

Care is not just for the patient

The Royal College of Radiologists (RCR) support and wellbeing report 2021

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Mission

The RCR will be proactive in optimising and prioritising wellbeing within the workplace. We will help our Fellows and members to recognise burnout in themselves and each other. We aim to help reduce the stigma associated with mental health problems and to empower and support our Fellows and members to start meaningful and productive conversations around how to manage and avoid stress. To that end, we are producing recommended guidance, have collated and created website information and learning and is in the process of appointing Wellbeing Champions for Fellows and members to contact for support. We will offer a regular support and wellbeing session at each of the RCR annual conferences. Through the membership engagement survey, we will strive to monitor levels of stress among the workforce to identify where support is most needed.



Five years ago, I was suffering from depression.

I had lost weight, couldn't sleep and struggled to get through the day. I had really intrusive thoughts about giving up, just lying in bed all day and abdicating all responsibility for work and home. I wasn't actively suicidal but welcomed the thought of an accident that would make it all stop.

It was triggered by work; a period of acting up to cover a consultant vacancy on a background of job worries, a busy husband and two small children. I felt like a total failure, the only one that couldn't manage, even though I managed to act up without problems, apart from my own mental health. I'd always been a 'good' trainee, passing my exams and getting excellent feedback. This may even been part of the problem as when I asked for some extra support, people just assumed I'd cope without it.

Apart from a few good friends who got me through, it seemed like no one else appreciated how bad things were. My multisource feedback was full of suggestions about 'walking taller' and trying coaching. Only one person was honest enough to say that they thought I was struggling. However, even five years later, people in my region remember 'my difficulties' and 'how it was a bit much for me'. I worked out that I was depressed when a general practitioner replied to my anonymous post on an internet forum.

I know that I am not alone. Mental health problems are common among the general population as well as among oncologists. I was not failing, I was ill and now I'm better. Now I look after my mental health, exercising, prioritising things that keep me happy and acting early if things are slipping.

We need to remove the stigma. We must be able to have honest conversations early, to take people seriously if they ask for support and offer non-judgemental help. People will still get ill, the NHS will still be a tough place to work but hopefully they will not try to struggle on alone for so long.

Personal account from a Support and Wellbeing Working Group member

Introduction

'Burnout is associated with poorer self-rated health, more depression and anxiety, overtime work, and with future long-term sickness absence. Contrary to the general belief, that job demands make all the difference, results indicated that it was the access to/lack of adequate job resources that determined whether an employee was classified as burnt out or not'.

Stress and burnout in healthcare workers, Ulla Peterson, 2008¹

Stress and burnout are not new phenomena in clinical oncology or clinical radiology. However, their significance and impact have become personally relevant to almost all working in these specialties. Most people working in healthcare have experienced the effects of exhaustion or disengagement, either directly, or observed in one of our close colleagues. Extended sick leave, resignations or early retirements are all too common effects of the stressful working environment experienced by clinical oncologists and clinical radiologists.^{2,3} To look at the extreme effects, last year the BMJ reported that a doctor takes their own life once every three weeks but, alarmingly, this statistic failed to qualify as news.⁴

Symptoms of stress and burnout often have an insidious start and can snowball very quickly, resulting in devastating ramifications throughout a department. Teams work at full stretch at the best of times and most, if not all, colleagues deliver additional work commitments. A change in functioning of even a single colleague can have significant de-stabilising effects. Symptoms often go undetected both in one's self and colleagues as a result of being too busy to notice them.



If only I'd known...

'Its only when you look back that the tell-tale signs were there. The irritation at the smallest things: the inconsistency in decisions taken: the forgetfulness and need for constant reassurance. This was not the person I knew and had worked with for so long. It never crossed my mind that those behaviours could be the manifestation of extreme stress, or the beginnings of a breakdown. I thought the person was being demanding and difficult to work with. In reality they were overwhelmed; trying to do a great job of everything and spreading themselves so thinly that the only casualty in this juggling act was their wellbeing. And by then was too late. I was racked with guilt over my interpretation of the signs, reflecting on every opportunity I had missed to make a difference. What difference would I even have made?

In reality I might have made no difference, but that person - who I knew gave 110% to everything they did - might have had an opportunity to share how they were feeling if I'd asked how they were. Instead, my defensive responses in the heat of the moment may have exacerbated how they problem. The words 'how are you feeling?' are an opportunity to start a conversation and talking is so important. I know I wouldn't have been able to make everything miraculously better, but I could have played my part in relieving any burdens I may have been putting on them, and helped them access the support they needed if I had taken the time to ask the question. A salutary lesson in remembering we're all only human and a little kindness will go much further than frustration'.

Reducing stress and burnout can undoubtedly lead to:

- Improvements in patient safety and experience
- Better communications between colleagues, teams and patients
- A better quality of life for colleagues with superior life—work balance.

All of these will culminate in a more resilient workforce with increased longevity to meet the increasing demands of our patients and the NHS.

With this in mind, The Royal College of Radiologists formed a Support and Wellbeing Working Group in 2019 to review and address levels of stress and burnout across the membership. The group set about identifying the drivers of stress and burnout to spot early signs and tried to find support mechanisms to mitigate the effects. Representation on the group spans both Faculties, with volunteers from both clinical radiology and clinical oncology, across the full spectrum of age and experience. Trainees, newly qualified, established and very experienced consultants each bring their perspectives alongside input from psychologists and psychiatrists.

We acknowledge that within different departments there may be different problems and solutions but we anticipate that, by drawing out common themes and challenges, common solutions and shared learning will emerge. The compilation of this report has spanned the COVID-19 pandemic. For many reasons that will be immediately obvious to anyone working in the NHS since early 2020, the pandemic has had a dramatic effect on mental health. Unparalleled in our lifetimes, this event has placed novel and additional strains on an already stretched system, making the work of this group even more pertinent.



There was a strong sense of everyone working together against a common enemy - the virus. Silos were broken down. Individuals and teams were thanked by other individuals. teams and organisations - something rarely seen in the pre-COVID-19 era and sadly rapidly disappearing in the recovery and restoration phase. A willingness to see the issues/stresses that others were facing during a period of disruption and provide whatever support they could – even if it was only 'psychological' in the sense of being there, has all but disappeared. 'Business as usual' has resurfaced, with the emphasis on recovering backlogs. With it, the 'behaviours as usual' have also returned.

Dr Caroline Rubin, 2020

Working in concert with existing services, the group's commitment is to raise awareness of and remove stigma associated with stress and burnout, to signpost where help and support are to be found and to embed a culture of support and wellbeing in the committee structure of the RCR. Expanding upon the individuality of the experience and challenge, which can vary whether you work in radiology or oncology, are a trainee or consultant, this report gathers personal experiences, prior learning from other areas of the medical professions and discussions with colleagues to bring forward some ideas and suggestions for how to cope with, and avoid, the effects of stress and burnout.

The personal, organisational and societal consequences of stress and burnout among doctors

Burnout is a potential consequence of prolonged stress. It is defined as 'an experience of physical, emotional and mental exhaustion, caused by long-term involvement in situations that are emotionally demanding.' Over the past 20 years, many reports based on large-scale studies have been published demonstrating the corrosive effects of stress and burnout in the workplace. Although burnout can occur in any occupation, it occurs most frequently in the caring professions being reported in up to 25% of the healthcare workforce at any one time. The emotional, physical and financial toll of burnout on sufferers and their dependents has negative consequences for employing organisations.

Stress and burnout are causative factors for a range of psychological morbidities. There is a strong correlation between work-related stress in all healthcare workers and depression, anxiety, problematic alcohol use and, most distressing of all, suicide. Stress leads to:

- Insomnia and fatigue
- Decreased ability to concentrate and focus
- Deterioration in memory
- Prolonged reaction times
- Reduced task performance.

It may lead to a lack of engagement, with the sufferer becoming unco-operative and resistant to change. Other behaviours associated with stress include:

- Cynicism
- Aggression and short temper
- Poor timekeeping
- Indecision
- Avoidance behaviour
- Apathy.

These lead to a higher rate of medical errors and reduced productivity. Stress and burnout also increase the risk of a variety of physical illnesses including cardiovascular disease, type 2 diabetes,

gastrointestinal symptoms and serious injuries due to fatigue. Stress has been shown to lead to shorter overall survival in those affected under the age of 45 years.⁴

Stress and burnout lead to **impaired performance** at work and a decrease in the quality of patient care, with a greater incidence of medical errors and medicolegal claims. Productivity is also affected as sufferers are more likely to leave their job or retire early. This results in direct costs of thousands of pounds spent on recruitment as well as agency and locum expenses. It could also lead to increased absenteeism or, equally damaging, increased presenteeism.

No matter how it manifests or is caused, stress and burnout symptoms have clear adverse consequences for individuals, their families and colleagues, the organisations that they work for, the patients they care for and wider society. Understanding causative factors, implementing effective preventative strategies and using evidence-based interventions must be a priority for policy makers, management teams and those in other leadership roles in healthcare to minimise the significant adverse consequences of stress and burnout.

Drivers of stress and burnout for clinical oncology and clinical radiology

There are a number of environmental drivers and influences that can impact upon clinical colleagues. They can lead to a satisfied, fulfilled clinician delivering a high-quality, effective service with a sense of a job well done or they can lead to adverse outcomes resulting in a highly stressful, confrontational workplace and mental health issues that can lead to self-harm and destructive behaviours, all of which would have negative implications for the patient.

While clinicians are very good at their area of patient expertise, they may lack the knowledge, insight or time to assess their own level of stress and burnout or that of those around them. To help recognise the drivers and influences that may not be immediately apparent as leading to dangerous levels

of stress among both radiologists and oncologists, this section will attempt to list as many as possible.

There is often a significant **interdependency** between the issues described below, leading to conflation of outcomes. **This list is not exhaustive and is noted as particular to a respective specialty wherever relevant.**

Psychological drivers of stress and burnout

- Psychological studies suggest that most people's brains can only effectively process four things simultaneously.⁸ As humans, doctors are just as vulnerable to the pressures of daily life. Work- and homerelated issues are often conflated and will interweave and interact, compounding to a mentally detrimental total. Many of us are not in the moment, instead we are often reflecting on what has passed and what is to come. As a result, we do not regularly check our own mental health or make a point of reviewing that of those around us.
- Clinicians are used to working in closely aligned teams but often those around us may not share the same aims. For example, while our common aim may be patient care, individuals may simply be working towards achieving an outcome within a specified time. This concept of the team and pseudo team is common and can be a source of conflict.
- This conflict can quickly morph in bullying and harassment. Bullying and harassment mean any behaviour that makes someone feel intimidated or offended. Harassment is defined as offensive conduct based on a protected characteristic such as gender, race or religion. It is unlawful under the Equality Act 2014. Bullying is offensive conduct not based on discrimination. Both may create a hostile environment especially if the victim feels they must endure such treatment to keep their job.

Such behaviour is sometimes overt but is often more subtle and undermining with a passive-aggressive style. While it is most readily recognised where the recipient is in a less powerful position, it can occur in reverse power relationships (junior bullying senior). Bullying and harassment are significant causes of stress in the workplace and can result in sickness absence, employee turnover and lost productivity. High (and increasing) rates of bullying have been reported in the NHS Staff Survey in England.9

Staff shortages

- RCR recommended staffing levels are often not adhered to due to a lack of available clinicians to fill posts. Trusts often respond to these shortages by developing more junior roles such as advanced clinical practitioners or non-medical consultants. This increases pressures during the training period and, by definition, such roles have a highly defined scope of practice. This can result in consultant clinics which consist solely of highly complex patients.
- Both oncologists and radiologists may be sole providers of a service. For example, individual oncologists often provide the service for large geographical areas. Understaffing is a very common feature in many radiology departments. Lone workers or a very limited number of consultants, of which the majority could be locum positions, are often responsible for a wide range of clinical activity from answering telephone queries to performing image-guided procedures.

Changing expectations

- Job planning does not reflect the change in complexity of the cancer patients seen nor the additional burden of post-clinic administration for these patients. Imaging assessment is also increasingly complex, with multiple reviews and interactions, none of which are adequately reflected in job plans.
- There has been a significant shift in the role and expectations for radiologists over the years with them taking the lead in making a clinical diagnosis rather than acting in a supporting role. In addition, in many cases they are assessing medical imaging without the benefits of the relevant clinical information. On top of this, image reporting targets are increasingly being scrutinised at the expense of the quality of the report.
- It has been reported that 72% of interventional radiologists experience burnout due to the numerous technical challenges, physical demands and unpredictable work hours required to deliver the service.¹⁰
- Time for supporting professional activities (SPA) is gradually being eroded; even if SPA sessions are still job planned, clinical tasks consistently encroach.
- Peer review preparation, protocol preparation and guideline review often are pushed outside core hours because of clinical demands.
- It is increasingly difficult to reject a radiology request; referring teams may insist on the examination for various, often clinically valid, reasons. Conflict can arise from the referral team seeking approval from an alternative colleague if the initial request was rejected.
- Regular interruptions during clinics or planning can lead to errors and adverse patient experience. Interruptions are extremely common in radiology.

- Time for self-reflection and development has been drastically eroded.
- Multiple radiology examinations may be requested for a single patient just because 'my consultant said so', or we need to 'clear the bed'.

Working environment

Out of hours and on call

- On-call commitments for oncology are often in parallel to clinic work. Being on call at the weekend on call, in addition to emergency radiotherapy, includes lengthy ward rounds (1.5–2 programmed activities [PAs] each weekend day). Juniors are given lieu time after being on call but those same standards are not implemented for senior clinicians.
- The intensity of out-of-hours work in radiology has increased drastically over the years, without the concomitant increase in workforce and resources to support this. Even with outsourcing, addressing the issue remains a significant challenge. Consultants continue to be the first on call in many trusts and in specialist provisions such as interventional radiology. On-demand on-call arrangements have a significant negative impact on personal and family life for many clinicians.

Multidisciplinary team meeting (MDTM) commitments

- Cancer MDTMs require preparation in advance of and actions following the meeting. Often these are not accounted for in job planning. Some liken MDTMs to weekly viva voce; often holding one's own against a group of colleagues from other specialities
- The huge demand for radiology input to MDTM preparation and participation has resulted in more time being spent in MDTMs than reporting for many consultants. The implications of this are delayed reporting and increased time pressure meaning more work being completed outside contractual hours.

Innovations and complexity

- New treatment indications mean that patients require clinic review, drug oversight or additional radiotherapy as techniques progress. These require additional time which is not accounted for in job plans.
- The complexities of radiology examinations and procedures have evolved significantly requiring additional expertise and time.
- Research activity is usually not formally timetabled.

NHS infrastructure and lack of support

- The increased use of multiple information technology (IT) systems has slowed processes in many situations. In addition, the IT systems may be suboptimal resulting in inefficient workflows.
- Very limited administrative support means consultants and trainees have to perform administrative tasks themselves, increasing their workload.
- There is a lack of time in job plans and lack of adequate facilities for Schwartz rounds or clinical supervision.
- Prolonged periods of reporting on a monitor has a detrimental effect on posture, eye sight and the quality of the report.
- Office facilities are increasingly down-sized with hot-desking being normalised, leading to competition for space, adding to low level stress.

Lack of leadership and support

- Lack of team structure and high management turnover can fuel feelings of isolation.
- A dearth of minimum comforts in hospitals such as staff rooms, chairs and other basic facilities leads to feelings of being undervalued
- Perceived bias and a lack of transparency in senior staffing decisions is disenfranchising
- Unsupportive leadership and an adverse whistle-blowing culture generate mistrust within teams.
- Prevailing attitudes to mental health problems, including self-imposed standards of 'strength', from one's colleagues as well as management can make it feel impossible to speak out about your own feelings.

Life-work balance

Pressures as a direct result of many of the previous points can lead to poor life-work balance. This can have a negative impact on family life and even lead to emotional exhaustion, career breaks and early retirement if left unchecked. Factors that can contribute to a poor life-work balance include:

- Silo working
- Long hours, skipped lunch breaks, night-time and weekend working
- Lengthy commutes to peripheral clinics
- Home reporting which, though it does have some advantages, can increase feelings of isolation and detachment
- A lack of peer support
- Taking huge responsibilities of clinical and administrative work home, including electronic chemo prescribing and email admin
- Pervasive negative perceptions of those who work less than full-time (LTFT) meaning that this option feels less accessible.

Financial issues

- The changing demands of clinics and treatments are often not reflected in tariffs. Complex patients may require multiple consents and may require an hour's consultation but are billed as a routine follow-up. The complexity of reporting or performing certain types of radiology examinations is also not reflected on the national tariff. Equally the out-of-hours imaging provision is not objectively remunerated. All of which serve feelings of being undervalued.
- Similarly, the radiotherapy charging model does not reflect the planning aspect adequately in many situations and hypofractionation can lead to loss of income to departments and impact on whether radiotherapy trials are available. This can make

- clinicians feel that they are not empowered to offer the optimum care to their patients
- Additional payments for working overtime may lead to pension-related issues because of recent changes in pension rules.
- Doctors are often seen as being an overpaid elite who have things all their own way. As a result of this perception, they are often seen as not deserving of additional recognition during times of austerity when there is competition for resources.
- Reduced support for study leave may ultimately lead to patient safety issues as time is compressed and clinicians are less up to date.

Training

- Insufficient training in communication and management skills can leave many trainees feeling adrift with departmental politics.
- In some cases, trainees are being taught to 'switch off' emotions; dissociative behaviour is commonly seen when stressors progress and is a symptom of burnout.
- A lack of metal health training means that trainees are ill equipped to recognise the signs of stress and burnout in themselves or others.
- Insufficient training numbers can result in an increased workload for existing trainees.
- Recruitment to training posts in distant or unfamiliar regions with little notice can result in increased stress and burnout as trainees manage upheaval in their personal lives and potential isolation from their social networks in addition to the challenges of specialty training.
- Limited SPA opportunities can hinder crucial quality-improvement and research activity.
- Inadequate wellbeing support and mentorship can result in stress and burnout escalating if the trainees do not feel that there is anyone to who they can turn for help and advice.

Specific issues in cancer care

- The emotional accumulation of perpetually delivering bad news and administering palliative/terminal care can lead to emotional exhaustion.
- Keeping up with fast evolving and new drugs, treatments and techniques requires additional time that is not always accounted for in job plans.
- The urgency of cancer diagnosis makes it more difficult to step away from work at the end of the day.
- The additional toxicity of various new treatments can increase after-care expectations and concern for the patient.
- The complexity of decisions about cancer management and often taking these decisions with stressed family members can reap an emotional toll on clinical oncologists.

Specific issues for radiology

- A lack of professional and patient feedback can result in feeling unappreciated.
- Uncertainty about the future of radiology due to the perception that artificial intelligence (AI) and machine learning may 'replace the radiologist' could lead to feelings of job insecurity.
- Limited opportunities for development can have an impact on an individual's motivation.
- Lack of autonomy and depersonalisation can come with other departments viewing radiologists as service providers rather than clinicians.

Specific issues for interventional radiologists

- Severe staff shortages, lack of recognition in funding mechanisms and lack of dedicated beds for day-case recovery all lead to feelings of being devalued and increase workload.
- Overlap of patient responsibilities with other clinical teams can lead to tribalism and departmental silos which inflate stress and feelings of isolation.
- Increased technical challenges, physical demands and unpredictable work hours of delivering an IR service can all quickly lead to exhaustion and burnout.

Strategies to manage established stress and burnout

Stress and burnout are modifiable experiences. Despite increasing recognition of stress and burnout and a focus on preventive strategies, work-related stress and burnout in doctors continues to rise. 11 There is a need for effective therapeutic interventions based on high-quality evidence for those affected. Until recently this has been a little studied area and much is based on assumption and anecdote. More research is urgently required.

As a first step, it is vital for the stigma of burnout to be removed so that those affected have the confidence to seek help. This may be achieved through a culture of openness and positive role modelling by leaders.

Steps to self-care

- 1. Start now.
- 2. Be present in the moment.
- 3. Listen to one's own body/mental health.
- 4. Create a clinical support structure (clinical supervision and so on).
- 5. Let go of judgment.
- 6. Play more (release the inner child, increase spontaneity and intimacy).
- See psychological health as part of your career and annual continuing professional development.
- 8. Change what can be changed; this is often our response or feelings about a situation which we can't change. Review our mental pivot point by saying 'what is the kindest thing I can do for myself in this situation.'

Available strategies to manage stress and established burnout tend to focus on the medic rather than the system in which they work. Effective participation in programmes to manage stress and burnout usually requires time away from work which risks compounding a stressful work environment unless it's actively facilitated by the employer. Existing strategies include:

- Stress-management programmes: there is no evidence to suggest that so called 'brief stress-management programmes' are useful. However moderate-intensity stress management training (a minimum six hours per month) appears to give at least short-term benefit when supplemented by boosters.
- An intensive mindful communication programme may be associated with sustained improvement in the three dimensions of burnout (emotional exhaustion, depersonalisation and personal accomplishment).¹²
- Participation in group discussions, conferences and retreats.
- Resources including websites, books and signposting to other appropriate sources of support. See the page on the RCR website which contains many links to external websites and resources related to stress and improving wellbeing (www.rcr.ac.uk/press-and-policy/ policy-priorities/support-and-wellbeing).

Physician/individual-directed interventions

- Explore and use mindfulness techniques and cognitive behavioral techniques.
- Enhance job competence, improve communication skills and build selfconfidence and personal resilience.
- Focus on and support for health habits for example, physical inactivity, smoking, alcohol consumption and stress-related eating and drinking.

It is likely that even the more effective of these strategies are, at best, temporary solutions given that they do not deal with the underlying sources of stress and burnout. These underlying causes are usually related to the working conditions imposed by the modern medical system. With that in mind, more likely effective solutions would be similar to those aimed at prevention such as:

- Executive teams and board members being encouraged and incentivised (for example, through metrics in the Care Quality Commission inspection) to create working environments which are safe, healthy and supportive, with an ethos which emphasises and genuinely values the human aspects of care. This should include support and encouragement of the development and running of Schwartz rounds and similar initiatives within trusts.
- Accurate and fair assessments of total workload and complexity. Excessive workloads should be managed though effective job planning based on current RCR guidance.^{13,14}SPA time should be protected through effective job planning. We suggest the development of administrative roles to assist with triage and job planning tasks.
- Acknowledgement of the increasing administrative burden placed on doctors, in part through the implementation of electronic patient records. Urgent solutions should be developed to reduce time spent on repetitive tasks which do little to improve patient care.
- Facilitation of alternative ways of working, for example, flexible hours or home working where requested and agreed by the employee.

Frameworks for enhancing wellbeing (for example Balint Groups)¹⁹

- Facilitated forums on personal experiences with patients/colleagues where they can discuss their perceptions of interactions.
- Recognise your professional identity, the joy of being a doctor and job satisfaction.
- Support on managing difficult professional relationships, improving empathy and communication skills.
- Focus on emotions, reactions and reflection.

Organisation/system-directed interventions

- Restructure job plans and review the intensity of workload.
- Focus on enhancing team working, autonomy and participation in decisionmaking while reducing job demand.
- Enact system improvement in leadership, culture and positive change.
- Use quality improvement and process improvement to improve systems and pathways bit by bit.
- Implement an effective informative system to support safe patient care.
- Ensure feedback and evaluation and accommodate supervision and support.

Acknowledging the prevalence and corrosive effect of bullying and harassment behaviours, there are many initiatives within the NHS aimed at counteracting this culture.

- An Alliance Against Bullying, Undermining and Harassment in the NHS is an informal alliance of a diverse range of medical and healthcare organisations (including the RCR) initiated by the Royal College of Surgeons of Edinburgh with the aim of highlighting and addressing the high levels of bullying within the NHS.¹⁵
- The Interim NHS People Plan was published in June 2019. This report describes an agenda to tackle NHS workforce challenges to facilitate delivery of the NHS Long Term Plan. There is an aim to make the NHS the best place to work by in part improving 'our leadership culture' and promoting 'compassionate and engaging leaders'.
- Civility Saves Lives is an informal alliance of healthcare professionals aiming to raise the awareness of the power of civility in medicine.¹⁸

Bibliography

- Walsh G, Hayes B, Freeney Y, McArdle S. Doctor, how can we help you? Qualitative interview study to identify key interventions to target burnout in hospital doctors. *BMJ Open* 2019; 9(9): e030209.
- Khan A, Teos KRH, Islam S, Hassard J. Psychosocial work characteristics, burnout, psychological morbidity symptoms and early retirement intentions: a cross-sectional study of NHS consultants in the UK. BMJ Open 2018; 8(7): e018720.
- Punakallio A, Lusa S, Ala-Mursula L et at. Personal meaning of work and perceived work ability among middle-aged workers with physically strenuous work: a Northern Finland Birth Cohort 1966 Study. Int Arch Occup Environ Health 2019; 92(3): 371–381.
- Panagioti M, Panagopoulou E, Bower P et al.
 Controlled interventions to reduce burnout in physicians. A systematic review and meta-analysis.
 JAMA Intern Med 2017; 177(2):195–205.
- DeChant PF, Acs A, Rhee KB et al. Effect of organization-directed workplace interventions on physician burnout: a systematic review. Mayo Clin Proc Innov Qual Outcomes 2019; 3(4): 384–408.
- www.radiologybusiness.com/topics/ leadership/72-interventional-radiologistsburnout-radiology (last accessed 30/3/21)
- Bar-Sela G, Lulav-Grinwald D, Mitnik I. "Balint group" meetings for oncology residents as a tool to improve therapeutic communication skills and reduce burnout level. J Cancer Educ 2012; 27(4):786–789.
- Roy A, Druker S, Hoge EA, Brewer JA. Physician anxiety and burnout: symptom correlates and a prospective pilot study of app-delivered mindfulness training. *JMIR Mhealth Uhealth* 2020; 8(4): e15608.
- Hall LH, Johnson J, Watt I, Tsipa A, O'Connor DB. Healthcare staff wellbeing, burnout, and patient safety: A systematic review. PLoS One 2016; 11(7): e0159015.

References

- Peterson U. Stress and burnout in healthcare workers. Karolinska Institutet, Department of Clinical Neuroscience. 2008.
- The Royal College of Radiologists. Clinical radiology UK workforce census 2019 report. London: The Royal College of Radiologists, 2020.
- The Royal College of Radiologists. Clinical oncology UK workforce census 2019 report. London: The Royal College of Radiologists, 2020.
- Walsh G, Hayes B, Freeney Y, McArdle S. Doctor, how can we help you? Qualitative interview study to identify key interventions to target burnout in hospital doctors. *BMJ Open* 2019; **9**(9): e030209.
- Kuremyr D, Kihlgren M, Norberg A et al.
 Emotional experiences, empathy and burnout among staff caring for demented patients at a collective living unit and a nursing home. J Adv Nurs 1994:19: 670–679.
- Khan A, Teos KRH, Islam S, Hassard J.
 Psychosocial work characteristics, burnout,
 psychological morbidity symptoms and
 early retirement intentions: a cross sectional study of NHS consultants in the
 UK. BMJ Open 2018; 8(7): e018720.
- 7. Patel RS, Bachy R, Adikey A, Malik M. Shah M. Factors related to physician burnout and its consequences: a review. *Behav Sci (Basel)* 2018; **8**(11): 98.
- 8. Cowan N. The magical number 4 in short-term memory: a reconsideration of mental storage capacity. *Behav Brain Sci* 2001; **24**(1): 87–114.
- www.england.nhs.uk/2019/02/nhspublishes-latest-nhs-staff-surveyresults/ (last accessed 30/3/21)
- Bundy J, Hage AN, Srinivasa RN et al. Burnout among interventional radiologists. Education, Economics, and Workforce 2020; 31(4): 607–613.E1.

- General Medical Council. Caring for doctors, caring for patients. London: General Medical Council, 2019.
- Krasner MS, Epstein RM, Beckman H et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. JAMA 2009; 302(12): 1,284–1,293.
- The Royal College of Radiologists. Guide to job planning in clinical oncology, third edition. London: The Royal College of Radiologists, 2015.
- 14. The Royal College of Radiologists. *A guide to job planning in clinical radiology*. London: The Royal College of Radiologists, 2013.
- 15. www.rcsed.ac.uk/professional-supportdevelopment-resources/anti-bullying-andundermining-campaign (last accessed 30/3/21)
- 16. NHS England. *Interim NHS people plan*. London: NHS England, 2019.
- 17. www.longtermplan.nhs.uk/ (last accessed 30/3/21)
- 18. www.civilitysaveslives.com/ (last accessed 30/3/21)
- https://balint.co.uk/about/introduction/ (last accessed 30/3/21)



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