ejebu OZ, Ball J, Griffiths P. Shift work characteristics and burnout among nurses: cross-sectional survey. *Occupational Medicine*. 2023 May;73(4):199-204.





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