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What could make a difference to the mental health of UK doctors? A review of the research evidence

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KEY MESSAGES

- Doctors are at considerable risk of work-related stress, burnout and mental health problems such as depression and anxiety. The risk is greater than that of the general working population and is increasing over time in line with the growing demands and complexity of the job, a faster pace of work and diminishing resources.
- The risk of suicide, especially among general practitioners, psychiatrists and trainees, and among women, is high compared to the general population.
- General practitioners are more vulnerable to burnout (particularly emotional exhaustion), work-related stress and common mental health problems than doctors in most other specialities. This has been linked to the increased demands placed on primary care along with diminishing financial and staffing resources.
- Trainee and junior doctors are also at particular risk of mental health problems. Of particular concern is the evidence that many doctors are experiencing symptoms of burnout and distress so early in their career.
- Levels of sickness absence and presenteeism are particularly high among doctors. Doctors work while sick for several reasons such as short-staffing, feelings of responsibility to their patients, fear of letting colleagues down, the need to present a 'healthy' image at work and concerns for their future career prospects. Working while unwell can have serious implications for the wellbeing of doctors and for patient safety.
- Several factors related to the occupation, the organisation and the individual appear to increase the risk of mental health problems in doctors. The most common causes are high perceived workload, the growing intensity and complexity of the work, rapid change within healthcare, low control and support and personal experiences of bullying and harassment.
- Conflict between work and personal life is a key risk factor for mental health problems in doctors, especially among GPs. Adequate opportunities to recover from the job mentally as well as physically are vital to ensure health and optimum job performance. A poor work-life balance will also reduce the opportunity for doctors to spend time with family and friends and engage in other activities that replenish their resources.
- There is also evidence that current working conditions and associated health problems contribute to the poor retention and turnover rates in the medical workforce in the UK, especially among GPs.
- Current working conditions and associated mental health problems also have major implications for patient outcomes and the financial performance of healthcare organisations, but more research is needed.
- The stigma associated with mental health problems and a perceived "failure to cope" mean that many doctors are reluctant to disclose such problems for fear of sanctions and job loss.
- The poor mental health evident in UK doctors should be of grave concern to the various stakeholders in the healthcare sector and action is urgently required. More support is urgently needed to help improve the mental health of UK doctors from recruitment to retirement. The support that is available should be communicated more effectively and its uptake encouraged.
- Interventions to improve the mental health of doctors in the UK need to not only focus on interventions that help the individual doctor cope with their work environment (i.e. secondary interventions) or treat those already struggling (i.e. tertiary interventions). Instead,

there also needs to be greater awareness of the impact that the underlying working conditions have on the mental health of doctors. Appropriate interventions should aim to eliminate or reduce the exposure to such poor working conditions (i.e. primary interventions).

- Some interventions that are currently available in many healthcare settings in the UK, such as Schwartz Rounds®, can be effective in protecting the mental health of practitioners and improving their engagement. Other methods that have been used effectively with groups of doctors in other countries, such as job crafting and employee participation approaches, should be evaluated in the UK.
- Support in the workplace is crucial in alleviating the work demands placed on doctors, and to provide them with the emotional support to cope with what is a demanding job role. This support is also pivotal in reinforcing a culture that encourages help-seeking and challenges the mental health stigma. Processes which encourage better support at work, such as mentoring and effective team working, need to be facilitated.
- More prospective longitudinal studies are urgently needed to assess the mental health of doctors over time and provide insight into the occupational, organisational and individual factors that contribute to positive wellbeing as well as distress.
- It is vital to build a culture within medicine that explicitly recognises how the job can impact on the wellbeing of doctors and promotes mental health and self-care. This should start from the first year of medical school, with the Deaneries, Trusts and Royal Colleges being responsible for developing and communicating evidence-informed initiatives and sharing best practice.
- Although this report focuses on the issues facing doctors, it is important to highlight that many others share the same working environment, and therefore face similar issues and risks to their mental health.

1. THE STATE OF UK DOCTORS' MENTAL HEALTH

There has been substantial debate and concern about the mental health of doctors in the United Kingdom (UK). The mental health of doctors has been measured in several ways: work-related stress, burnout, general mental health problems and more specific symptoms such as depression and anxiety. In addition, approaches that go beyond freedom from mental illness and instead build positive mental health and wellbeing have been recognised. This section reviews the research in five broad areas: burnout, work-related stress, psychiatric morbidity, suicide and positive wellbeing. Where possible, estimates of prevalence are provided for doctors in general, with any differences between specialisation highlighted. The antecedents and outcomes of poor mental health in doctors are then discussed in Sections 2 and 3 respectively.

Burnout

Burnout is by far the most commonly used measure of doctors' mental health. It is a syndrome characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment[1]. Emotional exhaustion is where individuals are emotionally depleted by interpersonal demands and chronic stress at work. Depersonalisation refers to psychological withdrawal from relationships and the development of negative and cynical feelings towards others. Reduced personal accomplishment denotes a lack of effectiveness at work due to feelings of emotional exhaustion and depersonalisation.

- Recent surveys of UK hospital consultants[2], urologists[3], ENT surgeons[4], oncologists and mixed-speciality samples[5,6] suggest that burnout rates are comparable across medical specialisations.
- A systematic review of 14 studies conducted in the UK over 20 years found that doctors were at high risk of burnout, but considerable variation was found among specialities[7]. Between 31% and 54% of doctors were found to be emotionally exhausted. Depersonalisation was observed in 17% to 45% of doctors, while between 6% and 40% experienced low personal accomplishment. General practitioners (GPs), consultants and pre-registration house officers had the greatest risk of burnout. A recent UK study that compared levels of burnout across specialities also revealed that GPs were at greater risk[8].
- A high level of burnout among trainee GPs has been found as early as the first year of training[9]. Of particular concern is that more than half of the trainees sampled were unaware that their burnout scores were as high as the findings indicated, suggesting a potential lack of insight.
- There is evidence that burnout may be increasing among GPs. A Pulse survey of 2,230 UK practitioners found that 74% felt emotionally exhausted, representing an increase of 4% over a two year period, whereas 25% reported a low sense of personal accomplishment[10].

Work-related stress

The Health and Safety Executive (HSE) defines work-related stress as "the adverse reaction people have to excessive pressures or other types of demand placed on them"[11]. Drawing on the findings from the annual UK Labour Force Survey, the HSE has reported that people working in healthcare consistently report the highest rates of stress, depression and anxiety related to their work than any other sector. The findings of other large-scale surveys conducted in the UK highlight the extent of work-related stress experienced by medical doctors more specifically and the implications for their health.

- Data from the 2017 NHS Staff Survey (that sampled 34,255 medical and dental staff) revealed that 33% of consultants and 36% of doctors-in-training reported feeling unwell due to work-related stress in the previous 12 months[12]. Stress levels among consultants remained relatively constant over the previous five-year period, while for doctors-in-training a slight upward trend was observed.
- The BMA Quarterly Survey[13] in 2017 indicated that 50% of the 422 doctors who responded reported feeling unwell due to work-related stress during the previous year. More than six out of ten respondents (61%) felt their stress levels had increased during this period, while only 6% indicated they had reduced.

- A report communicating the findings of a five-year study that examined the pressures experienced by GPs working in 177 practices across the UK[14] concluded that general practice was in crisis. The findings also indicated that GPs working in the UK find their job more stressful than their counterparts in other countries. The stressors experienced by GPs are discussed further later in this report.

> *"I remember once actually sitting under the desk, hugging my knees to my chest, I was so anxious."*
>
> – GP (page 4; Riley et al., 2018)[72]

Psychiatric morbidity

This term encompasses a range of psychiatric disorders including symptoms of common psychological distress, anxiety, depression and suicidal ideation. Unlike burnout and work-related stress, psychiatric morbidity is measured globally rather than directly attributed to the job.

- The General Health Questionnaire (GHQ-12)[15] is a self-administered measure of mental health problems, assessing depression, anxiety, sleeping difficulties and minor cognitive errors. The GHQ-12 can assess the proportion of a sample that scores at a threshold where some intervention is recommended. It is widely used in occupational health studies to assess common psychiatric disorders and norms from different professions are available[16].
- A review of studies using the GHQ-12 found that rates of common mental disorders are higher among UK doctors than the general population (i.e. 19%)[17]. The authors indicated, however, that their risk is generally comparable to that found among samples of healthcare practitioners and NHS staff in general (32%) and other occupational groups that might be considered 'highly stressed': e.g. teachers (37%); social services staff (42%) and police (31%).
- A systematic review of 22 studies using the GHQ-12 between 1994 and 2012[7], found a prevalence of common mental disorders among UK doctors of between 17% and 52%. As with burnout discussed above, some medical specialities appear to be at greater risk than others. Individual studies have found that 31% of doctors in general[6], 57% of ENT surgeons[4] and 34% of doctors-in-training[18] had symptoms indicative of psychiatric morbidity.
- Fewer studies have looked at specific symptoms of anxiety and depression among UK doctors. The prevalence of anxiety varies between studies ranging, for example, between 27%[6] and 43%[2]. Like other markers of mental health problems among doctors, different levels of depressive symptoms have been found in different medical specialisations, for example: 36% of consultants[2] and 11% of oncology and palliative care specialist registrars[19].
- Exposure to distressing events means doctors in some specialisations (such as surgery, emergency medicine and within the armed forces) are more susceptible to developing post-traumatic stress symptoms. Surveys of surgeons[20,21] revealed that between 16% and 36% had high levels of traumatic stress symptoms, with 12% indicating possible post-traumatic stress disorder. Doctors-in-training who have experienced distressing incidents may also be at particular risk of subsequent post-traumatic stress[22].
- Beyond self-reported mental health problems, analysis of attendance at a self-referral consultation service for doctors and dentists in the South-East of England found that the most common presenting problems included depression, anxiety and low self-esteem[23]. Most patients were young (between 30 and 39 years), suggesting that younger doctors may be at greater risk of such symptoms, and/or that they are more likely to seek help for them.

- A more recent analysis of the characteristics of doctors using the Practitioner Health Programme[24] found that the most prevalent conditions included depression and alcohol dependence. This programme provides assessment and support for doctors and dentists with health problems that affect their ability to work. Again, younger doctor-patients appeared to be at greater risk of distress and impairment of functioning.

> *"And, to be honest with you, that kind of er — the best way that I could describe that is that it's kind of like a dark shadow that's in the corner of the room […] I basically felt like I was treading water but drowning slowly."*
>
> – GP (page 4; Riley et al., 2018)[72]

Suicide

- The findings of a mental health survey of doctors and medical students in Australia indicated that they reported substantially higher rates of mental health problems and attempted suicide than the general population and other professional groups[25]. In the UK, estimated rates of suicide ideation among doctors have been found to vary considerably from 4% of specialist registrars[19] up to 23% of junior doctors[26].
- The actual suicide rate for doctors has been estimated at between two and five times the general population[27]. Historically, female doctors have been considered at higher risk than the national average for females (up to four times higher), whereas men appear less vulnerable than the general population[28,29].
- There is some evidence that GPs and psychiatrists, are at greater risk of death by suicide than most other specialities[28,30]. These studies were conducted many years ago, however, and more recent research is required to examine suicide risk in UK doctors working under current conditions and the relative risk in different medical specialities.
- A recent commentary by Clarke and McKee[31] raises concerns about the increasing rate of suicide among junior doctors in the UK. As suicide is excluded from the legal requirement to report work-related deaths, the contribution of working conditions and stress experienced by doctors who take their own life cannot be determined. In 2017, the BMA junior doctors' conference recommended a mandate to lobby for suicides among junior doctors to be subject to formal investigation.
- Doctors will inevitably be affected by the suicide of a colleague. For many, co-workers are like an extended family. They may experience mental health problems, such as anxiety and depression, and also feel guilty for not providing their colleague with more support. Little research has yet been conducted to inform interventions to help doctors cope with the loss of a colleague to suicide[32] and more research is clearly needed to help develop interventions.

Positive wellbeing

Most of the available research on the mental health of doctors has focused on morbidity and distress. It is also important to identify the characteristics that lead to wellbeing and a sense of flourishing in the profession. More recent studies of doctors have assessed positive mental health or wellbeing in the profession examining factors such as work engagement, resilience and grit[33,34].

- The NHS Employers survey[35] measures work engagement that comprises feelings of vigour, dedication and absorption, involvement (perceptions of the quality of leadership and conditions that allow employee voice and participation) and advocacy (the extent to which employees would recommend their organisation as a good place to work or receive treatment).

- The 2017 NHS Staff Survey[12] found that the overall level of engagement among consultants had increased over the last five years, but doctors-in-training were generally less engaged during this period.
- Resilience is the ability to adapt well in the face of significant stress and adversity, to recover from one's difficulties and potentially gain strength from them[5]. Similarly, grit represents a tendency to persevere during challenging times by having self-motivation and investing effort[8]. The need to demonstrate resilience is now incorporated into the professional standards frameworks for many health and social care professions. More specifically, the GMC recognises the need to promote resilience among doctors to protect their wellbeing and professional effectiveness[36].
- The need to help doctors develop resilience during and after clinical training is widely emphasised[37]. Nonetheless, there is some evidence that levels of resilience and other indices of positive mental health (such as optimism, self-efficacy and hope) are comparable with (or better than) the general population and other professions such as vets and teachers[5,8,38]. These findings question why doctors are at such a high risk of burnout and other mental health problems despite being so resilient. Although there is evidence that resilience can protect people from the negative effects of stress[39], it is not a panacea and the demands of medicine may challenge the resources of even the most resilient doctors.

A note of caution

- The prevalence rates of mental health problems highlighted above were mainly drawn from self-report surveys and therefore may underestimate the true extent of health problems in doctors. Compared with diagnostic interviews, it is recognised that self-administered questionnaires can lead to under-reporting of mental health symptoms[40]. Moreover, doctors who are struggling to manage the demands of their work, or who are experiencing mental health problems, may not have the time, energy or motivation to complete these surveys[41]. The healthy worker effect[42] should also be acknowledged, as doctors who are more burned out or more mentally unwell may likely be on sick leave or have even left the profession entirely.
- When estimating the extent of mental health problems in medicine, it is crucial to consider the stigma associated with disclosing such problems and concerns about lack of confidentiality. Doctors are often reluctant to identify themselves as 'sick' or struggling with their work[43]. Disclosing work-related stress is particularly stigmatised among doctors[44] which inevitably leads to under-reporting. The stigma surrounding mental health problems in medicine is well illustrated by a recent survey of 1,954 UK doctors (60% female; 20% GPs) that found a discrepancy between how respondents thought they would behave if they experienced mental health problems and how they actually behaved. Overall, 73% of the sample reported that they would disclose mental health difficulties, but only 41% who had personally experienced such problems actually divulged them. Trainees, younger doctors and locums were less inclined to disclose due to fears about being labelled, concerns about confidentiality, and a lack of knowledge about the available support structures[45].
- The findings suggesting that doctors report more positive wellbeing than some other occupational groups should be treated with caution. Analysis of a national occupational health reporting scheme found that the incidence of work-related mental health problems among UK doctors was lower than nurses and paramedics, but still higher than social workers and teachers[46]. Crucially, the incidence of work-related illness was found to have increased among doctors, whereas it reduced in the comparison occupations over the same period.

The state of UK doctors' mental health

Key points

- A substantial proportion of UK doctors experience mental health problems, manifested as burnout, work-related stress and symptoms of psychiatric morbidity. The prevalence varies, however, between studies and different medical specialisations.
- Where comparisons have been made, the risk appears to be higher than that of the general population.
- Doctors working in particular specialisations, such as GPs and junior doctors, appear to be at greater risk of burnout, work-related stress and general mental health problems.
- There is evidence that doctors, particularly female doctors and GPs, are at greater risk of suicide ideation and actual suicide than the general population and other occupational groups. Nonetheless, more recent data is required to confirm the validity of these findings under current conditions.
- The stigma of disclosing work-related stress and mental health problems as well as fears about confidentiality are likely to lead to under-reporting among doctors.
- Little is known about positive wellbeing amongst doctors, but there is some evidence that they are generally resilient and optimistic despite experiencing comparatively high levels of work-related stress, burnout and other mental health problems.
- The healthy worker effect should be noted, where doctors who have serious health problems and who are less able to cope with the demands of the job will have left the profession.

2: FACTORS ASSOCIATED WITH DOCTORS' MENTAL HEALTH

The research reviewed in the previous section indicates that many doctors in the UK will experience poor mental health at some point in their career. It is therefore crucial to identify the factors that increase the likelihood of mental health problems. This section focuses on the individual, occupational and organisational risks for the mental health of doctors. It also considers the effects of their personal life circumstances. The following factors are reviewed:

- Individual factors relating to personal characteristics of doctors, including socio-demographic background and personality.
- Occupational factors encompassing the nature of work, such as medical speciality, seniority, the emotional demands of the job and dealing with death.
- Organisational factors concerning how work is designed and organised[47] such as workload, working hours, staffing levels, autonomy, support and resourcing.
- Recovery and work-life balance, which involves the ways in which aspects of the job impact on other life domains. Although work has the potential to enrich personal life, it can engender time-based conflict (where the time spent working reduces that available to relax or participate in family life) and strain-based conflict (feelings of strain relating to the job, such as anxiety or irritability, or ruminating excessively about work-related problems).

Individual Factors

This section focuses on age, job experience/seniority, gender and ethnicity, as well as personality and coping style. Resilience, discussed in the previous section under the heading of positive wellbeing, is briefly revisited.

- Studies of UK doctors have found little evidence for an association between age and mental health[19,48,49]. A systematic review of stress-related mental health problems in doctors[7] reported that only one study out of seven found a positive relationship (with older doctors at increased risk). Nonetheless, some age differences in the patterns of burnout symptoms reported were highlighted; younger doctors were at greater risk of depersonalisation while older doctors reported more emotional exhaustion. In terms of positive mental health, a recent study of 221 GPs found that mental wellbeing (encompassing psychological functioning, life satisfaction and the ability to maintain close relationships) was higher among doctors aged 55 and above[38]. Age will inevitably be confounded with job experience and seniority which are discussed further in the section below.
- The findings of research that has examined gender differences in doctors' mental health are mixed and inconclusive. The systematic review conducted by Imo[7] discussed in previous sections of this report indicated that 11 (out of 12) and six (out of seven) studies on general psychiatric morbidity and burnout respectively found no differences between male and female doctors[7]. More recent research has also failed to find gender differences on burnout among doctors[3,5]. In terms of depression and anxiety symptoms, although some studies have found no differences between male and female doctors[19,48], others have concluded that women are at greater risk[26,49]. One study of UK junior doctors found that 39% of women reported high levels of anxiety symptoms, compared to only 5% of men[50]. In contrast, more recent research found that female GPs reported better mental health than their male counterparts[38].
- Studies finding poorer mental health among female doctors tend to be older, possibly reflecting the difficulties previously experienced by women entering medicine. Moreover, the proportion of males to females are not always equivalent; for example, in the study conducted by O'Kelly and colleagues[3] (see above) 88% of the sample were men, whereas Newbury-Birch et al.[50] obtained data from twice as many women as men.
- Little focus has been placed on the role of ethnicity in the mental health of UK-based doctors. There is some evidence that belonging to an ethnic minority group does not increase the risk of work-related stress and burnout[51], but other studies highlight more indirect effects on mental health. A recent BMA report[52] found that black and minority ethnic (BME) doctors were more likely to experience workplace

bullying and harassment that adversely affected their mental health. In addition, international medical graduates and those from BME backgrounds often experienced stress and lack of social support related to separation from family that impeded their ability to learn and progress[53].

- Three studies in Imo's systematic review[7] examined links between aspects of personality and mental health in UK doctors. Those scoring more highly on neuroticism (meaning they have less control over their emotions and reactions) were at greater risk of mental health problems, including general psychiatric morbidity and depression and anxiety. In contrast, conscientiousness (characterised by efficiency, organisation and dependency) and extraversion (involving high energy and sociability) appeared to protect doctors against psychiatric morbidity and burnout. Research following UK medical graduates over 12 years also found that neuroticism and introversion (a tendency to focus on internal thoughts, feelings and moods) as well as other characteristics (such as a tendency towards self-criticism) were strong predictors of mental health problems and burnout[54].
- 'Trait-like' attitudes towards work may also predispose doctors to mental health problems. Studies from other countries suggest that over-commitment to work (a pattern of excessive striving combined with a high need for control and approval from others) increases the risk of anxiety, depression and burnout in doctors[55,56]. There is also evidence from France[57] and the Netherlands[58] that doctors are particularly susceptible to workaholism (a syndrome comprising high work involvement, a strong compulsion to work and low work enjoyment). While excessive involvement in work can improve job satisfaction, a reluctance to disengage from it can limit opportunities for recovery and increase the risk of burnout[59].
- Personality characteristics can also influence the ways in which people cope with stress. A study of consultants working in Scotland found that those who scored more highly on neuroticism were more likely to use emotion-focused coping strategies (that aim to reduce negative emotions invoked by a stressful situation) than problem-focused styles (such as seeking information) and also had more negative attitudes towards organisational changes[60]. In turn, these factors increased their risk of burnout and psychiatric morbidity. Another study found that hospital doctors who tended to use avoidance coping strategies (such as wishful thinking) had higher levels of psychiatric distress, depression and anxiety, whereas those who coped via problem solving or seeking social support reported better mental health[61]. It should be emphasised, however, that there is no 'correct' way of coping with stress. Evidence is growing that coping flexibility (i.e. the ability to discontinue an ineffective coping strategy and use an alternative one) is more likely to help people adjust to stressful circumstances than a tendency to use specific coping styles[62].
- Resilience and grit (discussed in Section 1) are additional individual factors that have been linked to mental health in doctors. They can have direct effects, by reducing the risk of mental health problems occurring in the first place, or can act as a resource to help people cope more effectively with work-related stressors.

> *"…you have to start applying for the next job as soon as they come up, and because throughout my F1 year I was under pressure because I wasn't confirmed, so I was under a lot of pressure for 4 or 5 months, so that uncertainty and pressure."*
>
> – Foundation Year Doctor (page 85; Thompson et al. 2009)[18]

Occupational factors

Studies that consider the antecedents of mental health problems in doctors have identified a wide range of occupational factors. This section discusses the mental health risks across different specialities as well as the role of seniority. Also considered are the intrinsic aspects of doctors' work, such as dealing with death and managing the emotional labour of clinical care.

- As discussed earlier in this review, there is some evidence that certain medical specialities may be more vulnerable to mental health problems due to the nature of the work (such as an increased risk of PTSD in emergency medicine). Nonetheless, making firm conclusions about the role of speciality in predicting mental health is challenging, as studies often use broad categories (e.g. hospital doctors), or may even classify doctors as a homogenous group. Some studies also sample several types of healthcare practitioner without differentiating between them, so the relevance of their findings to the mental health of doctors cannot easily be established.
- Although many studies report no (or inconsistent) differences across specialities on mental health[4,7], the risk appears to be higher among GPs[5,8]. This has been attributed to several organisational hazards, such as the increased demands placed on primary care without a corresponding increase in financial and staffing resources. This is discussed in the next section.
- Some studies have found little difference between medical grades in levels of psychiatric morbidity and burnout[4,5,63]. It is important, however, to consider the working conditions that doctors at different levels of seniority find stressful. For example, consultants typically report excessive administrative workload, lack of institutional resources, inadequate information technology systems and their overall workload as the most powerful workplace stressors[3,51], whereas junior doctors report feelings of insecurity and uncertainty, a heavy workload, feeling unsupported and their professional development as key sources of stress[9,26,64]. Performance anxiety and developing a 'professional persona' have been highlighted as a significant source of stress for medical students[65]. These findings emphasise the importance of identifying the specific causes of work-related stress and mental health difficulties experienced by different groups of doctors at different stages in their career to develop more precisely-targeted interventions.
- The evidence reviewed in Section 1 suggests that junior doctors report higher levels of work-related stress and burnout and lower engagement than more experienced staff[12,66]. Although no comparisons were made with senior doctors, a recent survey conducted by the Royal College of Physicians[67] found that four out of five junior doctors reported that their job 'sometimes' or 'often' caused them excessive stress. More than half revealed that their work negatively affected their physical health and a quarter indicated that it had a serious impact on their mental health.
- Satisfaction with their chosen speciality and the training that doctors receive may be crucial in underpinning their mental health. Junior doctors who are more satisfied with these factors are considerably less likely to experience psychiatric morbidity[19]. There is also evidence that perceiving one's speciality to be of low prestige can contribute towards depressive symptoms[49].
- Exposure to human suffering and death can be challenging for doctors, especially newly-qualified staff[64,68]. Nonetheless, they are intrinsic to medical practice and do not appear to be as damaging to mental health as organisational hazards such as heavy workload, poor supervision and lack of autonomy. These issues are discussed in the next section.
- 'Emotional labour' refers to the effort required to show emotions (such as sympathy and understanding) that are appropriate to a professional role but not actually experienced, and to suppress emotions that are felt (such as frustration and disgust) that would be inappropriate to show publicly[69]. Like exposure to death and dying, emotional labour is an intrinsic part of a healthcare practitioner's role but can lead to emotional exhaustion and mental health problems[70]. While doctors' emotional regulation skills have been positively linked to the satisfaction of their patients[71], a recent study of GPs demonstrated how the demands of managing confrontational patients and dealing with

their complex psychosocial difficulties could impact on their mental health[72]. A lack of support to help healthcare practitioners cope with the emotional demands of the job can place them at particular risk of burnout and mental health problems[73]. More support is clearly needed to help doctors manage the emotional labour of the job role from an early stage in medical training.

- Doctors who are the subject of medical complaints are at particular risk of burnout and mental health problems, with the level of distress increasing in relation to complaint severity[74,75]. Thoughts of self-harm or suicide were found to be twice as high among UK doctors who were facing current/recent complaints[76].

> *"I think when you're dealing with really difficult problems, you're dealing with lots of sadness, you're dealing with loads of stuff that you can't change, and people bring in and they park with you their problems and their sadness, and they feel better for that and you feel worse."*
>
> - GP (Riley et al., 2018)[163]

Organisational factors

- Many organisational factors have been examined in relation to doctors' mental health, making it difficult to provide a succinct summary. This is confounded by considerable diversity in the speciality and seniority of study samples, as well as the time-scale when the research was conducted.
- The number of hours that doctors work has officially reduced to comply with the European Working Time Directive. Nonetheless, doctors' mental health has not necessarily improved and there is evidence that factors such as poorly-designed rotas, staffing problems and more shift work have negated the intended benefits of fewer working hours[77,78].
- There is no clear relationship between doctors' objectively-measured workload and their mental health. While some studies have found that working longer hours, being on-call, or having more patients enhance the risk of burnout or depression[7,79], others have observed no such relationship [49,80,81].
- There is growing evidence that perceptions of intensity, or pace of work, has a stronger effect on the mental health of doctors than their objective workload[82]. A series of surveys conducted by the BMA in 2012 has documented doctors' perceptions of the growing intensity and complexity of their work, with GPs being at particular risk. Funding for primary care has fallen, a sharp increase in the number and length of consultations has been documented and there is evidence that their working hours are rising[14]. In 2006/7, the average working week for GPs was 44 hours that rose to 47 hours in 2011[83]. A 2018 survey[84] of 2300 doctors found that GPs were more likely than other medical practitioners to report working outside their regular hours 'very often'. They also tend to report more bureaucracy and fewer support systems (informal and formal) than their hospital-based colleagues[5].

> *"The night shifts and the twelve days in a row and seventy-hour weeks, I don't think they're very good for learning from the point of view that I'm too tired to learn, I'm just existing for long periods of time."*
>
> – GP, ST1-3 (page 3; Rich et al., 2016)[53]

- Nearly all studies show that high perceived workload is strongly related to burnout, psychiatric morbidity and symptoms of depression[2,33,49,54,79,85]. Unlike more objective measures, such as the number of hours worked, or patients seen, perceived workload not only encompasses the demands that the doctors face, but also considers relevant contextual factors such as time pressure and the available resources. It is therefore vital to examine these factors, together with the intensity and complexity of caseloads, when assessing the effects of workload on doctors' mental health.
- Whether UK doctors work part-time or full-time appears to have little bearing on their risk of experiencing burnout or psychiatric morbidity[7]. Research conducted in other countries, however, suggests that part-time doctors are typically less burned out and more satisfied than their full-time colleagues[86]. Time away from the job, the ability to balance other life demands with work and better opportunities to recover are likely to protect mental health. Work-life balance is discussed later in this section.
- The ability to influence or exert control over one's environment is of fundamental importance to the general mental health of employees[87]. Studies of different occupational groups suggest that an adequate level of job control can protect staff against some of the detrimental effects of high work demands[88]. This is evident in the research where lack of control is a key predictor of psychiatric morbidity among GPs[80] and trainee doctors [54], work-related stress and low engagement in hospital doctors[33,81] and burnout among consultants[2].
- A high incidence of bullying and harassment has been documented in healthcare that can have a strong impact on the mental health of staff[52]. The 2017 NHS England Staff Survey found that 23% of consultants, 20% of trainees and 24% of other doctors and dentists who were sampled had experienced bullying, harassment or abuse in the previous year[12]. Few had formally reported such incidents to their employer, with doctors (particularly trainees) being the least likely of all NHS staff categories to do so. Feeling that reporting would make no difference and fear of adverse consequences were the most common reasons provided for taking no action.
- Management that is challenging or a source of conflict can also have a detrimental impact on the mental health of doctors. This is evidenced by the findings of studies of doctors working in different specialisations[33,49,89]. Emotional support and encouragement from line managers and senior management can not only have direct benefits for the mental health of doctors directly, but also exert more indirect effects as they also allocate workload, control access to resources and provide supervision[89,90].

> *"…there are times when the senior support does not exist, and that's when it can become stressful, when you're searching for consultants and registrars you don't know, and they don't know you"*
>
> – Foundation Year Doctor (page 85; Thompson et al., 2009)[18]

- As well as assistance from managers and senior staff, support from colleagues and feeling part of an effective team are also fundamental to the mental health of doctors[61,81,85,91]. Such support not only improves professional effectiveness but can also foster a psychological safe environment where doctors feel they belong. Mutually supportive working relationships can help doctors manage the emotional labour of the job[92] and also reduce the stigma of disclosing work-related stress and mental health problems and seeking help[93].

- Feeling that one's work is meaningful and appreciated is a crucial factor in the mental health of workers. This is particularly important in a value-driven profession such as medicine. Research with GPs has found that a disconnect between their expectations and values with the reality of how the healthcare sector is organised and managed can be a profound source of distress[94]. Moreover, the effort-reward imbalance model of work-related stress[95] recognises that rewards are not only financial but gained from other domains such as respect and appreciation. There is evidence from the UK and other countries that a perceived imbalance between efforts and rewards increases the risk of work-related stress and mental health problems in doctors[55,96,97]. Perceptions of a lack of respect and recognition may be a particular risk factor for mental health problems among medical professionals[49,80].
- A meta-analysis of 65 international studies[98] examined relationships that constraining and engaging aspects of work had with burnout among doctors. Constraining aspects of work were stronger predictors of both the emotional exhaustion and depersonalisation aspects of burnout. As seen in Table 1, perceived workload, organisation structure (e.g. inflexible work arrangements), professional values (e.g. compromising beliefs) and position-specific demands were the key predictors of emotional exhaustion. In comparison, organisation structure, position-specific demands, professional values and inadequate skills were the strongest predictors of depersonalisation. These findings suggest that multi-level interventions are required to reduce the risk of burnout for doctors, addressing organisational culture, the hours and structure of the work, and the availability of training.
- This international meta-analysis is congruent with the UK findings highlighted in the present report, with one crucial difference. To date, little attempt has been made to explore the role of organisational structure and culture on the mental health of doctors and the reasons why the working environment has become toxic for many. This is particularly important given the constant change that is occurring in healthcare in the UK. Doctors have raised concerns about repeated restructuring and reorganisation of NHS services at the regional and national level[99,100]. 'Change fatigue' has also been highlighted as a major risk factor in the NHS[101] that can lead to learned helplessness, feelings of alienation from the work and increase the risk of burnout[102].

Table 1. Meta-correlations from Lee et al. (2013)[98] between constraining and engaging aspects of work in relation to burnout dimensions

	Emotional Exhaustion		Depersonalisation	
Constraints aspects of work	k (n)	p	k (n)	p
Professional values	2 (91)	.42	4 (686)	.36
Organisation structure	2 (1,084)	.45	2 (198)	.47
Inadequate resources	5 (1,023)	.36		
Role ambiguity/conflict	3 (622)	.24	2 (593)	.26
Insufficient input	4 (437)	.36		
Workload	19 (6,205)	.66	12 (3,899)	.29
Inadequate skills/preparation	4 (1,242)	.26	3 (679)	.35
Position-specific demands	10 (3,550)	.40	7 (1,773)	.38
Engaging aspects of work				
Recognition/feedback	4 (2,125)	-.20	3 (853)	n/s
Autonomy	6 (2,189)	-.36	5 (1,759)	-.25
Organisation/peer support	4 (2,748)	-.18	3 (1,597)	-.09
Adequate resources	2 (1,089)	-.15		

Note. k: number of studies; n: number of participants; p: weighted mean meta-correlation corrected for measurement unreliability; n/s: no-significant relationship

Recovery and work-life balance

- On average, UK doctors are dissatisfied with their work-life balance with little difference observed between speciality[13]. Studies have found that poor work-life balance increased the risk of depression and anxiety, burnout and general psychiatric morbidity in doctors[6,103,104]. These findings are congruent with a meta-analysis of 65 international studies[98] indicating that conflict between work and personal life was the strongest predictor of emotional exhaustion among medical practitioners.
- Similar findings have been observed in studies of doctors working in different medical specialisations, such as oncologists[19] and emergency medicine doctors[49], where the effects of work stress on participants' personal/family life were strongly related to burnout, psychiatric morbidity and depressive symptoms. Further emphasising the importance of a healthy work-life balance, this study showed that conflict between work and personal life was the strongest predictor of psychiatric morbidity out of all the work factors considered, including workload and organisational conflict.

> *"You basically have a full-time job or a time-and-a-half job as a trainee, and then trying to do exams on top of that or trying to look after a family on top of that, it's really-that's an ongoing problem that I think is the biggest problem for most trainees."*
>
> –Trainer (Rich et al., 2016)[53]

- A study that interviewed doctors-in-training and their trainers[53] also found high levels of work-life conflict. This was caused by long working hours and the need to move workplaces regularly, which was generally thought to disrupt personal life and restrict opportunities for support from family and friends. Like previous research findings, this study found that women doctors, especially those with children, tended to experience more conflict between work and their personal life and were more likely than men to consider entering a medical speciality (such as general practice) that they believed was more conducive to work-life balance. Such views may, however, be misguided as a recent interview study with GPs concluded that the job was not compatible with a healthy work-life balance[72,100]. The long hours and heavy workloads were widely thought to conflict with their roles as a parent or partner and they did not have enough time to rest and recover.
- Analyses from the NHS Staff Survey found that employees' opportunities to recover from work demands can have a strong influence on organisational and patient outcomes. Greater satisfaction with work-life balance was linked with better financial performance and lower absenteeism, as well as higher patient satisfaction and lower risk of infection rates in hospitals[105]. Such findings further highlight the need for evidence-informed initiatives to promote work-life balance and recovery from work.

> *"Then there's the stress, we're talking about stressors, the stress of not knowing that you're not going to get home for bed time with the kids or have a bit of a row with the other half because you're late leaving yet again"*
>
> – GP (page 5; Cheshire et al., 2016)[100]

A note of caution

- The absence of well-designed prospective studies means that it is not clear if doctors' working conditions predict psychiatric morbidity or vice versa, as doctors who are more mentally unwell are likely to perceive their working conditions as poorer. For example, in a survey of 1,668 UK doctors, self-reported workload and lack of support was related to burnout scores from six years earlier[54]. This not only raises questions surrounding causality but also implies that the burnout levels of doctors influence how they subsequently perceive their work environment. It further suggests that doctors who are burned out are likely to be trapped in a continuing downward spiral. Carefully-designed longitudinal studies that examine how working conditions impact mental health are clearly required.
- Although conflict between work and personal life has been strongly linked to mental health outcomes in doctors, measures typically focus on how work demands impact on family life. This is likely to underestimate the true extent of work interfering with the personal life of doctors who are single and/or do not have dependent children. The importance of using measures that capture the impact of work on engagement in activities that can replenish mental and physical resources, such as hobbies and interests, exercise and community involvement, has also been highlighted.

Key points

- There is limited evidence that socio-demographic differences such as age and gender directly influence the mental health of doctors. Instead, individual factors such as personality and coping style appear to be more crucial.
- Attitudes to work, such as over-commitment and workaholism, are likely to increase the risk of mental health problems in doctors. This may also encourage sickness presenteeism which is discussed further in the next section.
- Organisational rather than occupational factors appear to be the strongest and most consistent predictors of the mental health of UK doctors. In particular, high perceived workload, work intensity, lack of autonomy and control, feeling unappreciated and poorly rewarded, and lack of support in the workplace have particularly strong associations with burnout, general mental health problems and symptoms of depression and anxiety. Nonetheless, there is a strong need for well-designed prospective studies with samples that reflect the characteristics of the workforce to establish causality.
- The constant change occurring in healthcare in the UK and resulting 'change fatigue' is also recognised as a potential risk factor for mental health and job performance, but little systematic research has yet been conducted in this context.
- Poor work-life balance is one of the most powerful predictors of mental health problems in doctors. This is likely to be due to work demands limiting opportunities for recovery and restricting engagement in supportive and sustaining relationships. These risks are likely to be exacerbated in doctors who are overcommitted to work and have workaholic tendencies.

3. THE CONSEQUENCES OF DOCTORS' MENTAL HEALTH

Poor mental health among doctors is a serious cause for concern due to its wide-ranging implications. This section summarises the research that has examined UK doctors' mental health in relation to recruitment and retention, sickness absence and presenteeism (i.e. continuing to work while unwell), and the impact on patient care and safety. It also reviews the available evidence on the financial implications of poor mental health and the associated outcomes for the quality of healthcare in general. Collectively, the research provides a strong moral and business case to improve the mental health of UK doctors.

Sickness absence and presenteeism

- The sickness absence rate in the NHS is 27% higher than the UK public sector overall and 46% higher across all sectors[106]. Nonetheless, there is evidence that doctors under-report illness and take a third fewer sick days than other healthcare workers[107].
- Sickness absence across the UK has reduced over the last few years but the prevalence of presenteeism has risen[108]. Sickness presenteeism among doctors is particularly high. The findings of the 2017 NHS Staff Survey showed that 38% of doctors-in-training and consultants reported working while sick in the previous three months[12]. Analysis of data from a previous NHS Staff Survey showed that insufficient work resources, lack of support from managers, poor teamwork and low job control were the main organisational predictors of presenteeism[33].
- A review of studies from the UK and other countries indicates that doctors work while sick for various other reasons, including high workload, low staffing levels/lack of cover, a sense of duty to patients and concerns about their continuity of care, fear of letting colleagues down and losing their respect and concerns for future career prospects[109,110]. Moreover, doctors often feel obliged to present a 'healthy' image at work and taking-sick leave can be considered a sign of incompetence or weakness[110].
- Working while sick can have serious implications for mental health. Although it may be viewed as a short-term solution (e.g. to ensure optimum staffing levels), studies of European doctors have found that presenteeism increases the risk of long-term sickness absence as well as future mental health problems such as depression and burnout[109,111,112].
- There is evidence that presenteeism can place others at risk. Research has found that healthcare employees who continue to work while sick are more likely to make errors leading to adverse patient outcomes[113]. Secondary analysis of the 2014 NHS Staff Survey also found that doctors who worked during sickness were more likely to self-rate the quality of care they provided as poor, but no relationship was found with the number of errors actually recorded or the perceived quality of care at trust-level[91].

Retention and turnover

The recruitment and retention of doctors in the NHS is of major concern in view of the high number of vacancies and the significant costs of training and recruiting entrants to the profession[114]. Research has linked current working conditions and associated health problems with poor retention and turnover. Much of this research has been conducted with GPs, as it is proving increasingly challenging to recruit and retain them.

- The 2017 National GP Work-Life Survey reported that 35% out of 1,172 GPs intended to quit medicine in the next five years[115]. This had increased from 31% in 2012 and was the highest recorded since the survey began in 1998. An increase in leaving intentions was found among younger as well as older GPs.
- A systematic review of 36 international research articles[116] found that the factors encouraging retention among GPs included job satisfaction, good working conditions and subspecialisation and portfolio careers. Intrinsic aspects of work, such as recognition and respect, were more important determinants of remaining in the job than extrinsic features such as income.
- The reasons why GPs leave practice appear to be multifactorial and cumulative. The findings of a survey and interviews with former GPs provide some insight into the reasons for attrition. Many

disclosed that an increase in general workload and administration had reduced their ability to practice patient-centred care[94]. This, together with reduced professional autonomy, compromised values and negative media portrayals of GPs, had reduced their job satisfaction, leaving them vulnerable to burnout and ill health.

- The findings of research on the retention of GPs are congruent with the few studies of hospital doctors in the UK. Poor working conditions (high workload, low job autonomy, long hours, low social support and work-life conflict) and poor mental health (high burnout and symptoms of depression and anxiety) have been associated with an increased intention to leave medicine[2,103,117,118].

> *" Before getting to the point where I really thought I was going to burn out and really hit a very low point mentally and psychologically, I thought actually, I think I recognised those warning signs and I thought it better to go do something different at this point while I still have the wherewithal to go and do it."*
>
> - GP (page 313; Doran et al., 2016)[94]

Impact on patients and organisations

The implications of working conditions, mental health difficulties, poor engagement and sickness behaviours on patient outcomes have been examined. Moreover, factors such as poor retention discussed above will also have an impact on the quality and continuity of care. As yet, however, few studies have investigated direct links between the mental health of doctors and patient care in the UK. Those that have been conducted have examined several patient outcomes.

- Studies that have examined relationships between the mental health of doctors and patient outcomes have yielded mixed findings. Psychiatric morbidity in consultants has been linked to poorer self-reported standards of patient care[118]. Conversely, a study of 564 GPs found that even high levels of burnout had no discernible effects on their interpersonal skills or 'patient-centeredness' rated by patients and independent observers[66].
- Outside the UK, a systematic review of 12 studies found some evidence that doctors' burnout levels influenced the quality of care they provided[119]. Doctors who were more burned out typically rated the care they provided more negatively, tended to make more medical errors and had lower patient satisfaction ratings.
- Focusing on positive wellbeing, hospital doctors who reported more engagement and less work-related stress tended to rate the quality of care provided by themselves and their employing Trust more highly[91]. A review of 18 studies (one from the UK) also found that doctors' levels of engagement and satisfaction with their job and career were significantly associated with their patients' adherence to treatment and ratings of interpersonal aspects of care[120]. Conflicting results were found, however, regarding the impact that satisfaction and engagement had on technical aspects of patient care (e.g. prescribing medicine, physical examinations) and actual levels of patient symptoms.
- Focusing on the healthcare workforce in general, the NHS Staff Survey has found that greater wellbeing (i.e. higher work engagement and job satisfaction, better general health and lower presenteeism) was linked to several positive patient outcomes at the Trust-level. Other studies have also found that doctors' wellbeing is related to higher levels of patient satisfaction[121–124] and lower hospital-borne infection rates[123].

> *"I'd lost my empathy with my patients. You know, and er I'm just—I was just—you're just like a ketchup bottle in a production line […] But from a personal point of view I'm still feeling a bit washed out by it, you know, I feel a little bit empty. You know, I feel like I'm burnt out really a bit, to be honest."*
>
> – GP (page 4; Riley et al., 2018)[72]

Financial outcomes

The financial implications of poor retention among GPs and the role played by work-related stress and associated factors have been highlighted above. No research to date has attempted to link doctors' wellbeing to their employers' financial performance. Drawing on data from the general NHS workforce, however, there is evidence that better staff wellbeing is associated with better financial performance:

- In 2013, the annual cost of doctors' sick leave was estimated at £16.8 million, whereas the cost of presenteeism was £25 million a year[125]. It should nonetheless be acknowledged that the rising incidence of presenteeism recently identified among UK workers in general[108] means that these costs are likely to have increased five years on.
- Where the financial performance of Trusts was measured alongside the NHS Annual Health Check and quality of financial performance, those with higher levels of presenteeism had poorer financial performance[122]. Although financial performance was not associated with general employee wellbeing, Trusts that had more engaged employees tended to perform better financially[121].
- The importance of engagement was also highlighted in a report supported by the King's Fund[35]. In an average Trust, a change of one standard deviation on the 2015 NHS Staff Survey engagement measure (i.e. 0.12 on a 5-point scale) was associated with a saving of £1.7 million on annual agency staff costs. This same change would also result in 2,000 fewer sickness absence days – saving £365,000.

A note of caution

- Demonstrating clear and unambiguous links between the mental health of doctors and patient outcomes is challenging. The variation in findings reported in this section is likely to reflect diversity in measures used and approaches to data collection.
- Similarly, estimates of the financial costs of factors such as presenteeism cannot easily be established[126]. Although organisations have processes to measure and manage sickness absence, employees may be reluctant to disclose that they are working while sick for reasons discussed above. This means that such behaviour is unlikely to be recorded. Assessing the cost of doctors not working to their full capacity through sickness would also be challenging.
- Research outlined above suggests that doctors who work while sick may themselves consider the quality of care they provide as poor, but no association has been found with errors reported. Doctors may be reluctant to disclose error-making when they are unwell or may consider them insufficiently serious to be recorded. Future research should examine the impact of presenteeism on the health of doctors and patient safety using longitudinal methods and a wider range of patient safety outcomes.
- Making clear links between healthcare workers' mental health and patient mortality rates is challenging, as most studies do not find such a relationship[121,122,124]. Patient mortality, in particular, is arguably a poor indicator of quality of care as it is influenced by multiple factors[127].
- Suggestions that symptoms of burnout, such as emotional exhaustion and depersonalisation, do not influence the quality of interactions with patients should be treated with caution. Doctors are often

skilled 'emotional labourers' and able to continue to provide compassionate care to patients even when experiencing major personal health challenges. Nonetheless, this requires emotional effort and is likely to exacerbate burnout and other mental health problems over the longer term[128].

Key points

- The problems with recruitment and retention of GPs are widely recognised. It is also important to consider how difficulties in recruiting and retaining other members of primary care teams, such as practice nurses and practice managers, impact on doctors' workload and, in turn, how this affects their wellbeing.
- Doctors tend to under-report illness and are likely to work while sick for several reasons. Such behaviour may fulfil short-term imperatives but can have serious implications for their wellbeing and patient care.
- There is a lack of well-designed studies looking at sickness absence, presenteeism, retention and turnover among UK doctors and the antecedents and outcomes of such behaviour.
- There is growing evidence that doctors' mental health can impact on the quality of patient care and other patient outcomes. This depends, however, on the study design, the type of outcome and the measures used.
- Poor working conditions and mental health for doctors and a general lack of job engagement are associated with significant financial costs.

4. MENTAL HEALTH INTERVENTIONS FOR DOCTORS

This section reviews research and the interventions that focus on doctors' mental health. It first reviews the relevant legislation and policies and provides an overview of the systems perspective. Subsequently, primary (avoiding or reducing the risk), secondary (helping doctors deal with their work environment) and tertiary (rehabilitation of doctors struggling with their mental health) interventions are introduced and reviewed. The section emphasises the need for the healthcare sector to move away from a medical-treatment perspective - which views the individual as the patient that needs to be cured, and instead adopt a systematic approach to protect the mental health of doctors through a combination of primary, secondary and tertiary interventions.

Legislation and policies

Employers have a strong legal, moral and business case for tackling work-related stress. UK legislation dictates that employers have a duty of care to protect the health, safety and welfare of their employees[129]. Organisations are obliged to assess the risks arising from hazards, including work-related stress, and take actions to prevent staff from experiencing illness as a result of their work[11]. Failure to take 'reasonable' care of an employee's psychological as well as their physical safety is a breach of contract and staff may be entitled to compensation.

- All NHS organisations are required to have a policy on managing work-related stress. The issue is not about policy development, therefore, but how it is implemented, communicated and understood. Guidance from NHS Employers[130] follows the recommendations of the HSE[11], emphasising that work-related stress is a health and safety issue and acknowledging the importance of identifying and reducing work-related stressors. The objectives of a stress policy are to: a) deal with the sources of stress (primary management) by avoiding or reducing the risk; b) improve employees' responses to stress to ensure it does not have a negative impact on them (secondary management); c) rehabilitate employees who are suffering from stress (tertiary management).
- The stress policy should apply to everybody in the organisation, managers are responsible for its implementation and the organisation is accountable for making resources available. However, NHS managers have been found to lack knowledge of local and national work-related stress initiatives[131,132]. Moreover, managers most likely to engage with training about stress at work tend to be those that are most familiar with them[133]. The medical profession has traditionally focused on treatment and rehabilitation rather than prevention[134] and the change currently endemic in the NHS may also discourage interventions that require structural change. This is likely to explain the dominance of secondary and tertiary-level interventions within Trusts, despite policies advocating regular risk assessments and prevention.

> *"Yeah, well you don't get ill, do you? You know, you, you refuse to accept any illness in yourself, don't you? It's just a question of that's why doctors present late with illnesses because they don't like to make a fuss. We see it as a sign of weakness, which I think probably is why we are intolerant of illness in our partners, because we're doctors. And I think it's just part of the sort of macho thing which is first drummed into you at medical school and the end product of that generation, which—if you can't take the heat get out of the kitchen, type thing."*
>
> – GP (page 5; Riley et al., 2018)[72]

A systems or multi-level perspective

A dynamic model of interventions to improve physicians' wellbeing and patient care was developed by Firth-Cozens in 2001[135]. This outlines how the organisational and occupational stressors discussed above (such as long working hours, lack of support and dealing with death), along with individual differences (such as personality, coping style and skill-set) can impact on the wellbeing of doctors via stress, depression and negative health behaviours (See Figure 1 below). In turn, this can threaten the quality of patient care, increasing the risk of complaints and litigation. Consequently, what is needed are interventions that target multiple areas of the system, including working conditions, doctors and the provision of rehabilitative services. These respectively fall under the category of primary, secondary and tertiary interventions, and are described below. Crucially, this approach translates to the wider healthcare workforce who play a pivotal role in this work environment, and are exposed to similar pressures and challenges.

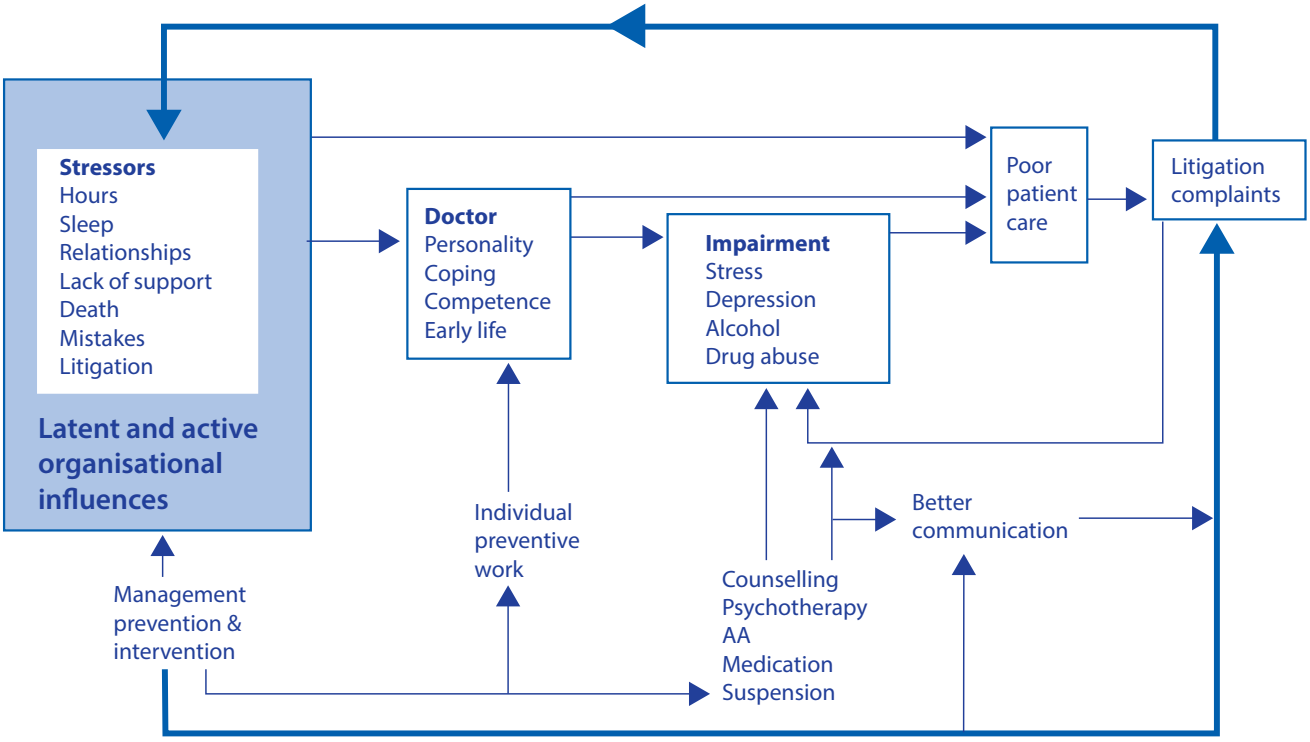

Figure 1: A systems approach to the causes of poor patient care (Firth-Cozens, 2001)

Primary interventions

Initiatives that attempt to remove or reduce the source of work-related stress are known as primary interventions[136]. In order to take action, it is crucial to identify the main causes of stress. The HSE recommends a risk-assessment process where levels of key work-related hazards (relating to demands, control, support from managers and colleagues, role, relationships and change) are assessed and compared with benchmarks[11]. This process can help employers diagnose problems as well as develop, target and evaluate the effectiveness of interventions. The HSE[137] has also developed tools to help managers identify whether they have the behaviours found to be effective in reducing and managing stress at work which can inform training needs.

Interventions to reduce work-related stress have focused on job design and workload management, as well as increasing opportunities for job control and training. To date, there have not yet been any organisational-based primary intervention studies involving doctors in the UK. The following sections review some of the research from other countries, but it is acknowledged that the healthcare systems and the terms and conditions of

employment differ. Also, the role of policy, Schwartz Rounds® and job crafting are introduced as interventions that are growing in popularity with some evidence of success in UK healthcare environments.

- A meta-analysis of 20 interventions with doctors (none from the UK) found a small but significant reduction in burnout compared to a control group[138]. Crucially, primary interventions, such as reducing workload and improving teamwork and communication, were found to be more effective than secondary interventions.
- Another meta-analysis on doctor burnout conducted by US researchers, drew upon the findings of 20 primary interventions that had used randomised control trials or cohort designs[139]. Interventions aiming to improve work processes and the national reduction of working hours were found to be most effective, with demonstrable reductions in burnout (from 62% to 50%) and its dimensions of exhaustion (from 37% to 25%) and depersonalisation (from 54% to 48%). The positive impact on burnout of the primary interventions was greater than that of the secondary initiatives also examined.
- More studies to implement and evaluate primary interventions in UK doctors are clearly required.

Policies

- Decisions made at the organisational, sectoral or even national level can have a substantial impact on the working conditions and mental health of doctors. A key policy change in the UK was the implementation of the European Working Time Directive in 2009 that restricted working to a 48-hour week and specified adequate recovery time. This operated in parallel with the New Deal which was also designed to improve the working conditions of junior doctors. These interventions were based on evidence that long working hours are detrimental to worker health and performance[140,141].
- Research findings show that the reduction in working hours has led to fewer medical errors[142] and improved patient care[143]. Nonetheless, as discussed above, reducing working hours may have had unintended detrimental effects on the health of doctors. For example, there is evidence that they experience greater fatigue as a result of more shift work, increased workload due to badly-designed rotas and staffing problems and find it more challenging to access training opportunities[77,78]. It is also likely that the reduced hours have increased the intensity and pace of the work and reduced opportunities to take breaks during long shifts. This has serious implications for doctor wellbeing and patient safety.
- In response to concerns raised during the junior doctor contract negotiations and strikes in 2016, a working group was formed to address ten non-contractual issues relating to training, the work environment and doctors feeling valued[144]. The group included representatives from NHS Employers, Health Education England, the BMA Junior Doctors' Committee, the Academy of Medical Royal Colleges, the General Medical Council and junior doctors themselves.
- The working group has proposed changes that should provide doctors with more control while also reducing the demands that they face. Recommendations include rotas being published eight rather than six weeks ahead and that the notice of placements is increased from eight to 12 weeks. Recruitment and induction processes should also be standardised so that duplication is minimised while on rotation. Moreover, junior doctors who have caring responsibilities or health conditions that tie them to a specific location should receive priority allocation during the recruitment phase. The working group aims to pilot and test other changes designed to improve the work and training experiences of junior doctors. At the time of writing, it cannot be established whether these changes have been implemented and, if so, how effective they are.
- By focusing on prevention and changes to the work and training environment, involving relevant appropriate stakeholder groups, encouraging junior doctor input and being willing to pilot and test new ideas, this project complies with the principles advocated by occupational health psychologists for successful interventions[145,146].

Schwartz Rounds®

First developed in the United States, Schwartz Rounds® are run in the UK by the Point of Care Foundation in over 180 healthcare organisations[147,148]. The rounds are one-hour sessions, normally held monthly, that provide a safe space for staff to share and reflect upon the social, emotional and ethical challenges of their work. Three or four multidisciplinary staff members share a short account of their experiences of delivering patient care, followed by a collective facilitated discussion from the audience based on their reflections and insights.

- Healthcare organisations adopting Schwartz Rounds® see them as an innovative, low cost way to improve staff wellbeing and the patient experience.[148]
- The first national evaluation of Schwartz Rounds® in the UK found that the proportion of healthcare workers reporting psychological distress halved in regular attenders (from 25% to 12%) compared to little change in non-attenders (from 37% to 34%). No significant effects of Round attendance were found, however, on work engagement.
- Participants found Rounds engaging and a source of support[147]. They were also widely believed to normalise emotional responses to practice, increase practitioners' empathy and understanding towards colleagues and patients, help them consider different perspectives in multidisciplinary work and enable them to reflect more effectively on challenging work processes. Crucially, practical barriers (such as clashes with duties) and enablers encouraging participation (such as the availability of lunch and control over their work schedule) were identified.

Job crafting

- Job crafting refers to the actions of a worker to increase their engagement by adjusting the job to fit their needs and preferences[149]. Crafting occurs by empowering staff to seek out resources and challenging demands while also reducing any hindering demands they experience. Growing evidence from outside the healthcare sector shows that motivated and engaged workers are more likely to "craft" and, in turn, this can lead to a healthier work environment[88]. In one example from the Netherlands, two groups of nurses and doctors attended a job crafting workshop that culminated in a personal craft plan[150]. Over a three-week period, participants were required to craft behaviours that sought out resources (e.g. more consultation with colleagues), increase demands that challenged them (e.g. volunteer for a committee) and reduce demands that hindered their work (e.g. develop more effective patient registration processes). After three months, follow-up measures showed better wellbeing (less emotional exhaustion and more work engagement) and better self-rated job performance compared to the control groups. No improvements were noted, however, for objective performance.

Issues with primary interventions

- It is generally acknowledged that primary interventions are more effective than secondary or tertiary method, but are less popular[145]. Changing the organisation may be seen as more complex, time-consuming and costly than introducing initiatives that help individuals enhance their stress management skills.
- It is crucial to diagnose hazards carefully and target primary interventions directly to the organisational context. This means, however, that interventions can vary in terms of their type, intensity and the problems they are trying to address[138]. Primary stress management initiatives can also require substantial investment in time and resources that make them difficult to initiate and sustain. Long-term commitment to primary interventions and regular evaluation is essential, as it may take a considerable amount of time before any improvement is observed. This then makes primary interventions vulnerable to influence by external factors commonly experienced in healthcare in the UK, such as changes in national policies and funding, organisational restructuring, changes in staffing or numerous other factors[145].

- Successful primary interventions typically require manager support and worker participation[136,146]. Leaders have a crucial role to play in supporting the wellbeing of their staff (see the HSE manager competency approach highlighted above). Worker participation can provide greater insight into the issues faced and potential solutions, while their engagement helps to facilitate "buy-in" and ownership. Participatory work design approaches recognise that workers are often in the best position to identify and implement solutions. For example, a prospective, controlled study conducted in a hospital in Germany found that regular meetings over ten months allowed doctors to identify work-related problems and solutions and initiate their implementation[151]. Benefits were found over time for doctors' mental health and patient-rated quality of care.
- Although participatory work design interventions can be effective, they are time-consuming and rely on staff availability to attend group sessions. This is likely to be problematic for doctors who are working in different locations and shift-patterns.

Secondary interventions

Secondary interventions are those that: a) attempt to strengthen workers' ability to cope with challenging aspects of their work and b) reverse or reduce any ill-health caused by chronic exposure to difficult working conditions[136]. In general, they aim to change the way the individual perceives or copes with the situation (e.g. stress management or resilience training) or help them manage the situation more effectively (e.g. time management training). Two examples from the UK are described below.

- A study of 21 GPs who attended eight, weekly mindfulness-based cognitive therapy sessions with homework found reductions in stress and burnout measured three months after the training was completed[152]. The participants revealed that the course helped them relax, enjoy their work more, manage work pressures more effectively and have more compassion and empathy towards themselves, their colleagues and their patients.
- A randomised controlled trial testing three different online psycho-education modules[6] found that doctors who participated in all modules (stress and burnout, dealing with patient death and managing distress) reported less anxiety, emotional exhaustion and depersonalisation towards patients than those who engaged with a single module or were in the control group. Nonetheless, only minor benefits emerged for work-related outcomes (e.g. work-life conflict and work engagement), physical health (e.g. sleeping difficulties and binge eating) and coping behaviours (e.g. positive reframing and substance use). This study had many outcome variables, however, and expecting improvements across all domains may be overly optimistic.
- The findings from the UK outlined above are congruent with meta-analyses of secondary interventions from other countries demonstrating reductions in burnout[138,139] and psychiatric morbidity[153] in doctors. The interventions comprised general stress-management training (including cognitive, behavioural and mindfulness-based strategies), education and exercise, as well as self-care and communication skills training. The pooled results demonstrated small to medium effect sizes, but the effectiveness of different types of secondary interventions was not compared.
- Comparisons with the effects of primary interventions demonstrated that primary interventions lead to larger and more consistent improvements on the burnout scores of doctors pre- and post-intervention than secondary initiatives[138,139].

Issues with secondary interventions

- There is evidence that secondary interventions may only be effective for people who have an interest in them. For example, mindfulness-based training typically attracts people who are naturally reflective and may be resisted by those who are more action-oriented. As most secondary interventions rely on voluntary participation, those more resistant to the training will be less likely to take part, thereby leading to more favourable outcomes. This then creates difficulties when interventions that have been

piloted on such groups are rolled out across departments or organisations where other workers are compelled to attend, as the effectiveness of the training will be diluted.

- In light of the evidence that people favour different types of secondary intervention and the need to encourage flexibility in coping styles, a 'tool-box' approach is recommended where they can select the most appropriate strategy to manage the specific demands they face that are most congruent with their preferences.
- Most interventions are evaluated over a short period of time post-implementation. Favourable results may be found initially, but without long-term follow up it cannot be established if any positive changes can be sustained. It is acknowledged, however, that the longer the follow-up period the more likely participants are to drop out.
- Secondary interventions typically focus on changing the individual rather than the organisation. Consequently, the responsibility for protecting one's health is firmly placed on that person. By only providing training in resilience or mindfulness, for example, organisations may believe erroneously that this is enough to tackle what could be a pathogenic work environment. This hinders the implementation of change that may be more beneficial and sustainable in the long run. Secondary initiatives may also be considered 'tokenistic' by employees and actively resisted where they believe that structural change is required.
- Doctors undoubtedly require emotional resilience and insight into how to protect their mental health is crucial. There is evidence that doctors' mental health deteriorates during training and the need for medical educators to support students in developing resilience and effective self-care strategies has been recognised[37]. More research is required, however, to identify ways in which resilience can be developed and supported during and after initial medical training.
- Although primary interventions are required to address the causes of the high rate of suicide (or attempted suicide) among doctors, guidance is also needed on how best to support doctors who have been affected by the suicide of a colleague. Suicide 'postvention' is the emotional support that is provided to someone who has been bereaved by suicide[154]. It is designed not only to support bereaved colleagues but also prevent the occurrence of other suicides. The process aims to: a) provide accurate information about the death of a colleague, avoiding misinformation; b) provide support to staff and help them deal with any trauma experienced; c) help them return to a state of normalcy protecting their wellbeing and job performance.

Tertiary interventions

When a doctor experiences ill-health, tertiary interventions seek to rehabilitate them and adapt their working conditions to their needs and circumstances[136]. Such interventions are typically implemented via occupational health, as well as rehabilitative and return to work programmes.

- Doctors who are struggling with mental health issues need to receive early treatment but, as discussed above, there are many barriers that discourage them from seeking help. These include perceiving illness as a personal failure, stigma from colleagues around mental health and a culture of invulnerability in medicine[72,155,156].
- From a practical perspective, the long working hours, heavy workload, rotation across work sites and lack of awareness of where support can be gained may stop doctors from seeking help that, in turn, may encourage presenteeism and/or self-medication[155–157]. Doctors may also avoid treatment as they may fear sanctions from their employer and being reported to their professional regulator (i.e. the General Medical Council), to their employer or their training supervisors jeopardising their future career prospects[157,158]. There are recent examples of doctors who have spoken publicly about their mental health problems having been disciplined, which will inevitably reinforce such fears.

- There is an urgent need for specialist occupational health services that encourage early and discreet treatment for doctors in need. Such a service would also be aware of the occupational demands that doctors face and their concerns around adopting the role of patient, as well as the need for patient and public safeguarding[157]. Services should bear in mind the evidence that the response to an initial contact for help is crucial in reinforcing or dispelling stigma and consequently influencing whether somebody will continue to seek support.
- In the UK, several specialist occupational health programmes are available and additional resources are provided by various Royal Colleges and medical charities (See Table 2 for an overview). Further sources of financial and legal support are listed on the BMA website[159].
- In addition to these facilities, NHS Employers provide information on work-related stress and offer a range of resources to organisations, managers and individuals[130]. Nonetheless, a survey[84] of 959 doctors (primarily consultants and GPs) conducted by the BMA in 2018 reported that almost one out of five respondents (19%) believed that there were no services available to support their physical or mental health, whereas a further 33% of the sample said they were unsure. Only 27% indicated that they were quite or very confident that their employer would provide support if they required it. This suggests that the services available should be more widely publicised.
- Few of the initiatives in Table 2 have been formally evaluated. One exception is the Practitioner Health Programme (PHP) that offers a free, confidential service for doctors and dentists with health concerns and/or addiction problems, particularly where they may affect their work. The success of the programme has not only been demonstrated by the renewal of its funding, but in its subsequent roll-out by the National NHS GP Service. The service can be accessed online, and doctors are able to consult with experienced clinicians face-to-face or by Skype or FaceTime. The available treatments include general psychiatric support and treatment, substance misuse, psychological therapies including CBT and brief psychotherapy, group therapy and rehabilitation and support to return to work after absence.
- Statistics from the PHP are encouraging, as 80% of the 255 patients originally presenting with substance misuse remained abstinent after treatment[156]. Of the remainder, 14% were doctors on substitute medication or on controlled drinking, with only 6% relapsing. Crucially, regardless of the presenting issue, 85% of doctors who were not at work at the start of treatment were able to return after the programme.
- Interviews with doctors who used the PHP found that they were happier, more self-confident and felt emotionally stronger[24]. Some felt they had regained their self-respect while many mentioned improved relationships with their colleagues and family. They appreciated the confidentiality they received during their treatment and that their healthcare providers understood their occupational challenges and were genuinely compassionate and supportive.
- Successful rehabilitation back into work is a key aim of tertiary approaches. Best practice in dealing with absence for work-related stress applies equally to mental health problems as physical disorders. This includes written policies or guidelines, procedures to oversee the rehabilitation process, early contact with employees via a health assessment, a rehabilitation plan agreed by all stakeholders and the provision of flexible return-to-work options. Line manager behaviours are particularly important in helping employees back to work[160]. Good communication and support while off sick, inclusive behaviour on return, ensuring support at the team level, as well as sensitivity and knowledge of organisational procedures have been identified as crucial.
- Line managers have a key role in helping support employees who have attempted suicide back to work. Guidance[161] is available to help managers with this process that includes having difficult conversations, providing support and helping reduce feelings of shame and embarrassment, negotiating a back to work plan to help people reintegrate into the workplace, and making any necessary adjustments to help them meet the core requirements of their role. The importance of maintaining confidentiality and considering barriers to return to work is also emphasised.

Issues with tertiary interventions

- Several challenges are associated with tertiary interventions. These include the barriers to help-seeking identified above, meaning that those who most need this support may not be able or willing to seek it. There is evidence, however, that the need for confidentiality and knowledge of the professional issues faced by doctors are shaping support programmes which is likely to encourage help-seeking and improve the effectiveness of these interventions[156].
- More importantly, as with secondary approaches, tertiary interventions focus on the individual only. They do not address the wider organisational systems or work factors that may have contributed to health breakdown. Therefore, any improvement made during sick leave or a staged return to work may not be sustained over time if the worker returns to the same working environment. This will increase the likelihood of subsequent ill-health and is akin to "saying that a factory would not need finger guards on its machines if it had surgeons standing by to sew fingers back on!"[162].
- In addition, like secondary strategies, tertiary approaches reinforce the view that ill-health is the responsibility (and failure) of the individual. By focusing on tertiary interventions, organisations can absolve their responsibility for the wellbeing of employees and fail to take action to change the existing working conditions and culture.

Table 2. List of Occupational Support Services for Doctors

Service	Description
BMA Counselling Service T: 0330 123 1245 W: https://bit.ly/2Dj382X	24 hour telephone line staffed by accredited counsellors to help identify ways of addressing the root causes of problems, develop strategies to reduce the impact of the consequences and rebuild self-confidence.
BMA Doctors for Doctors Service T: 0330 123 1245 W: https://bit.ly/2Dj382X	Gives doctors and medical students in distress or difficulty the choice of speaking in confidence to another doctor.
BMA Doctor Support Service T: 020 7383 6707 W: https://bit.ly/2fNs0sH	Provides emotional help to all doctors undergoing a GMC investigation from fellow doctors and functions independently of the GMC.
British Doctors and Dentists Group W: https://bit.ly/2l43xr3	Self-help groups for recovering alcoholic and drug dependent doctors, dentists and students.
Sick Doctors Trust T: 0370 444 5163 W: https://bit.ly/2MEniZT	Provides early intervention and treatment for doctors suffering from addiction to alcohol or other drugs.
DocHealth T: 020 7383 6533 E: enquiries@dochealth.org.uk W: https://bit.ly/2JOYa4I	A new, confidential, not for profit, psychotherapeutic consultation service for all doctors. The service offers face to face sessions, flexibly applied, with expert signposting to longer term support and liaison with other health services where needed.

Occupational Mental Health Service (PHP HEE London) T: 020 3049 4505 E: england.phpadmin@nhs.net W: https://bit.ly/2K4zul6	Provides doctors and dentists working in the London Deanery area with emotional support and access to brief or longer term psychotherapy and help with addictions. The service operates on a strictly confidential basis.
NHS Practitioner Health Programme T: 0203 049 4505 E: england.phpadmin@nhs.net W: https://bit.ly/2tHAJRx	A free, confidential service for doctors and dentists who have mental or physical health concerns and or addiction problems, in particular where this may affect work. The service covers all doctors and dentists living in the London area. There are currently no arrangements for other parts of the UK, but the service accepts referrals on a cost per case basis.
Royal Medical Benevolent Fund W: https://rmbf.org/	**Financial Support** The RMBF can consider financial assistance to doctors, medical students and their families who are facing financial crisis. Depending on individual needs and circumstances, support can be through grants, loans, information and debt management advice as well as the Medical Student Programme. The RMBF can also consider financial assistance with training and childcare with a back-to-work award. **PhoneFriend Scheme** Helps doctors and their families who feel isolated due to age and illness. PhoneFriend volunteers provide regular friendly chats over the phone offering emotional support wherever it is needed in the UK.
Doctors' Support Network (DSN) W: https://bit.ly/2oTHzyT	A confidential peer support network for doctors and medical students with concerns about their mental health. Aims to raise awareness, reduce stigma and influence the agenda regarding physician health.
NHS GP Health Service T: 0300 0303 300 E: gp.health@nhs.net W: https://bit.ly/2MCaNhg	The NHS GP Health Service is a confidential NHS service for GPs and GP trainees in England, specialising in mental health support.
Confidential Support and Advice for Surgeons T: 020 7405 3474 W: https://bit.ly/2I3o9jl	Telephone helpline from the Royal College of Surgeons which provides a point of personal contact between surgeons, where they can discuss issues of concern with a professional colleague or peer. Besides offering a listening ear, the helpline acts as an informed signpost to appropriate sources of advice and help.
Psychiatrists' Support Service, Royal College of Psychiatrists T: 020 7245 0412 E: pss@rcpsych.ac.uk W: https://bit.ly/2K73O1B	A confidential support and advice telephone helpline for Members or Associates of the College. Covers addictions, bullying and harassment, career pathway, discrimination, examinations, involvement with the General Medical Council or the National Clinical Assessment Service - this is not an exhaustive list.

Key points

- A systemic approach that incorporates primary, secondary and tertiary types of intervention is recommended in order to protect the mental health of UK doctors. This would provide a range of evidence-informed interventions to improve organisational systems and support structures and help doctors develop the skills to cope with the demands of the job more effectively.
- Primary interventions typically have a stronger impact on doctors' mental health than secondary or tertiary initiatives. Nonetheless, there is evidence that interventions that integrate both a primary and secondary focus can increase the success of primary interventions[145]. For example, where a department may aim to streamline procedures to reduce workload, while at the same time also making resilience training available to their staff. This indicates that both types of intervention should be carefully integrated rather than introduced independently.
- Interventions that seek to improve managers' skills in supporting the wellbeing of their staff have had promising results[90,137]. It is acknowledged, however, that such responsibility may be onerous, and managers also need to protect their own wellbeing.
- The importance of support in the workplace means that processes which encourage better support at work, such as mentoring and effective team working, need to be facilitated.
- There are considerable barriers to doctors seeking help, including the stigma of mental health problems, lack of time, fear of sanctions and job loss and a culture of invulnerability. More work is needed to challenge these barriers while also developing a culture of open and honest disclosure and support.
- It has been argued that burnout among doctors arises from maladaptive behaviours developed during medical education and subsequently reinforced in healthcare organisations[43]. This implies that interventions to improve the wellbeing of doctors will only be effective if the 'pathogenic' culture within which they work is addressed and actions taken to understand how this developed in the first place. While this is crucial, we argue that a more holistic approach is required where evidence-informed and well-integrated interventions are available at all levels – public policy, the organisation, the team and the individual.

> *"My experience of occupational health, they're not that effective, plus they're working for your employer (...) you feel that there's a conflict of interest, and you don't feel that conflict of interest in PHP. (...) It's, I think, appropriate [to] have another space to go into, where they specialise in problems with doctors. They can handle all the – they know almost the fears (...) and all the interaction between doctors and the GMC."*
>
> – PHP Doctor-patient (page 163; Brooks et al., 2017)[157]

5. CONCLUSIONS AND NEXT STEPS

This report offers robust evidence that many doctors in the UK are struggling with their mental health. The prevalence of mental health problems in medicine is considerably higher than in the general working population. Although the actual proportion varies according to speciality, between 30% and 40% of UK doctors are experiencing burnout (particularly emotional exhaustion) and work-related stress. Many doctors in this country also report symptoms of more serious forms of mental health problems, including depression and anxiety, at a level where intervention is recommended. In addition, there is evidence that the prevalence of mental health problems in medicine is increasing over time. Equally concerning is the extent of suicide ideation within this professional group and the comparatively high suicide rate among female doctors. Crucially, due to measurement and sampling issues, as well as the attrition of unhealthy doctors from the workforce, it is likely that these figures under-represent the true extent of the problem. The stigma attached to disclosing mental health problems among doctors also means that any attempt to identify prevalence will be a gross under-estimation.

The factors that increase the risk of mental health problems in doctors in the UK have been identified in this report. Despite some evidence highlighting the role of occupational and individual factors (such as emotional labour, personality and coping styles) in contributing to distress in doctors, poor working conditions seem to have the strongest effects on wellbeing. Particular risk factors include high perceived workload and work intensity, poor staffing levels, a lack of autonomy and support, and experiencing bullying, harassment or abuse. One of the most powerful predictors of mental health problems in doctors, however, is poor work-life balance. The demands of the job can impact on doctors' personal life in several ways. Long working hours mean that there is less opportunity to spend time with family and friends and engage in other activities that replenish mental and physical resources. Poor psychological boundaries between work and personal life also mean that doctors frequently spend their time off the job ruminating about work worries and concerns. As well as having detrimental effects on wellbeing and personal relationships, lack of recovery has clear implications for job performance. Although positive attitudes towards work can increase job satisfaction and protect wellbeing, overly high levels of involvement and commitment will further constrain recovery opportunities and increase the risk of mental health problems over time.

In particular, the evidence suggests that GPs and trainee and junior doctors are at greater risk of work-related stress, burnout and mental health problems. These levels are also increasing over time. For example, a recent survey found that nearly three-quarters of GPs working in the UK that responded felt emotionally exhausted and a quarter reported feelings of low personal accomplishment. This has been attributed to several organisational factors such as the increased demands placed on primary care while financial and staffing resources have reduced for many. It has even been recently argued that the job is no longer compatible with a healthy work-life balance. Among junior doctors, the evidence highlights that stress, burnout and self-harm are particularly prevalent and that their work-life balance is particularly poor. Studies also indicate that they are less engaged in the job than more experienced medical professionals, are more likely to work while sick and that they commonly experience feelings of insecurity and uncertainty and feel unsupported in dealing with a heavy workload.

The poor mental health evident in UK doctors should be of grave concern to the various stakeholders in the healthcare sector due to its wide-ranging implications. Mental ill-health is a significant issue regarding workforce planning as it increases levels of sickness absence and presenteeism – indeed these are higher among healthcare practitioners than other professional groups. Current working conditions and associated health problems also make major contributions to the poor retention and turnover rates in the medical workforce, especially among GPs. The working conditions and poor mental health of doctors have also been linked with patient safety and financial performance. This area is under-developed, however, and more research is warranted to examine the implications for patient outcomes, both directly and indirectly.

Employers have a legal responsibility to safeguard the physical and mental health of their workforce. To support this, both the HSE and NHS Employers provide a wealth of resources on how to develop work-related stress policies and practices. When planning interventions to improve mental health, it should be noted that primary interventions typically have stronger and more sustainable benefits for the mental wellbeing of doctors than secondary interventions. This is because primary interventions aim to target the underlying problem while

secondary initiatives focus on helping doctors cope with the demands of their work environment. Although tertiary interventions exist in healthcare organisations, most frequently in the form of occupational health programmes, it is evident that doctors are either not aware of them or are unwilling to access them. Therefore, specialised services that focus on doctors' wellbeing specifically have a crucial role to play. Equally important is addressing the stigma and culture within the medical profession that discourages help-seeking.

Drawing on these points, several priorities can be identified that have potential to improve the mental health of UK doctors:

- Secondary and tertiary interventions are important, but a systemic approach should be encouraged with a greater emphasis on primary initiatives. We need to encourage the pilot testing of primary interventions in samples of UK doctors using robust research designs. The interventions outlined in Section 4 of this report that have been effective in other countries include job crafting (from the Netherlands) and participation approach (from Germany). More targeted training to improve managers' knowledge, skills and abilities in protecting staff wellbeing would also be fruitful.
- The evidence suggests that support in the workplace is crucial not only in alleviating the work demands placed on doctors, but to provide them with the emotional support to cope with what is a demanding job role. This support is also pivotal in reinforcing a culture that encourages help-seeking and challenges the mental health stigma. Processes which encourage better support at work, such as mentoring and effective team working, need to be facilitated.
- In particular, multi-level interventions are needed to help doctors improve their work-life balance. In order to accomplish this, organisations should consider the intensity and pace of work as well as the number of hours worked, the need for regular breaks and the availability of flexible working options beyond the minimum legal requirements. Managers also have a role to play in providing formal and informal accommodations to help staff balance the demands of their work with their personal life. Doctors themselves are also responsible for ensuring that they have a healthy work-life balance and prioritise self-care.
- From a research prospective, more prospective longitudinal studies are vital that assess the mental health of doctors and facilitate a better understanding of the antecedents and implications of positive mental health. A regular survey using a benchmarking approach that includes a representative sample of UK doctors across different specialities and geographical locations is recommended.
- It is crucial to evaluate the effectiveness of the proposals for change put forward by the junior doctor working group formed to address non-contractual issues relating to improving training, the working environment and doctors feeling valued[144].
- Additional research is needed to examine clear gaps in knowledge. This includes, but is not limited to, the impact of ongoing change and restructuring in the NHS, work-life balance and recovery, and doctors' coping behaviours. More insight into why and how help-seeking is stigmatised in medicine and the implications of such attitudes for wellbeing and job performance is also needed. This will help inform interventions to reduce the taboo of disclosing mental health problems and a "failure to cope" at an early stage.
- Merely having a stress policy will not improve the wellbeing of staff – this is a legal requirement but action is urgently required to address the level of mental health problems in healthcare organisations. It is vital to build a culture within medicine that explicitly recognises how the job can impact on the mental health of doctors. This should start from the first year of medical school, with emphasis also given to the promotion of mental health and self-care. Subsequently, the Deaneries, Trusts and Royal Colleges have to take responsibility for developing and communicating evidence-informed initiatives and sharing best practice.
- Although this report focuses on the issues facing doctors, it is important to highlight that many others share the same working environment, and therefore face similar issues and risks to their mental health.

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About The Louise Tebboth Foundation (LTF)

Established in memory of Louise Marson (née Tebboth), a Bermondsey GP who took her life in January 2015, the LTF exists to provide financial assistance to projects and services which support the mental well-being of doctors in England and Wales and initiatives assisting the bereaved families of doctors who have died by suicide. We are registered as a charity with the Charity Commission (Registration number 1166657).

Further information can be found at www.louisetebboth.org.uk

About The Society of Occupational Medicine (SOM)

The SOM is the largest and oldest national professional organisation of individuals with an interest in occupational health. SOM membership is for anyone working in and with an interest in occupational health. SOM membership demonstrates a commitment to improving health at work, supports professional development and enhances future employability enhancing our members' reputation and employability. Members are part of a multidisciplinary community – including doctors, technicians, nurses, health specialists and other professionals – with access to the information, expertise and learning needed to keep at the forefront of their role. Our members benefit from career development opportunities alongside practical, day-to-day support and guidance, through local and national networks that are open to all. Through its collective voice, SOM advances knowledge, raises standards and increases awareness and seeks to positively influence the future of occupational health.

Further information can be found at www.som.org.uk