

# **Coping with General Practice: a mixed methods study**

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# **Abstract**

## **Background:**

This study focuses upon understanding the perceived pressures that General Practitioners (GPs) working in the National Health Service (NHS) in England face and the strategies which individuals use to cope with and manage these.

There are increasing demands upon health care provision in the NHS. These relate in part to the increasing healthcare needs of an ageing population and are compounded by the emergence of new treatments and technologies. Additionally, there have been significant contractual, organisational, administrative, and regulatory changes for General Practice to accommodate at a time of financial constraint. These pressures have been recognised in reports by the Kings Fund (Baird *et al.*, 2016) and more recently the Health Foundation (Fisher *et al.*, 2020).

There is a consistent pattern of increasing workload felt at the individual level occurring at the same time as both significant demographic changes in the GP workforce and increasing difficulties with recruitment and retention. GPs describe significant work stress, and research has described some of the individual and workplace attributes that may moderate this.

GP wellbeing is recognised as important internationally. For the individual doctor, workplace stress and burnout contribute to ill health and lack of career engagement. These impact patient care, jeopardising its quality and safety (Hodkinson *et al.*, 2022; Gunja *et al.*, 2022).

Although previous studies have considered those who have left the workforce, this study aims to identify and explore aetiological factors in GP stress amongst those currently in the workplace. Understanding these should assist in designing approaches to address the issues before doctors leave the workforce.

## **Methods:**

A sequential mixed methods design underpinned by critical realism allowed for in-depth exploration of how GPs practicing in England perceive their working life.

Initial qualitative interviews with GPs, considered how individual doctors framed their understanding of their working lives. The theory generated in the first phase was refined using a cross-sectional survey approach to analyse data collected from a broader range of GPs. In the final phase, theory gleaned in the first two phases was consolidated in a series of stakeholder interviews. This used the principle of retroduction to identify possible underpinning mechanisms for GP workplace stress.

### **Findings:**

The initial interview phase identified themes relating to how GPs perceive and manage their working lives. External factors (including health policy, increasing role complexity and wider changes in society), contribute to a perception of uncertainty in the professional role of the GP. There is variation in the individual characteristics of the GP and their working environment which affects how the individual responds to these challenges.

Further exploration in the questionnaire demonstrated significant levels of distress in the GP workforce as determined using standard measures for moral distress, perceived stress, burnout, and morale. The nature and degree of these were related to both personal characteristics and professional workplace factors (including job demands and job control).

The stakeholder interview phase confirmed the findings in the initial phase and identified possible explanatory factors, including hierarchy, power relationships and race.

### **Discussion:**

This study explored GPs' perceptions of their working lives and identified individual and workplace factors associated with distress. At an individual level, constraints on moral agency and the work of emotional labour engender internal conflict. These constructs have been examined, considering links to underpinning models of stress (such as allostatic load). The findings are consistent with Karasek's (1979) Demand-Control model of job stress such that the highest levels of stress are

seen in those who perceive their jobs to have high levels of demand with low levels of control.

Adopting a critical realist approach enabled consideration of the generative mechanisms which offer plausible explanations for the empirical findings. These include wider social structures (such as gender and race) as well as the specific social structures of the NHS and the medical profession. The complex intersection of these impacts upon the agency of the individual GP.

### **Recommendations:**

This study has corroborated the findings of multiple studies demonstrating deterioration in GP wellbeing. Additionally, it has recognised possible courses of action to improve workforce wellbeing. At a local level, this could include review of practice support structures, review of administrative workload, and reduction in the allostatic burden resulting from multiple interruptions and decision density. Job planning should recognise the need for balance between work and other commitments.

At a wider system level is a mismatch in understanding the expectations of the GP role between GPs and other stakeholders which must be addressed in future contract discussions. Where there is policy change impacting upon GPs, there needs to be clear and direct communication of this, allowing adequate time for implementation and evaluation of change. There are significant structural inequalities in medicine which must be addressed.

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## Glossary

BMA	British Medical Association
Burnout	State of mental exhaustion caused by one's professional life that consists of three salient features: emotional exhaustion, depersonalisation and a reduced sense of accomplishment (professional efficacy) (Lee, 2015)
CCG	Clinical Commissioning Group  Clinical Commissioning Groups (CCGs) were created following the <i>Health and Social Care Act 2012</i> and replaced Primary Care Trusts on 1 April 2013. They are clinically led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area
Compassion Satisfaction	The positive and satisfying feeling that comes from helping others
Compassion Fatigue	The negative aspects of caring for others who have experienced suffering. It is composed of two parts: burnout and secondary traumatic stress
Coping	Using purposeful actions to handle life situations
Emotional labour	The management of emotions during interactions to achieve professional goals and to conform to work-role requirements.
Federation	A grouping of GP practices working together to share responsibility for providing care and services to the community
GMS	General Medical Services. GPs hold a contract with NHSE to provide GMS services
GPC	General Practitioners' Committee (of the British Medical Association)
GP Forward View	This NHSE policy, published in April 2016, detailed how additional investment would be used to support general practice



services by 2021. It would improve patient care and access and invest in new ways of providing primary care

HEE Health Education England

LETB Local Education and Training Board

LMC Local Medical Committee (a local representative committee of NHS GPs)

Moral Distress The psychological unease generated where professionals identify an ethically correct action to take but are constrained in their ability to take that action

Moral Injury Can arise where sustained moral distress leads to impaired function or longer-term psychological harm. It may produce profound emotional guilt and shame and has been linked to severe mental health issues

Multispecialty Community Provider A grouping of GP practices collaborating with other health and social care providers to provide integrated care to the community

NHSE NHS England, the body responsible for the National Health Service in England

PCNs Primary Care Networks are groupings of general practices (caring for 30-50,000 patients), which were introduced in England in 2019. The stated aim is to enable greater provision of proactive co-ordinated care for people close to home. There are 1250 of these across England

QOF Quality and Outcomes Framework of the GP contract:

‘The Quality and Outcomes Framework (QOF) was introduced into the new GMS contract in 2004, following negotiations between the Department of Health and the General Practitioners’ Committee (GPC). QOF is a pay-for-performance scheme, which provides practices with funding for completing specific activities that are considered to represent good quality of care, or outcomes that are in line with best clinical evidence. The introduction of QOF represented a radical change to the

GMS contract in the UK and has since been viewed with interest by other health services across the world.’ (BMA Focus on GP Quality Indicators July 2018)

RCGP	Royal College of General Practitioners
Resilience	<p>Dynamic evolving process of positive attitudes and effective strategies that we employ in response to life stressors (Cooke, Doust and Steele, 2013)</p> <p>The capacity to respond and adapt to significant adversity, trauma, tragedy, threat or sources of stress. Resilience is best understood as a process not necessarily as a trait of each individual (Wilson and Cunningham, 2014)</p>
Scriptswitch	A point of prescribing decision support tool, embedded into the practice medical records system, designed to support safe, quality, evidence-based prescribing. It is used by CCG medicine management teams to promote cost-effective prescribing.
Secondary Traumatic Stress	A negative feeling driven by fear and work-related trauma
Stress	<p>An adverse reaction a person has to excessive pressure of other types of demand placed upon them (HSE, 2007)</p> <p>Occurs when the demands or tasks appear to be greater than one’s perceived ability to cope or respond.</p>
STP	<p>Sustainability and Transformation Partnership</p> <p>In 2016, NHS organisations, local councils and others came together to form sustainability and transformation partnerships in every part of England, and set out their local proposals to improve health and care.</p>
Well being	Generally refers to psychological health. It is broader than happiness and is often understood as a tri-partite concept encompassing how

people feel, how they function and how they evaluate their lives as a whole.

**Wellness** Includes one's general sense of purpose, competence and meaning. Wellness goes beyond merely the absence of distress and includes being challenged, thriving and achieving success in various aspects of personal and professional life. Wellness includes physical health, psychological well being, resilience and coping strategies, self-care and reflective practice.

# 1 Chapter One: Introduction

## 1.1 Introduction to the thesis

Despite the fact that good primary care is recognised to deliver effective care for the NHS, there is a workforce challenge, and the NHS is finding it difficult to recruit and retain sufficient General Practitioners (GPs) (L'Esperance *et al.*, 2017; Baird *et al.*, 2016). The NHS challenges are further compounded by the increasing healthcare needs of an ageing population and a shift in activity from hospital to community. The Ninth National GP Worklife Survey (2018) demonstrated a fall in job satisfaction since a similar survey in 2001, with 39% of respondents indicating that they were likely to quit direct patient care within five years.

GP wellbeing is recognised as important internationally. For the individual doctor, workplace stress and burnout contribute to ill health and lack of career engagement. It impacts upon patient care as it jeopardises the quality and safety of care (Hodkinson *et al.*, 2022; Gunja *et al.*, 2022).

Although previous studies have considered those who have left the workforce, this study aims to identify and explore aetiological factors in GP workplace stress. Understanding these should assist in designing approaches to address the issues before doctors leave the workforce.

This thesis is concerned with the working lives of General Practitioners practising in England. It sets out to explore this topic from a critical realist perspective, considering:

- What is happening in the GP workforce now?
- What is making it particularly difficult for individual GPs?
- Are there workforce factors which exacerbate these demands?
- What support structures and mechanisms are available to them?
- What are the barriers and enablers to workforce wellbeing in the working environment?

Critical realism was adopted as this is focused upon understanding what is happening, rather than simply describing.

## 1.2 The perspective of the researcher

I have worked as a General Practitioner in a coastal town in Kent since 1990. My initial experiences were of a vibrant professional culture with enthusiasm and excitement about the possibilities afforded by the role. For me, General Practice offered a unique combination of delivering personal, patient-centred care alongside the flexibility to take on other challenges in quality improvement and education. I saw colleagues tailoring their roles to include specialist skills and political interests. Reflecting upon my father-in-law's descriptions of a career in General Practice, I considered myself fortunate that the changes since he had begun as a GP in the same town had largely been for the better, particularly with a new contract in 2004 removing the obligation to be available out of hours and the development of the primary care team supporting and extending the services available to patients.

Despite this, as I moved to the senior partner role following the retirement of a colleague, I had become aware of the increasing difficulties we were having in recruiting GPs. Although we were seeing the same patients, the issues they were presenting to us as doctors in each consultation were becoming more complex. The crude statistics about consultation rates did not reflect the increased expectations of patients and the numbers of problems they brought to each consultation.

I began to see colleagues struggling with their roles and absent with mental health problems. I struggled to know how I could best help them. Alongside this, I saw the reduction in the number of practices locally from 21 to 14, some due to practice mergers with others due to a combination of retirement and the inability to recruit new contract holders. This led to questioning about the mismatch between my own view of General Practice and experience on the ground, wishing to understand what was happening to the GP workforce in making their job so difficult. I wondered whether changes should be made to ensure that those patients, whose journeys I have accompanied, could continue to access high quality, personalised primary care.

I began this thesis in 2016, little knowing about the radical changes in practice which would be brought about in response to the COVID-19 pandemic in 2020. This included changes in working practices such as remote consulting, as well as delivery of the vaccination programme. What began as a distant academic interest became deeply personal as I oversaw the novation of our own practice contract to a

community interest company in response to the recruitment and retention issues, and I moved to a salaried GP role.

Around this time, I was appointed to the newly established medical school in Canterbury. The bid for this was predicated upon the workforce challenges in both primary care and psychiatry. For me there is an imperative to understand what is happening to the GP workforce and what is making their professional lives challenging.

### **1.3 Organisation of the thesis**

This thesis is organised into eight chapters:

**Chapter 1 - Introduction:** This chapter provides an overview of the context of the study and the research question.

**Chapter 2 - Literature review:** This chapter considers the scale of stress and burnout in NHS GPs and how this has changed over time. This leads to a consideration of the theoretical frameworks of stress and coping. It considers how the issues of stress are shaped by wider factors impacting upon GPs' working lives, including health policy.

**Chapter 3 - Methodology and methods:** This chapter considers the philosophical underpinning of the study, and the rationale for the adoption of a mixed methods approach underpinned by critical realism. This is followed by an explanation of the methods used to collect data.

**Chapter 4 - Initial phase: telephone interviews:** This chapter presents the findings of exploratory telephone interviews, identifying a conceptual framework.

**Chapter 5 - Second phase: questionnaire study:** The questionnaire phase of this study considered the predictors of stress and burnout in GPs. The analysis considers the relationships between the characteristics of individual GPs and measured variables of coping, perceived stress, moral distress, burnout, morale, and social support.

**Chapter 6 - Third phase: stakeholder interviews:** This chapter considers the interpretation of the first two phases of the study from the perspectives of an expert group of stakeholders seeking to understand possible underlying causal mechanisms.

**Chapter 7 - Discussion:** This chapter explores the links between the context of primary care and possible underpinning mechanisms of workforce wellbeing. It considers factors including the concepts of street-level bureaucracy, race, and gender, which may be limiting individual agency.

**Chapter 8 - Conclusion and recommendations:** The final chapter discusses the implications for future practice, including potential solutions to improve GP wellbeing. It reviews the research questions and considers the limitations of this study.

## **1.4 Chapter summary**

This chapter introduces the background to the study, the overarching research questions, and the perspective of the researcher. It provides an overview of the organisation of the thesis.

The next chapter presents a review of relevant literature to identify what is known about stress and coping in GP. This will be used to guide the initial 'theory gleaning' stage of the research.

## 2 Chapter Two: Stress in General Practitioners

This chapter discusses the literature which underpins this study. The first section considers evidence in relation to stress and coping in NHS GPs and considers the impact of this on current practice. The next section examines theoretical models of stress and coping which contribute to an understanding of the dilemma. Finally, wider factors which may shape the impact on GPs' working lives, including health policy and sociodemographic factors, are considered. The findings from this will be used to shape the interview schedule used in the first (theory gleaning) phase of the study.

### 2.1 General Practitioners and distress

In considering the challenges that have caused GPs difficulties in coping with the administrative, emotional, and human demands of their roles, it is helpful to consider the interlinked concepts of workplace stress, burnout, and resilience.

#### 2.1.1 *Occupational stress*

Stress in General Practice is recognised as a regular feature of everyday life. Increasing stress is a feature of society as a whole, but the concern is that doctors' ability to deal with stress themselves may impact upon their ability to care for their patients. "Stress" is a controversial and ill-defined term which is broadly understood to result from an "imbalance between demands and resources" or occurring when "pressure exceeds one's perceived ability to cope (Iversen, Rushforth and Forrest, 2009, p. 1368). Occupational stress refers explicitly to the ongoing stress related specifically to the working environment.

The Department of Work and Pensions report 'Thriving at Work' highlights that the UK faces a significant mental health challenge at work with consequent human costs as well as productivity impacts (Stevenson and Farmer, 2017). This has been quantified in the Health and Safety Executive (HSE) annual report using estimates from self-reports in the Labour Force Survey (2021). In 2020/1, stress, depression or anxiety accounted for 50% of all work-related ill-health cases, and there have been signs of this increasing (even prior to the COVID-19 pandemic). In terms of occupation, higher rates of stress, depression and anxiety were found in



professional occupations, particularly health professionals and teachers. This report cites workload pressures, including tight deadlines, excess responsibility, lack of managerial support, organisational changes, violence, and role uncertainty as the main contributing factors. It is estimated that one in four cases of workplace violence occurs in the healthcare sector (with the highest incidence in emergency departments, mental health services and primary care settings) (Pina *et al.*, 2022). Such incidents are reported to have increased in UK primary care settings in the aftermath of the COVID-19 pandemic, possibly related to a perception of reduced face-to-face access (Oxtoby, 2021).

In the HSE report, significantly higher rates of stress, depression and anxiety were noted in younger female age groups and those working in larger organisations (with more than 250 employees). This is noteworthy in relation to current models of primary care with a female majority in those joining the workforce. However, most General Practices are still small organisations (with less than 50 employees).

Within health care, the NHS Staff and Learners Mental Wellbeing Commission, acknowledges that one in three of the NHS workforce have felt unwell due to work-related stress (Health Education England, 2019). However, this reports focuses on healthcare professionals studying and employed by NHS trusts with limited mention of GPs. More recently, the General Medical Council (GMC) commissioned a review to specifically consider the factors which impact upon the mental health and wellbeing of doctors (West and Coia, 2019). Writing about doctors in general, this report considers that there is abundant evidence that workplace stress affects the quality of care for patients as well as doctors' own health. It continues to link the poor wellbeing of doctors with the problems of retaining them in the health services.

Considering GPs specifically, the National GP Worklife Survey has been undertaken nine times since 1999. It focuses upon GPs' experiences of their working lives, including work-related stress and career intentions. In the 2017 iteration of this survey (with responses from 2195 doctors), the numbers reporting that they were likely to quit direct patient care within five years rose to 39% of the total respondents (Gibson *et al.*, 2018), with respondents citing high levels of pressure in their job. However, the generalisability of this data is limited by the structure of the survey,

with relative over-representation of older doctors (aged over 50) and of GP partners compared to the GP workforce.

The Commonwealth Fund surveyed primary care physicians from 11 high-income countries in 2019 (Doty *et al.*, 2020). Commenting upon the implications of this in the UK, Fisher *et al.* (2020) highlight that England has the lowest proportion of GPs feeling satisfied with their workload and the second highest ranking of GPs reporting very high levels of stress. There was a slight reduction in the numbers working full-time compared to the previous survey in 2015, with 49% planning to reduce their weekly clinical hours within the next three years. However, in considering studies comparing GPs working in international healthcare systems, it is important to recognise that there are significant differences in the organisation and expectations of the various systems. Reporting the findings of a questionnaire study comparing workload pressures in primary care across the European Union, McCarthy (2016) highlights the impacts upon individuals of the differences between healthcare systems. Family doctors in Europe refer all chronic disease management to secondary care, and so do not experience the additional workload seen in the UK. Those working in nations who believe that the workload in General Practice is reasonable tend to have a shorter working day (of around eight hours) and a practice list of 1600 patients or fewer per GP. Those in countries with 25 consultations or less a day find General Practice manageable.

Contributing workplace factors have been considered in studies such as that by Riley *et al.* (2018). They considered that the key sources of stress were the emotional work of the role, practice culture and the work role and demands. However, generalisability of the findings from this study is limited by the self-selected nature of the sample, with a majority identifying as currently living with mental illness. These findings are similar to those in another qualitative study of 22 GPs in England where the themes associated with GP stress related to work intensity, patient complexity and the challenges of negotiating work as a GP alongside other commitments (Cheshire *et al.*, 2017).

However, others recognise that individual factors as well as the environment should be considered. McManus, Keeling and Paice (2004), reported upon a prospective cohort study of doctors who had applied for medical school 12 years

previously. They observed that measures of stress, burnout and satisfaction with workload correlated with trait measures of personality. Specifically, doctors who were most stressed showed higher levels of neuroticism (both at the time of the study and previously). Overall satisfaction with medicine as a career related to lower levels of neuroticism.

### **2.1.2 Burnout**

Burnout is defined as a 'state of mental exhaustion caused by one's professional life that consists of three salient features: emotional exhaustion, depersonalisation and a reduced sense of accomplishment or success' (Lee, Medford and Halim, 2015, p. 104). It has been recognised as an occupational hazard for client-centred professions, including teaching and health care (and General Practice).

Kisa, Kisa and Younis (2009) acknowledged that although personal coping styles such as denial and avoidance contribute to the symptoms of burnout, a large component is attributable to organisational factors. This is particularly applicable where there is a mismatch between the physician and the organisation in which they work in terms of expected workload, control over work practices, rewards and values (Maslach, Schaufeli and Leiter, 2001).

In a cross-sectional study of Essex GPs, Orton, Orton and Pereira Gray (2012), found that 46% doctors reported emotional exhaustion, 42% reported depersonalisation, and 34% reported low levels of personal accomplishment. Similar findings were found by Rossouw *et al.* (2014) in South African doctors, where 76% experienced burnout (with high scores on either the emotional exhaustion or depersonalisation subscales of the Maslach Burnout Inventory (1981), and 27% had moderate depression (on the Beck Depression Inventory (Beck, Steer and Carbin, 1988)). In this study, resilience (on the Connor-Davidson Resilience Scale (Connor and Davidson, 2003)) and experience were protective factors. A previous smaller study of family medicine trainees considered personality (using the 16PF personality analysis) and the coping resources inventory. The majority of participants experienced work-related stress (82%) and 88% did not have sufficient coping resources to manage this. The authors felt that what the participants reported as

burnout was more likely depression and anxiety (Pretorius, Basson and Ogunbanjo, 2014).

A study of 402 doctors in South Africa by Pelzer (2003) showed a relationship between job stress (measured using the Job Stress Survey (Spielberger and Vagg, 1994)) and burnout, although a low response rate limited generalisability of the findings. Sources of job stress included lack of organisational support, inadequate salary, dealing with crisis situations, working overtime, and making critical decisions. This study also highlighted gender and racial differences in job stress severity.

An online survey of over 700 non-consultant hospital doctors in Ireland identified that 27.8% reported always or often feeling work-related stress (Feeney *et al.*, 2016). Respondents were asked to rate how often they used 15 listed coping strategies to manage this. Notably, although some effective strategies were used, 21% reported binge eating and 17% withdrawing into themselves as coping mechanisms. Worryingly, there was reluctance amongst this group to seek help for their symptoms of work-related stress.

A similar study amongst a sample of 128 Australian GP registrars by Cooke, Doust and Steele (2013), measured resilience burnout, compassion, satisfaction, personal meaning in patient care and intolerance of uncertainty. Although there were lower levels of burnout than anticipated, there was a strong association between low levels of tolerance of uncertainty and higher levels of burnout; conversely resilience was linked to high compassion satisfaction and a higher tolerance of uncertainty.

A recent metanalysis of physician burnout considered the associations with career engagement and quality of care (Hodkinson *et al.*, 2022). In this study, burnout in physicians was associated with a four-fold decrease in job satisfaction, a three-fold increase in career choice regret and an increase in turnover intention. As with other studies, burnout was greatest in younger doctors.

A proportion of doctors experiencing prolonged job stress and burnout will develop more serious problems which may impact upon the care they deliver to patients. In the Hodkinson metanalysis, there was a two-fold increase in patient safety incidents in physicians with burnout.

Considering GPs more specifically, direct impact on patients has been shown in relation to specific aspects of patient care as well as patient satisfaction. In Denmark, Pedersen, Carlsen and Vedsted (2015) showed that the likelihood of a GP requesting prostate specific antigen (PSA) tests is affected by their own levels of anxiety and stress (as well as their attitude to risk taking). In the Netherlands, using secondary analysis of data collected from practice visits between 2003 and 2006, Van den Hombergh *et al.* (2009) found that in practices where GPs experience less job stress, the patients' report better experiences in relation to accessibility and availability, as well as their perceptions of practice organisation.

In the UK, a cross-sectional study of GPs reported that 95% were suffering from exhaustion, and 87% reported disengagement, as measured using the Oldenburg Burnout Inventory (Demerouti and Bakker, 2008) (Hall *et al.*, 2019). Of the 232 respondents, almost half reported a near-miss safety event in the preceding three months and 16% reported an adverse event. In this study, spending more hours on administrative tasks was associated with lower wellbeing scores which was in turn associated with a higher likelihood of reporting a near-miss event. Similarly, a higher number of hours spent on administration, a higher number of patients seen per day and feeling less supported, were associated with higher burnout levels (and in turn, with worse perceptions of safety). The authors acknowledge that this study had a relatively small sample size and mentioned the possibility of bias since the participants were self-selected, with the majority belonging to the British Medical Association (BMA). The reported rates of burnout were substantially higher than in Orton, Orton and Gray (2012)'s study.

### **2.1.3 Resilience**

Resilience in relation to General Practice may be considered as the individual's ability to adapt to and manage stress and adversity (Lown *et al.*, 2015).

In a qualitative study of a sample of 17 senior doctors with a reputation for resilience in Hamilton in Canada, Jensen *et al.* (2008) identified four resilience themes (Table 1).

Table 1: Resilience themes in doctors (based on Jensen *et al.*, 2008)

Resilience themes	Attributes and approaches
Attitudes and perspectives	<ul style="list-style-type: none"> <li>• Valuing physician role</li> <li>• Self-awareness</li> </ul>
Balance and prioritisation	<ul style="list-style-type: none"> <li>• Professional area</li> <li>• Personal arena</li> </ul>
Practice management style	<ul style="list-style-type: none"> <li>• Business management</li> <li>• Office personnel</li> <li>• Practice arrangements</li> <li>• Technology</li> </ul>
Supportive relations	<ul style="list-style-type: none"> <li>• Professional support</li> <li>• Personal support</li> </ul>

These findings were in accord with those in a previous study of GPs in Scotland where low morale was associated with workload, personal style and practice arrangements (Huby *et al.*, 2002). Indeed, effective partnerships were seen as an important mediating factor between increasing workload and organisational change on the one hand and personal coping strategies on the other.

These resilience themes show significant congruence with the Health and Safety Executive (2007) Management Standards for work-related stress. These are six key areas (or risk factors), which, if poorly managed, are associated with poor health and wellbeing or conversely when well managed reflect high levels of health, wellbeing, and organisational performance (Table 2).

Table 2: Health and Safety Executive Management Standards (2007)

Management standard	Attributes and approaches
Demands	<ul style="list-style-type: none"> <li>• Workload</li> <li>• Work pattern</li> <li>• Work environment</li> </ul>
Support	<ul style="list-style-type: none"> <li>• The encouragement, sponsorship and resources provided by the organisation, line management and colleagues</li> </ul>
Relationships	<ul style="list-style-type: none"> <li>• Promoting positive working to avoid conflict and dealing with unacceptable behaviour</li> </ul>
Role	<ul style="list-style-type: none"> <li>• Whether people understand their role within the organisation</li> <li>• Whether the organisation ensures that they do not have conflicting roles</li> </ul>
Change	<ul style="list-style-type: none"> <li>• How organisational change is managed and communicated in the organisation</li> </ul>

In an review of the impact of employees' wellbeing at work upon workplace performance, Bryson, Forth and Stokes (2014) considered two complementary approaches to the concept of subjective wellbeing. Hedonic approaches focus upon the affective feelings that a person experiences (for example anxiety or contentment) as well as the adequacy of those feelings (satisfaction). By contrast, a eudemonic approach focuses upon the extent to which those feelings give rise to a sense of purpose- this views wellbeing in terms of self-actualisation rather than in terms of self-gratification. The authors comment that the majority of studies adopt a hedonic approach in measuring job satisfaction, and in their work, there was a clear relationship between the average level of job satisfaction and workplace performance. In their literature review, 'favourable attitudes' and employees having higher levels of employee self-esteem, were associated with lower levels of employee turnover and higher productivity.

In his monograph for the Royal College of General Practitioners (RCGP), Toon (2014), a practising GP, suggests that health care is facing a 'moral crisis'. He asserts that a more consumerist ethos in society, coupled with changes in working practices, affect the continuity of the relationship between doctor and patient. This, alongside increases in team working and managerialism, is in accord with the Royal College of Physicians' (2005) suggestion that the "ideals we equate with professionalism are in decline".

Toon (2014) develops the ideas of the ethicist Alasdair Macintyre who suggested that society has experienced a fundamental breakdown in the framework of our moral understanding, including the practice of health care. Toon distinguishes between the concepts of internal and external goods in health care. The flourishing professional in this discussion engages in their practice not principally for the financial rewards (external goods) (although these are necessary), but also for the internal goods which lead to professional fulfilment and job satisfaction, even at times when the job might be difficult or unpleasant. Toon (2014) posits that GPs specifically, are protected to some degree by the dispersed and informal nature of practice from the distorting effects of many of the systemic and managerial changes that hospital colleagues have experienced.

Intuitively, this is somewhat at variance with personal experience 'on the ground'. Studies considering GP comments in an online forum, reported resentment of changes to GP worklife which was perceived as increased bureaucracy and control. Similar negative attitudes were found in a cohort of medical students after a GP attachment (Barber *et al.*, 2018).

Considering the person of the doctor, Wilson and Cunningham (2014) describe the balance between underlying factors which contribute to professional wellbeing and resilience with those which might decrease it, highlighting that when the stressors increase beyond the individual's capacity for coping, doctors show signs of compassion fatigue and burnout. Consequently, there may be adverse outcomes in the workplace, including compromised patient care (Table 3).



Table 3: The balance between wellness and work-related stress (based on Wilson and Cunningham, 2014)

<b>Wellness and resilience</b>	<b>Stressors</b>
Temperament and personality	Unrealistic expectations
Methods of self-care	Perfectionism
Job satisfaction	Adverse outcomes
Finding meaning	Complaints from patients
Physical health	Workaholism
Resilience and coping strategies	Personality issues
Supportive professional culture	Work stressors: patients and work culture
Reflective practice	Personal issues: doctor as patient
	Occupational hazard of doctoring

However, it must be recognised that providing medical care has both positive and negative aspects for the doctor. Huggard, Hudmall Stamm and Perlman (2013) define professional quality of life in terms of how the doctor feels in relation to his or her work as a helper. This incorporates the positive aspects of compassion satisfaction (the pleasure of being able to do their work well), as well as the negative aspect of compassion fatigue (consisting of two parts: burnout, being worn down and overwhelmed by work; and traumatic stress, experiencing fear and from work-related traumatic stress exposure). In a study of 252 doctors in New Zealand, Huggard, Hudmall Stamm and Perlman (2013) demonstrated that both a reduced level of emotional competence and lower resilience predicted the development of compassion fatigue.

Studies to date have demonstrated a significant work-related impact upon doctors' well being and have described some of the individual and workplace attributes which may moderate this. At the same time, there is a body of work that recognises that work-related stress must be balanced against the positive aspects of being a doctor.

### **2.1.4 Summary**

This first section has described the extent of stress and burnout in GPs and the impact of these upon individual professionals. It is noted that many of the studies cited have recruited participants in other (international) contexts which differ from General Practice in England. Even those studies situated in the UK, often provide a historical snapshot of conditions at the time of that study and so are of limited generalisability when considering the present situation.

The next section will consider how theoretical concepts of stress and coping may contribute to an understanding of this situation.

## **2.2 Theoretical concepts of stress and coping**

### **2.2.1 Models of stress and coping**

Stress may be considered as a psychological predictor of physical health. In a physiological context, Walter Cannon and subsequently, Hans Selye, considered stress as the homeostatic response to a noxious stimulus. An initial alarm stage, during which hormones were released, was followed by a period of adaptation to the high levels of stress hormones, with a final stage of exhaustion when the body's resources were depleted. McEwen and Stellar (1993) introduced the concept of allostatic load as the long-term impact of prolonged stress. Rather than maintaining the constancy of a homeostatic response, this concept suggested that the physiological systems in the body fluctuate to meet demands. Four situations may be associated with allostatic load: repeated hits from multiple stressors, a lack of adaptation, a prolonged response, or an inadequate response (Figure 1). Each of these responses illustrates a different deviation from normality with different implications for health. Repeated hits sustained over a period of time may trigger repeated elevation in blood pressure. A lack of adaptation may expose the body to high levels of stress hormones. The body may be exposed to the stress response for a prolonged period when there is a delayed shutdown. Finally, an inadequate response may be problematic as there is a reduction in hormones released in response to stress (such as cortisol).

It is these physiological changes which may have exacerbated the health problems observed in colleagues. However, although this work provides evidence

that environmental factors could influence physical functioning (and ill health) in GPs, this approach fails to explain individual differences.

Research in the field of psychoneuroimmunology has highlighted the triangular relationship between mood, the activation of the sympathetic adrenal medullary system and hypothalamic-pituitary- adrenal axis in response to stress and the response of the immune system (Evans, Hucklebridge and Clow, 2000). However, in their work on Cognitive Activation Theory, Ursin and Eriksen (2004) acknowledge that the effects of stress are manifest in four distinct domains: physiology, behaviour, subjective experience, and cognitive function. This theory posits that the stress response is modified according to the individual's expectancy of the event, which may be positive, negative or none. The positive expectancy is associated with coping, the negative with hopelessness and a lack of expectancy is associated with helplessness. In this model, the stress response may have a positive outcome (representing training) or negative (straining) (Figure 2).

Figure 1: Four types of allostatic load (from McEwen and Stellar, 1993)

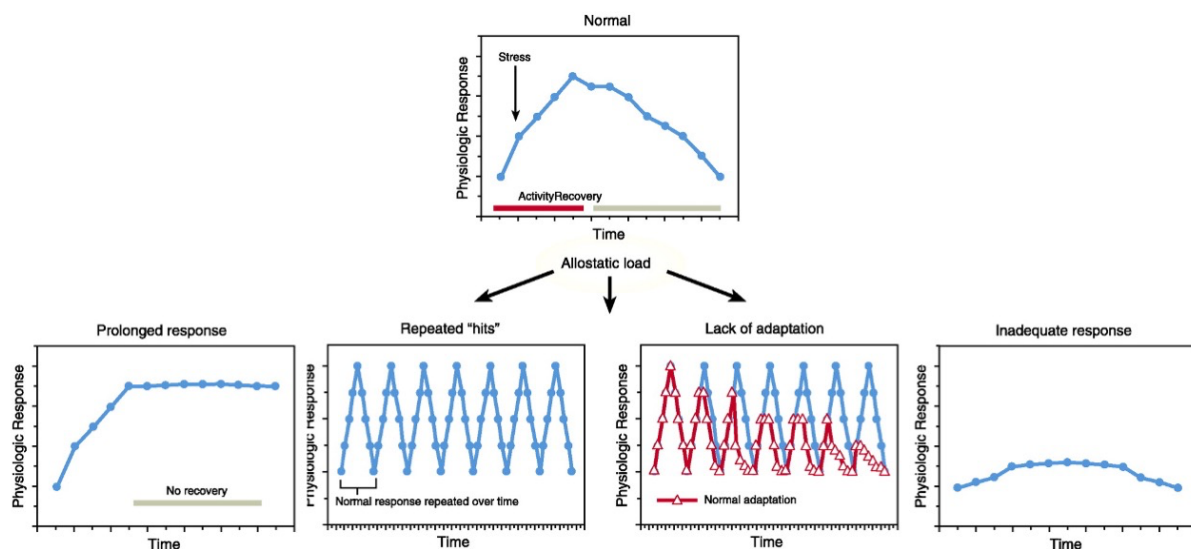
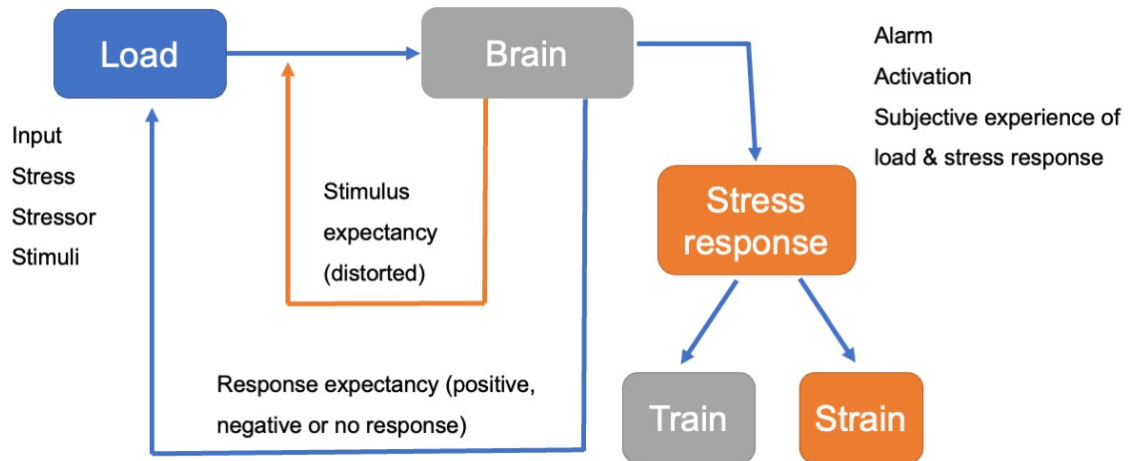


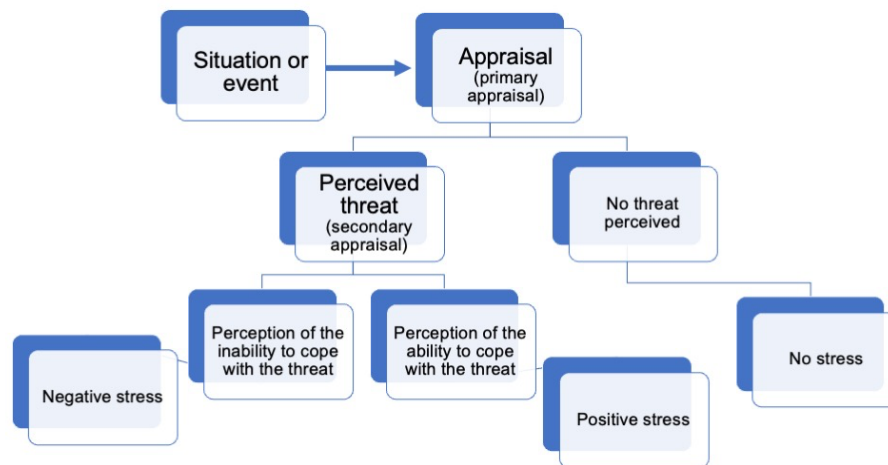
Figure 2: The Cognitive Activation Theory of Stress (from Ursin and Eriksen, 2004)



According to the transactional model of coping, described by Lazarus and Folkman (1984), the interactions between environmental factors and the individual are dynamic and depend upon the individual's cognitive appraisal of the situation. The primary appraisal considers how the individual perceives potential threats and challenges, with a secondary appraisal considering the possible coping options that may be emotion focused or problem focused (Figure 3). In Lazarus and Folkman's (1984) work, encounters judged to require acceptance were associated with greater emphasis on emotion-focused coping than those that the individual felt could be acted upon (which were associated with a greater emphasis on problem-focused coping). This is in accord with the views of Launer (2013), who considers that the unhappiness of many doctors stems from their difficulties in acknowledging their inability to effect change.

This theoretical model may be useful in considering individual differences in response to workplace stress in GPs and how factors at the individual and environmental level interact to influence outcomes.

Figure 3: Transactional Model of Coping (Lazarus and Folkman, 1984)



Formal measurement of stress has resulted in measures of discrete life events, such as the Social Readjustment Rating Scale, developed by Holmes and Rahe (1967). The items included are considered to be emotionally distressing and are rated according to the readjustment to the average person's routine (Table 4).

Although these are discrete verifiable changes, Lazarus and Folkman (1984) note the limitations of this reductive approach. Stressors are not by nature single entities. In their analysis they consider factors which will affect the individual response. Causal antecedents include factors such as an individual's social networks and the environmental context of the event. Mediating processes include the appraisal of the stress by an individual as well as their coping style. Finally, there may be different immediate and long-term responses to events. Similarly, the individual's perception of the meaning of an event (and how it is appraised) will alter the magnitude of the response. Given the complexity of the relationship between the individual and the stresses they are exposed to, later work has included the consideration of day-to-day hassles of life as well as more major life events. Kanner *et al.* (1981) noted that the Hassles and Uplifts Scale was a better predictor of concurrent and subsequent psychological symptoms than were the life events scores (Table 5). Even with these additional dimensions, this is undoubtedly a simplistic approach when considering the complex and often chaotic daily life of a GP.

Table 4: Examples of items in the Social Readjustment Rating Scale (from Holmes and Rahe, 1967)

<b>Life Event</b>	<b>Life Change Unit</b>
Death of spouse	100
Divorce	73
Marital separation	65
Jail term	63
Death of close family member	63
Personal illness or injury	63
Marriage	50
Fired at work	47
Marital reconciliation	45
Retirement	45
Change in health of a family member	44
Pregnancy	40
Sex difficulties	39
Gain of a new family member	39
Business readjustment	39
Change in financial state	38
Death of a close friend	37
Change to a different line of work	36

Table 5: Examples of ranked items in the Hassles and Uplifts Scale (from Kanner *et al.*, 1981)

Daily Hassles		Daily Uplifts	
1	Concerns about weight	1	Relating well to spouse
2	Health of a family member	2	Relating well to friends
3	Rising price of common goods	3	Completing a task
4	Home maintenance	4	Feeling healthy
5	Too many things to do	5	Getting enough sleep
6	Misplacing or losing things	6	Eating out
7	Outside home maintenance	7	Meeting your responsibilities
8	Property, investment or taxes	8	Visiting, phoning or writing to someone
9	Crime	9	Spending time with your family
10	Physical appearance	10	Finding your home a pleasant environment

An alternative approach to the stress response is suggested by Hobfoll (2001) whose Conservation of Resources theory predicts that resource loss is the principal ingredient in the stress process. He considers that stress is a response to loss, threatened loss or a failure to gain resources. These resources might be personal (such as a sense of mastery) or social (such as social support). Individuals strive to obtain, retain, protect, and foster those things that they value. This model predicts that when faced with disaster, people will seek to minimise resource loss. Hence, burnout in the workplace is thought to be a consequence of the lack of resource gain and the insidious effect of minor chronic losses. Hobfoll (2001) develops the notion of Resource Caravans, where having one major resource is linked to having another. Therefore, having a sense of self efficacy is likely to be linked to optimism and the availability of social support in demanding contexts. Proactive coping is linked both to the acquisition of resources as well as to positioning self and resources in a proactive position. This model resonates with my observations of individuals in the workplace.

A review by the York Health Economics Consortium (Land, Hex and Bartlett, 2012) considered the motivators to change (in the NHS). The extrinsic motivators were typically tangible and included payment and incentive systems, whilst the

intrinsic factors were described in terms of energy, including both intellectual and physical aspects as well as recognising and responding to social, spiritual, and psychological energy. This parallels the notion of resources in Hobfoll's (2001) model.

### **2.2.2 Stress and the workplace**

Concerns about work-related stress have led to the development of frameworks to classify factors which might cause stress for individuals in the workplace.

#### **2.2.2.1 Vitamin model of job stress**

Warr (1987) listed nine key factors related to work, essential for good mental health (summarised in Table 6). Like the Health and Safety Executive (2007) Management Standards for work-related stress, this focuses on external factors rather than the individual's response to stressors. Furthermore, this approach does not address how these factors interact with each other. This has led to a range of more complex interactional models.

Table 6: 'Vitamin' model of job stress (after Warr, 1987)

<b>Too much or too little of these variables may be bad for wellbeing</b>	Appropriate levels of personal control over activities
	Opportunities to use existing skills and develop new skills
	Opportunities to pursue goals or meet demands
	Variety
	Clarity
	Opportunity for interpersonal contact
<b>These factors are stressful if there is a shortage</b>	Money
	Physical security
	Holding a valued social position

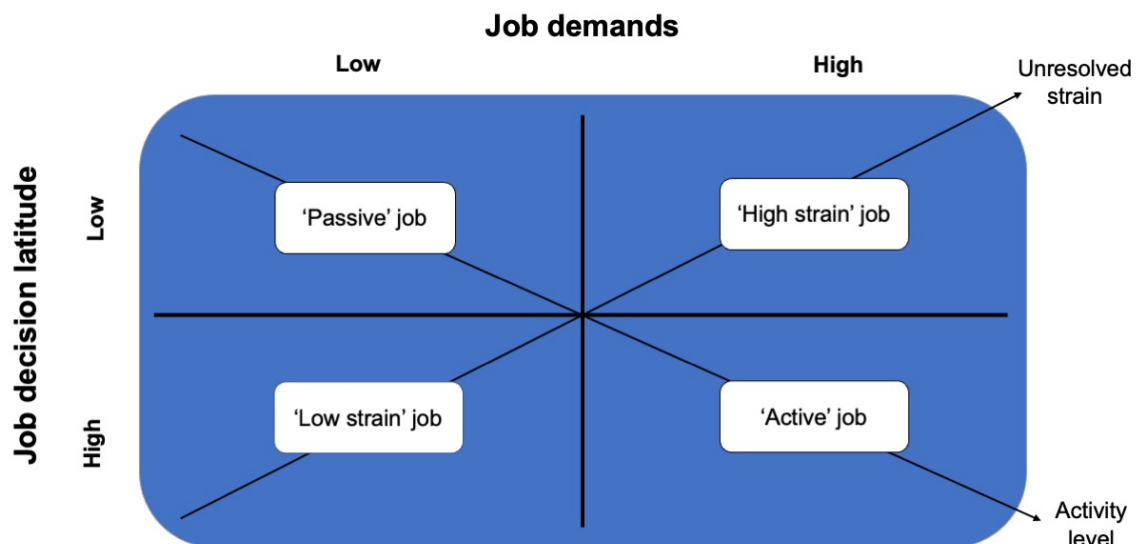


### 2.2.2.2 Job Demand-Control (JD-C) model

In considering how work conditions interact and impact upon the well being of employees, Karasek's (1979) model is based upon the notion that mental strain results from the interaction of job demands and job decision latitude (Figure 4). In this model, job demands are the stressors in the work environment, such as tight deadlines, interruptions, and conflicting pressures. Job control (or decision latitude) considers the extent to which people have autonomy and can control their work.

Research in Sweden has demonstrated a relationship between high strain job roles and cardiovascular disease which is exacerbated by low levels of social support. The original Karasek model has been modified by Johnson and Hall (1988) to take account of workplace support as a third dimension. In an extensive review of 83 studies of both versions of the model, Häusser *et al.* (2010) found consistent support for the inclusion of all three domains in relation to general psychological well being, job related well being and job satisfaction. A key criticism of these models however is that they do not take account of individual differences.

Figure 4: Job Demand-Control model (Karasek, 1979)



### **2.2.2.3 Job Demand-Resources (JD-R) model**

Demerouti *et al.* (2001) considered work-related stress from the perspective of burnout (as described by Maslach and Jackson (1981)). Burnout has three components: exhaustion, depersonalisation, and lack of personal accomplishment. Initial studies were of human services professionals including social workers, teachers, and doctors. Demerouti *et al.* (2001) argued that there was no theoretical rationale for limiting the concept of burnout to these professions, and their model considered the balance between:

- job demands (the physical, social, or organisational aspects of the job that require sustained physical and/or psychological effort) and
- job resources (the broad range of aspects of a job that serve to help the individual to achieve their work goals, reduce job demands or facilitate personal growth). Later versions of the model have also included personal resources.

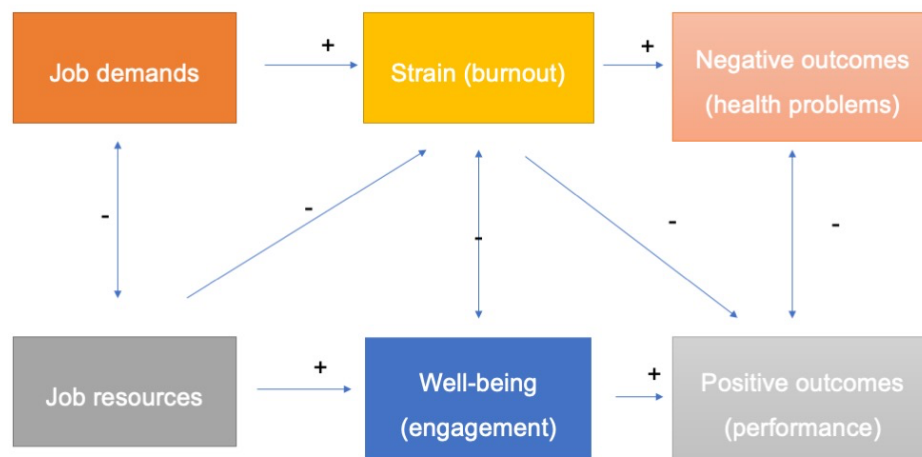
Demerouti *et al.*'s (2001) view is that traditional stress reactions such as fatigue, anxiety and job-related depression, resemble Maslach's concept of emotional exhaustion. Broadly, job demands equate to the exhaustion component of burnout. Similarly, depersonalisation may be characterised as a withdrawal or mental distancing which may manifest as alienation, disengagement or cynicism concerning the job and may be equated to job resources in this model. An imbalance between these two factors may result in either health impairment (where there is excessive demand) or motivation (where there is increased engagement). Demerouti *et al.* (2001) argue that reduced personal efficacy is not included in this model as it is not a core dimension of burnout and has the weakest link with other variables. This concurs with the view of Cordes and Dougherty (1993) (in their review of the literature on burnout), that personal accomplishment should be viewed as a personality characteristic similar to self-efficacy.

A revised version of the J D-C model was proposed by Schaufeli and Bakker (2004). Based on a study of a large sample of Dutch service workers, they conclude that burnout and work engagement are negatively related but exhibit different patterns of possible causes and consequences. In this work, burnout is predicted by both job demands and lack of resources whilst engagement is predicted only by job

resources (Figure 5). They conclude that preventive organisational strategies to tackle high job demands should have an impact upon burnout and health problems and are to be preferred to increasing job resources.

In a review of the JD-R model, Schaufeli and Taris (2014) note consistent cross sectional and longitudinal evidence for impact of job demands and resources upon burnout and organisational engagement in a wide variety of jobs in a range of countries. The evidence for the role of personal resources is less consistent.

Figure 5: The revised Job Demands-Resources model (after Schaufeli and Bakker, 2004)

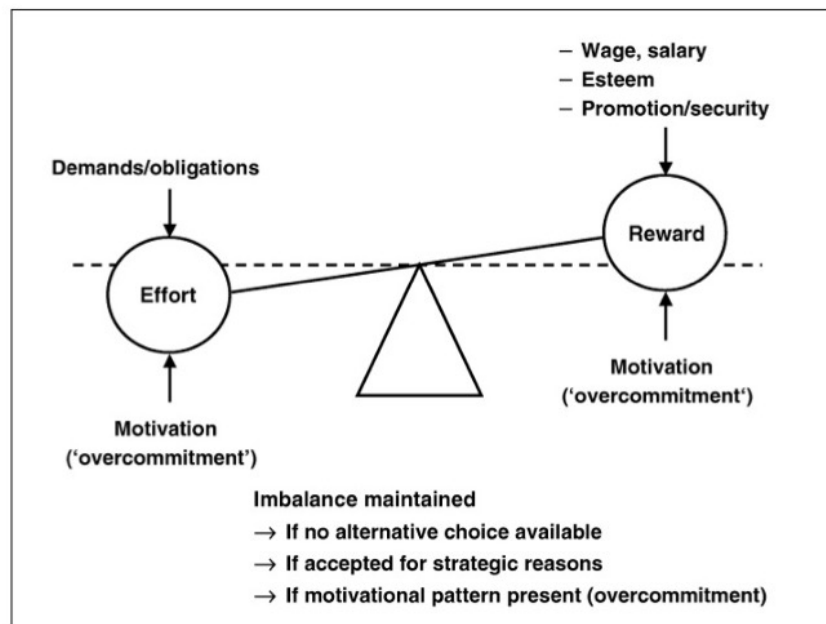


#### 2.2.2.4 Effort-Reward imbalance model

A further model is that proposed by Siegrist (1996) who considered the reciprocity which is expected in social interactions at work (Figure 6). If there is a mismatch between the effort which employees believe they are putting into their work and the rewards they receive, the result is negative outcomes for health and well being. In this model, Siegrist argued that the efforts could either be extrinsic – relating to the demands and obligations of the job- or intrinsic, such as a personal need for control. Siegrist demonstrated that failed reciprocity in terms of high effort/low reward situations is related to chronically stressful experiences and adverse (cardiovascular) health outcomes.

In further work, de Jonge *et al.* (2000) combined the Job Demand-Control and Effort-Reward imbalance models to consider wellbeing in a large cross-sectional study in Holland. They found that there were independent effects on emotional exhaustion, psychosomatic and physical health complaints. Effort-Reward imbalance and low job control predicted negative health outcomes.

Figure 6: Effort-Reward imbalance model (after Siegrist, 1996)



### 2.2.3 Work-life conflict

Changing patterns of work, with the advent of new technology and flexible working patterns, mean that it is important to consider the relationships between work and other aspects of life. Staines (1980) considered three possible relationships between work and home life:

- 'spillover' where the impact of work also affected the individual at home
- 'compensation' where the impact of work was mitigated by seeking contrasting experiences at home
- 'segmentation' where there was no relationship between work and home.

Subsequent studies, such as those by Williams and Alliger (1994) considering employed parents, described spillover, particularly of negative moods from home to work and vice versa.

Carlson, Kacmar and Williams (2000) considered that work family conflict may be considered in six domains (Table 7). In their validation of the model, they tested the association with antecedents of work-role conflict, work-role ambiguity, work involvement and work social support, as well as the outcomes of job satisfaction, family satisfaction, life satisfaction and organisational commitment. Additionally, this work considered that interference may operate in both directions.

Table 7: Domains of Work Family Conflict (Carlson, Kacmar and Williams, 2000)

		<b>Direction of work family conflict</b>	
		Work interference with family	Family interference with work
<b>Forms of work family conflict</b>	<b>Time</b>	Time based	Time based
	<b>Strain</b>	Strain based	Strain based
	<b>Behavioural</b>	Behavioural based	Behavioural based

The use of the term ‘conflict’ presupposes an inherent negativism in the relationships between family and work. Building upon the work of Hobfoll, Ten Brummelhuis and Bakker (2012) developed a Work-Home Resources model, which took a more neutral approach, suggesting that personal resources (such as time, energy, and mood) link domains of life. In this model, demands in one domain may deplete personal resources in another. Equally, enrichment is a process of resource accumulation in which work and home resources may augment personal resources which can then be used to improve outcomes. This model may help to explain how factors such as personality and culture may affect both work-home conflict and enrichment.

More recent work by Braun and Nieberle (2017) has demonstrated that it is possible to effect changes in Work Family Enrichment (WFE). In this study, authentic leadership is related to positive changes in WFE

#### **2.2.4 The individual**

In the hierarchy of needs, Maslow, Frager and Fadiman (1970) originally set out a five-stage model, the lower levels needing to be met before the higher level growth needs could be. At the lowest level are the basic physiological and safety needs, before those of love and belongingness, esteem, and self-actualisation. The model was later expanded to include cognitive and aesthetic needs and the highest level of transcendence- helping others to achieve self-actualisation. It is interesting to consider how this might apply to current day GPs and their individual perspectives upon how the policy changes which are considered later in this chapter (in Section 2.3) are impacting upon their security.

In considering stress, it is helpful to consider the meaning of well being and how this is manifests in individuals. As has been discussed in relation to the workplace in Section 2.13, this may be considered by either a hedonic approach with well being equating to pleasure, or by a eudaemonic approach in which well being is seen as fulfillment.

Diener *et al.* (1999) considered that subjective well being is an individual response based upon their emotional reactions (positive and negative affect), as well cognitive judgements regarding satisfaction with life generally and domains of life (work, family, leisure, health, finances, self) in particular. There are clear links between subjective well being and personality traits. Subjective well being is a relatively static trait over time. Demographic factors, health and income appear to account for only a small proportion of the variance.

In contrast, Ryff and Keyes (1995) argued that psychological well being entails the perception of engagement with the existential challenges of life. The core dimensions in this model are:

- Self-acceptance
- Positive relations with others
- Autonomy
- Environmental mastery
- Purpose in life
- Personal growth

This is pertinent to GPs who are exposed to the existential challenges of others as well as themselves on a daily basis. Their work is characterised by interactions with members of their primary care team, with professional autonomy and a sense of vocation.

These dimensions resonate with the themes identified by Toon (2009). Ryff, Singer and Love (2004) reported that amongst a group of elderly women, those with higher levels of eudaemonic well being had lower levels of salivary cortisol, pro-inflammatory cytokines, and cardiovascular risk, as well as longer duration of REM sleep. Hedonic well being showed a minimal link to biomarker assessments.

Both approaches are helpful when considering stressors for GPs in that they are addressing individual differences in terms of their personal circumstances and the interpretation of these, as well as their perceptions of the role and meaning of the job. However, with the links to personality, measures may not necessarily be sensitive to the recent changes in role.

#### ***2.2.4.1 Coping and resilience***

A further set of individual concepts to consider are those of coping and personal resilience. Rice and Liu (2016) differentiated between coping as the use of purposeful actions to handle life situations and resilience as the positive handling of oneself and one's life, referring to the ability to recover, regenerate and recuperate. They noted that resilience is not predictably stable over time as it is influenced by internal and external factors and life experiences. With regard to workplace relevance, they listed five essential components:

- Self-reliance
- Meaning
- Equanimity
- Perseverance
- Existential aloneness

In terms of coping, this review identified three approaches: problem focused, emotion focused and dysfunctional. In the updated model of stress and coping, Folkman (2008) acknowledged the beneficial buffering effects of positive emotions in the context of stress. Positive psychological states were associated with constructive

reappraisal of a situation, when coping was goal directed, spiritual beliefs utilised, and circumstances positively reframed.

An alternative approach to coping distinguishes between different coping styles or dispositions. A repressive coping style is typified by the avoidance of negative feelings. Derakshan and Eysenck (1997) considered how those with a repressive coping style appraise information in a non-threatening manner. This group may constitute 10-20% of the population, with differences between cultural groups. With regard to stress research, Myers (2010) cautioned that those with a repressive coping style tend to under-report negative affect and report fewer symptoms on self-report questionnaires. They advise using more than one method of data collection to overcome this.

#### **2.2.4.2 Social support**

Although social networks have been considered in relation to work in Section 2.2.3, it must be recognised that social support may be regarded as an individual resource to protect against stress and/or to facilitate coping. Conceptually, it may be considered at a structural (the nature of the support provided) or functional level. Functional support is a broader concept including the nature of support, perceived availability and satisfaction with specific forms of support, as well as whether it operated in a uni-directional or reciprocal manner (Underwood, 2000). Social support may be considered to have an effect upon well being through direct effects as well as moderating and mediating mechanisms. Cohen and Wills (1985) found that when measures of structural support were used, a direct effect was found, whilst moderating effects were found when more functional aspects such as perceived availability (of social support) was considered.

#### **2.2.4.3 Personality**

A further individual difference to consider is the impact of personality type on the ways in which people cope in particular situations. Hewitt and Flett (1996) suggest that of the personality traits, neuroticism is associated with maladaptive coping. Costa, Somerfield and McCrae (1996) reported that people high in neuroticism tend to react badly to stressors, whilst extraversion and openness to experience are related to coping in stressful situations.



An additional consideration is that there may be individual differences in the perception and thus reporting of stress. Research by Cooper and Bright (2001) found that those with negative affectivity had a dispositional tendency to experience negative emotions and a negative self-concept.

In a literature review of family practitioners in the USA, Borges and Savickas (2002) suggested a loose association between personality type and medical specialty. Family Practitioners are characterised by agreeableness and conscientiousness but may vary regarding openness to experience. In this work, family practice residents exhibited less openness to experience than those who had completed a residency programme. Considering Myers-Briggs Type Indicator studies, Taylor, Clark and Sinclair (1990) suggested a change in personalities of family practitioners had been noted between the 1950s and 1980s. GPs in the 1950s were predominantly sensors (S), thinkers (T) and perceivers (P), whilst those in 1978 were sensors (S) and judgers (J). In 1990, the most common types included dimensions of intuition (N) and feeling (F). It was suggested that changes in the medical school curriculum and managed care may have contributed to these changes.

Considering the current UK medical workforce, Oxtoby (2013) discusses the changing stereotypes of the profession, noting that personality traits and socialisation into a specialty have a role in the practitioner's choice of specialty. They comment on the changes in the demographic mix of the profession with both the feminisation of the workforce and diversification of social mix. Specialties have also changed over time, with GPs now expected to take on a range of roles including education and management, alongside a perceived reduction in the compassionate, caring clinician elements of the role. This broadening of the role is in accord with my own experience where I have taken on roles in education, leadership, management, and quality improvement, alongside coordinating long-term care of patients and advocating on their behalf across the divide between primary and secondary care.

### **2.2.5 Theoretical perspectives**

Taken together, these theories suggest that in order to consider the issue of workplace stress in GPs and to identify potential solutions, it will be helpful to understand how they appraise their situations, and what they consider to be the

demands of their role (and the resources available to undertake it). At an individual level, differences in personality, coping styles and social support, impact upon measures of burnout and stress.

The final section in this chapter will consider the wider context in which NHS GPs in England practice, and how this may impact individuals in the workplace.

### **2.3 The context of NHS General Practice**

The NHS was founded and continues as a centrally funded comprehensive service offering health care to the population. Primary care within this is largely provided by independent contractors (GP partnerships). Frequent organisational change and turbulence have been the hallmark of the NHS, particularly since the 1970s, as successive governments have reformed its structure. There are increasing demands on the service, with demographic changes and an ageing population, as well as advances in health care, with the possibility of new healthcare interventions. I realise that I have lived through these changes, not fully appreciating the extent of the transformation of the system whilst focusing on the day-to-day practice work.

An overview of the evolution of NHS General Practice in England is summarised in Table 8. This has shaped professional experience. A consistent trajectory is the concept of grouping GPs into larger groupings.

Table 8: Timeline of NHS General Practice (based upon Goodwin *et al.* (2011))

1948	Formation of the NHS	GPs have a responsibility for a registered list but remain as independent contractors
1950s		Most GPs working as single-handed practices or with one partner
1960s	Organisation 1966 New contract	Improved pay and conditions, with a maximum list size of 2000 patients, resources for education, improved premises, and staff Financial incentives for group practices
1970s	Professionalisation	RCGP founded. Mandatory GP training from 1976. Alma Ata declaration on primary care 1978
1980s	Managerialism	Early attempts to measure quality and provide incentives for improvement
1990s	Marketisation 1990 New contract	Increased scrutiny in new contract. GP fundholding with responsibilities for commissioning and involvement in wider healthcare system
2000s	Incentivisation 2004 New contract	Increased emphasis on performance-related pay (QOF). Annual appraisal for GPs from 2002
2010s	Regulation	Stronger regulatory and governance mechanisms with requirement for CQC inspection from 2012. Five year Forward View and NHS Long Term Plan
2020s	Integration 2020 New contract	Primary Care Networks from 2020

### **2.3.1 Health Care Policy context in the National Health Service**

Health policy is inextricably linked to politics as successive governments translate their political vision into programmes to deliver change. Drawing upon the ideas of Easton, Ham (2009) explains that political activity is distinguished by its concern to allocate a range of rewards and values within a given society. Using this framework, a policy consists of a web of decisions and actions that allocate values. This view encompasses formal decisions and actions and the way in which choices are made. It must also be recognised that policy is not always a positive action and realising that it encompasses non-decision making is also important, as in some cases, political activity is concerned with maintaining the status quo and resisting challenges to the existing allocation of values. Policies are not static and change

over time. The complex network underpinning the policy process means that those who make the decisions are rarely those responsible for implementation.

Public policies may be categorised in three ways and health care involves all these types of policy in varying measures in different countries as governments attempt to influence the provision of health care to their citizens. Regulatory policies impose constraints or restrictions on the actions of individuals and provide rules of conduct, for example, in the licensing of professionals and approving medication. Distributive policies are based on the notion of public goods and services which benefit all individuals, but which are unlikely to be produced by voluntary acts of individuals, for example, the NHS in the UK. Finally, redistributive policies represent a deliberate attempt to change the allocation of general resources from one group to another, for example, through taxation (Blank and Burau, 2014).

In considering the changing political context in which the NHS has evolved and the tensions in its design, Klein (2010) suggests that there has been an evolution from a paternalistic model (likened to a secular church), to a more consumerist version (likened to a garage) (Table 9).

Table 9: Evolution of health care from paternalistic to consumerist (from Klein, 2010)

<b>Model 1: Health care as a church</b>	<b>Model 2: Health care as a garage</b>
Paternalism	Consumerism
Planning	Responsiveness
Need	Demand
Priorities	Choice
Trust	Contract
Universality	Pluralistic
Stability	Adaptability

Thus, it can be seen that governments change the methods of provision of health care, with increasing pressures upon the service as the population ages. Growing awareness of rights within a consumerist society, as well as the emergence of new technologies, have compounded these demands. A consequence of this is

the commodification of health in which the operational dynamic of health care is subject to market mechanisms.

### **2.3.2 Impact of policy changes upon General Practice**

As part of these reforms, the role of the GP has evolved. Primary Care Groups (PCGs) implemented after the NHS Plan in 2000, brought all GPs in a geographical area together with devolved responsibility for managing their budget for health care. Reducing health inequalities and increasing efficiency through target setting and performance management were notable features of this plan (Dixon and Dewar, 2000). In 2004, the negotiation of a new GP contract limited the responsibility of GPs to care for their patients within core working hours, transferring the responsibility for out-of-hours cover to Primary Care Trusts (PCTs). This contract overtly linked pay to performance with the implementation of the Quality and Outcomes Framework (Roland, 2009). Although this had a positive impact upon GP earnings, Lester *et al.* (2013) demonstrated a negative impact upon some aspects of professionalism, such as clinical autonomy. Lord Darzi's 'High Quality Care for All' review of the NHS in 2008, notionally shifted the emphasis from speed of access to quality, with the concept of quality broadened to encompass patient experience as well as clinical outcomes (Maybin and Thorlby, 2008). Looking specifically at General Practice, it noted that GPs were poor at meeting the challenges of health promotion. Following the *Health and Social Care Act (2012)*, PCTs were replaced by Clinical Commissioning Groups (CCGs), extending competition in the NHS and devolving decision making. As a consequence of these reforms, GP practices began to explore how they might work together in federations and networks (Ham *et al.*, 2015).

Increased regulation was introduced with a comprehensive inspection regime of all General Practices by the Care Quality Commission (CQC) launched in 2012. Whilst understanding that regulation is important in the assurance of a basic standard of health care, it is recognised that there are negative impacts of the added administrative and clinical burden which this adds (Gillam and Siriwardena, 2014). CQC regulation is specifically recognised in the Kings Fund report as an additional bureaucratic burden (Baird *et al.*, 2016). A report by the NHS Alliance listed the chief sources of administrative burden for General Practices as getting paid, processing information from hospitals and other providers, keeping up to date with changes,

reporting for contract monitoring or regulation and finally, supporting patients to navigate the health care system (Clay and Stern, 2015). The authors recognise the sense of frustration in practices about work that could potentially be done differently thus freeing up time, reducing workload and offering better support to patients.

The Five Year Forward View (NHS England, 2014) set out different models of working to meet the differing needs of local populations, with commitments to support clinicians, particularly those in primary care. In their commentary, Maruthappu, Sood and Keogh (2014), recognised that General Practice is under strain, related in part to the relative underfunding compared to secondary care services. The GP Forward View (NHS England, 2016) promised significant investment, along with measures to reduce workload and bureaucracy as well as supporting increases in the workforce and service redesign. This investment was delivered with the establishment of Primary Care Networks (PCNs) as part of a new contract in 2020. However, access to funding was linked to a set of complex expectations and responsibilities, and initial work suggests that although these networks have made a positive start, they remain inherently fragile organisations (Smith *et al.*, 2021).

Taken together, these changes mean that there have been significant contractual, organisational, administrative, and regulatory changes for General Practice to accommodate at a time of financial constraint. The comments made by Mathers and Lester (2011) about the transition from '*cottage industry to post-industrial care*' are pertinent to the evolutionary journey of NHS General Practice since 1948.

### **2.3.3 Impact of the changes upon the workforce**

The RCGP (2013) report 'A Vision for General Practice in the future NHS', highlights the impact of the changing direction of healthcare policies, with a need for expert generalist care to meet these challenges whilst recognising that the pressures on General Practice to deliver effective care are mounting. The supporting evidence for this report considers the challenges facing all healthcare services (RCGP (Royal College of General Practitioners, 2012):

- an increase in the number of patients with long-term conditions and multi-morbidity, and ageing populations
- fragmented care
- delivering integrated care
- the challenge of addressing health inequalities and the greater need for disease prevention
- the challenge of engaging patients in their own care
- financial constraints

It describes the need to recognise the impact upon GPs and their teams that derives from increasing complexity, workload and demand, and a constant movement of care into community settings without simultaneous movement of staff, resources, and expertise, noting that such concerns are particularly pertinent in areas of deprivation. Although one of the objectives of the NHS Plan 2000 was to increase the number of GPs in deprived areas, in 2008, 65% of PCTs in spearhead areas still had lower levels of GP coverage than the national average (Dixon and Dewar, 2000). Stark differences remain in more recent figures. Commenting upon analysis by the Health Foundation and Nuffield Trust, Iacobucci (2019) noted that patient numbers were 15% higher in the most deprived 10% of CCGs, than the least deprived.

Workload in primary care has increased with a doubling of consultation rates (from 3.9 per annum in 1995 to 5.5 per annum in 2008 (Hippisley-Cox and Vinogradova, 2009)), combined with new methods of access such as telephone triage and changes in services provided. This is borne out in the findings of the GP Worklife Survey (Gibson *et al.*, 2015) which noted that GPs reported most stress due to increasing workloads and changes to meet requirements of external bodies. In this survey, 95.2% respondents reported that they have to work very intensively, which, despite being similar to the figure in the 2012 survey, has increased from 81.6% in 2005. In a BMA survey (2015) (including the responses of a representative sample of 15,000 BMA members), 53% felt that their workload was generally manageable if too busy at times, whereas 37% felt that it was unmanageable. Changes in working practices were described in this study, including 37% reporting that their practice had joined with other practices in a network or federation arrangement, as well as the

views of individuals to changing methods of communicating with patients using new technology.

A Nuffield Trust (2022) overview of the current state of General Practice in England noted a four percent increase in the total GP workforce over the period 2006-13 (to 32,075), although the number of GPs per 100,000 population in England fell slightly between 2010 to 2013 from 60.5 to 60 (Dayan *et al.*, 2014). The trend for part-time working within a more diverse employment structure, was coupled with a shift from the independent contractor model, with a fall from 79% of the GP workforce in 2006 to 66% in 2013. Alongside this move to salaried working, has been a shift to larger practices. Tracking of this data by the Nuffield Trust (2022) demonstrates that these trends continue with a further fall of (416) fully qualified GPs between 2016 and 2021.

There has been a real-terms decrease in spending on GP services. Whilst most patients continue to be satisfied with their experience of General Practice, there has been a year-on-year increase in the difficulties experienced by patients wishing to access services.

These themes are repeated in the Kings Fund report on pressures in General Practice (Baird *et al.*, 2016). According to this report, there has been a 15% increase in direct patient contacts from April 2010 to March 2011 compared to April 2014 to March 2015, with an increasing proportion and number of telephone consultations. Public expectations for the competing demands of both rapid access and continuity of care are a source of stress. There was a perception from the GPs interviewed that patients had become less willing to manage minor illnesses had increased expectations of treatment. GPs also described how changes in the healthcare system were adding to the pressures of work in General Practice. These included new services such as vaccinations, new medicines with the requirements for monitoring, as well as preventive health services and guidelines. New clinical guidelines, public health campaigns and administrative tasks, all had an impact on day-to-day work, as did navigating relationships with other services in the system that were also under pressure. The proportion of NHS spending on primary care in 2014/5 (7.94%) was the lowest in 10 years and has decreased in real terms over the period of this study. Within the workforce, there has been a doubling of the



proportion of GPs aged 55-64 leaving the profession (between 2005 and 2015), with an increasing trend for GPs to work in salaried and locum roles, particularly amongst the younger doctors interviewed for this study.

Lemaire, Wallace and Jovanovic (2013) describe the impact of the generational and gender shifts on the medical profession. The increased proportion of female doctors in the medical workforce is well recognised, and general literature on coping strategies consistently reports gender differences. Alongside this is the generational shift, so the Baby Boomer doctors are now approaching retirement, with many of those practicing medicine being from Generation X, and those from Generation Y now entering the workforce. According to Lemaire, Wallace and Jovanovic (2013), different factors are associated with burnout for those from different generations. For 'Baby Boomers', factors associated with burnout were anxieties about clinical competence, worries about physician shortages, financial concerns, and concerns about drug and/or alcohol abuse. By contrast, 'Generation X' were more concerned about longer working hours, greater conflict between work and home life and a high debt load.

According to Addicott *et al.* (2015), modelling of the future GP workforce has suggested that the current rate of increase in numbers of GPs will not meet the anticipated demands – and will result in a significant undersupply of GPs by 2020. This has been compounded by both the failure to fill GP training posts and the ageing demographic of the existing workforce. The authors of the report conclude that there is a need for a workforce that is fit for purpose and able to adapt to both changing demographics of the population and the new care models. Thus far, these targets have not been met, with the Nuffield Trust (2022) reporting that numbers of GPs fell by 321 full-time equivalents over this period.

At a more local level, a questionnaire study in the West Midlands considering factors contributing to the intention to leave practice or take a career break identified similar themes (Dale *et al.*, 2015). The authors grouped these into workplace factors (such as workload pressure, growth in patient expectations and demand, burgeoning administration, and bureaucracy, as well as the growth in additional roles and responsibilities), and individual motivators (associated with personal attributes, aspiration, and rewards).

Looking specifically at those leaving the workforce before the age of 50, Doran *et al.* (2016) identified that the reasons for doing so are often complex and multifactorial. Organisational changes have led to an increase in administrative tasks and workload whilst lack of time has compromised the ability to provide patient-centred care with a concomitant loss of professional autonomy and diminished job satisfaction. Additionally, the pressures of increasing patient demand and negative media portrayal have left many feeling unsupported.

Thus, it may be seen that there is a consistent pattern of increasing workload at the individual GP level, occurring at the same time as both demographic changes in the general practice workforce and difficulties with recruitment and retention. These factors are summarised in

Table 10.

Table 10: Summary of factors impacting upon GPs' working lives

Factors	Examples
<b>Contractual and Organisational</b>	<ul style="list-style-type: none"> <li>• Changes in the models of working</li> <li>• Practice federation</li> <li>• Shift in workload from secondary care</li> <li>• Fragmented care</li> <li>• Complex system to navigate</li> <li>• Financial constraints</li> </ul>
<b>Administrative</b>	<ul style="list-style-type: none"> <li>• Introduction of new services</li> <li>• Preventive health campaigns</li> <li>• New guidelines</li> </ul>
<b>Regulatory</b>	<ul style="list-style-type: none"> <li>• Meeting the requirements of external bodies e.g., CQC and GMC</li> </ul>
<b>Patient</b>	<ul style="list-style-type: none"> <li>• Increasing case complexity with multi-morbidity</li> <li>• Reduced willingness to manage self-limiting illness</li> <li>• Public expectation for both rapid access and continuity of care</li> <li>• Health inequalities</li> </ul>
<b>Workforce</b>	<ul style="list-style-type: none"> <li>• Fall in the WTE GPs/100,000 population</li> <li>• Increasing trend to salaried and locum roles and part-time working</li> <li>• Recruitment and retention challenges</li> <li>• Ageing workforce</li> <li>• Generational and gender changes</li> </ul>
<b>Workplace</b>	<ul style="list-style-type: none"> <li>• Workload pressure and intensity</li> <li>• Growth in patient expectations and demand</li> <li>• Administration and bureaucracy</li> <li>• Additional roles and responsibilities</li> <li>• Increased consultation/contact rates</li> <li>• Changing methods of access e.g. phone/email</li> </ul>
<b>Individual</b>	<ul style="list-style-type: none"> <li>• Personal attributes</li> <li>• Personal aspirations/rewards</li> <li>• Loss of autonomy and job satisfaction</li> </ul>

## **2.4 COVID-19 pandemic and General Practice**

In considering the working life of GPs, including the period since early 2020, the COVID-19 pandemic must inevitably be included. The early weeks of the pandemic saw a rapid transformation to triage and remote assessment of patients, with the use of digital tools for consulting as well as setting up hubs for acute review of patients. Organisations such as NICE introduced changes in clinical guidance (Majeed, Maile and Bindman, 2020; Khan *et al.*, 2020), and primary care had a central role in the delivery of the COVID-19 vaccination programme (Harnden, Lim and Earnshaw, 2021).

Despite these positives, commentators have recognised the challenges which these changes have brought about in terms of access to and maintaining personal relationships with patients (Gray *et al.*, 2020; Marshall *et al.*, 2020). The impact of these changes upon the patient experience is reflected in the falling levels of patient satisfaction reported in the most recent GP Patient Survey results, with difficulty in accessing appointments being the greatest concern (Wise, 2022).

Narrative research with GPs has identified a mismatch between the sense of uncertainty associated with the changes brought about by COVID-19, alongside a feeling of liberation to pursue innovations (Burn *et al.*, 2021). Others have highlighted detrimental factors impacting upon GP well being and expressed concerns about the potential impact upon recruitment and retention (Golder *et al.*, 2021; Jefferson, Heathcote and Bloor, 2022).

The pandemic remains a situation in evolution. Whilst it has had significant impact, this must not cloud discussion of the underlying trends and concerns which predate it.

## **2.5 Chapter Summary**

This chapter has outlined the impact of occupational stress upon the GP workforce. However, much of this work is relatively dated and relates to primary care in different systems globally. It is apparent that workforce stress is intensifying, yet there is relatively limited current research relating to the underpinning mechanisms for this which limits the capacity to identify possible solutions.

Consideration of theoretical models of stress and coping identifies factors such as social support and individual coping mechanisms which need to be assessed alongside organisational factors in the workplace. These offer a useful lens in attempting to disentangle the causative mechanisms for workplace distress. Similarly, they provide a perspective in considering individual differences and potential mediators and moderators which may suggest targets for intervention.

An overview of the changes impacting upon NHS General Practice in England demonstrates that it has had to adapt to significant contractual, organisational, administrative, and regulatory changes at a time of financial constraint. This transformation has been compounded by demographic changes in the workforce as well as the impacts of the COVID-19 pandemic which have necessitated rapid modifications in the working practices of GPs. These organisational and individual socio-demographic factors have combined to affect the wider context within which GPs work.

The evidence presented in this chapter suggests that given the changing context of General Practice, there is a need to understand the current levels of workplace stress and the specific workplace factors at play. Beyond hedonistic job satisfaction, and measures of job demands and control, relatively little is known about factors which promote well being. This information will be used to inform the interview schedule for the first ('theory gleaning') phase of the study.

The next chapter presents the methodology for the study and the rationale for a mixed methods approach to address the research questions.

## **3 Chapter Three: Methodology and methods**

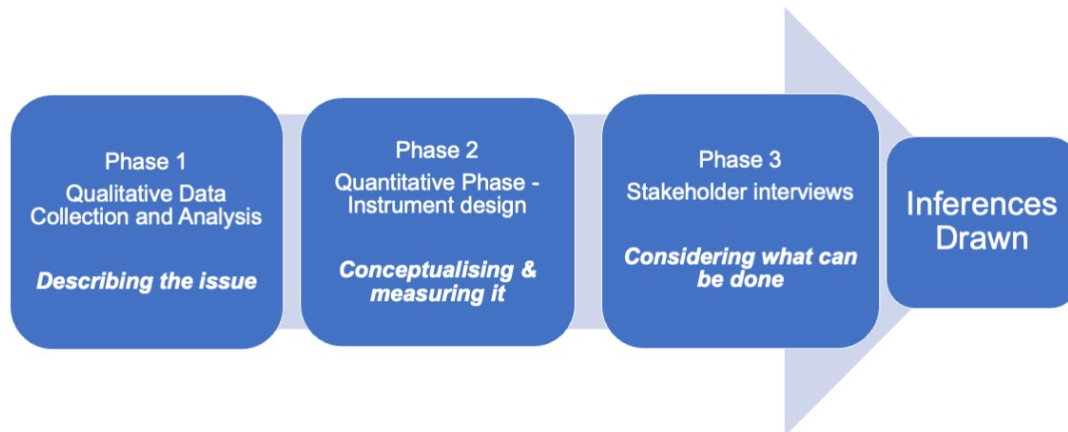
### **3.1 Methodology and methods**

This chapter considers the philosophical underpinning of the study and how this has informed the research design. In particular, it reflects upon the choice of critical realism as a logical lens to explore the complex world of general practice and to consider the impacts of context on understanding of how and why things happen. The second section considers the methodological approach to data collection in more detail.

### **3.2 Overview**

This research was conducted in primary care and involved GPs practising in England. It adopted a sequential mixed methods design (Figure 7) (Cresswell and Plano Clark (2018)). Initial qualitative interviews were used to identify the key factors impacting upon the working lives of GPs. This qualitative approach allowed for exploration of how individual doctors framed their understanding of their working lives, generating themes for further exploration in the second phase of the study. This next phase utilised a cross-sectional survey approach to analyse data collected from a broader range of GPs. In the final phase, the findings of the first two phases were explored in a series of qualitative interviews with GPs working for a range of stakeholder organisations. This approach allowed for an in-depth exploration of issues with GPs before engaging with the perspectives of a larger group in the survey, and finally cross checking with stakeholders.

Figure 7: Mixed methods exploratory sequential design (after Cresswell and Plano Clark, 2018)



### 3.3 The researcher's stance

As a GP, my early medical training was framed in the biomedical model but through my career, I have come to understand the advantages of Engel's biopsychosocial model of health (1977). This is the complex interplay of psychological and social factors in shaping experience of health and illness at an individual level.

As an undergraduate, my focus was on achieving an understanding of the scientific subjects of anatomy, biochemistry, physiology, and pathology; alongside this was an appreciation of the need for scientific enquiry and evidence. Moving to clinical years, the objective was to apply this theoretical knowledge to patients with disease and to acquire the practical skills and clinical reasoning required to be a doctor. In General Practice training there was a transition with an appreciation of the skills required to be a GP. I was introduced to the work of Helman (2007) and the complex associations between health, illness and culture. I learned of Illich (1977), reminding me that in advancing technology, modern medicine has reduced human capacity to deal with the realities of death, pain and sickness. Alongside these was the challenge of McCormick (1998), advocating a need to question and challenge accepted dogma. These principles have continued to evolve during my career as a GP, learning from patients around me that there is rarely a simple solution to the complex human problems which are shaped by individual circumstance.



Wulff (1999) considers that there are three worlds at play in medicine: World one is the objective world, orientated towards natural science; World two considers man as a social-being, orientated towards the subjective aspects of thought, memories, and feelings; and between these two lies World three which is concerned with the cultural products, created by successive generations of mankind. In order to be a good clinician, the doctor needs to synthesise these different worlds. Although Wulff does not use the term, this thinking resonates with a critical realist perspective. More recently Appleby, Swinton and Wilson (2017) argue that simply engaging with the scientific aspects of medicine is particularly problematic for GPs who are dealing with the complexities of patients' problems. They suggest that one of the conceptual challenges of the natural science approach is that there is an inability to form a credible model of what it means to be a conscious being. They recognise that our observations of the world are both provisional and fallible. For these authors, critical realism provides a 'central pillar between the two seemingly unbridgeable worlds: the physical basis of our existence and the experience of living'. Given both the researcher's own experiences as a doctor and the complex nature of the research questions which address individual human experience, critical realism offers the most helpful approach to underpin this study.

As a doctor, I recognise the impact of my professional identity upon this research. This identity is difficult to define but embraces a set of societal, institutional, historical and contextual expectations (Martimianakis, Maniate and Hodges, 2009). I need to question assumptions that I might make as an individual, at an interpersonal level as well as at a societal or institutional level (Hodges *et al.*, 2019).

As a researcher, I share group identity with participants to varying degrees. Consequently, there is a need for me to be aware of the nuances of the various 'insider' and 'outsider' positions which this affords. It is not a clear-cut two-dimensional view of insider/outsider positioning' rather an acceptance that there needs to be fluidity in my research stance according to the degree of shared understanding with different participants which relates to background and previous experience (Le Gallais, 2008). It is easy to recognise that I am a white married female educated in the UK and have worked as a GP for thirty years. However, it is

important to appreciate the need to remain self-aware with continued reappraisal of my own values and assumptions.

### **3.4 Research questions**

This study set out to consider:

- What is happening in the GP workforce now?
- What is making it particularly difficult for individual GPs?
- Are there workforce factors which exacerbate these demands?
- What support structures and mechanisms are available to them?
- What are the barriers and enablers to workforce wellbeing in the working environment?

The following section considers the philosophical underpinnings of the study and seeks to justify the choice of a critical realism to underpin the study design. The world of general practice is complex, the lens of critical realism allows for a logical exploration of this. Critical realism is not a research method in itself but rather an approach that can be used to inform how research methods are applied and to answer questions about how and why things are effective (or not) (Clark and Lissel, 2008). It is of particular value in understanding the influence of context on outcomes.

### **3.5 Philosophical underpinnings for this study**

Critical realism is a philosophical perspective providing a stance for bringing together qualitative and quantitative approaches (Cresswell and Plano Clark, 2018; Maxwell, 2012).

Research is concerned with understanding the world and that in turn is informed by the lens through which the world is viewed. Bowling (2014) reminds that this theoretical perspective is important in directing attention and providing a framework for interpreting observations.

Thomas Kuhn (cited in (Bryman, 2016, p. 636) used the term paradigm to describe *'a cluster of beliefs and dictates which for a scientist in a particular discipline influence what should be studied, how the research should be done and*

*how the results should be interpreted*'. A paradigm may be regarded as explaining the researcher's perspective on how knowledge is viewed. Morgan (2007) highlights the conflicting multiple meanings of the term paradigm in the literature but continues to argue for its use in reference to a system of beliefs and practices which influence how researchers select both the questions they study and the methods that they use to study them. Shannon-Baker (2016) considers that the conscious, explicit use of paradigms can offer a useful framework for researchers to help guide decisions during the inquiry process and to help align choice with their values. Scotland (2012) explains that each paradigm consists of the following components: ontology, epistemology, methodology and procedures.

Ontology is the study of being and is concerned with the nature of reality (Scotland, 2012). The ontological question considers whether (or not) there is a social reality that exists independently of human interpretation and indeed, whether there is a shared social reality or multiple context-specific ones. Objectivism is the ontological position that asserts that social phenomena have an existence independent of social actors. By contrast, constructivism asserts that social phenomena are a product of social interaction and are in a constant state of revision (Bryman, 2016).

Epistemological assumptions are concerned with how knowledge can be created, acquired, and communicated. There is a contrast between a deductive process in which evidence is used to test a hypothesis with an inductive approach where theory is developed from observation (Ormston *et al.*, 2014). This has led to the emergence of two dominant paradigms. The objectivist (or positivist) approach considers reality to be hard, real, and external to the individual and amenable to measurement. This contrasts with the subjectivist (or interpretivist) perspective where the individual's behaviour and experience are explored using an idiographic approach.

Positivism advocates the application of methods from natural sciences to the study of social reality. Bryman (2016) considers that positivism entails five key principles (Table 11). With this approach, data collection is empirical. It may be considered from a positivist perspective that it is possible to quantify and measure stress objectively. This is in accord with Burrell and Morgan's (1979) nomothetic

(objective) approach to social science. In this view, humans respond in a mechanistic, deterministic fashion to the situations encountered in their external world.

Table 11: Principles of Positivism (after Bryman, 2016)

Principle	
<b>Phenomenalism</b>	Only phenomena confirmed by the senses can be considered as knowledge
<b>Deductivism</b>	The purpose of theory is to generate hypotheses that can be tested
<b>Inductivism</b>	Knowledge is arrived at through the gathering of facts that provide the basis for laws
<b>Objective</b>	Science must be conducted in a way that is objective and value free
<b>Distinction between scientific and normative statements</b>	(This is implied by the first principle because truth of normative statements cannot be confirmed by the senses)

However, Cohen, Mannion and Morrison (2000) highlight that this positivist approach is less successful in its application to the study of human behaviour, where the complexity of social phenomena contrast with the order of the natural world. They consider that a diametrically opposing approach should be adopted considering that the social world can only be understood from the perspective of the individuals who are part of the action under investigation. Crotty (1998) highlights that with a social constructivist approach, meaning is constructed by humans as they engage with the world and they make sense of it based upon their own cultural context. In this paradigm, meaning is generated from the field data in an inductive manner.

Quantitative and qualitative research strategies have traditionally been considered as following different research paradigms (Table 12). Robson and McCartan (2016) suggest that such a dichotomy is unhelpful in considering real world research. An alternative worldview is that of pragmatism, which, according to Cherryholmes (1992), seeks to clarify meanings and look to consequences. In this

approach, the researcher adopts whichever philosophical or methodological stance works best for the research problem under consideration. Shannon-Baker (2016) suggests that this approach is used when considering practical solutions and meanings. For Allmark and Machaczek (2018) in pragmatism, *'the start point of scientific inquiry is a human purpose, the endpoint, whatever behoves us to believe to serve that purpose best'*. Robson and McCartan (2016) caution that this perspective adopts an anti-philosophical approach and advocate instead the realist view. Realism has arisen in response to the limitations of these two extremes and is rooted in the work of Bhaskar (2013).

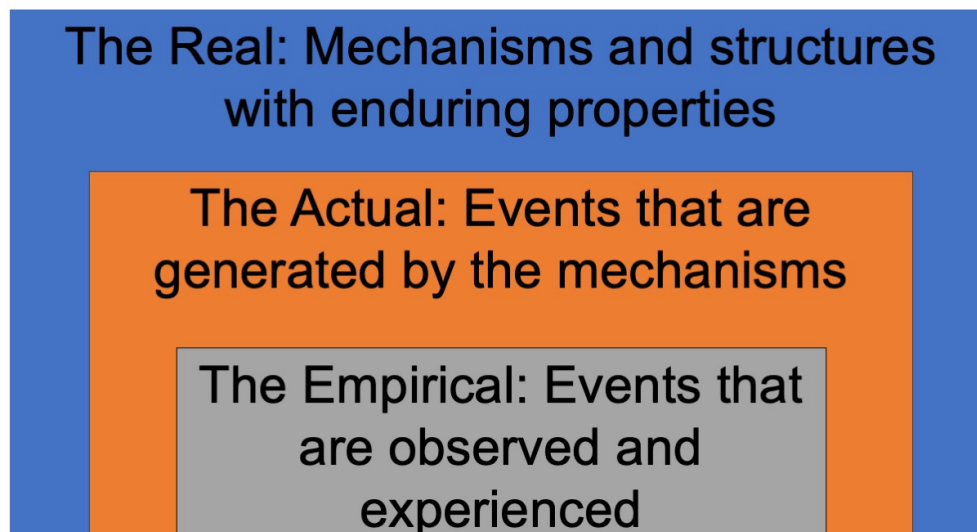
Table 12: Distinctions between positivist and interpretivist paradigms compared to a critical realist approach (after Bryman, 2016)

	<b>Positivist</b>	<b>Critical Realist</b>	<b>Interpretivist</b>
<b>Principal orientation of the role of theory in relation to research</b>	Deductive; testing of theory	Retroductive	Inductive; generation of theory
<b>Ontological orientation</b>	Objectivism	Emergent knowledge is stratified	Constructivism
<b>Epistemological orientation</b>	Natural science model, in particular positivism	Knowledge is derived from uncovering causal mechanisms but is fallible	Interpretivism

### **3.5.1 Critical Realism**

Ontologically, Ormston considers that reality exists independent of those observing it but is only accessed through the perceptions and interpretations of individuals (Ormston *et al.*, 2014). Bhaskar (2013) defined this in terms of an intransitive domain of events that are independent of perception of them and a transitive domain which can be observed. Critical realism asserts that although there is a reality that exists, this may not be observable but generates the events that may be observed (Mingers, 2014). There is stratification between the structures, the events generated and the subset of events that are experienced. These are known as the domains of the *Real*, the *Actual* and the *Empirical* (as illustrated in Figure 8).

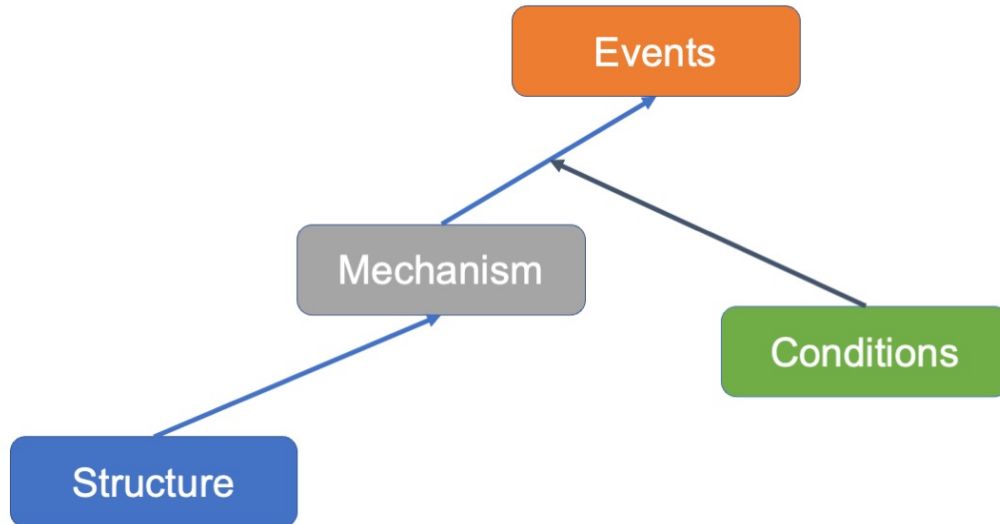
Figure 8: The *Real*, the *Actual* and the *Empirical* (after Mingers, 2014)



The generative mechanisms that link these domains are not directly observable, instead a process of retroductive (or abductive) reasoning entails making an inference about the causal mechanisms that lie behind and are responsible for the regularities that are observed in the social world (Bryman, 2016). This retroductive reasoning involves cycling between theory and observations rather than the more linear approach taken in induction (generating theory from research data) or deduction (where hypotheses are generated from theory and tested in research) (shown in Figure 9). For example, empirically it may be observed that more younger women are employed in the GP workforce, yet there may be more than one mechanism underpinning the reasons behind this. For example, recruitment processes for medical school or a cultural view that this is a better career for a woman.

Critical realist research considers the real world of complex open systems with unpredictable choice making agents (Alderson, 2021). Social reality is constructed in open systems with converging and competing influences. Within this, it is structured through interconnected processes. Human agents are powerfully influenced by social structure, and agency. Consideration of the interactions between these helps to uncover the real causal mechanisms.

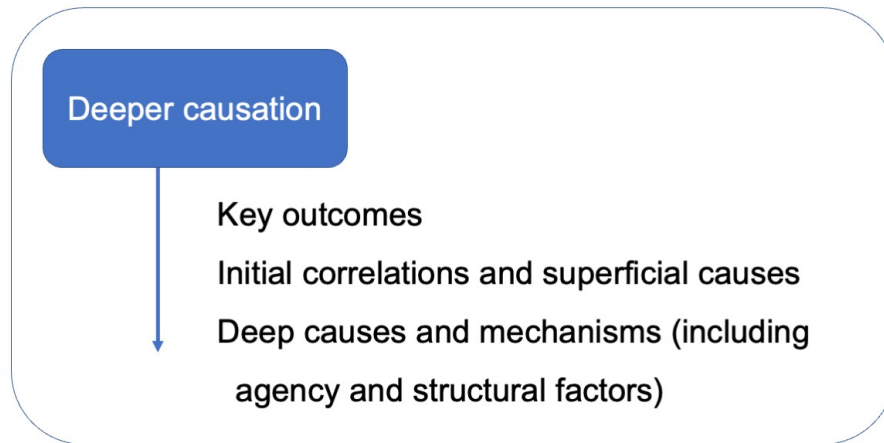
Figure 9: Critical realist view of causation (after Sayer, 2000)



Clark and Lissel (2008) consider that critical realism is useful for understanding the causation of outcomes in a complex world. They recognise the need to acknowledge the complexity of the context which interacts with individuals working there. Using this approach means that both individual agency (beliefs, attitudes, and personal meanings) and contextual structural factors (such as social norms, culture, geography, and environment), may be taken into account when considering the mechanisms which produce events. Whilst recognising that different data collection methods may be used to collect data about different dimensions, they draw attention to the need to progress beyond simply measuring outcomes or examining correlates to identify the deeper and wider causes of outcomes (Figure 10).



Figure 10: Critical realist approach to deeper causation levels (after Clark and Lissel, 2008)



Maxwell and Mittapalli (2010) contend that critical realism provides a valuable perspective to mixed methods research since the relationships with the participants and stakeholders are viewed as a component of the study design. It values and recognises that there are different perspectives and responses which individuals bring to the study.

### 3.6 Research design

For Greenhalgh (2016), realist research considers how people interpret external reality, recognising that facts are interpreted and used by people who bring particular values and views. It predominantly uses naturalistic methods that may combine quantitative and qualitative data. According to Cresswell (2009), as the world is not seen in one absolute way, so a mixed methods approach to data collection and analysis may work together to provide the best understanding of a research problem. Shannon-Baker (2016) considers that the purpose of mixed methods research is to provide a more complex understanding of a phenomenon that would otherwise not have been accessible by using one approach alone. This broadly falls within the critical realism school of thought in which reality exists independently of those who observe it but is accessed through the perceptions and interpretations of observing individuals (Ormston *et al.*, 2014). The stratified nature of reality (Figure 8) means that the *empirical* domain is observed and this is used to

understand the underlying mechanisms which have generated this (Bygstad, Munkvold and Volkoff, 2016) (see Figure 9).

The problems addressed in this thesis are undoubtedly complex and it is important to draw out both the objective and subjective elements of how GPs view their working lives; hence it has adopted a mixed methods design. This allows for consideration of different layers of the issue as reality incorporates individual, group, institutional and societal perspectives. This approach integrates both quantitative and qualitative data, drawing interpretations from the combined sets of data to better understand the research problem. For Maxwell (2012) in the joint use of qualitative and quantitative methods, each method may compensate for the weaknesses of the other and offer a way of generating divergent perspectives and deepen rather than simply confirm understanding.

Mason (2006a, p. 10) challenges that the value of mixed methods research is reduced if it is merely used to triangulate data, arguing instead that it offers '*the enormous potential of generating new ways of understanding the complexities and contexts of social experience, and for enhancing our capacities for social explanation and generalisation*'. Halcomb (2019) reasons that this design should only be used where the combination of data more fully answers the question than would be possible using one method alone. Some of the reasons for using mixed methods designs are summarised in Table 13 (Halcomb and Hickman, 2015).

Table 13: Reasons for using mixed methods research (adapted from Halcomb and Hickman, 2015)

Reason	
<b>Corroboration</b>	Using the results of one method to corroborate the findings of another about a single phenomenon
<b>Complementarity</b>	The use of one method to elaborate, illustrate, enhance, or clarify the results from another
<b>Development</b>	Use of the results of one method to inform another
<b>Initiation</b>	One method is used to uncover the paradoxes and contradictions in the findings from another method
<b>Expansion</b>	The depth and breadth of the study is expanded by using different methods for various components of the research

Mixed methods research may be considered in terms of priority and sequence of the data collection methods (Bryman, 2016). Concurrent designs involve simultaneous collection of the qualitative and quantitative data, whilst sequential studies involve the collection of data sets one after another. While concurrent studies have limited interaction between the data sets until the analysis phase, sequential studies see one data set building upon another.

Another characteristic of mixed methods research design is integration; the point where the qualitative and quantitative data interface and additional insights arise (Cresswell and Plano Clark, 2018). Shorten and Smith (2017) describe how this allows researchers to explore diverse perspectives and uncover relationships that exist between the intricate layers of our research questions, giving a more panoramic view. The commonest types of mixed methods design are summarised in Table 14.

Considered from a critical realist perspective, Manzano (2016), deems that the realist research process utilises an iterative system of data collection, beginning with theory gleaning or building, which is then refined and consolidated in subsequent stages. This iterative process may include different methods of data collection to accumulate richer data. Similarly, Brönnimann (2022) describes a logical research process and highlights that critical realism is methodologically

pluralistic, allowing data to be sources using different methods. In this, a purposeful selection of mixed methods is considered to accumulate richer data and permit more complete description of mechanisms.


This study adopts an exploratory sequential design. There was an initial exploration of the problem with a small qualitative sample. The findings from this were used to build and generate a quantitative feature (in this case a cross-sectional survey) which was then tested with a larger sample. Subsequently, the findings were shared with a group of stakeholders to assist in the final interpretation and validation of the findings. This is shown schematically in Table 15.

Cresswell highlights that this approach is helpful where the findings of the first phase are used to inform the selection of items for use in the second phase. For Bryman (2016), a further purpose is to allow the scope and generalisability of the qualitative findings to be assessed in the quantitative phase.

Table 14: Types of mixed methods design (adapted from Halcomb and Hickman, 2015)

<b>Research design</b>	<b>Process</b>	<b>Purpose</b>	<b>Level of interaction</b>	<b>Usual priority given to different phases</b>
<b>Convergent parallel (concurrent)</b>	Qualitative Quantitative	To obtain different but complementary data to answer a single research question	Data collected and analysed separately then brought together for comparison	Equal
<b>Sequential explanatory</b>	Quantitative then qualitative	Qualitative data are collected to explain the quantitative findings	Quant data frames the qualitative data collection	Quantitative dominant
<b>Sequential exploratory</b>	Qualitative then quantitative	Quant data builds on qualitative findings to provide generalisability	Qualitative data frames quant data collection	Qualitative dominant
<b>Embedded/nested</b>	Qualitative (quantitative) or Quantitative (qualitative)	To obtain different data to answer a complementary research question	Embedded dataset provides answers to a complementary research question	Can be either qualitative or quantitative dominant

Table 15: Steps in the Exploratory Sequential design of this study

	Phase 1		Phase 2	Phase 3
		Builds to 		
	Qualitative data collection	Quantitative instrument developed	Quantitative data collection and analysis	Qualitative data collection
<b>Process</b>	Purposive sampling Semi-structured interviews  Coding and framework analysis	Use themes from Phase 1 to inform the development of the instrument. Job demands/control. Coping Perceived stress Moral distress Burnout Morale	Administer questionnaire to 218 GPs Analysis of variance and correlation  Regression analysis	Semi-structured stakeholder interviews to interpret and validate findings Coding and framework analysis Discuss the extent findings are explained
<b>Product</b>	Transcripts Themes	Questionnaire	Correlation Regression	Transcripts Themes

According to Cresswell and Plano Clark (2018), the threats to validity of this design are in ensuring that the quantitative element builds upon the qualitative findings. Moreover, the quantitative instrument needs to be developed using systematic procedures, including a large sample of participants who are different to those involved in the qualitative group. The specific strengths and limitations of each of these methods is explored in the following sections of this chapter.

Mason (2006b) reminds that in a mixed methods approach, a clear sense of logic is required to link data analytically. In this study, an integrative logic was used when questions are being asked about connecting parts or layers of a social whole. Mason (2006b) cautions that this approach requires explicit consideration of how data are integrated and that this should be from a single theoretical orientation.

In adopting this methodology, O’Cathain (2010) considers that although it is possible to assess the quality of each component separately, it is important to consider the study as a whole, recognising that inferences are drawn from the entire study. This includes the concepts of inference quality, a combination of design quality (or methodological rigour) and interpretive rigour (authenticity of the conclusions from the study). O’Cathain (2010) proposes a quality framework which is summarised in Table 16.

Table 16: Quality Framework for Mixed Methods Research (O'Cathain, 2010)

<b>Domains of quality</b>	<b>Items within domain</b>	<b>Definition of item</b>
<b>Planning quality</b>	Foundational element	Study situated in the literature
	Rationale transparency	Justification for using a mixed methods approach is stated
	Planning transparency	Details of the paradigm, design, data collection, analysis and reporting
<b>Design Quality</b>	Design transparency	Description of the design from known typology
	Design suitability	Design appropriate for addressing the overall research question, matches the reason for combining methods and appropriate for the stated paradigm
	Design strength	Strengths and weaknesses of the methods are considered to minimise bias and to optimise the breadth and depth of the study
	Design rigour	Methods are implemented in a way that remains true to design
<b>Data quality</b>	Data transparency	Each of the methods is described in sufficient detail
	Data rigour	The extent to which the methods are implemented with rigour
	Sampling adequacy	Sampling techniques and sample size are adequate in the context of the design
	Analytic adequacy	Data analysis techniques are appropriate and undertaken properly
	Analytic integration rigour	Integration taking place at the analysis stage of a study is robust (and defensible)



<b>Interpretive rigour (conclusions based on the findings)</b>	Interpretive transparency	It is clear which findings have emerged from which methods
	Interpretive consistency	Inferences are consistent with the findings on which they are based
	Theoretical consistency	Inferences are consistent with current knowledge or theory
	Interpretive agreement	Others are likely to reach the same conclusions based on the findings presented
	Interpretive distinctiveness	Conclusions drawn are more credible than any other conclusions
	Interpretive efficacy	Meta-inferences from the whole study adequately incorporate inferences from the qualitative and quantitative findings and inferences
	Interpretive bias reduction	Explanations are given for inconsistencies between findings and inferences
	Interpretive correspondence	Inferences correspond to the purpose of the study
<b>Inference transferability</b>	Ecological transferability	Transferability to other contexts and settings
	Population transferability	Transferability to other groups and settings
	Temporal transferability	Transferability to the future
	Theoretical transferability	Transferability to other methods of measuring behaviour

### **3.7 Phase One: Qualitative data collection and analysis**

From a critical realist standpoint, this phase aimed to explore how individual GPs perceive the nature and demands of their role as primary healthcare practitioners. It focused particularly upon the empirical level of reality (views and experiences of the participants) with the possibility of considering the actual level (with descriptions of events and experiences). A qualitative approach was used as it sought to generate data as a precursor to the second quantitative phase. This was a conceptual study with a small sample, chosen to identify rather than explain theoretical issues, suggesting areas for further research (Daly *et al.*, 2007).

#### **3.7.1 Data collection**

Cresswell (2009) suggests that qualitative research is exploratory. According to Babbie (2012), field research is appropriate for the study of attitudes and behaviours which are best understood in their natural settings as opposed to the somewhat artificial settings of experiments and surveys. Lofland *et al.* (2006) note that there are several elements of social life which may be considered in field research.

#### **3.7.2 Choice of interviews**

According to Pope and Mays (2009), qualitative approaches may be problematic, as interviews, particularly with experienced healthcare professionals, may be superficial and fail to probe beneath the façade. The professional role of the interviewer as a fellow GP may also impact upon the data collection process. Chew-Graham, May and Perry (2002) note that the skills for research interviewing are not the same as those required in clinical practice where the goal is to formulate an agreed management plan with the patient, whilst the semi-structured interview aims to elicit meanings attributed by the subject to a particular research question. Additionally, power relationships between doctor and patient are not the same as those between doctor-researcher and doctor-doctor. The authors report upon two studies involving semi-structured interviews carried out by GPs. It appeared that where the interviewer was recognised as a fellow GP, the interviews were broader in scope and provided richer and more personal accounts with a greater degree of professional vulnerability. However, in the second group of interviews, where the

researcher was known to participants as both a GP and an expert in the subject area, there was recognised to be less sharing of sentiment as it was perceived that the GP interviewer was acting as a judge. This is in accord with the findings of Coar and Sim (2006) in an interview study of GPs on perceptions of osteoarthritis, where (despite reassurance to the contrary) respondents viewed the interview (by a fellow GP) as a test of their knowledge, with indications of professional vulnerability in relation to possible scrutiny of their practice.

Conversely in an interview study of Australian GPs about their experiences of doctor-patient relationships, McNair, Taft and Hegarty (2008) acknowledge that an insider researcher brings benefits to the research process in the ability to select pertinent questions and in providing a depth of understanding to the meanings which fellow professionals bring. They recognise that the fellow clinician may be placed in a position of greater trust, thus facilitating research participation and the exploration of sensitive issues. In their conclusions, they consider that a reflexive approach can be used to enhance the rigour of data collection, minimising the impact of any potential pitfalls.

Given the subject matter for this study and taking into account the cost and time constraints for both researcher and the participants, it was decided to use peer interviewing but to restrict recruitment to those not personally known to the researcher.

The initial qualitative element of this study sought to explore the working lives of GPs in the current organisational and political context. It sought an individual and personal account from participants, so it was deemed necessary to gather information directly from them in one-to-one interviews. The alternative approach of group interviews- although potentially more time expedient- was considered to offer less opportunity for discussion of individual perspectives.

The interview guide was designed using an open approach, encouraging participants to shape their own narrative (Arthur *et al.*, 2014). Headings in the guide were identified from the literature. They were ordered with collection of contextual information in the opening sections of the interview, progressing to exploration of the substantive topics before finally summarising and winding down. (The interview guide is included in Appendix A). Kvale (1996) suggests that the role of an interview

in research is the exchange of views and is a central interaction for knowledge production, enabling participants to discuss their interpretations of the world they live in. Kvale (1996) continues to suggest that the purpose of the interview should be reflected in its structure, with more open-ended questioning favouring the personal perspective, whilst structure is more appropriate when seeking to compare data across sites. They describe this approach using the metaphor of a traveller exploring the domain with the respondent. In their review of semi-structured interviewing in primary care studies, DeJonckheere and Vaughn (2019) advise that such interviews have utility as a low resource, yet powerful tool for primary care researchers to use to understand the thoughts, beliefs and experiences of individuals.

Considering all this advice, an interview guide approach was adopted since this included a list of topics to be covered yet allowed scope for individuals to raise issues that had potentially not been anticipated. This interview guide also needed to incorporate the principles of realist interviews. At this initial theory gleaning stage, it was recognised that the interview guide should not be reductive and describe general patterns, but rather needed to permit individual descriptions of context and responses (Maxwell and Mittapalli, 2010).

### **3.7.3 *Realist interviews***

Interviewing is used to collect in-depth information from participants. Interviews permit exploration of richly textured accounts of events, experiences and underlying conditions or processes (Smith and Elger, 2014). The interview process requires active engagement between the interviewer and interviewee. In this study, initial interviews were with GPs working in the system, who may be regarded as subjects in Smith and Elger's terms (2014), bringing experience of the impact of policy changes. This contrasts with the perspective of interviewees who bring expert management knowledge.

The realist premise is that interviews are used as a means to explore propositions that will be tested and refined with other data (Manzano, 2016). Maxwell (2012) similarly emphasises that realist data collection should be viewed as evidence for real phenomena and processes and that this data can then be used to make inferences about phenomena which can then be tested against additional data. Questions should be constructed to focus upon events and social entities before

probing the interactions between them and the underlying social conditions (Brönnimann, 2022).

Critical realism is based upon moving from observations to the construction of explanatory models and theories. Manzano (2016) proposes that data gathering using interviews may be considered in three phases: theory gleaning, theory refinement and consolidation. In the initial phase, interview respondents assist in the development of an initial theory or conceptual framework. Such interviews tend to use exploratory approaches to questioning.

#### **3.7.4 Choice of telephone interviews**

Bryman (2016) describes the benefits of telephone interviewing compared to face-to-face interviews with regard to cost (both financial and time), and for interviewing those across a geographically dispersed area. These are pertinent to this study, where the interview subjects were constrained by competing commitments. Bryman suggests that interviewees may be less anxious about answering sensitive questions when the interviewer is not physically present, although there are other disadvantages, such as the loss of non-verbal cues. This may limit the interviewer's ability to appreciate and respond to the interviewee's reaction to particular questions. However, others have suggested that the lack of non-verbal cues in a telephone interview means that both interviewer and participant tend to articulate more fully, thus producing a richer text for analysis (Holt, 2010; Kee and Schrock, 2018).

There is evidence for 'mode' effects – where interviewees differ in the answers given to questions asked over the telephone rather than face-to-face, whilst interviewers give more vocalised responses.

Although the majority of writing about interview research methods suggests that interviews should be conducted face-to face, Oltmann (2016) highlights the paradox that published studies evidence the increasing popularity in the use of the telephone. Trier-Bienik (2012) describes telephone interviews as a more time efficient and researcher-friendly tool for conducting interviews, permitting access to a wider range of people than would have been possible face to face. Opdenakker (2006) compared four different formats of qualitative interviews: face-to-face,

telephone, e-mail and MSN messenger. They concluded that telephone interviews were synchronous in time but not place, allowing for extended access geographically and for hard-to-reach populations.

In addition to the interviewer's context, it is important to consider factors relating to the interviewee in determining the most appropriate interview mode for a particular study (Oltmann, 2016). The ability to schedule at an amenable time may be important for those who are working. With the telephone, there is the perception of more anonymity which Trier-Bienik (2012) suggests may mean that telephone interviews have the potential to yield more honest discussions. This may be of particular benefit when sensitive topics are being discussed. Authors including Shuy (2002) have suggested that face-to-face interaction includes more small talk and non-verbal communication in which interviewees may more fully express their humanity. Others contend that as people have become more accustomed to the use of the telephone for communication, this is no longer the case (Trier-Bieniek, 2012).

Telephone interviews appear to be acceptable to a wide range of interviewees, including professionals. In a study of 'elite macro-economists', Stephens (2007) reported being able to establish a rapport and the strategies to negotiate the nuances of a telephone interview. Interviewing the parents of young offenders, Holt (2010) reported upon the acceptability of telephone interviewing to participants. It is pertinent to recognise that all the participants in this study were practising GPs for whom the telephone is an everyday tool of the trade. Telephone interviewing is accepted and widely used in studies involving GPs, including those on workload, such as Croxson, Ashdown and Hobbs (2017).

Taking these factors into account, including the constraints of research time and resources and the intention to sample across a wide geographical area, data collection using telephone interviewing was adopted. The author acknowledged the trade offs in adopting this method as would be the case with any other research method (Block and Erskine, 2012).

### **3.7.5 Sampling strategy**

Qualitative research uses non-probability sampling methods for selecting the sample for study. The aim is to generate insight and in-depth understanding of the topic in question.

Having identified the study population (GPs working in England), the next consideration was the identification of an appropriate sampling frame from which the sample could be recruited. In this case, given the absence of a freely available list of potential participants, a sample frame needed to be specifically generated, and a snowball approach was adopted (Ritchie *et al.*, 2014).

Snowball (or chain) sampling is a commonly employed sampling method in qualitative research. It is defined as a technique for finding research subjects in which one subject gives the researcher the name of another subject, who in turn provides the name of a third and so on (Atkinson and Flint, 2001). Goodman (2011) has drawn attention to the differences in approach between that used in 'not hard to reach' and the system for 'hard to reach populations'. In the former, a random sample in a given population is interviewed and asked to name a friend who is then interviewed. This method thus considers relationships within a given population and may be used to make inferences about that population. In the second approach, a convenience sample of the 'hard to reach' population is chosen and these people (or seeds) identify others. The latter approach was adopted for this study as it has been advocated where a degree of trust is required to initiate contact. Furthermore, it has been found to be economical, efficient and effective, and is able to assist in producing in-depth results quickly (Atkinson and Flint, 2001).

Kirchherr and Charles (2018) state that it is important to consider methods to promote sample diversity when snowball sampling is adopted. Reflecting on their interview study (on anti-dam movements in Southeast Asia), they suggested that:

- prior personal contacts are helpful but not essential for sample diversity.
- sample 'seed' diversity is important to achieve sample diversity (each seed being the initial contact).

- persistence is helpful in securing interviews (but excessive persistence is not worthwhile).
- sample diversity is not necessarily enhanced if the 'seed' is advanced over numerous 'waves' (considering that a new sampling 'wave' is reached once the interviewer has been introduced to one or more potential interviewees).

Writing about snowball sampling, Noy (2008) noted that variables such as gender and social standing influenced position in a network and hence, the number of contacts. Waters (2015) and Geddes, Parker and Scott (2018) discuss how snowball sampling may falter or fail when a social network is either loosely formed or not aligned with the research topic. This may be more problematic when the researcher is perceived to be an outsider.

The GPs in this study were from a professional socialised group (Vaidyanathan, 2015), thus it was reasonable to anticipate that this was an appropriate method of sampling. However, snowball samples are biased towards the inclusion of individuals with inter-relationships and so tend to miss those who are not connected to any network which the researcher has tapped into. In an attempt to mitigate any potential bias in this study, contacts from different professional networks were used.

### **3.7.6 Sample size**

In qualitative enquiry, there are no fixed rules for sample size according to Braun and Clarke (2013). Instead, the sample size is determined by the research question, theoretical aims of the study, and the need to provide an adequate amount of data to analyse the topic and answer the questions. Ritchie *et al.* (2014) suggest a number of reasons why qualitative samples may be small in size. These include the heterogeneity of the population, the number of criteria felt to be important and the type of data collection method. There may be diminishing returns in terms of new evidence when using larger samples in qualitative studies, as the data collected may be rich in detail, but the process of research, resource intensive. Conversely, it is important to ensure that the sample is not too small as this may potentially limit diversity and omit key factors.



In grounded theory, the concept of theoretical saturation is a term used to describe the point when emerging concepts have been fully explored and no new theoretical insights are being generated (Bryman, 2016). It is sometimes used to justify when to cease sampling, but O'Reilly and Parker (2013) contend that there is a lack of transparency in how this is applied and that adopting saturation as a generic quality marker is inappropriate. Baker and Edwards (2012) state that the number of interviews conducted will depend upon the study. According to expert opinion in their paper, qualitative samples for a single interview study will usually lie between 12 and 60. Similarly, Bryman (2016) considers that sample size will be significantly influenced by the theoretical underpinning of a study. Crouch and Mackenzie (2006) contend that small-sample qualitative research allows for closer involvement with the interview data. This may be of value in realist research where the aim is to identify an authentic insight into individuals' experiences and perspectives. This may also then be considered when taking into account the social context.

Flick (cited in (Baker and Edwards, 2012) reminds that outside determinants for defining the number of interviews, such as time and resources, may also need to be taken into account. Pragmatically for this phase of the study, an initial sample size of 15 was chosen.

### ***3.7.7 Inclusion and exclusion criteria***

The study population for this study were NHS GPs currently working in England (and willing to be interviewed). NHS GPs were defined as those who were in post in either a principal or salaried post (substantive role), as well as those undertaking long-term locum work. For the initial theory gleaning phase of a realist study, it is important to consider a range of perspectives on the research problem. It is recognised that frontline practitioners will have different experiences and are positioned to offer a range of views.

General Practice sits at the heart of the NHS in the UK and provides care to a registered list of patients which is free at the point of delivery. Given the divergence of policy context in the other three nations, those working in Scotland, Wales and Northern Ireland were excluded (as were those working solely in private practice). These policy differences are acknowledged to create difficulties in comparisons

across the NHS system due to multiple differences in for example, commissioning arrangements, the degree of integration between health and social care and the introduction of targets (Timmins, 2013).

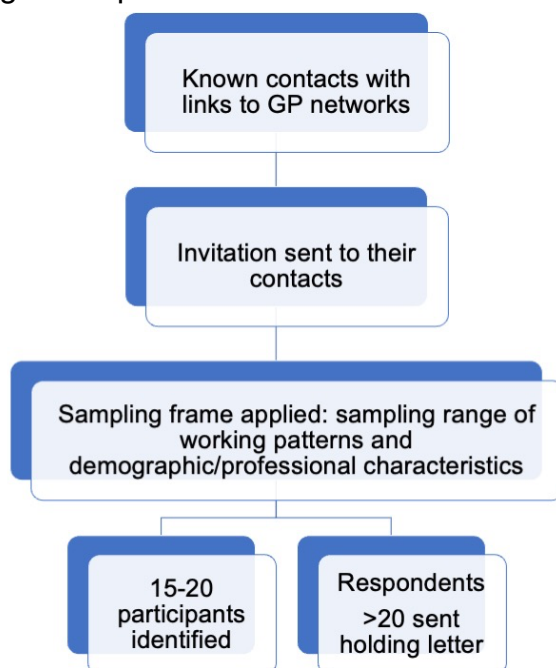
Those known personally to the researcher were also excluded as participants (rather than acting as 'seeds' for the snowball recruitment). Browne (2005) reported that in a study using snowball sampling, a pre-existing relationship constrained engagement in research conversations.

### **3.7.8 Recruitment strategy**

As the researcher is a member of the GP community, participants were recruited using a snowball/respondent driven sampling strategy (Goodman, 2011), recognising that it is important to exploit a range of existing networks for the initial invitation to avoid bias in the sampling strategy. Given the diversity of the GP population, it was considered important to include those from a range of demographic backgrounds (including place of qualification), as well as different contractual arrangements and working patterns.

Known members of informal and formal GP networks were contacted and asked to pass invitations to colleagues to participate in the study (Figure 11). These contacts were purposefully excluded but were links into a range of GP networks to ensure that there was diversity in those invited to participate. The invitation included details of the research and asked those willing to be interviewed to contact the researcher by email to arrange a mutually convenient time. They were then sent an email link to Qualtrics, including an information sheet and a consent form with an availability sheet for them to complete, as well as email and telephone contact details. Prior to commencing the interview, consent was confirmed. With the consent of the interviewee, the interviews were audio-recorded for subsequent transcription.

Figure 11: Flow diagram of planned recruitment for the interview phase



Given the researcher's profile in the area, it was important to reassure respondents that all information offered in response to questions was confidential.

It was anticipated that 15-20 interviews would be sufficient to capture broad themes that would then be used to identify specific areas to contribute to the design of the phase two questionnaire. It was planned that respondents beyond this would be sent a holding letter, but as there were 14 respondents, this was not required.

### **3.7.9 Participants**

Although 14 potential interviewees agreed to participate and filled in the consent forms, only 12 interviews were completed within the time frame of the study. Despite repeated attempts to reschedule, it was not possible to identify a mutually convenient time for the other two interviewees. The interviews lasted between 16 and 34 minutes, with an average duration of 20 minutes. Although this may appear relatively short for a qualitative interview, for GPs who are practised at conveying information in a short time interval, this is a comparatively luxurious amount of time. The interviewees are described in detail in Chapter Four. Broadly, they constituted a heterogeneous group with a diverse range of characteristics. Further, data collection

in the later interviews did not appear to generate any substantially new ideas so it appeared that data saturation had been reached.

### **3.7.10 Data management and analysis**

With the consent of interviewees, all of the interviews were audio-recorded and then transcribed verbatim. In addition, hand-written field notes were kept to note reflections on the process of data collection and important features of the participants' responses, as well as ideas for analysis (Braun and Clarke, 2013). The raw transcript data were imported into NVivo for ease of storage and information retrieval, as well as to assist with the processes of analysis.

Srivastava and Thomson (2009) note that in a semi-structured interview, the purpose is to provide a setting in which the topic may be discussed in detail, but as questions are open-ended there is no limit to the choice of answers (as may be the case in a structured interview with fixed questions). Therefore, analysis requires a procedure with which to interpret the data.

Framework analysis provides a focused, repeatable, matrix-based method for ordering and synthesising data with a clear five-step process to follow, as outlined by Spencer *et al.* (2014a). It is useful where there are data which cover similar topics or key issues which can be categorised (Gale *et al.*, 2013). However, Braun and Clarke (2013) reflect that good qualitative analysis does not simply require following a set of rules, but analytic sensibility too. This skill of reading and interpreting data through a chosen theoretical lens, aims to produce insights into its meaning which go beyond the superficial. Similarly, Gale cautions that although Framework Analysis is an attractive choice due to the structured approach, there is still the need for reflexivity and rigour, as with other qualitative analysis approaches. However, unlike other qualitative data analysis approaches which are underpinned with a particular epistemological stance, framework analysis is not aligned with any specific approach. It was felt to be appropriate for use in this study as it is a flexible tool which may be adapted to use with a variety of approaches that aim to generate themes.

The initial stage involved familiarisation with the interview material, listening to the audio-recordings and reading the transcripts to gain an overview of the collected

material. During this, codes were applied to blocks of text, identifying features that were potentially relevant to the research question. These codes were both data-derived (based on the semantic content of the data) and researcher-derived (based on conceptual or theoretical interpretations of the data) (Braun and Clarke, 2013). Although it may be argued that prior consideration of the literature may bias the researcher towards particular aspects of the data, a counter view is that it may also enhance the analysis by sensitising to features that might otherwise be missed (Robson and McCartan, 2016). This coding process aimed to classify the data so information could be compared systematically with other parts of the data set.

Separately, the project's supervisors coded a sample of the transcripts. Bazeley and Jackson (2013) consider that in a project with a solo investigator the purpose of this is not as a check of reliability but rather as a review of the data to offer new insights for debate and discussion, enriching the analytic process.

Initial coding resulted in an early thematic framework, with data indexed under first level 'nodes' in NVivo. According to the next stage in Spencer *et al.*'s (2014a) process, these nodes were indexed and sorted so that similarly labelled data extracts were grouped together under parent nodes in NVivo. This process resulted in a thematic map. An example of this grouping of codes is shown in

Figure 12. This was an iterative process involving judgements about meaning and relevance as well as considering implicit connections between ideas (Srivastava and Thomson, 2009). However, Robson and McCartan (2016) reflect that such a thematic network is but a tool in analysis, not the analysis itself.

Figure 12: NVivo grouping of first level codes to themed parent node workplace.



The next stage of Spencer *et al.*'s (2014a) framework analysis involves charting. Specific pieces of data indexed in the previous stage were copied from their original, textual context into an Excel spreadsheet with worksheets for each theme, reducing the data to a more manageable level yet still retaining a link to the original participant. Each participant was allocated a row in the sheet and each column represented a separate subtheme. This method of visualisation permitted both cross-case and within-case analysis. At this stage, there was a need to be cognisant of the objectives of the qualitative analysis- to define concepts, map the range and nature of phenomena, create typologies, find associations, provide explanations and develop strategies (Srivastava and Thomson, 2009). Patterns in the data became more apparent and it was possible to identify outlier cases not fitting into the overall pattern of findings. In considering the pattern of linkages between the data, Spencer *et al.*'s (2014a) typology, which regards the nature of the interaction as functional, structural, contextual, or sequential, was of benefit. From this, a high-level group of concepts was derived with suggested linkages between them.

In the overarching mixed methods design, the themes identified in this phase were used to develop the instrument for the second quantitative phase of the study, which considered the actual dimension of reality in more detail.

### 3.7.11 Considerations of rigour

From a realist perspective, in considering the understanding reached from research it is important to assess the validity of the evidence gathered. It is accepted that the criteria for judging quantitative research are not applicable to qualitative research as there is no single absolute account of social reality. Braun and Clarke (2013) state that there are no absolute criteria for judging whether a piece of qualitative research is any good, quality being a somewhat elusive phenomenon in this regard. However, there are principles which may be used for evaluation. Bryman (2016) suggests two primary criteria for assessing qualitative research: *trustworthiness* and *authenticity*. Trustworthiness is made up of four criteria:

- **Credibility:** this concept parallels internal validity which is concerned with how acceptable the account which the researcher gives is to others. It needs to consider whether the effects identified are due to some other confounding factor. There are numerous threats to this which might include the mode of testing and selection. Bryman (2016) suggests that establishing the credibility of the findings entails ensuring that the research has been carried out according to the principles of good practice and submitting the research findings to members of the social world who were studied in order to obtain confirmation. This member or respondent validation involves taking the research evidence back to the research participants (or to a group with the same experience or characteristics), to see if the meaning assigned is confirmed and to check the completeness of coverage of the subject under investigation (Lewis *et al.*, 2014). Although member checking offers a potentially valuable means of checking for researcher bias, Robson and McCartan (2016) counter that there are potential problems if a respondent challenges the interpretation or changes their mind and wishes to suppress material. These cautions on respondent validation are echoed by both Lewis *et al.* (2014) and Bryman (2016), who raise questions about a power mismatch, the motivations of interviewees and defensive or contradictory feedback. Pragmatically, a further approach to the interviewees for member checking was discounted as it was felt by the researcher to be impractical for busy clinicians. In this case, an outline of the themes identified were presented



to a peer group of ten GP trainers for their reactions and to ascertain completeness of coverage. Subsequently, a summary of the findings was presented to an academic primary care conference.

- **Transferability:** this concept parallels external validity and considers the extent to which the findings might apply in another context. For this, Braun and Clarke (2013) suggest that the key to this is in thick description which describes the specific context, participants, settings and circumstances of the study in sufficient detail, placing responsibility on the reader to evaluate the potential for applying the results to other settings.
- **Dependability:** this concept parallels reliability and includes the notion of replicability. In order to demonstrate this, an audit trail should be kept of all phases of the research process in an accessible manner. In this study, steps included thorough documentation of all procedures, including both data and field notes.
- **Confirmability:** this concept parallels objectivity and is concerned with ensuring that the researcher has not overtly permitted personal views to sway the conduct of the research and the findings arising from it. Robson and McCartan (2016) note that achieving objectivity in a study involving people in social settings is challenging. Lofland *et al.* (2006) acknowledges the inevitability that human observations of the world are filtered. Issues of researcher reflexivity are considered in more detail in Section 3.11.

Authenticity considers the extent to which research has represented the range of possible views, and whether it has helped people to develop more sophisticated understanding or stimulated action.

It must be recognised that these are procedural criteria for assessing the research. Maxwell (2012) recognises that there are no procedures which by themselves will yield sound data or true conclusions. From this realist perspective, it is important to consider the validity of the account as inherent, not simply reduced to the procedures used to produce it, but in its relationships to those things it is intended to be an account of. Although the methods and approaches used in the study are important, they need to be considered in the context of their use in gathering evidence to reach interpretations and conclusions. For this study, data

were gathered and analysed, and there was an iterative process discussing interpretations and conclusions. Findings were purposively discussed with project supervisors, a peer group of GPs and in the third phase, checked with the stakeholder group.

### **3.7.12 Summary of Phase One**

The results of phase one of the study are presented in detail in Chapter 4. The next section of this chapter will describe how the themes from the qualitative interviews were used to build the instrument applied in the second phase of quantitative data collection (Cresswell and Plano Clark, 2018).

## **3.8 Phase Two: Quantitative data collection and analysis**

### **3.8.1 Data collection**

In an exploratory sequential design, the individuals who participate in the quantitative follow-up phase are not typically the same as those who provided data for the initial phase (Cresswell and Plano Clark, 2018). This phase enabled data collection from a larger (and broader) sample of GPs. A cross-sectional design was chosen since this entails the collection of data from a sample of cases at a single point in time. Bryman (2016) highlights this approach means that it is only possible to identify relationships between the variables and there may be ambiguity about the direction of causal influence as the features of experimental design are not present. However, it was felt that a cross-sectional approach was preferable given the significant and ongoing changes in policies affecting General Practice. Additionally, there were practical considerations, such as the challenge of collecting longitudinal data from GPs with heavy workloads, without additional funding or resources.

From a realist perspective, a fixed design such as this permits exploration and refinement of theory, testing whether expected relationships are present. According to Robson and McCartan (2016), a non-experimental fixed design is suitable where aspects of interest are not amenable to change. Such designs are commonly used for descriptive purposes and from a realist perspective are of value in providing evidence for the operation of mechanisms. This allows for further explication of structure and context, identifying the relationships between the various elements of these.

Data were collected using a self-administered questionnaire. As Cresswell (2009) describes, such a survey may be used as an instrument to provide a quantitative description of the phenomenon in a population. It also has the advantages of being relatively cheap and quick to administer to a large number of people, as well as eliminating the effects of interviewer bias, but not necessarily researcher bias (as it only includes pre-defined questions as chosen by the researcher).

Based upon the recommendations of Cresswell and Plano Clark (2018), the quantitative instrument design incorporated published instruments that best matched (some of) the qualitative themes. This is discussed in Section 3.8.3.

### **3.8.2 Choice of survey format**

Most surveys use a questionnaire which may be delivered for self-completion by post or internet, or in a structured interview either face-to-face or by telephone. A comparison of these approaches is summarised in Table 17. Self-administered approaches offer an efficient method of collecting a relatively large amount of data at relatively low cost in a short-time frame. Given the intent to survey across a wide geographical area with limited resources, an online questionnaire was primarily used (with a paper version available to those who preferred this). Although Robson and McCartan (2016) caution that differential access to the internet may introduce bias, it was felt that this did not apply to GPs who routinely use computers in their daily work.

As the themes to be explored in this study included consideration of sensitive issues such as stress, burnout, and coping, it was important to consider how best to obtain an accurate account of the individual's views. For studies discussing sensitive issues, a meta-analysis conducted by Tourangeau, Conrad and Couper (2013) suggested that respondents were more likely to report sensitive information in a web-survey than in a telephone interview. This implies that web-surveys may be less prone to social desirability bias. Preisendörfer and Wolter (2014) compared responses about criminal behaviour in a face-to-face interview and a postal survey. Although 63% answered both instruments truthfully, postal questionnaire respondents were more likely to be truthful than interviewees (58%). In this study female, older and better-educated respondents were less likely to confess socially unacceptable behaviours, as were those who responded later and after reminders. On this basis, anonymous self-administration of the questionnaire (using the internet) and collecting data over a relatively short-time frame, was chosen.

The choice of a computer-based survey is supported by Barrios *et al.* (2011). In a comparison between paper-based and web-based questionnaires to a group of PhD students, Barrios (2011) found a higher response rate to the web-based form (64.8% compared to 48.8% for the paper version  $p \leq 0.001$ ). In this study, the

salience of the topic influenced response rate, but other factors such as gender did not. For the purposes of constructing the instrument for the phase two study, this implies that the relevance of the question content to potential participants should be considered but that factors such as gender are less relevant.

The Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)) platform was chosen as this is a web-based software that allows the user to create surveys and generate reports. It has the advantage that the questionnaire may be distributed securely by a variety of distribution means.

Table 17: Comparison of approaches to survey data collection (after Robson and McCartan, 2016)

Aspect of survey		Postal	Internet	Face-to-face	Phone
<b>Resource Factors</b>	Cost	Low	Very low	High	Low/medium
	Length of data collection	Long	Short	Medium/long	Short
	Distribution of sample	May be wide	May be wide	Must be clustered	May be wide
<b>Questionnaire Issues</b>	Length of questionnaire	Short	Short	May be long	Medium
	Complexity of questionnaire	Must be simple	May be complex	May be complex	May be complex
	Complexity of questions	Simple to moderate	Simple to moderate	May be complex	Short and simple
	Control of question order	Poor	Poor/fair	Good	Fair
	Use of open questions	Poor	Fair/good	Good	Fair
	Rapport	Fair	Poor/fair	Good	Good
	Sensitive topics	Good	Variable	Fair	Fair/good
<b>Data Quality Issues</b>	Sampling frame bias	Usually low	Variable	Low	Low
	Response rate	Poor/medium	Poor/medium	Medium/High	Medium/High
	Response bias	Medium/High	Medium/High	Low	Low
	Control of response situation	Poor	Poor	Good	Fair
	Quality of recorded response	Variable	Variable	Good	Good

### **3.8.3 Content of the instrument**

With a computer-based format, there needs to be careful attention to the design of grid-based questions in order that data loss and satisficing are minimised (Couper *et al.*, 2013). In general, Bryman (2016) suggests that (compared to structured interviews) self-administered questionnaires tend to have fewer open-ended questions, have easier to follow designs, and are shorter, in order to reduce respondent fatigue.

Utility in a research instrument requires a focused topic contained in a relatively short questionnaire with the questions framed in the present time. Bourque and Fielder (2003) advocate that for online surveys in particular, the structure should be simple, without branching sets of questions. Research on questionnaire design has also considered the characteristics of individual questions- including the question type, wording and response dimensions (Schaeffer and Dykema, 2011; Krosnick, 2018). Simple changes in the wording may have substantial effects on the response (Robson and McCartan, 2016).

According to Bourque and Fielder (2003), studies of people generally collect data in one or more of five areas:

- Personal information (or demographic data)
- Information about the respondent's environment
- Information about the respondent's behaviours
- Information about the respondent's experiences or status
- Information about the respondent's thoughts or feelings

The initial section of the questionnaire included basic demographic data about the respondents and their working environment, building upon features identified in the literature and from the interview phase of the study. Using Babbie's (2016) classification of phenomena which scientists measure, these items may be regarded as direct and indirect observables.

Such items included sex, age, and home circumstances (including caring responsibilities), as well as personal and professional characteristics, such as country of primary medical qualification, type of employment as a GP and additional

professional roles. Further information about the individual's work environment included features of the practice they worked in as well as the geographical area within England.

This first section included specific features identified in the Five Year Forward View (NHS England, 2016), proposed as measures to reduce workload in primary care. These included ten 'High Impact Actions' (NHS Networks, 2016) (listed in Table 18). Reviewing these actions, the RCGP (2018) considered that there was evidence for the use of productive workflow, active signposting, supporting self-care and social prescribing. Evidence for the other actions (new consultation types, reducing non-attendance, developing the team, personal productivity, partnership working and developing quality improvement expertise) was more mixed. A survey included in this report suggested that the most implemented actions to reduce workload were improving workflow management, hiring additional non-GP clinical staff, and utilising new consultation methods.



Table 18: Ten High Impact Actions to release time for care (NHS England, 2016)

<b>1. Active signposting</b>	Making sure the first point of contact directs the patient to the most appropriate source of help
<b>2. New consultation types</b>	Using communication methods such as phone and email for some consultations
<b>3. Reduce DNAs (did not attend)</b>	Making changes to ensure patients remember their appointments and that it is easy for them to cancel or rearrange
<b>4. Develop the team</b>	Integrating other healthcare professionals into the team
<b>5. Productive workflows</b>	Introducing new ways of working
<b>6. Personal productivity</b>	Training and support to enable staff to work more efficiently and improve resilience
<b>7. Partnership working</b>	Creating partnerships and collaborations in the local health and social care system
<b>8. Social prescribing</b>	Referral and signposting to non-medical services in the community
<b>9. Support self-care</b>	Supporting patients to play a greater role in their own health and social care
<b>10. Develop QI expertise</b>	Developing a specialist team to support continuous quality improvement

Following the items measuring demographic and work-related characteristics, the remainder of the questionnaire comprised a set of modules of standard questions. In Babbie's (2016) classification, these are constructs or theoretical creations that cannot be observed directly or indirectly. These scales were chosen as they measured concepts of interest, based upon the analysis of the phase one interviews.

Use of published scales saves time and resources and importantly produces data which can be compared with other studies. As there were several potential scales available to use, the selection process considered availability, reliability and validity. Given that a number of scales were included, and a key consideration was the overall length of the final questionnaire, if versions of the same instrument of

differing length existed, the shorter one was usually preferred. Preference was given to scales which were relevant to and had previously been administered to healthcare professionals (particularly GPs).

In each case, the chosen scale was freely available for use. There is an advantage in using instruments which have already been developed and validated rather than writing new items. This approach is beneficial as:

- Questions are generally closed with a range of possible options that have been tested in previous studies.
- The instructions to respondents have been developed and tested.
- If questions from standard modules are used, the data can be compared with prior studies or with a standard population. Equally, it should be possible to describe the established validity and reliability of scores obtained from past use of the instrument.

Each of the measures investigated attitudes using one or more Likert scales. These are used to consider the intensity of feelings about the concept under consideration. Where there is more than one item, the scores are aggregated to form an overall score for that scale (Bryman, 2016).

Reliability may be considered as the consistency of the measure used and three aspects of this need to be considered (Bryman, 2016). For the individual published scales, information on these aspects has been undertaken by the original authors and where available was reviewed as part of the selection process:

- **Stability:** (or test-retest reliability) considers whether a measure is stable over time. The use of measures which have proven reliability in other studies, provides some assurance in this regard.
- **Internal reliability:** considers whether the indicators making up a scale are consistent and measure the same concept. This is supported by using established measures with data including figures such as Cronbach's alpha. This commonly used test is easier to use than other measures of reliability since it only requires the data from one administration of the set of items. A threshold value of 0.70 is considered to denote an acceptable level of reliability (Tavakol and Dennick, 2011).

- **Inter-rater reliability:** considers the consistency of decisions made by observers.

Validity is concerned with the integrity of the conclusions which are reached. Measurement validity considers the extent to which an empirical measure reflects the real meaning of the concept under consideration (Bryman, 2016):

- **Face validity:** is the quality of an indicator which makes it seem a reasonable measure. In this study, discussion with supervisors and separately with colleagues piloting the questionnaire permitted debate refining the instrument.
- **Criterion-related validity:** is the degree to which a measure relates to some external criterion.
- **Construct validity:** is the degree to which a measure related to other hypothetical concepts. At least to some degree, the use of standard measures in the questionnaire provides some assurance in this regard. However, this presumes that the sample of GPs respond in a similar manner to the populations on whom these items were validated.

Closed questions can be pre-coded, turning processing of data into a relatively simple task. Bryman (2016) reflects that it is important to consider the phrasing of statements for such scales and to avoid the use of negatives. However, to avoid acquiescence bias (the tendency for respondents to consistently agree or disagree with a set of items), some of the items should be reverse coded. Reverse ordered items are included in the chosen subscales. For instance, in this study, the perceived stress scale uses four items, and two of these are reverse coded.

For some of the scales, there are groupings of items which consider a specific aspect of the concept, technically known as a dimension. For example, the Copenhagen Burnout scale (Kristensen *et al.*, 2005a) considers three separate dimensions of burnout, and the brief COPE inventory (Carver, 1997) considers different aspects of coping. Considering these separately may pave the way to a more sophisticated understanding of the chosen concept (Babbie, 2016).

For this study, in addition to the descriptive items listed above, standard instruments measuring constructs based upon the findings of the literature review and qualitative interviews were included to refine theory. The output of the

questionnaire included information on the demographic and work-related variables, as well as total scores for the chosen subscales. These standard measures are considered in detail in Chapter 5. (A copy of the questionnaire is included in Appendix B: Questionnaire study).

#### **3.8.4 Sampling and recruitment strategy**

Given the diversity of the GP population, it was felt important to include those from a range of demographic backgrounds (including place of qualification and age), as well as those working with different contractual arrangements and working patterns. There is not a readily available, publicly accessible database with details of all GPs, including those working as locums. The GP Worklife Survey (Gibson *et al.*, 2015) uses the General Medical Practitioners Prescribing Database, but this only includes GP providers, salaried GPs and GP retainers.

The researcher is a member of several national professional networks, particularly through their links with the RCGP, Health Education England, Community Education Providers, and NHS England, and this study used the researcher's contacts within these networks. Known members of these GP networks were contacted by email and asked to pass invitations to colleagues to participate. The contacts were given an email link to Qualtrics, including an information leaflet about the study and consent form before the questionnaire. After presentation of the first phase findings at two academic conferences for GPs, a link to the invitation was shared using *Twitter*, as well as with a QR code at the end of the presentations. Separately, the study was advertised at local GP conferences (in paper format). As the researcher is an established member of the GP community, the chosen sampling strategy aimed to include a range of participants not personally known to them, mitigating against power and/or dependency imbalances.

#### **3.8.5 Sample size**

This phase of the study aimed to recruit from a broad range of GPs practising across England. With a convenience sampling approach, recruitment continues until the required sample size has been reached (Robson and McCartan, 2016). In considering the sample size, there is a tension between the resources available and an awareness that with a larger sample, the precision of the findings increases.

Sample size estimations and power are used to determine how many respondents are needed to answer the research questions.

Given that the data analysis plan included statistical tests and procedures, the minimum sample size for this phase was based upon the ‘rule of thumb’ figures for these tests (Tabachnick and Fidell, 1996). As part of the data analysis, it was anticipated that multiple regression analysis would be utilised to consider the impact of one or more explanatory variables on a single dependent variable (such as perceived stress or burnout). For this study, the concepts considered as dependent variables were measured using a previously published subscale. Demographic and work-related factors were the independent variables which may have impacted upon each of the dependent variables.

From a theoretical perspective, anticipating that eight variables would be included in the multiple regression and postulating a medium-sized relationship between these variables, a sample size of 114 was the minimum required, based upon Tabachnick and Fidell’s (1996, p. 132) ‘rule of thumb’, as described below in Table 19.

Table 19: Estimation of minimum sample size (based upon Tabachnick and Fidell, 1996)

n= number of participants m= number of independent variables	Rule of thumb equation	Minimum sample size where m= 8
<b>Multiple correlation</b>	$n > 50 + 8m$	114
<b>Individual predictors</b>	$n > 104 + m$	112

A further consideration in determining the sample size was the power calculation, which refers to the number of patients required to avoid a type I or type II error in a study (Jones, Carley and Harrison, 2003). A priori power analysis using a G\*power calculator (Faul *et al.*, 2009) indicated that a total sample of 160 would be required to detect a medium effect ( $f^2 = 0.15$ ) with 95% power using a regression analysis of eight variables with an  $\alpha = 0.05$ .

Taken together, these two factors suggested that the minimum sample size required for this study should be greater than 160 respondents.

### **3.8.6 Inclusion and exclusion criteria**

The population in this study was NHS GPs currently working in England (and willing to complete the questionnaire). NHS GPs were defined as those who were in post in either a principal or salaried post (substantive role), as well as those undertaking long-term locum work.

As with phase one, given the divergence of policy context in the other three nations, those working in Scotland, Wales and Northern Ireland were excluded, as were those working solely in private practice. A procedural check was performed prior to analysis of the data, which permitted exclusion of any responses from GPs not currently working in one of the English Sustainability and Transformation Partnership (STP) administrative areas.

### **3.8.7 Participants**

A total of 218 questionnaires were completed online. Although the questionnaire was available in paper format (at GP meetings) and using a QR code, neither of these modalities were chosen by participants. The sample is described in detail in Chapter Five.

### **3.8.8 Measures**

The measures included in the questionnaire are detailed in Chapter 5.

### **3.8.9 Procedures**

All raw data were extracted from Qualtrics into SPSS v28 (IBM Corp.) for scoring and analysis.

### **3.8.10 Data analysis**

In the following section, the steps in the data analysis and the procedures used are summarised. These are detailed fully in Chapter Five.

### **3.8.10.1 Descriptive statistics and scale reliability**

Descriptive statistics for each of the outcome measures were calculated to outline the characteristics of the sample. For scales with more than two items, internal consistency was considered calculating Cronbach's  $\alpha$  as a measure of reliability.

### **3.8.10.2 Exploratory analysis**

The first stage in the statistical analysis considered whether there were significant differences between the outcome scores on the self-reported scales according to the different categorical variables (such as sex), and whether there were significant correlations with the continuous variables (such as age).

### **3.8.10.3 Hierarchical multiple regression analysis**

Where significant relationships were identified, separate hierarchical multiple regression analyses were undertaken. Multiple regression analysis considers the impact of two or more independent variables upon a single dependent variable. In hierarchical multiple regression, the variables are added to the model in separate steps (blocks) which are defined on a theoretical basis. In this case, the blocks were defined according to personal demographic characteristics, professional work-related factors, and finally, individual differences in coping styles.

### **3.8.10.4 Comparison with Karasek's Job Strain model**

According to Karasek's Job Strain model (1979), the greatest risk to physical and mental health is in those facing high workload demands, combined with low control or decision. In order to determine the extent to which this applied to the sample, responses were divided into four groups. The continuous variables for the Health and Safety Executive (HSE) job demands and control scales were each divided into two groups (high and low), using a median split. The mean scores for the outcome variables for each of these four groups were compared.

### **3.8.10.5 Moderated regression analysis**

According to Van der Doef and Maes (1999), two mechanisms could underpin Karasek's (1979) model. There could be an additive effect between the impact of low

job control and high job demands (the strain hypothesis), or there could be an interaction between demand and control where control moderates or buffers the impact of demand (the buffer hypothesis). This was assessed using moderated regression analysis.

### **3.8.11 Considerations of rigour**

Issues of bias and rigour need to be considered in all research involving people, particularly in a study such as this where there is a close relationship between the researcher and the setting.

In surveys, it is important to consider whether there was consistency in test administration. The use of a standard email of invitation and link to a computer-delivered questionnaire should have minimised variation, but the convenience sampling methodology inevitably introduced the potential for variation.

Reliability and validity are discussed in relation to the published scales in Section 3.8.3. These considerations also applied to the instrument constructed for this study. Considering face validity, debate with supervisors and discussion with colleagues piloting the questionnaire permitted refinement of the instrument. At least to some degree, the use of standard measures in the questionnaire provided some assurance to construct validity. However, this presumed that the sample of GPs responded in a similar manner to the populations on whom these items were validated.

Generalisability considers the extent to which the results of the questionnaire are applicable to the wider population it is meant to represent (Robson and McCartan, 2016). In this study, the choice of convenience sampling had the potential to distort the findings, since the initial sample was dependent upon the researcher's personal network of contacts (Parker, Scott and Geddes, 2019). Having used a convenience sampling method, generalisability needed to include consideration of the extent to which the respondents were typical of the population of GPs in England. The characteristics of the respondents are considered further in the description of the sample in Chapter 5.

A further consideration was the extent to which questionnaire responses reflected truth. Social desirability bias considers possible distortion of data with



respondents responding in terms of socially acceptable beliefs or behaviours. Acquiescence bias is the tendency for respondents to consistently agree or disagree with a set of questions or items (Bryman, 2016). These represent further potential sources of error in concept measurement and are difficult to assess in a computer-delivered questionnaire. In response, Hakim (2000) suggests that transparency (or accountability) requires that the methods and procedures of the study are explicit, so that the implementation and research design can be assessed.

As with phase one of the study, this phase was undertaken in an open system. In such 'real world research', external influences may have an impact upon people, information and other aspects of the situation in ways which are unrelated to the focus of the research (Robson and McCartan, 2016). For instance, invitations to participate in this phase were issued in the months immediately following the inception of PCNs which significantly changed the primary care landscape. Procedural criteria alone are insufficient in judging the rigour of the research and this judgement must also include scrutiny of the ways in which interpretations are reached.

### ***3.8.12 Summary of Phase Two***

The analysis and results of phase two of the study are presented in detail in Chapter 5.

The next section of this chapter will describe how the theory generated from both the first qualitative phase and the second quantitative phase was used to interpret, refine, and validate findings.

## **3.9 Phase Three: Qualitative data collection and analysis**

### ***3.9.1 Data collection***

From a critical realist standpoint, it is important to appreciate regularities that are observed through empirical observation of patterns of association and the context-driven mechanisms behind those patterns. These mechanisms may be identified from people's constructions of their experience and observations of the processes involved (Bazeley, 2015). In a mixed methods study such as this, Bazeley

(2016) highlights the challenge of integrating the data from qualitative and quantitative sources. One of the strategies proposed for this is to consider data by theme rather than the method used to gather it.

For this third phase of the study, data were gathered using a series of semi-structured interviews to explore the complex beliefs which individuals hold (Pope and Mays, 1995). In areas of social policy, applied qualitative research has been recognised as having a crucial role in providing enlightenment. In this case, it sought to build upon the contextual findings of the initial studies, to consider possible explanatory factors and influences, with the potential to generate changing conceptions of the situation (Ritchie and Ormston, 2014). Telephone interviewing was adopted for the reasons explained in Section 3.7.4.

The realist premise is that the research process will start by theorising, then testing, before refining and testing those theories further. In contrast to the interviews in the initial phase of the study which explored participants' views and experiences, these interviews were theory driven (Greenhalgh *et al.*, 2017). In Manzano's (2016) view, this third phase may be considered theory consolidation. The interviews sought to appreciate the interpretation of expert informants and their ability to analyse the social contexts, constraints and resources which pertain to GPs in their working context. Such theory driven interviews aim to investigate relationships between underlying causal mechanisms, the varying contexts in which such mechanisms operate and the resultant outcomes (both anticipated and unanticipated) (Smith and Elger, 2014). Since it is considered that the expertise of the interviewee is likely to lie in relation to the explanatory mechanisms, the focus is on propositions offered by the researcher, based upon an understanding of what happens in the natural setting, which in this instance, derived from the first two phases of the study. This is in accord with Pawson (1996) who suggests that a realist interview comprises a teaching-learning function (presenting a description of the theory), combined with a conceptual focusing function, when the interviewee is able to clarify the researcher's thinking based upon their own ideas.

The interviews used a similar semi-structured topic guide, which was based upon the themes identified in the previous phases (see Appendix C: Stakeholder interview study). However, there was an awareness that variation to take account of

stakeholders' differing perspectives and experiences, was legitimate (Manzano, 2016). This guide recognised the need to explore both situations in which theory appears to work and those in which it does not (corresponding with Westhorp and Manzano's (2017) approach). This is akin to the consideration of typical, deviant and crucial cases used by Mukumbang *et al.* (2020) in their approach to realist interviews.

### **3.9.2 Sampling and recruitment strategy**

Pawson and Tilley (1997) distinguish between the expertise of interviewees. They consider that experts may have particular knowledge about the ways in which policies have been implemented, the challenges and opportunities involved, and the immediate influences on outcomes. For this reason, they are well placed to be able to offer accounts of the mechanisms, contexts, and outcomes.

Involving a range of stakeholders can help to ensure that potential gaps in research are highlighted. Hoffman *et al.* (2010) highlight that there should be balanced representation, offering different perspectives. Concannon *et al.* (2019) defines a stakeholder as an individual or group responsible for or affected by health and healthcare-related decisions. NHS Improvement (ND) considers them from the dual perspectives of impact and power in the system. Their classification includes those who are commissioners, customers, collaborators, and commentators. Different points of view are required, not to ensure balance or to achieve consensus, but because different perspectives are needed to investigate patterns and uncover unintended outcomes (Greenhalgh *et al.*, 2017).

For the purposes of this study, key organisations and groups involved in primary health care were considered as stakeholders, including:

- NHS England (NHSE), which is responsible for commissioning primary care and manages practitioner performance.
- Health Education England (HEE), which supports the education, training and development of the workforce.
- The General Practitioners' Committee (GPC) of the British Medical Association (BMA) is the representative body for GPs in England.

- The Royal College of General Practitioners (RCGP) is the professional membership body for family doctors.
- NHS Practitioner Health (NHS PH) provides a specialist service to doctors and dentists with mental illnesses.
- Resilient GP is a social media forum for GPs.

As previously mentioned, the researcher is a member of several national professional networks, particularly through their links with RCGP, HEE and NHSE. This study used the researcher's contacts within these networks. If appropriate contacts were not available, direct approaches were made to relevant individuals using publicly available contact details.

### **3.9.3 Sample size**

Sample size in an interview study has been discussed in Section 3.7.6. For this study, it was anticipated that between six and eight interviews with a range of expert stakeholders would capture broad themes and identify gaps in the initial studies.

### **3.9.4 Inclusion and exclusion criteria**

The population for this study was stakeholders related to General Practice in England who had indicated a willingness to participate in the study (and were willing to be interviewed).

As with the previous phases, those working in Scotland, Wales and Northern Ireland were excluded, as were those working solely in private practice. Additionally, those who had informed phases one and two were excluded.

### **3.9.5 Description of the sample**

Initial invitations were sent to one or two representatives of each of the stakeholder groups. Although representatives of all six organisations responded, it was not possible to schedule an interview with a representative of Resilient GP- the social media forum- within the allotted timeframe. Five interviews were undertaken, which lasted between 39 and 44 minutes, with an average duration of 40.8 minutes. The interviewees are described in Chapter 6. Broadly, they constituted a heterogeneous group with a diverse range of characteristics.

### **3.9.6 Data management and analysis**

Given that the purpose of realist interviews is to test theory, it is recognised that theory may be ‘gleaned, refined or consolidated not just in the next interview but also whilst digging for nuggets of evidence in other sources of data’ (Greenhalgh *et al.*, 2017). This meant that the analysis was an ongoing iterative process, placing the interview information in the context of the propositions posed.

As in the first phase, all the interviews were audio-recorded and transcribed verbatim before being imported into NVivo to assist with the processes of analysis. Handwritten field notes were kept. Analysis followed the steps set out in Section 3.7.10 to code and chart the data using a framework approach. The coding framework included both data-derived and researcher-derived codes (Braun and Clarke, 2013). The codes used were both semantic (which summarise the content of the data) and latent (which go beyond participant expressed meanings (Terry *et al.*, 2017). These latent codes capture deeper meaning and interpretation.

According to Wiltshire and Ronkainen (2021), a realist approach to analysis of interviews considers three types of theme structured around Bhaskar’s (2013) concept of a stratified ontology:

- Experiential (subjective viewpoints).
- Inferential (inferences and conceptual redescriptions).
- Dispositional (theories about properties and powers that must exist).

Generating these themes requires abductive and retroductive thinking. (Wiltshire and Ronkainen, 2021) advocate that during the reading and re-reading of transcripts, repeated themes are seen as demi-regularities in the data. From these it is possible to draw inferences and consider underpinning mechanisms. Fryer (2022) describes a similar process in which codes are consolidated in groups based upon experiences and events. As these are reviewed, causal explanations are developed.

### **3.9.7 Considerations of rigour**

Similar considerations of rigour apply to those discussed in Section 3.7.11. In terms of authenticity, there may be several possible accounts of social reality. The decision to select particular stakeholders aimed to offer opinion from a range of

perspectives. Bryman (2016) suggests that authenticity considers the broader political impacts of research and in particular, the extent to which research fairly represents the range of viewpoints and helps people to develop more sophisticated understandings. This depends upon the theoretical justification of the selection of participants for the study (Maxwell, 2012). It must be recognised that, inevitably, the conclusions of a research account such as this are the researcher's fallible constructions of the views of the respondents.

### **3.10 Ethical considerations**

Ethics is concerned with matters of right and wrong, and in the context of research, it relates to the proper conduct of a study. Ethical behaviour helps to protect individuals, communities, and environments, assuring trust and research integrity (Israel, 2015). For Israel (2015), research ethics encompasses organisational and professional demands, as well as scrutinising the behaviour of the individual researcher.

#### **3.10.1 Procedural ethics**

For each phase of the study, approval was gained from the Ethics Committee of the Faculty of Social Sciences of the University of Kent. Each of the proposals was assessed using the Integrated Research Application System (IRAS) to inform the University Ethics Committee. This identified that further permission and approval for health and social care research was not required. The ethics approval process required sample study information leaflets and consent forms were included (see Appendices A, B and C).

The ethics applications considered the potential burdens and harms to participants. Given the nature of the topic under consideration, it was necessary to consider that it might precipitate emotional distress. Advice about professional support helplines was included with the information about the study.

Data management was governed by principles of confidentiality, as laid down in the General Data Protection Regulations (GDPR) (2018). For the interview phases, the identity of the respondent was known to the researcher (but all transcripts were stored on the computer and referred to by a numbered code). For the questionnaire phase, data were collected without personally identifying

information. Participants who wished to have a certificate of participation were asked to request this separately so that their name was not associated with specific data.

### **3.10.2 Professional ethical codes as a doctor**

As a doctor registered with the GMC, the researcher is bound by their codes of practice. Good Medical Practice (2013) sets out the behaviours expected of all doctors working in the UK and specifically stipulates the need to maintain trust in the profession by being open, honest, and acting with integrity. With regard to research, there is a requirement to follow national research governance guidelines, in addition to GMC guidance (General Medical Council, 2019). Key elements in specific research guidance for doctors are the need to remain aware of potential conflicts of interest and to understand how to apply the principles of consent and confidentiality (General Medical Council, 2010).

As a doctor, there is also a duty of care to individual research participants, recognising that participation might cause distress. This was specifically addressed in the post-interview debrief sheets (with specific professional support resources available if required).

### **3.10.3 Ethics in practice**

A particular consideration in the design of the study was an awareness of the researcher's position as an established GP working within a hierarchical profession and the need to manage the potential conflicts of power which might occur within the research. The sampling methods adopted were chosen to minimise this effect by ensuring that participants were not personally known to them.

Given that the desire to be heard and the assumption that the research serves a wider social good may be a motivating factor for participants (Webster, Lewis and Brown, 2014). It is incumbent upon the researcher both to report findings truthfully and to consider how the findings are disseminated and used. At each stage, participants were offered a summary of the findings for personal reflection, as well as a certificate which could be used as evidence for appraisal. Findings of the studies were presented for discussion at professional conferences.

### 3.11 Researcher perspective

A particular challenge for this thesis is that I am a working GP and aware of my own experiences and preconceptions. Using Adler and Adler's (1987) classification, I am a 'complete member' researcher. Although this means that I am acutely aware of the experiences and meaning systems of others, I must also be aware of my own biases and preconceptions (Dwyer and Buckle, 2009).

Bowling (2014) suggests that the researcher must be aware of their own theoretical perspectives and to report these honestly. According to Drew (2004), the process of 'bracketing' is the task of 'sorting out the qualities that belong to the researcher's experience of the phenomenon'. Starks and Brown Trinidad (2007) maintain that the researcher must be vigilant about their own perspective, their pre-existing thoughts and beliefs, and engage in the self-reflective process of bracketing.

In this case, I have the shared values which relate to membership of a profession, but these are viewed through the lens of a career in one large group practice in a coastal town.

In a review of bracketing in qualitative research, Tufford and Newman (2012) highlight the lack of consistency and consensus in the definitions of bracketing, recognising that this includes beliefs, values, preconceptions and emotions, according to different authors. They reflect that bracketing is a multi-layered process that occurs throughout the research process. Although one option mentioned in this paper was to use an external interviewer, this was not possible within the constraints of the project. However, involvement of external supervision and discussion provided the opportunity to challenge and to promote self-awareness in this regard at each step of the research process (from project conceptualisation, through development of the research questions, data collection and data analysis).

Considered from a realist perspective however, Maxwell (2012) argues that these research relationships cannot be set aside and are real phenomena that can have an influence on the research, the data collected and the conclusions. My beliefs, values and dispositions may be viewed as valuable resources as well as possible sources of distortion. Equally, the relationships formed with research



participants are real and shape the context within which the research is conducted. These issues are considered in the concluding chapter.

### **3.12 Chapter summary**

This chapter has presented the methodology and methods for the study. The methodology used critical realism to underpin a sequential exploratory mixed methods design. Data collection was in three phases. Initial qualitative interviews were used to explore the issues and inform the development of a quantitative survey instrument which was administered in the second phase. Finally, these two strands were used to inform theory consolidating interviews with a range of stakeholders. From a critical realist standpoint, this methodology was used to assist in identification of the regularities that are observed through empirical observation and to consider the context-driven mechanisms behind those patterns.

The following chapter presents the findings of the initial 'theory gleaning' phase of the study.

## **4 Chapter Four: Phase One interviews**

### **An exploratory study of the Working Life of General Practitioners in 2017**

#### **4.1 Introduction**

This chapter presents the results of the analysis of the data collected from the exploratory telephone interviews with GPs. The chapter begins with information about the participants. The results from the analysis of the interview data are presented under the key emergent themes, as illustrated by selected quotes from the interviews. The chapter concludes with the presentation of a conceptual framework.

As the initial step in the mixed methods design, this phase of the study explored how individual GPs framed their understanding of their working lives, generating themes for testing and refining in the later phases.

#### **4.2 Aim and Objectives**

##### **Primary Aim:**

To explore how individual GPs perceive the nature of the demands of their role as primary health care practitioners.

##### **Objectives:**

- To explore GPs' perceptions of the demands of their role.
- To identify support mechanisms and structures available in the workplace for GPs.
- To explore how GPs manage the demands of their work.

#### **4.3 Description of the sample**

Although 14 potential interviewees agreed to participate and completed the consent forms, only 12 interviews were completed within the timeframe of the study. Despite repeated attempts to reschedule, it was not possible to identify a mutually convenient time for the other two interviewees. The interviews lasted between 16 and 34 minutes, with an average duration of 20 minutes.

The characteristics of the participants are shown in Table 20. According to GMC data, 47.1% of doctors on the GP speciality register in 2017 were male, and this was similar to the sample in this phase of the study.

Considering the place of primary medical qualification, 77.6% of those on the GP register qualified in the UK, with 6.1% in the remainder of the European Economic Area (EEA), and the remaining 16.3% in the rest of the world. India represents the largest single group of these international medical graduates, followed by Pakistan and South Africa (General Medical Council, 2017). Thus, the sample in this study, reflected the range of qualification locations of those on the GMC register.

According to a BMA (2013) briefing, approximately one-fifth of the GP workforce is salaried (rather than contracted), with the observation that this proportion is increasing rapidly. More recent comment advised that the salaried workforce had risen from 4% in 2002 to 28% in 2015 (Majeed and Buckman, 2016), with those salaried doctors being employed either by other independent contractor GPs or by commercial companies. In this sample, all GPs were either independent contractors or employed by such partnerships.

Geographically, participants worked across a wide area from Co Durham in the north to Somerset in the south. Four worked in different parts of Kent. Their practices were based in a variety of settings, including urban, suburban, and rural, and their patients have differing levels of deprivation.

Four had additional roles as GP trainers, whilst eight had portfolio roles. The roles outside General Practice included clinical work in Out of Hours services, extended roles as a GP with a Special Interest, as well as education (such as GP appraisal), and roles within the local CCG and GP federations. The reasons for these different portfolio careers are not known.

In addition to their GMC licence to practice as GPs, ten held membership of the Royal College of General Practitioners (MRCGP), and seven held other qualifications, largely diplomas related to their additional clinical roles.

Table 20: Characteristics of interviewees

<b>Interview ID</b>	<b>Gender</b>	<b>Role</b>	<b>Working pattern</b>	<b>Place of Primary Medical Qualification</b>	<b>Year of Primary Medical Qualification</b>
1	Male	Partner	Full-time	South Africa	1987
2	Male	Partner	Full-time	UK	1998
3	Male	Salaried	Part-time	UK	1970
4	Female	Partner	Part-time	India	1987
5	Female	Partner	Full-time	India	2003
6	Male	Partner	Part-time	Netherlands	1989
7	Female	Partner	Part-time	UK	1985
8	Male	Partner	Part-time	UK	1983
9	Female	Partner	Part-time	UK	1997
10	Female	Partner	Full-time	India	1997
11	Male	Partner	Part-time	UK	1982
12	Female	Salaried	Full-time	UK	2012

## 4.4 Interview themes

The results from the analysis of the interviews with the GPs are presented under the following major themes: policy, changes in external environment, complexity, uncertainty in a changing system and impacts on the individual's coping mechanisms. These are listed with their constituent sub-themes in Table 21.

Table 21: Key themes and subthemes from data analysis

<b>Themes</b>	<b>Sub themes</b>
<b>Policy</b>	GP contract 2004 Five Year Forward View and new models of care Resource allocation Perverse reward system Regulation
<b>Changes in external environment</b>	Societal expectations and the doctor patient relationship Expectations of external organisations Risk aversion and risk management Communication methods
<b>Complexity</b>	Patient complexity System complexity Advances in medicine/guidelines
<b>Uncertainty in a changing system</b>	Loss of GP as a secure known entity Feeling undervalued Managing a business
<b>Impacts on the individual's coping mechanisms</b>	Feeling of loss of control and loss of autonomy Emotional impact Workload and fatigue Workload and recruitment Peer support Professional support Work and home balance Enjoying patient contact Personal attitudes

#### **4.4.1 Impacts of policy (including regulation and local implementation)**

The impact of public policy changes was clearly articulated by the interviewees. For many, policy change was a significant source of frustration. This was most spoken of in relation to the contract which practices hold with NHS England.

##### **4.4.1.1 The 2004 contract**

There was a significant renegotiation of the GP contract in 2004 (NHS Employers, 2014). This contract was negotiated with and agreed by the profession with the aim of increasing flexibility of working (and improving quality of care) at a point when GPs were feeling overburdened by the 24-hour responsibility. The contract brought a significant change to the funding mechanisms for General Practice, an ability to employ salaried doctors and an end to 24-hour responsibility for patient care. Interestingly, discussion of contractual issues in these interviews included the perception that in agreeing to a new GP contract in 2004, GPs had effectively abdicated their responsibilities to patients and society. This was mentioned by three of the interviewees, not unsurprisingly amongst the group who had been in practice at this stage.

GP1 described clearly how they perceived that this has led to problems in relationships both with patients and colleagues, identifying that it may be construed as a means of reducing the power of GPs:

*'..... I think one of the things... which has made things worse, was actually losing out-of-hours... they created this entire sub-class of doctors who weren't owner-operators in 2004, along with QOF, but I think the out-of-hours change, coupled with the creation of a salaried doctor meant that you now have an entire group of doctors who have no longitudinal relationship with the patient, they can plug-in and plug-out on a part-time basis and as a result, the patient perceives them as relatively interchangeable rather than you know, a particular individual with whom they have a personal relationship' (GP1).*

Similarly, GP3 felt this contractual change had moved the doctor-patient interaction from a longitudinal personal relationship to a transaction:

*'So, we stopped doing nights and we stopped doing weekends and..... because we're not available, people can't see the same person twice... I would just be used like B&Q you know, 'I need some screws oh yeah I'll just nip down and get them'. So, the system has become very, very impersonal' (GP3).*

#### **4.4.1.2 Five Year Forward View and new models of care**

NHS England (2014) published their Five Year Forward View introducing new models of care. This was followed by the implementation plans for General Practice (NHS England, 2016). Together, these promised additional investment into primary care in response to transformational change, and with pledges for additional numbers of both GPs and allied health professionals in the practice team. As with the 2004 contract change, they also marked a change in the relationship between GPs and their patients.

It was clear this policy change was having a significant impact upon GPs in relation to both workload and complexity. Two of the interviewees (GP1 and GP2), both of whom worked full time in practice, had additional roles within the new provider organisations (bringing together GP practices and other community providers to develop new models of integrated care), which, as GP2 explained, increased their working hours:

*'I mean there's quite a bit of other work because the federation's only been up and running for about two months now so there's been quite a lot of other work along the way in the evenings' (GP2).*

For GP5, the sole partner in a practice, negotiating a way through with this changing landscape was both complex and stressful, despite having a role as the Vice Chair of a CCG, which superficially should have ensured that they were familiar with the new systems:

*'there's several factors that affect the stress levels in general practice you know there's constant change in policy and regulation and funding streams and applying for funding streams...*

*... if you're working with providers and a provider-landscape in an acute Trust, then you've got to go through a zillion things to get a change' (GP5).*

Although the Five Year Forward View promised resilience funding for practices, there was variation in the ease of accessing this. GP2 described a positive experience, working in an area where NHSE and the local CCG had worked collaboratively to ensure that the funding was readily available:

*'I mean we have been able to access as a federation, the GP resilient practice and vulnerable practice monies via NHSE through the CCGs... I think we're doing it in a way that's a lot more efficiently than a lot of areas have managed to do it and that's because we've done it in partnership with the CCG' (GP2).*

Others, such as GP9, working in a four-doctor practice with a partner absent on sick leave and another on maternity leave, had a much less positive experience and felt disempowered by the complexities of the system around them, with a lack of transparency in the rules for accessing funding. GP6, working in a different area of the country had a similar experience, as they explained:

*'It's very difficult to get support from NHS England or the CCG, it's very difficult to access monies that are promised, in our experience, very, very difficult, lots of obstacles are put in the way' (GP6).*

Several mentioned the impact of increasing care in the community and the implications for them of moving work from secondary to primary care, as issues such as requests to perform drug monitoring, often came without additional resourcing. More subtle impacts were the introduction of new care pathways and the very tight eligibility requirements which the GP was then required to explain and justify to the patient.

#### **4.4.1.3 Resource allocation**

Underpinning the discussions was a perception that policy changes related to allocation of scarce resources and rationing which GPs were being asked to implement, without necessarily being party to the decisions made. GP12 noted



justifying decisions made by organisations such as the CCG was both frustrating and time-consuming. As part of the contractual arrangements, GP7 described the implementation of CCG medicine management schemes, which were perceived as cost saving rather than quality improvement measures:

*'... we used to have clinical freedom to do what we liked but now ... we're being constrained aren't we, to do things according to usually cost-saving exercises and from one month to the next there's a different brand of morphine or pregabalin... because they're all cheaper than the last lot they were last month... I suppose it's little ways in which we're trying to save the poor old creaking NHS from complete bankruptcy...*

*... it's politically driven, and it's supposed to be saving money... and the whole mantra that we sing to is save money and keep people out of hospital isn't it, avoid unplanned admissions, so you know, this is what we're supposed to be doing' (GP7).*

This sentiment was shared by GP1, who found himself asking, *'what is the best care I can provide within the resources available'*.

#### **4.4.1.4 Perverse reward system**

The current model of funding GP services depends upon a complex mix of different income streams. Most practice income comes from meeting its core contract obligations and is paid as a capitation based Global Sum. The imperfections of this model were described, with several considering that it was a limitless contract lacking incentive to improve quality. GP5 described it as a block contract:

*'we just keep seeing patients and you're never paid more for it, you just do it whereas nobody else would sign up to a block contract these days' (GP5)*

For GP2, the challenge came from the open-ended nature of the contract as there were no limits to the daily capacity:

*'unlike secondary care where you just have somebody that you can hand over to... we don't have that in general practice, you get to 6.30pm and if you've still got an hour of stuff to sort something out, you*

*haven't got somebody there to hand it over to, you're there till 7.30pm sorting it out' (GP2).*

The nature of the GP contract meant that paradoxically, a better service made for more work but the same reward, as GP1 reflected:

*'I think what I do feel aggrieved by... we have this perverse system which actually means that because of our contract the better and the more accessible and the more appropriate and the more effective the health care you give, the more work comes to find you at the same, at the same level of funding and it just seems utterly crazy' (GP1).*

#### **4.4.1.5 Regulation**

Increasingly, GPs' work is directed by other agencies and bodies. GP practices in England are registered with the CQC who inspect and rate practices. This regime was introduced in 2014. In the CQC report following the first round of inspections, in May 2017 one in ten practices were deemed to require improvement (Care Quality Commission, 2017). This was a subject which engendered uncertainty and concern amongst the interviewees. For example, GP11 described how the practice was trying to manage workload by delegating initial screening of correspondence, but was uncertain about how this might be viewed by the CQC:

*'it's an example of a form of delegation where there probably is a small degree of risk and whether the CQC will come and tell us some time in the future that that's not acceptable I'm not sure' (GP11).*

Others expressed their views in definite negative terms, articulating frustration about *'withstanding CQC inspections'* (GP2), and the limitations on self-determination, as GP1 commented:

*'We spend our life trying to just stay on top of whatever NICE spouts out at us or what the CQC is going to beat us up for' (GP1).*

These negative impacts were not necessarily because of issues within their own practice either, as GP2 also described feelings of unfairness:

*'we at one point struggled with the temporary closure of a local practice due to the CQC suspending it, so we had to take on 1,000 patients overnight and as an 8,000 patient practice, you know, that was not easy for us to swallow up'. (GP2).*

Yet at the same time as this increased regulation, there was also the perception of a lack of regulation of GP workload. GP8 commented on the lack of regulation of (safe) workload, comparing their situation to other services:

*'What's happened is our workload is not regulated, it's very simple, it's not regulated, you know, a bank shuts when it shuts, mental health services they say the waiting list just gets bigger, you know, people howl if they have to wait you know, over a week to see a GP, they wait nearly a year to see BT and nobody seems to bat an eyelid so we are the back stop, we can't regulate our workload' (GP8).*

#### **4.4.2 Changes in the external environment**

In addition to contractual and policy changes, the GPs interviewed highlighted some of the changes in the wider professional context.

##### **4.4.2.1 Societal expectations and the doctor-patient relationship**

The interviewees described the changes which they had seen in their relationships with patients. There was the sense of patients being more demanding of their GPs with the move to a more consumerist approach, and although this was observed in individual interactions with patients, there was also a sense that this reflected wider changes within society. From their comments, it seemed that GPs positioning patients, perceiving them as part of the problem. On reflection, it is interesting to consider the extent to which this may have been a reaction to changes in the power differential between the profession and society. GP5 felt that patient expectations and demand were difficult to reconcile on an NHS budget:

*'I think expectations are, managing expectations, patient expectations as well... and it's about wanting something now... it's a very sort of high demand culture... you're learning to manage that and that's on an NHS budget so that itself is challenging' (GP5).*

Similarly, GP7 thought the rising trend of self-absorption in society was a factor in increasing patient demand:

*'I think things are getting demanding... it probably is a society thing, people feel entitled, don't they?'* (GP7)

GP2 was particularly vociferous about the demands and expectations of their patients, also seeing these as reflections of a societal change in attitude towards the NHS:

*'I've seen a shift over the last decade or more from patients having some ability to self-care and accepting that the NHS isn't simply there to provide for everything, to there being a lot more of an entitled view from often quite young patients who simply demand what they think they should have...'*

*'...A great number of our conflicts with patients are where we're simply not able to meet their expectations but their expectations are either not realistic or not always appropriate...'* (GP2).

This sentiment was echoed by GP4 who felt patients were becoming more self-indulgent in terms of their expectations of what their GP could do for them:

*'If allowed they would have you feed them, put food in their mouth, the GP is the first port of call'* (GP4).

Over the course of the interview, several spoke of their values and thoughts about health care. Commodification of care was associated with depersonalisation and a transactional relationship between doctor and patient- with a move to view General Practice more as a service. GP1 considered:

*'The people that are accessing the service are no longer aware of the doctor as being an individual with a life and a family... we're just seen as you know, part of a big system which can deliver a 24-7 service you know, seamlessly and without strain and... it's gone from being a personal service which happened on a personal basis'* (GP1).

Despite the negative comments, a positive aspect of changing expectations was the requirement to move from a paternalistic to a patient-centred approach to care. However, this was a factor in increasing the time required for consultations, as GP6 reflected:

*'I also think that we have largely abandoned the model of telling patients what to do... we are trying to work collaboratively with patients, work together with patients and that takes a bit more time... I'm totally in favour of it but I think it's, it's a demand on time' (GP6).*

Others recognised that changes in the relationship with patients were not all attributable to changes in societal attitudes. Introducing a more part-time workforce, no longer responsible for out-of-hours cover for their registered list of patients, also affected the relationship with patients. This was particularly apparent in the interviews with GPs, who had worked prior to this organisational change. Similarly, GP3 felt the disruption to continuity of care affected their job satisfaction:

*'Because it's saddening and so the lack of continuity is, is probably the biggest thing and of course it really ruins the job satisfaction I think and I don't think the young doctors quite realise what they're missing because they are, many of them are working part-time as we all are now' (GP3).*

#### **4.4.2.2 Expectations of external organisations**

At a clinical level there are numerous bodies producing guidance on how GPs should deliver patient care, these include the National Clinical Institute for Health and Care Excellence (NICE), the General Medical Council (GMC) and the Medicines and Health Care Products Regulatory Agency (MHRA). Whilst interviewees could articulate the benefits of this, they were also conscious of the corollaries of this regulatory culture.

GP11 spoke of how there had been quality improvement, but that this was in the context of a climate which was increasingly risk averse:

*'just the overall quality, safety improvements that have been driven up which does add workload because you get a bit more*

*particular about medication monitoring... I think it's just everyone becoming a little bit more risk-averse over the years as quality improves, one way of doing it is cutting out the risks, so sometimes the only way of doing that is handing it to the highest professional in the hierarchy, which is us.'* (GP11).

GP8 described their perception of the scale and speed of changes in guidance, which GPs are expected to accommodate quickly:

*'Now, I go on holiday for two weeks and come back and... see what the new things are, what the new pathways are, what the new prescribing guidelines are, so nobody is measuring how much additional stuff we have to take on board... I'm not saying it's wrong, medications optimisation is really important, but having to work out and remind yourself which drug we're giving this week as opposed to last week, which inhaler we're using this month instead of last month and all the rest of it, the systems aren't sophisticated enough and it still relies on us to do quite a lot of the work'* (GP8).

At another level, were the rather more nebulous demands of other organisations requesting a letter from a doctor, thus, reflecting the lack of boundaries to the GP's role. As GP2 explained, requests for letters have risen dramatically:

*'Well they seem to have flourished, diversified and mushroomed and it's perhaps in the last year things have started to reign in a little bit but then again over the last 10 years it seems that every Tom, Dick and Harry wants a letter from the GP, you know, it's schools, nurseries, employers, numerous other organisations you know, will request a note from the GP or a report from the GP or want an opinion from the GP about X, Y and Z'* (GP2).

#### **4.4.2.3 Risk aversion and risk management**

Several interviewees spoke about the impact of what they perceived to be society's intolerance of uncertainty, coupled with an increasingly litigious culture. GP11's concerns about clinical risk and '*making a mistake*' were shared by others

who felt that these were impacting upon the delivery of clinical care. For example, GP8 said:

*'we're expected to work with a smaller margin of error so there is more defensive medicine and many more blood tests, there are many more abnormal results that need a decision..... And how do I avoid missing pathology?'* (GP8).

There was a concern that this pattern of working was impacting upon the safety of patient care. GP8 talked about the '*decision density*' of their job. This was phrased in more general terms by GP3:

*'you've got this legal thing which everybody is worried about, that we grew up not being worried about, now we just have to pay for it'* (GP3).

#### **4.4.2.4 Communication methods**

Changes in communication techniques have led to increased use of the computer, telephone, and email, with pressure for more immediate responses. For GP6, the computer was a particular annoyance:

*'And I think that whereas 15 years ago the computer was a godsend, it now is the opposite, it's actually hindering care because... the system is now so archaic and it's not really helping us to process data, so you have to manually process a lot of data'* (GP6).

Equally frustrating for others, such as GP10, was the burgeoning paperwork and form filling, which they felt interfered with human communication with colleagues:

*'I think there's lots of paperwork now, lots of admin and paperwork, never used to have..... it was so much better when you could actually pick up a phone, speak to a consultant, get some advice, you can't do that anymore'* (GP10).

Several spoke of the telephone and how they had tried to use it more effectively to manage demand- in both telephone consultations and triage of

requests. However, not all GPs were comfortable using this method, for instance, GP1 explained:

*'we've recently changed our telephone triage system to try and make more clinical contact available and there are some partners that are very happy to do clinical, telephone work and others who are much less happy doing it, much less confident doing it..... I guess that's our demand limitation in some ways'* (GP1).

These changes were not seen as the entire solution to the workload challenge. For both GP6 and GP12 there was the sense that overall demand in terms of telephone calls and messages, needed to be controlled too:

*'Phone calls probably because there seems an endless amount and no limit on the amount of requests for advice, help... so from phones, that's probably quite stressful'* (GP6).

*'We do get quite a lot of telephone messages I find... that I feel a lot more pressured because we don't have a set time, we... have a telephone messages screen which is fairly limitless so sometimes you'll finish your morning and you've got 12 or 14 telephone messages'* (GP12).

One of the practices had taken steps to try and inform patients about the implications of their staffing difficulties, explaining the challenges of managing demand. GP9 felt that this had had a positive impact:

*'we've changed the system, so firstly we changed the system for the patients, the patients are aware that we're in a GP staffing crisis at the moment so it's trying to manage their expectations before they even get to speak to reception so there's an answer machine message and we've put lots of notices up so they know that there's a problem so most people have been very understanding, most patients have said "Oh I know you're under-staffed but I'm sorry to bother you"'* (GP9).

#### **4.4.3 Complexity**

Complexity is apparent in several facets of the GP role.



#### **4.4.3.1 Patient complexity**

It was also acknowledged by several of the interviewees that patient needs were changing with an ageing population and patients surviving with increasing numbers of long-term conditions. GP6 spoke of the ageing population:

*'People are living longer and as a result they get more long-term conditions, so they need to be managed, they are complex, the elderly, they take more time' (GP6).*

Whilst GP11 recognised the challenge of socioeconomic deprivation:

*'I think one of the biggest issues is the generally higher workload because we've got more deprived and more ill patients...'* (GP11).

An implication of managing increasing patient complexity was that more straightforward problems were delegated to non-GP team members in the practice, as GP6 described:

*'I think that the 10-minute appointment hasn't kept pace with that... many of the patients that have a simple problem aren't seen by me, they're seen by nurse practitioners, paramedics, people like that... or they're dealt with over the phone... which means that what I do see is hugely fairly complex, multi-morbid, already on medications and then there are lots of parameters that need to be monitored and kept an eye on...'* (GP6).

GP11 perceived that the process of delegation was not always straightforward as some tasks were still being referred back to the GP for final approval:

*'Well... again it's part of the safety agenda... but it does mean that at a time when we're trying to reduce workload and delegate out to people, we seem to be getting more things bounced back that this has to be a doctor that does it because that's the only safe way to do it. So, we're in a bit of a conundrum really, we're trying to expand general practice but at the same time, more and more things are being bounced back as governance-wise it should come to, we should be the person that oversees it'* (GP11).

#### **4.4.3.2 System complexity**

In addition to the expectations of external organisations which have already been discussed, the introduction of systems and pathways which GPs were expected to follow added a further layer of complexity. This was described by GP7 who felt the pernicky adherence to pathways seemed unwarranted:

*'local orthopaedic referrals, we're being, we have to write the oxford knee score and their BMI and say in the letter that they've tried physio and all their painkillers that they're on, and everything that they've tried and what their MRI scan showed before they even have a referral in the first place, so we're having to sort of organise all that and make sure it's all done and dusted and on a plate for the orthopaedic people to, before they'll accept the referral, otherwise it bounces back'* (GP7).

Furthermore, GP7 felt that introducing these systems into the practice computer system was intruded on the process of consulting with the patient:

*'you're forever getting all these ghastly prompt boxes you know, 'This is a self-care drug, patients could buy this over the counter' or 'There's a cheaper version available' and all this sort of thing'* (GP7).

#### **4.4.3.3 Advances in medicine**

For GP8, there was an appreciation that with modern medicine, more could be done for patients, but that inevitably, this took more time:

*'30 years ago, I could see 50 patients in a surgery but the amount of input I gave to them and the quality of care was minimal compared to what we do now'* (GP8).

Although there was a recognition that these advances needed to be assimilated, as GP3 explained:

*'So, I think that the most challenging thing now is... the new technical knowledge that I need to do to keep in line with what is, with what the guidelines say and things that I'm out of date on'* (GP3).

#### **4.4.4 Uncertainty in a changing system**

Uncertainty may perhaps be regarded as a crosscutting theme that encapsulates much of the material in the previous sections where it was apparent that GPs felt both insecure and undervalued in a number of aspects of their professional life.

##### **4.4.4.1 Loss of GP as a secure known entity**

For several interviewees, there was a sense that the certainty of the role which they had taken on was no longer there, which applied to both the nature of the day-to-day role as well as to the wider NHS. For example, GP7 talked about the potential commoditisation/ commodification of the GP role in the future:

*'I mean who knows in ten years, everybody might be salaried and working from a sort of GP co-operative supermarket type thing, we don't know, so there's uncertainty going on there'* (GP7).

Whereas for others, such as GP2, there was a more overtly political perspective:

*'I struggle to know what the current conservative government's agenda is, other than to sell-out care... I don't know what the wider government view on this is, whether they've given up on the idea that it's an affordable figure and over time we simply try and chunk it off into bits that can be hired off to the cheapest bidder or whether they simply are just clueless as to what the long-term plans should be'* (GP2).

##### **4.4.4.2 Feeling undervalued**

Beyond this lack of security in the role was the feeling that it was undervalued by patients, politicians, and the wider healthcare system. This was expressed in a number of ways. GP4 spoke of a change in patient perception:

*'Respect has gone, health is not a service or a commodity- you can't buy health and I find myself telling patients after they come back from hospital that the Drs are trying their best'* (GP4).

Whilst GP6 struggled with the change in emphasis from personal to technical care:

*‘... I think the emphasis has shifted from patient care to managing conditions, managing data, managing pathways so we’ve become managers of systems and not really therapeutic anymore. I believe that the Greek word for therapist also means something like “He who fights with you”’ (GP6).*

For GP2, value was disregarded in favour of cost:

*‘also the government seems to know the cost of everything but the value of nothing you know, they always seem to know how much money they pretend to be giving us and how much we cost but they don’t seem to value the extraordinary goodwill that’s put in by all levels of the Health Service’ (GP2).*

#### **4.4.4.3 Managing a business**

Workload was a major concern for all the interviewees in different guises. For GP partners, this encompassed patient-facing workload as well as the administrative and financial burdens involved in running the practice as an independent contractor. All doctors working in a practice may well be involved in discussions about systems to manage demand at a local level. The perverse nature of the contract reward system has been discussed in Section 4.4.1.4; this theme relates more to the personal impact upon the doctors running small businesses. GP6 spoke of the financial tension when balancing the employment costs of other practitioners assisting with patient care against practice profits.

For GP5 working as a sole practitioner in a city centre location, the need to develop and maintain the business was time consuming:

*‘... you are re-developing your own practice in a way that it is... deemed economically viable and so you have to constantly either... think about how you’re going to expand, or consider other... business opportunities which might improve, mergers or it might be that you are looking to review how you function, the kind of staff that you’re using to do what you’re doing so it is... a lot more of looking and reviewing your business plans than we used to do before because nothing is so straightforward anymore, I think that’s an additional stress’ (GP5).*

For GP7, a partner in a small town, maintaining the infrastructure of the practice was a concern:

*'I suppose it's the business side of things... and what's happening to general practice and our particular thing about our premises is a big knotty thing, but there's sort of rumblings, you know it's rumbling along in the background, living with uncertainty in the sort of the business side of things I think is quite a stress' (GP7).*

However, it was managing the day-to-day demands which were the subject of most comment. Several spoke about the challenges of access which meant that new methods of managing demand were being considered. Modification of the appointment system had been tried but dismissed as not offering an enduring solution. Again, it is interesting to see how patients are positioned in a combative position (as part of the problem), rather than in a more collaborative light. This was described by both GP2 and GP6:

*'We've tried numerous different ways of organising the appointment system of meeting patient demand and there is never a perfect solution level where you kind of cover all the bases' (GP2).*

*'... we're always fiddling with the appointment systems. We did flirt with triaging systems and gave them up after a couple of years. It worked to begin with but then... patients found ways around it' (GP6).*

GP9's practice had two partners absent, one on sick leave and the other on maternity leave, and they were trying to allocate work fairly in addition to their own duties:

*'It is really frustrating so I'm trying to fill up the locum and make the most out of them whilst protecting my time and it looks like I have had a fairly reasonable day but what doesn't reflect on my screen is that I've had to do all the paperwork for the day for instance, because my other partner was off and all the prescribing and results and that sort of thing' (GP9).*

#### **4.4.5 Impacts on the individual's coping mechanisms**

As with uncertainty, impact on an individual's coping mechanisms is another overarching theme as it underpins how doctors coped with the issues raised in the previous sections. Some impacts are clearly negative, whilst others may be either positive or negative according to the context.

##### **4.4.5.1 Feeling of a loss of control and autonomy**

Woven through the narratives was the general sense of busyness and the inexorable nature of work with constant interruptions, needing to juggle several tasks at one time. GP4 described being '*bombarded*' from all sides. Similarly, GP1 described a requirement to perform multiple tasks at pace:

*'I mean everything's running at 10-12 minutes at best and you know, if you're on the phone to somebody now, I'm waiting for them to pick-up... I'm looking at results, I'm signing documents or signing prescriptions and the minute somebody picks up, I put that down and get back to them and... it was much more measured and much more kind of sensibly paced I think that to me has been the big change in 20 years, is that we've just gone from something that was empathic into something that is just a torrent... and when I retire I imagine that I'll be replaced by two or three part-time doctors because no single full-time doctor will be prepared to do what I do' (GP4).*

This was echoed by GP7, who commented on the increasing number of tasks to do for the ever-growing volume of patients:

*'because there are sort of so many questions, you've got to flip from one thing to another all the time, there's so many patients to think about all the time, there's constant messages and prescriptions to do and letters to write and referrals to non-medical people, reports and, well I mean we've always had reports to do but it's just the sheer number of patient contacts, even though they're sort of brief things, sometimes it's just the actual sheer number of them, is massive now' (GP7).*

For GP8, this loss of control was linked to the multiple ways in which patients and others could access the GP:

*'Interference in a general sense, which is all the messages, tasks, all the things that are additionally are now made accessible, you can't just have a patient you know, you get tasks and messages, things happening all the way through the day, picking up work that other people could do and unravelling hospital problems which takes time, particularly around prescribing, areas like that...'* (GP8).

For GP1, a particular issue was the challenge of working in a high pressure environment with a lack of time for discussion with colleagues or reflection, raising concerns about the implications for patient safety.

*'The first word I'd say is relentless... and I do think that we've become so used to the pressure that we actually no longer know that we're boiling, we're like lobsters that've been in the water where the temperature's got hotter and hotter to the point where now it's boiling but you know, we've become almost desensitised to the fact that we are operating at breakneck pace and... I really feel that if we stumble at the pace we're going at, something's going to go really wrong, you know, there's very little sensible time for reflection or consultation or thinking about our work and we've just got so used to it that we no longer realise how, you know, unsafe it is really...'* (GP1).

GP2 felt that the service and the individuals within it were being over-stretched:

*'we're all trying extremely hard to manage what's an extremely difficult role and the pressures added to that by being under-resourced, being over-utilised and being stretched have become quite thin really, now that's not to be under-estimated'* (GP2).

#### **4.4.5.2 Emotional impact**

Several expressed negative emotions such as GP2, acknowledging that their emotional state had been verging on depression:

*'I was very kind of enthusiastic and motivated as a GP. I'm still motivated but I don't quite have the young enthusiasm I once did... Personally yes, there have been times when I have felt quite low, very stressed... bordering on sort of depression with the way that the workload has been' (GP2).*

GP6 was despondent and recognised that emotional burnout was close:

*'I'm stressed, we were talking after the trainer's workshop today about the GP health programme and burn-out and I think I'm now chronically sub-burn-out..... but then in stress, not quite burnt-out but having shown all the signs of it and it could happen any time' (GP6).*

However, despite feeling so low, GP6 felt they were sufficiently resilient to cope because they always had in the past:

*'I think I'll get through it because I've always got through it and I'm resourceful enough myself I think.....' (GP6).*

GP1 spoke of significant illness in one of his colleagues but it was notable that this was said without any obvious emotional connection. It is perhaps unsurprising that this GP spoke of *'treading water'* and being like a *'lobster'* in boiling water at other stages during the interview.

GP1 also spoke of burnout but externalised this, attributing it to their colleague's absence on sick leave:

*'if I had to work like this all the time I think I would be in serious risk of burning out because I do feel like I'm trying to do too much but at the moment, you know, it feels like a temporary situation that requires a bit of an extraordinary effort and that will kind of become more normal in the near future so I feel more comfortable knowing that, I guess' (GP1).*

#### **4.4.5.3 Workload and fatigue**

Nearly all of the interviewees described a working day lasting for more than 12 hours, often with inadequate time for breaks, as GP8 said:



*'I graze, I don't eat, I just graze during the day between patients, I don't stop for anything, if you stop seeing patients you've got paperwork, you've got etc., etc., and they're long days, so you have long days and you never stop' (GP8).*

Similarly, GP6 described how the relentless workload and pace afforded little time to take a proper lunch or coffee break:

*'Well, a day's work is about 14 hours and that's non-stop, so start in the morning half-past seven and finish at half past eight, half-past nine sometimes so that's 13, 14 hours a day and that's without a lunch break or coffee breaks or anything so I think that's excessive and that's to do a day's work...'* (GP6).

GP1 considered their working day as akin to treading water, with no hope of respite:

*'... sometimes it feels like you're treading water in the middle of the Atlantic at night, just so that you can tread water tomorrow. I mean if you can tread water while looking at the beach coming closer, you know, it's very easy to keep your head above water but if you're just treading water in the dark with little to look forward to but more of the same tomorrow and the only thing you're hoping for is that you can retire before you collapse, then I think... that seems pretty desperate and it's such a shame you know, I think we have so many really good doctors who get to their late 50s and they can't wait to go because this job is going to eat them alive'* (GP1).

However, as a lone voice, GP12, a relatively newly qualified salaried GP, felt quite differently about their workplace. They felt their practice was supportive and the workload manageable, compared to colleagues in other practices:

*'... my practice is very, very supportive and I feel like the workload in terms of number of visits, number of patients, number of letters and scripts and things usually speaking is actually quite fair and compared to some of my colleagues it's probably slightly less so actually*

*I feel from that front that my, although it's never going to be an easy job, I think the way I'm treated is very fairly' (GP12).*

#### **4.4.5.4 Workload and recruitment**

A significant impact upon General Practice in 2017, was the challenge of recruitment and retention of GPs combined with the move to a more part-time and salaried workforce. Although for GP9, in a rural practice, with only 45% clinical cover, recruitment of any doctors was a challenge:

*'I think what really doesn't help is not being able to get hold of GPs' (GP9).*

GP2 summarised the challenges of the combination of early retirement and the lack recruitment of younger doctors, which they perceived was a response to the stresses in the system:

*'if our GP workforce also starts to upsticks ...because a lot of people as I said, are retiring earlier than they might have otherwise done so and lots of people coming out of the VTS [vocational training schemes] don't want to become partners and certainly don't want to be doing nine sessions a week which was the norm when I came out... so the workforce is responding to the pressures by not wanting to do the work quite so much and if we don't respect the workforce, if we don't somehow incentivise, and to give all the goodwill that's been given through many years, then I do think the Health Service is in a bit of a pickle' (GP2).*

These changes have meant that practices have been unable to replace like with like, demanding a change in the structure of the practice team. This was highlighted in GP7's description of how they had tried to change but without success:

*'... we've had two full-time men who in the last year or 18 months of their careers, they dropped down to half-time so they were like one full-time equivalent and we replaced one with a half-time salaried doctor, straight out of GP training who's quite inexperienced and has now within a year gone off on maternity leave and we replaced the other one with*

*an advanced nurse practitioner and have given her the job of doing telephone triage, and just being a sort of, removing a layer really, protecting the GPs so, the idea was that we would save ourselves from the sort of the demand of the workload by encouraging her to take something off us, it hasn't been the world's greatest resounding success I would say' (GP7).*

The introduction of a part-time workforce presented a new set of challenges with the difficulties of integrating them into a primary care team. This was described by GP5:

*'... it's challenging because a lot of them are part-timers because they're mums or whatever or you know childcare issues or that they want to go and do some teaching and they want to go and do this and that..... and it's a lot of varied things and I feel like it doesn't have to be six clinical but they do need to commit... to the team they decide to work with because otherwise how do you move forward, you're just all ships passing in the night you know, people coming in and people coming out and I'm not quite sure why we've agreed to a system like that' (GP5).*

#### **4.4.5.5 Peer support**

Several of the interviewees spoke of the substantial support from colleagues around them in practice which they appreciated. GP1 spoke of the practice team as their support network:

*'I think my support comes from the fact that I have excellent partners who I trust who look after me, who I look after, we feel more like an extended family than a bunch of work colleagues .....*

*....if we don't look after each other, no-one else is going to do it so I think that's been one of the major things that has allowed me to work at this kind of pace for really the last 20 years' (GP1).*

For GP7 the informal network of support at work came from doctors and other members of the practice team:

*‘Structured support, well I suppose our practice manager offers support and my other GP colleagues you know, I think we’ve got a good working relationship and we share each other’s burdens as it were, I mean you know if I’m running late or something well then the other doctors, we always keep an eye on each other’s workload and we help each other out ...it’s not a structured thing, it’s an informal, we just work well together and look out for each other’ (GP7).*

This was not limited to those in group practices. For GP5, the sole partner in a city centre practice, support came from trusted employees:

*‘I need to have a very good team around me that I trust, I think that’s really what I look out for because as a sole partner you don’t really have friends at work, you have colleagues and your management and so it’s quite nice to have at least one or two people around you at work that you feel like you can just go and have a vent and time to scream and pull your hair out and that’s fine and then you know, you do that and then get on with it ...’ (GP5).*

For each of the doctors, different factors motivated and supported them in their working day. For some it was the human support network around them, which in some cases was reinforced by electronic messaging systems (used by young and older doctors alike). GP1 described this:

*We have a WhatsApp for instance, so the practice manager [names] the other two partners and myself, we’re all on it, we frequently will kind of like share jokes or pictures or recipes or if there’s a problem we’ll kind of have a whip round for ideas’ (GP1).*

#### **4.4.5.6 Professional support**

External support mechanisms were also mentioned, with a number referring to support provided through their Local Medical Committees (LMC). GP2 was aware of this support:

*‘I mean we have a GP counselling service available locally already, the GP mentoring scheme which has been run partly by the*

*LMC so that's quite good. I haven't accessed it myself, but I certainly know colleagues who have made contact with them, and they've been grateful for the support they've been offered...'* (GP2).

Whilst GP9 had struggled with work related stress to the point of seeking professional assistance and described the impact of the professional assistance provided in a safe space:

*'...I phoned [name] at the LMC and they've got a sort of safe house arm of the LMC on the website and ...I went to the counsellor the next day and I saw her about five times..... that enabled me to carry on working because if I hadn't of done that, I don't know, it would have escalated I think .. that was amazing'* (GP9).

#### **4.4.5.7 Work and home balance**

Several of the interviewees talked about the boundaries between work and home. For GP1 it was important to maintain separation between the two:

*'I don't work on the weekends, I don't do any out-of-hours sessions, I'm busy enough I think .....we do try and make sure we do get our time off'* (GP1).

By contrast, GP11 found it difficult to avoid work encroaching upon home:

*'... increased workload... just means we're staying longer and later... to finish off admin work so yeah, work-life balance is adversely affected...'* (GP11).

For others such as GP2, there was a limitation of the nature of the work which they brought home rather than a complete separation of the two. This meant that they often brought work home to finish concerning the running of the practice:

*'I tend not to bring home patient-related stuff simply because I don't feel that's appropriate so if there was patient-related stuff that needed to be done, and couldn't be left, I'd stay and do that. It tends to be more, things on the role and managing the business, so things like the finances, chasing up whether we've been paid for the various things*

*we do I mean, NHS England, the CCGs, arranging payment for the services we do' (GP2).*

There was widespread awareness of the impact of work on their family life. GP9 was aware of how their emotions affected those at home:

*'I'm not terribly good at home at the moment. I'm probably quite snappy at home. I'm trying to exercise more; I've started exercising more in the last week, that makes me feel better' (GP9).*

Whereas GP2 felt they were an absent parent for their young family:

*'There have been very difficult times, I mean I have a young family, I've got three children, I'm married and there have been many evenings where I simply don't get home in time to see my children, either they're in bed before I get home and then the next morning I'm up early and I get to see them over breakfast but that'll be it again for another day and if you're doing that five days a week, it's not really a great work-life balance' (GP2).*

By contrast, others felt that family were nurturing and supporting them, as GP6 described:

*'I've got supportive children who help with the cooking and... keeping the house going and even helping at work, so those are the supports that are there' (GP6).*

Similarly, GP1 explained how they relied on their spouse for support:

*'I guess outside of the practice, I'm very lucky with my wife who's a GP and though she works part-time ...she's very understanding of what it is I'm going through and is usually very good at knowing when ... to bring me a coffee or to ...leave me in peace or whether to ...proper poke me until I open up about it so I'm very lucky in that sense, I think that I've got people around me that you know, seem to have an interest in keeping me well' (GP1).*

#### **4.4.5.8 Enjoying patient contact**

Considering themselves, many talked about enjoying their role, particularly with patients, and had an obvious pride in their role. This was in contrast to earlier comments which problematised patients, perceiving that patient demands were unreasonable. Enjoying patient contact applied even to GP9 in their short-staffed practice:

*'I mean dealing with patients is probably the easiest part of my job actually and the most enjoyable' (GP9).*

Similarly, GP7's optimism and positivity about their role, seemed to be sustaining their momentum to carry on:

*'I mean I still get up out of bed in the morning and I feel positive about going to work so I think you know, as long as that is happening, I think my wellbeing is okay' (GP7).*

GP2 also remained positive in the sense that they were determined to perform their role to the best of their ability for patients and colleagues:

*'I think my over-riding feeling is that ...I don't know one GP at all who doesn't seem to try his or her very best to do a good job for patients, a good job by their colleagues, a good job in respect of their staff' (GP2).*

#### **4.4.5.9 Personal coping strategies**

There were differences in the personal characteristics of the interviewees and their ability to manage their working circumstances. Some were obviously more able than others to live in the moment. GP12, appeared able to take a phlegmatic approach:

*'I think my perspective is, I don't know, everyone has different experiences, but my partner works in an extremely high demand role so relative to that you know, I actually have a relatively moderate workday so I don't feel... it's anything more than I can cope with' (GP12).*

GP5 was measured and neutral in their tone, accepting their situation:

*'I'm taking as much as I can take on and it's not ideal, but I think I have a very pragmatic view which is there's no job that's ideal and you just have to work with what you've got and you keep going... it's knowing what you know and having to feel very optimistic about coming into work some days and then when you realise why you're doing what you're doing, you feel really good about it so I guess that's my answer, it's very... just take each day as it comes'* (GP5).

GP6 conversely, felt more pressured by the system:

*'... I think burn-out has something to do with that, we are driven by a system, and we feel we have very little control over it'* (GP6).

#### **4.5 Summary of results**

This phase of the study used a semi-structured interview to explore GPs' perceptions of the demands of their professional role and how they managed these. From a critical realist perspective, the interviews were about more than simply recording a fixed perspective, but instead recognising that the fluid dialogue with the interviewer helped to generate a set of responses which formulated a wider set of observations (Smith and Elger, 2014). Thus, the interviewer scrutinised the participants' accounts against their own theories, knowledge and understanding.

In this context, the data have been presented in relation to the key themes. The following section considers the data in accord with current theories of stress and coping.

This group of doctors were acutely aware of the service re-organisation taking place around them, but in several cases felt that there was a lack of clarity about the future. This is in accord with Croxson, Ashdown and Hobbs (2017) study of English GPs where informants felt that an increasing workload was unsustainable. Particular issues this study highlighted were workload, increasing patient needs and expectations, the changing relationship between primary and secondary care, increasing bureaucracy and diminishing resources, as well as imbalance of workload within practices.



There is a complex relationship between GPs, and how they perceive themselves in relation to the system within which they operate and the patients whom they care for. There is an ambivalence about the professional relationship with patients. On one hand there is a perception that as a body they present increasing and unreasonable demands, yet the person-centred care of individuals is valued.

The contract in 2004, was considered widely necessary since many GPs felt unable to control their workload. It included negotiated incentives related primarily to technical effectiveness (rather than interpersonal aspects of care) but brought with them increased administrative workload and a shift from focusing on patients to measurable aspects of disease. In a review of the impacts of the 2004 contract, Gubb and Li (2008) highlighted that the removal of out-of-hours care for a reduction in income of £6,000, was perceived to devalue professionalism, time and status of GPs. For Heath (2007), the change in out-of-hours provision was symptomatic of a malaise in the health service systems developed, with responsibility vested in individuals having been replaced by elaborate bureaucratic structures, with fragmentation of care.

This 'disconnect' with the wider health care system has persisted with further policy changes. Despite the resources promised in the Five Year Forward View, these resources do not appear to have materialised in a manner which the participants perceived to be helpful and supportive. Although one spoke of positive experiences in this regard, for the others, accessing funding had been a complex and disappointing process. Bureaucratic burdens were frustrating.

These results must be considered in the context of stress and coping, generally. From a physiological perspective, there is the challenge of allostatic load and the influence of environmental factors on physical functioning. This is clearly illustrated by GP1's description of their response to pressure, likening it to a 'boiling lobster' as they had become desensitised to the situation. In McEwen and Stellar's (1993) terms, this may be regarded as an inadequate response to prolonged stress. The blunted reaction was demonstrated in the manner in which the doctor described serious illness in one of their colleagues, no longer showing the responses which might have been anticipated in such a situation. At a more basic physiological level, there was also comment about the difficulties of eating regularly and maintaining a

healthy lifestyle in the midst of a busy working day, failing to meet even some of the most basic human needs according to Maslow's hierarchy of needs (1970).

In terms of the day-to-day workload, there was the sense of inexorable demand to be met. This came in different guises, from trying to meet the competing challenges of access and continuity for patients, to supervising other members of the primary care team amidst continual interruptions. These demands may be regarded in terms of Karasek's model of Job Demands and Control (1979). One informant (GP7) perceived themselves as the backstop in the system, unable to regulate their workload, whilst another (GP8) spoke of decision density, as well as the relentless and limitless nature of patient demand. At another level to patient demand, were the demands of the system, with seemingly impossible guidelines to follow in what was felt to be an unforgiving system. These demands were described as coming from different directions simultaneously. Changes to systems which might previously have helped were no longer effective. There was a sense of futility in trying to regain control. This description is in accord with the concept of 'learned helplessness', as a response to stressors which the individual perceives to be uncontrollable (Abramson, Seligman and Teasdale, 1978).

Interestingly, Siegrist (1996) comments that those who are over-committed to work, suffer from distorted perceptions of demands and their own abilities to cope with these, compared to those who are less committed. This was perhaps seen in some of the interviewees who were partners (as opposed to those who were working in salaried roles).

However, these challenges were appraised individually, and more than one doctor articulated how their evaluation of the situation and feeling that they were able to see an end to a difficult situation, enabled them to cope with threats. These comments are in accord with Lazarus and Folkman's Transactional Model of Coping (1984). Conversely, the concept of 'Hamster Health Care', a phrase coined in a BMJ editorial by Morrison and Smith (2000), describes doctors feeling miserable as they run faster to see ever more patients, fill in more forms and sit on more committees to keep the NHS functioning without seeing an end to the situation. Morrison and Smith (2000) attribute this to the increasing complexity of health care and the rising expectations of patients. They identified a number of possible solutions, including the

need for doctors to redesign their work to meet patient need. Suggestions included the use of information technology and alternative methods of communication with patients. Sadly, for the current interviewees, both of these suggestions were proving to be more of a burden than a solution.

Siegrist's (1996) Effort-Reward Imbalance model considers that if there is a mismatch between effort which employees believe they are putting in and the rewards they receive, negative outcomes result. GP1 described this clearly, feeling aggrieved that the current system paradoxically appears to reward a better service with more work and the same level of funding. Another (GP11) described the high risk yet unforgiving nature of the job which was likely to punish error. The commoditisation of health care meant that some no longer felt the reward of a personal relationship with patients, instead feeling that they were acting as system managers.

Work-life conflicts were described by most of the interviewees. For some, work spilt over into home life with long days at work limiting the time available to spend with families, such that they viewed themselves as absent parents. This was independent of gender and expressed by both male and female interviewees. Although there was some evidence of compensation to try and limit the impact of work upon home from GP1, this was an isolated view. The conflicts between work and home were, in Carlson's (2000) terms, time, strain and behaviour based. For some, family members at home provided significant support, particularly spouses who understood the job, but also older children able to undertake practical tasks such as cooking. Thus, children could either be a source of stress (where the doctor felt responsible for their care), or alternatively, were viewed as a buffering factor and part of a support network. There was no evidence that these doctors were able to segment their lives to mitigate against spill-over between work and home. Rather, it would appear that there was significant depletion of personal resources which followed the clinician home from work, as described by Ten Brummelhuis and Bakker (2012).

GPs with part-time working patterns were perceived by their full-time colleagues to offer a different service to patients, working within their teams like ships passing in the night, with less of a longitudinal relationship with patients.

Interestingly, a number of the older doctors had chosen this pattern of working in response to the increasing demands placed upon them.

An overarching consideration is that of eudaemonic well-being. Several were experiencing anhedonia and feeling chronically sub burnout. Considered in terms of Ryff and Keyes' (1995) model of psychological well being there were deficits in core dimensions. Although they had a clear sense of purpose in professional life, enjoying the patient-facing dimensions of their role and describing positive supportive relationships with colleagues and other team members, they lacked the core dimensions of autonomy and environmental mastery. There were also individual differences in the core dimension of self-acceptance.

Toon (2009) suggests that GPs flourish when they gain satisfaction in the three core dimensions of their role (prevention, helping patients find solutions and make sense of their problems). At least one of the interviewees was able to describe how they valued this patient-centred model of working but could see that it was more time consuming and paradoxically, might add to their stress. Others described the erosion of the continuing doctor-patient relationship as one of the negative aspects of system change.

Edwards, Kornacki and Silversin (2002) suggested that one of the causes for unhappy doctors was the change in the psychological compact between the profession, employers, patients and society, meaning that the job is now different from that which doctors expected. Some 15 years later, the frustrations mentioned in this 2002 study, have been articulated by GPs in 2017, referring to changing patient expectation, reductions in medical autonomy and increases in medical accountability, as well as financial constraints. One informant (GP2) succinctly summarised this as the '*government knowing the cost of everything but the value of nothing*' (particularly in relation to the goodwill of clinicians).

Of particular concern is the effect which these stresses are having upon individual doctors, several of whom described significant emotional distress. For some this was described metaphorically as '*treading water*' (GP1) in the middle of the ocean, with the sense of futility as there was no '*light at the end of the tunnel*' (GP9).

The concept of moral distress first described by Jameton (1984), encompasses the constraints which might be either internal or external, preventing the clinician from taking actions perceived to be right. This may manifest itself as frustration, anger, guilt, anxiety, withdrawal, and self-blame. All of these phenomena were seen in the responses in this study. Jameton described three patterns of behaviour as a consequence of this moral distress:

- A numbing of sensitivity- withdrawing from involvement.
- Refusal to engage with the processes.
- Burnout and leaving a position, or the profession.

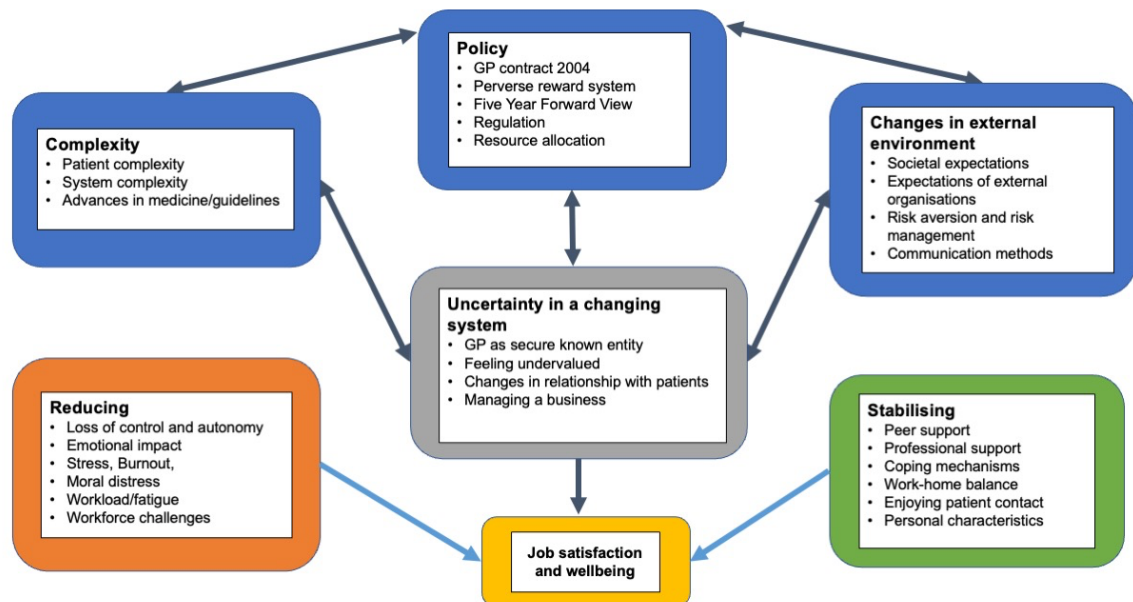
All three of these behaviours were seen to a greater or lesser extent in the interviewees. Talking of the illness and suicide of colleagues was done in a matter of fact, numb manner. At least one of the interviewees had refused to engage with the changes of the 2004 contract, carving out a separate post within primary care. Features of burnout were seen in a number, with some reducing hours in their posts to try and limit involvement. Jameton (1984) warns that failure to recognise burnout and repeatedly exposing clinicians to situations where they have little power, with scant acknowledgement of the effects of these experiences, have devastating effects on both the individual and the service they try to provide.

#### **4.6 Conceptual framework**

An initial conceptual framework of the interaction between the key themes that emerged during the analysis of the data is presented in Figure 13. This considers the impacts upon the GP workforce and includes external factors such as health policy, increasing complexity role and wider changes in society, which taken together all lead to uncertainty. There are impacts too at an individual and workplace level which affect how the individual responds to these challenges.

This is a representation of the initial theory gleaned from the events described and explained by the participants and formulated by the researcher. It offers a tentative description of the underpinning social context and structures that the interviewees considered may impact upon GP well-being. This theoretical framework was refined with the contributions of participants in the subsequent phases of the study.

Figure 13: A conceptual framework of the relationship between the themes derived from the GP interviews.



## 4.7 Chapter summary

The interview phase of this study has considered how GPs conceptualise their working lives at an empirical level. From analysis, themes have been derived that relate to how GPs perceive and manage the stresses of their professional role. From a theoretical perspective, this includes sociodemographic characteristics of the GP and their working environment, comprising the demands and control of their professional role. There is individual variation in measurable concepts, such as perceived stress, social support, burnout, coping and moral distress. In the quantitative phase of this study, these will be explored further, refining an understanding of the relationships between these concepts.

## 5 Chapter Five: Phase Two Questionnaire

### Working as a GP in 2019

#### 5.1 Introduction

The previous chapter has described the analysis of an initial qualitative telephone interview study of GPs. This identified anticipated themes of concern relating to contract and regulatory factors, workload, and workforce, as well as to relationships with patients and individual attributes of GPs. An overarching theme highlighted was the sense of moral distress, where institutional constraints make it impossible to do the right thing, as has been described by Jameton (1984).

As a propositional assertion in Stake's (1995) terms, it appears that the response of the individual doctor is dependent upon the complex interplay between individual attributes, the burdens of the role and demands of the system in which they operate.

The findings of this preliminary exploration, taken together with comments from an expert advisory group (of GPs), were used to design a questionnaire for cross-sectional administration to a wider population of GPs. This approach permits data collection from a range of individuals from a wider cross section of the GP population, whilst minimising the time taken for a busy professional group. Web-based questionnaires have been shown to achieve similar response rates to paper-based questionnaires at a lower cost. This approach was used by the BMA in their Future of General Practice Survey (BMA, 2015).

The empirical data obtained from the questionnaire, provided further evidence of real phenomena and processes. In this case, the data were used to develop an understanding of the patterns of stress and burnout in GPs, considering how these varied according to other measured variables, which considered both personal and work-related factors.

From a critical realist perspective, this phase of the study represented testing and refinement of the theory gleaned in the first phase of the study. Quantitative data, collected from a representative sample, may provide insights about the

contexts that allow connections to be made with conjectured generative processes (Alderson, 2021).

This chapter presents the results of the analysis of the questionnaire data collected from participating GPs and begins with information about the participants. The chapter concludes with the presentation of the next iteration of the conceptual framework.

## 5.2 Aim and objectives

### Primary Aim:

- To examine predictors of stress and burnout in GPs working in England

### Objectives:

Using a structured questionnaire, the study sought to examine the relationships between:

- the personal characteristics of GPs (including features of their job role); and
- the measured variables of coping mechanisms, perceived stress, moral distress, burnout, morale and social support.

## 5.3 Hypotheses

Based upon the theory gleaned in the initial interview phase and the literature review, it was anticipated that:

- **H1:** Demographic characteristics will be significantly associated with psychological distress. Specifically, it is anticipated that those who are female, younger, and have caring responsibilities or who qualified outside of the UK, would have higher levels of psychological distress (perceived stress, moral distress burnout and morale).
- **H2:** Professional characteristics will be significantly associated with psychological distress. Specifically, it is anticipated that those who work as salaried GPs or who have taken on additional roles would have lower levels of psychological distress.



- **H3:** Psychological distress will be negatively associated with home-work balance and social support.
- **H4:** Positive coping strategies (grouped as dispositional optimism in the brief COPE inventory described in Section 5.6.3), will be significantly associated with lower levels of psychological distress.
- **H5:** Workplace factors will be significantly associated with psychological distress. Specifically, it is anticipated that those with adverse workplace factors (such as GP vacancies) would have higher levels of psychological distress.
- **H6:** Respondents who had adopted measures to free up time for patient care would have lower levels of psychological distress.
- **H7:** Those in jobs with high-workload demands and low-job control would have higher measures of psychological distress (perceived stress, moral distress, burnout, and morale).

## 5.4 Methods

The approach to data collection for the quantitative phase of the study is described in detail Section 3.8.1. In summary, a self-administered online survey approach was adopted. The questionnaire is included in Appendix B.

The initial section of the questionnaire included basic demographic data about the respondents and their working environment, building upon features identified in the literature and from the interview phase of the study. This first section included measures proposed to reduce workload in primary care in the Five Year Forward View (known as the ten High Impact Actions) (NHS England, 2016).

The remainder of the questionnaire comprised a set of modules of standard questions. These scales were chosen as they measured concepts of interest, based upon the analysis of the phase one interviews. These measures are detailed in Section 5.6.

## 5.5 Participants

A total of 218 responses to the online questionnaires were completed by participants who met the inclusion criteria (one completed by a GP who was not

currently working in England was excluded before analysis). Although the questionnaire was available in paper format (at GP meetings) and using a QR code, neither of these modalities was chosen by participants. Ten were completed using a link circulated on social media and the remainder were completed using the anonymous link circulated by email. Table 22 summarises the characteristics of the sample.

The following sections comment upon the characteristics of the sample and their working environments.

#### **5.5.1.1 Socio-Demographic characteristics of participants**

Of the respondents, 109 were male and 109, female. They ranged in age between 29 and 71 years. The mean age was 47.5 years (SD 9.16). The age distribution of the respondents is shown in Figure 14.

Of those living with a partner, 100 had dependent children at home and seven had older dependents. Five had both dependent children and older dependents, and 46 lived with dependent children only. Overall, 157 had caring responsibilities.

#### **5.5.1.2 Personal professional characteristics**

Professionally, the majority had qualified in the UK and were working as GP partners. Four reported themselves as 'other' and were working in GP Fellowship posts or as a PCN Clinical Director. These may be regarded as salaried GP roles (and thus are included in the group of salaried doctors for the purposes of this analysis). Of those who qualified in Europe, no one country dominated. Of those who qualified in the rest of the world, 15 were from India, four from South Africa, three from Pakistan, three from Nigeria and two from Australia. These figures are comparable with published figures which report that across England, 77% of GPs qualified in the UK, 4.3% in the EU or EEA and the remainder in the rest of the world (Baker, 2018).

In terms of working practices, the respondents worked between one and eleven half-day sessions each week and had been GPs for between one and forty years. The mean age of partners was 48 years, of salaried doctors 44 years and

locum doctors 54 years. Generally, those in salaried roles were younger and working fewer sessions than partners.

The additional roles held by the respondents are detailed in Table 52 (in Appendix B). The largest proportion were GP trainers. This is greater than would be anticipated for the GP workforce in England as a whole. Of the total GP workforce (of 34,586) in the September 2019 census, the GMC listed 6573 GP trainers in England (19%) (NHS Digital (2020a); General Medical Council (2020)). There are no published national figures pertaining to the other roles. This difference may be ascribed to the researcher's professional networks in postgraduate education.

### **5.5.1.3 Work-related characteristics**

Details of the practices where respondents worked are included in Table 22. According to the most recent NHS Digital data (2020b), average practice list size is 8751 patients and approximately 10% practices have list sizes of more than 15,000 patients (with 30% < 5000, 40% 5-10000 and the remaining 20% 10-15,000). There was a relatively larger proportion of respondents from larger practices, although it should be recognised that this may be a consequence of these practices having a proportionately greater workforce. Respondents worked with between zero and 40 GP colleagues, in practices with between zero and five GP vacancies.

Workforce census data includes a headcount of 34,586 GPs, 23,834 nursing staff, 19,973 others involved in direct patient care, and 96,187 administrative and non-clinical staff (NHS Digital, 2020a). This would suggest that the average GP works in a team with a similar number of individuals involved in direct patient care and almost three times the number of administrative staff. These figures are broadly in accord with the ratios in Table 55 which show a median number of seven GPs and seven others involved in direct patient care, working with a median number of 20 administrative staff.

Given the nature of primary care, accurate information about GP vacancies is difficult to obtain. Respondents to a BMA survey in 2017 reported that 47% of GPs worked in practices with vacancies, with 73% of these vacancies being unfilled for six months or longer (British Medical Association, 2018a).

#### 5.5.1.4 Geographical distribution

Respondents were asked to identify the NHS region and Sustainability and Transformation Partnership (STP) area where they practiced. The 44 STPs are collaborative organisations bringing together the local health and care system and are grouped together in seven geographical regions. Each of the regions was represented to some degree. Of the 44 STP areas, responses were obtained from those working in 31 of the 44 areas (and none from the remaining 13). More responses were received from some locations than others. There were 100 respondents in Kent and Medway, with 29 in South Yorkshire and Bassetlaw and 12 in Greater Manchester. This reflected the distribution of the researcher’s professional networks which centred around Health Education England Kent Surrey and Sussex and the RCGP examiners’ panel. The numbers in other areas reflected the social capital and networks of the initial contacts in the sampling process.

Figure 14: Distribution of respondents by age and sex

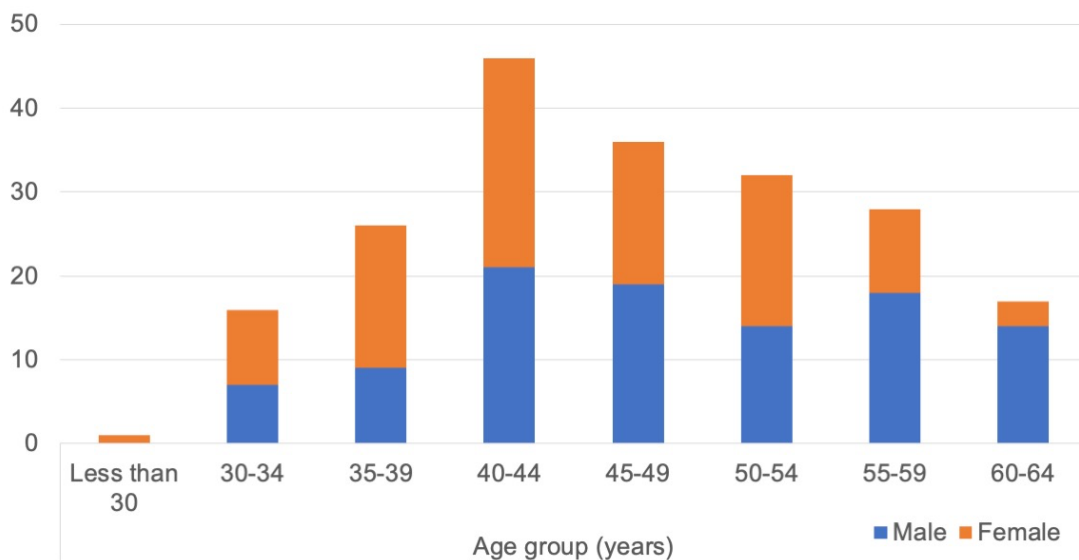


Table 22: Summary of participant characteristics

Participant characteristics		Total Sample n=218	%	Mean (SD)
<b>Demographic factors</b>				
<b>Sex</b>	Male	109	50.0	
	Female	109	50.0	
<b>Age in years (SD)</b>		208		47.5 (9.2)
<b>Home circumstances</b>	Lives alone	11	5.0	
	Lives with partner	153	70.2	
	Dependent children at home	151	69.3	
	Older dependents at home	10	4.6	
<b>Professional characteristics</b>				
<b>GP role</b>	Partner	143	65.6	
	Salaried	58	25.7	
	Locum	15	6.9	
	Other	4	1.8	
<b>Number of sessions</b>		217		6.1 (1.9)
<b>Primary Medical Qualification</b>	UK	174	80.2	
	EEA	13	6.0	
	Rest of World	30	13.8	
<b>Years as GP (SD)</b>		218		16.5 (9.9)
<b>Other roles</b>	Trainer	92	42.2	
	OOH GP	32	14.7	
	Appraiser	37	17.0	
	CCG	34	15.6	
	GPwSI	34	15.6	
	PCN role	34	15.6	
<b>Work-related characteristics</b>				
<b>List size (number of patients)</b>	<5000	10	4.6	
	5001-10,000	64	29.4	
	10,001-15,000	80	36.7	
	>15,001	64	29.4	
<b>Practice type</b>	Rural	17	7.8	
	Semi-rural	61	28.0	
	Suburban	75	34.4	
	Urban	65	29.8	
<b>Number of GPs (in practice)</b>				8.49 (5.29)
<b>Number of GP vacancies</b>				0.58 (0.84)
<b>Number of clinical staff</b>				9.68 (11.35)
<b>Number of administrative staff</b>				25.60 (24.24)

## **5.6 Measures**

The content of the questionnaire was designed using the key themes identified in the literature review and initial qualitative phase. In addition to items collecting information about the personal, professional and workplace characteristics of the respondents, items considering uptake of the GP Forward View High Impact Actions (NHS England, 2014) were included, as were standardised scales measuring job demands and control, coping, moral distress, perceived stress, burnout, and morale.

Whilst all of those interviewed were working in similar roles, people reacted differently to the pressures of work. The first phase interviews highlighted that further assessment of workload was an important factor to explore in the theory refining stages of the study. An important aspect of this, was the perception of controlling this workload, as in the interviews, there had been recurrent discussion of the loss of control and autonomy in the workplace.

Similarly, there were individual responses and approaches to coping. The first phase interviewees described how the availability of support (at home and at work) had affected the impact of work stresses upon them. These impacts had been described using a variety of terms and metaphors.

For the purposes of the second phase of the study, these impacts were measured using the dimensions of coping, perceived stress, moral distress, burnout, and morale. The selected scales are described further in the following sections, including detail of the published reliability.

### **5.6.1 *Changes to manage workload***

Workload was a key concern of the first phase interview respondents, and specifically included discussion of the measures which they had taken to address this. Although national policy in the GP Forward View had promoted ten High Impact Actions to release time for care, practices had additionally employed other strategies. Both were considered separately in the questionnaire.

### **5.6.2 Job Demands and Control**

Karasek's Job Demand-Control model (1979) predicts that jobs with a combination of high demand and low level of control would result in high levels of psychological and physical strain for employees. The original work on this model used the Job Content Questionnaire but this contains between 36 and 49 questions and takes between 15 and 30 minutes to complete.

For this study, the Job Demands and Control scales from the UK Health and Safety Executive (HSE) (2007) Management Standards were chosen. The complete indicator tool is a 35-item survey containing seven subscales. Research has provided empirical support for the factor structure and scale reliability of the tool. Kerr, McHugh and McCrory (2009) undertook a cross-sectional survey of employees of a community-based Health and Social Services Trust using this tool. The alpha co-efficient for reliability for the demands subscale in this study was 0.82 and that for control was 0.78. Both were correlated with the stress-related outcomes of job-related anxiety and depression.

The Job Demands scale comprises eight items and the Job Control six items. Both utilise a five-point Likert scale based upon working conditions over the preceding six months. It should be noted that these are scored from the perspective of the employer, such that higher scores indicate higher levels of job control, whilst higher scores for job demands indicate lower demands. The selected items are listed in Table 23. For the purposes of analysis of this study, the scoring for job demands was reversed, so that higher scores equated to higher perceived demand.

Table 23: Items from the selected subscales of the Health and Safety Management Standards (Kerr, McHugh and McCrory, 2009)

Subscale	Items	Reliability $\alpha$ coefficient
<b>Job Demands</b>	Different groups at work demand things from me that are hard to combine I have unachievable deadlines I have to work very intensively I have to neglect some tasks because I have too much to do I am unable to take sufficient breaks I am pressured to work long hours I have to work very fast I have unrealistic time pressures	0.82
<b>Job Control</b>	I can decide when to take a break I have a say in my own work speed I have a choice in deciding how I do my work I have a choice in deciding what I do at work I have some say over the way I work My working time can be flexible	0.78



### **5.6.3 Coping**

Coping is concerned with the measurement of specific coping strategies and is a key element of Lazarus and Folkman's transactional theory of stress (1981). These responses may be primarily problem-focused or emotion-focused. Coping was originally assessed using a measure called Ways of Coping questionnaire, which included eight overall measures, but subsequent studies have not always found the same factor structure. Carver (1997) instead developed COPE which comprises 14 conceptually different subscales. This has been abbreviated in the brief COPE inventory which has two items for each of the subscales. I

This study utilised the items from the subscales (active coping, planning and positive reframing) which correlate with dispositional optimism, and those from the subscales (denial and behavioural disengagement) which correlate with a pessimistic disposition (Carver, 1997). These are shown in Table 24. Additionally, the subscale relating to seeking instrumental support was included as this is reported to be a factor in moral distress (Oliver, 2018). Each of these items is measured on a four-point Likert scale.

Table 24: Items from the selected subscales of the Brief COPE (Carver, 1997)

<b>Subscale</b>	<b>Items</b>	<b>Reliability <math>\alpha</math> coefficient</b>
<b>Active coping</b>	I've been concentrating my efforts on doing something about the situation I'm in I've been taking action to try and make the situation better	0.68
<b>Planning</b>	I've been trying to come up with a strategy of what to do I've been thinking hard about what steps to take	0.73
<b>Positive re-framing</b>	I've been trying to see it in a different light, to make it seem more positive I've been looking for something good in what is happening	0.64
<b>Denial</b>	I've been saying to myself 'this isn't real' I've been refusing to believe that this has happened	0.54
<b>Behavioural disengagement</b>	I've been giving up trying to deal with it I've been giving up the attempt to cope	0.65
<b>Seeking instrumental support</b>	I've been trying to get advice or help from other people about what to do I've been getting help and advice from other people	0.64

#### 5.6.4 Perceived Stress

Stress may be measured in a variety of ways. Event measures aim to capture the response to a specific event, as for example, in Kanner *et al.*'s (1981) work considering life events and hassles. In the context of a GP's working life, it is preferable to consider a more global measure.

The Perceived Stress Scale (Cohen, Kamarck and Mermelstein, 1983; Cohen, Kamarck and Mermelstein, 1994) is a validated scale which measures the degree to which events are appraised as stressful. Items consider how unpredictable, uncontrollable, and overloaded respondents find their lives. Respondents are asked to consider this over the last month.

There are three versions of the scale. This study used the four-item version, which is recommended for situations where the number of items is critical and used the four items which correlated best with the 14-item scale. These are listed in Table 25. These four items have an  $\alpha$  co-efficient of reliability of 0.72 and test-retest reliability over two months of 0.55. Each of the items is measured on a four-point Likert scale.

Table 25: Items in the Perceived Stress Scale (Cohen, Kamarck and Mermelstein, 1983)

Scale	Items	Reliability $\alpha$ coefficient
Perceived stress	<ul style="list-style-type: none"> <li>• In the last month, how often have you felt that you were unable to control the important things in your life?</li> <li>• In the last month, how often have you felt confident about your ability to handle your personal problems?</li> <li>• In the last month, how often have you felt that things were going your way?</li> <li>• In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?</li> </ul>	0.72

### **5.6.5 Moral distress**

Moral distress was identified as a concern in the interview phase of the study. Jameton (1984) defined this as occurring when one knows the right thing to do (for a patient) but institutional constraints make it impossible to pursue that course of action. Wocial and Weaver's Moral Distress thermometer (2013) is a psychometrically validated tool to detect moral distress. It correlates well with Corley's Moral Distress Scale (Corley *et al.*, 2001). In the original validation study, there was a mean score of 2.9 (out of 10, SD 2.5) with significant correlation (convergent validation) with both the adult and paediatric moral distress scales.

Moral distress is measured on a single numerical scale from 0-10. In terms of delivery, it offers a description of moral distress: '*Moral distress is a form of distress that occurs when you believe you know the ethically correct thing to do, but something or someone restricts your ability to pursue the right course of action*', then asks individuals to score how much moral distress they have been experiencing in relation to work over the past two weeks. In its original format, this was delivered using a scale of 0-10 on a diagram of a thermometer. For technical reasons in this study, this was amended to ask respondents to give a numerical answer on a 0-10 scale.

### 5.6.6 *Burnout*

Burnout is an important construct with regard to GPs in both the literature review and in the initial interview phase.

For the purposes of this study, the Copenhagen Burnout Inventory was chosen (Kristensen *et al.*, 2005a). Although the Maslach Burnout Inventory (MBI) has been widely used to measure burnout, it is only available commercially (Maslach and Jackson, 1981). The MBI has been criticised as it appears to include three components that should be considered in their own right: a coping strategy (depersonalisation), an individual state (emotional exhaustion), and an effect of long-term stress (reduced personal accomplishment).

In response to these criticisms, the Copenhagen Burnout Inventory (as developed to assess burnout in the human services sector, considering three dimensions of burnout: personal, work-related, and patient-related (Kristensen *et al.*, 2005b). The authors of this study consider that burnout is a mixture of an individual state, a coping strategy, and an effect. This instrument was originally validated in a range of human service workers, and each of the scales had high Cronbach alpha scores for reliability. The items from each of the subscales are shown in Table 26. There were differences between occupational groups in the distribution of scores. The scale was compared with SF 36 (a widely used quality of life measure) and the expected correlations were confirmed. The highest correlation was between personal burnout and vitality on the SF36, and the lowest between client-related burnout and general health. The scores for each scale range from 0-100. In the original studies, the mean score for personal burnout was 35.9 (SD 16.5), work-related burnout, 33 (SD 17.7), and client-related burnout, 30.9 (SD 17.6).

This instrument has been used in a number of occupational groups and in different countries. It uses a five-point Likert scale. Of particular relevance for this study is that it has been used by the GMC in its annual survey of trainees and trainers (General Medical Council, 2018).

Table 26: Items from the subscales of the Copenhagen Burnout Inventory  
(Kristensen *et al.*, 2005)

Subscale	Items	Reliability $\alpha$ coefficient
<b>Personal burnout</b>	How often do you feel tired? How often are you physically exhausted? How often are you emotionally exhausted? How often do you think: 'I can't take it anymore'? How often do you feel worn out? How often do you feel weak and susceptible to illness?	0.87
<b>Work-related burnout</b>	Do you feel worn out at the end of the working day? Are you exhausted in the morning at the thought of another day at work? Do you feel that every working hour is tiring for you? Do you have enough energy for family and friends during leisure time? Is your work emotionally demanding? Does your work frustrate you? Do you feel burnt out because of your work?	0.87
<b>Client-related burnout</b>	Do you find it hard to work with patients? Does it drain your energy to work with patients? Do you find it frustrating to work with patients? Do you feel that you give more than you get back when you work with patients? Are you tired of working with patients? Do you sometimes wonder how long you will be able to continue working with patients?	0.85

### **5.6.7 Morale in General Practice**

The Morale Assessment in General Practice Index (MAGPI) was specifically devised as a self-scored instrument for GPs to assess their morale and well-being (McKinstry *et al.*, 2004). It has been validated against the General Health Questionnaire (GHQ) with high scores on each of the items being correlated with caseness on GHQ (defined as a score greater than five). It was originally validated in a group of GPs in Southeast Scotland and was subsequently used in a study comparing MAGPI scores with patient satisfaction measures (McKinstry *et al.*, 2007). The Index specifically considered the impact of the items relating to job control and home-work balance on elements of a patient satisfaction questionnaire. This latter study also included consideration of test-retest reliability. Mean total scores were around 18 (out of 42, SD 3). Although MAGPI does not include any subscales, there are individual items within the scale that may be anticipated to relate to stress and burnout, such as social support, home-work balance, and job control. These are listed in Table 27. These will be examined separately in the analysis.

Whilst Sarason *et al.*'s (1987) short form of the Social Support Questionnaire with three items has both acceptable test-retest reliability, it was felt that these overlapped significantly with the items in MAGPI. Cohen's (2008) 12-item Interpersonal Support Evaluation list was initially included but was discounted after piloting as the overall questionnaire was felt to be overlong.

Table 27: Items within MAGPI (identifying those will be analysed separately)  
 (McKinistry *et al.*, 2004)

	Items
<b>Job control</b>	I feel in control of my work
<b>Social support</b>	I am well supported at home I have family or friends I can turn to
<b>Home-work balance</b>	I can keep my home life and work in balance satisfactorily
<b>Other items</b>	I have no problems with any of my partners I am more up to date with modern general practice than most I feel well supported by the people who work with me I have no worries about my health I am a happy person at the moment I believe my patients think I do a good job for them I believe my colleagues value me I have no problems with alcohol or other drugs I know that I've chosen the right career I have no particular worries about my family at the moment



## **5.7 Procedures**

Ethical approval for this phase of the study was gained from the Ethics Committee of the Faculty of Social Sciences of the University of Kent. Details of this, including the study information and consent forms, are included in Appendix B.

Participants were recruited using a convenience sampling approach, utilising initial contacts through a range of professional networks. Full details of the sampling and recruitment strategies are described in Section 3.8.4.

Data were extracted from Qualtrics into SPSS for scoring and analysis. A list of the measures extracted from the questionnaire is detailed in Table 28.

Table 28: Variables included in the GP questionnaire.

Variable	
<b>Demographic characteristics</b>	Sex Age Home circumstances
<b>Personal and professional characteristics</b>	GP role Number of sessions Primary Medical Qualification Years as a GP Other roles
<b>Work-related characteristics</b>	List size Practice type Practice location Number of GPs in practice Number of GP vacancies in practice Number of clinical staff (not GPs) Number of non-clinical staff
<b>Changes to manage workload</b>	10 High Impact Actions Patient level GP level Practice level Organisational
<b>Job demands and control</b>	Separate scores from HSE Management Standards Subscales

Variable	Scale and subscales
Coping	Brief COPE: Subscale scores for: <ul style="list-style-type: none"> <li>• Active coping</li> <li>• Planning</li> <li>• Positive reframing</li> <li>• Denial</li> <li>• Behavioural disengagement</li> </ul>
Perceived stress	Perceived Stress Scale: Single score for perceived stress
Moral distress	Moral Distress Thermometer: Single score on visual analogue scale
Burnout	Copenhagen Burnout Inventory: Single score and subscale scores for: <ul style="list-style-type: none"> <li>• Personal burnout</li> <li>• Work-related burnout</li> <li>• Patient-related burnout</li> </ul>
Morale	MAGPI: Single score for morale and separate scores for items on: <ul style="list-style-type: none"> <li>• Job control</li> <li>• Home-work balance</li> <li>• Social support</li> </ul>

Descriptive statistics were used to consider the characteristics of the participants and for each of the standardised scales.

### **5.7.1 Scale reliability**

For each of the scales with more than two items (HSE Job Demands and Job Control, Perceived three dimensions of Copenhagen Burnout and Morale in General Practice) internal consistency was considered, using Cronbach's  $\alpha$ . This is a measure of reliability (the ability of an instrument to measure consistently) and is easier to use than other measures of reliability, such as test-retest estimates, as it only requires the data from one administration of the set of items. A figure in the range of 0.7-0.9 is considered to represent an acceptable range of reliability (Tavakol and Dennick, 2011), but it is important to calculate for a particular administration of the items rather than relying upon previously published data for the scale.

A further measure of internal consistency is the degree to which the items in a scale correlate with each other, in which case they are more likely to be measuring the same homogeneous variable (Oppenheim, 2001). An item-total correlation of greater than 0.3 represents the minimum acceptable value (Cristobal, Flavian and Guinaliu, 2007).

### **5.7.2 Exploratory analysis**

Having obtained measures (of the impacts upon individuals) from the standard scales, univariate analysis was used to examine whether there was an association with any of the personal (socio-demographic) and workplace characteristics. This preliminary analysis gives an initial idea of which factors are most strongly related to the outcome measures.

Analysis of Variance (ANOVA) tests are used to consider whether there is a significant difference between the means of two or more groups. One-way analysis is used where the groups are classified by just one variable.

In this case, separate ANOVAs were conducted to determine whether scores on each of the self-reported scales differed according to the different categorical variables. Where the ANOVA indicated significant differences, post-hoc testing was used to determine where the differences lay.

For the purposes of subsequent analysis, dummy variables were created for each of the categorical variables. These are dichotomous variables which indicate the presence or absence of a categorical effect. In its simplest form, there may be only two categories (which are given values of zero and one in SPSS). For variables with more categories, such as size of practice, a series of dummy variables are included so that each may be examined separately in subsequent analysis. This conversion of a discrete variable into a series of dichotomous ones limits the relationship between dichotomous variables and others to linear relationships (Tabachnick and Fidell, 1996, pp. 7-8).

Subsequently, correlation analyses were undertaken to explore the associations between continuous independent variables with the dependent outcome variables.

### **5.7.3 Hierarchical Multiple Regression analysis**

Where significant relationships were identified, separate hierarchical multiple regression analyses were undertaken to determine if the variables of interest explained a statistically significant amount of variance in the dependent variable.

In hierarchical regression analysis, predictor variables are added in steps and the effects of covariates are controlled. These blocks were defined theoretically, in accordance with findings in the initial phase and the literature review. Thus, the steps were ordered according to personal demographic characteristics, professional work-related factors, individual differences in coping response and finally, in perceptions of social support and home-work balance. The purpose of the analysis was to understand the proportion of variance each block explained and how much additional variance was explained over and above the contribution of the variables in the previous blocks.

In each case, preliminary analyses were conducted to ensure that the data were suitably correlated with the dependent variable for multiple linear regression to be undertaken reliably. Specifically, this considered that:

- there was no violation of the assumptions of normality, linearity and homoscedasticity.
  - Normality is the assumption that the underlying residuals (the error values between the observed and predicted value of the dependent variable) are normally distributed.
  - Linearity considers that there is a linear relationship between the predictor and dependent variable.
  - Homoscedasticity considers that the error value is similar across all values of the predictor variable.
- there were no significant correlations amongst the continuous predictor variables and all of the predictor variables were statistically correlated to the dependent variable.

#### **5.7.4 Comparison with Karasek's Job Strain Model**

According to Karasek's Job Strain model (1979), the greatest risk to physical and mental health is in those facing high workload demands combined with low control or decision-making capabilities. In order to determine the extent to which this applied to the sample, responses were divided into four groups, thus, two groups were derived from each continuous variable using a median split.

The continuous variables for Health and Safety Executive (HSE) Management Standards Job Demands and Control were each divided into two groups (high and low) using a median split and then grouped accordingly. A median split is one method for turning a continuous variable into a categorical one. This is the approach used by Karasek Jr (1979). Although it may be criticised as being arbitrary and reductive, Iacobucci *et al.* (2015a); Iacobucci *et al.* (2015b) argue that it can facilitate analytic ease and communication clarity. They comment that it is acceptable to use a median split where the independent variables are unrelated.

The mean scores for the outcome variables for each of these four groups were compared (testing for significant variance with ANOVA), using post-hoc testing to determine where differences lay.

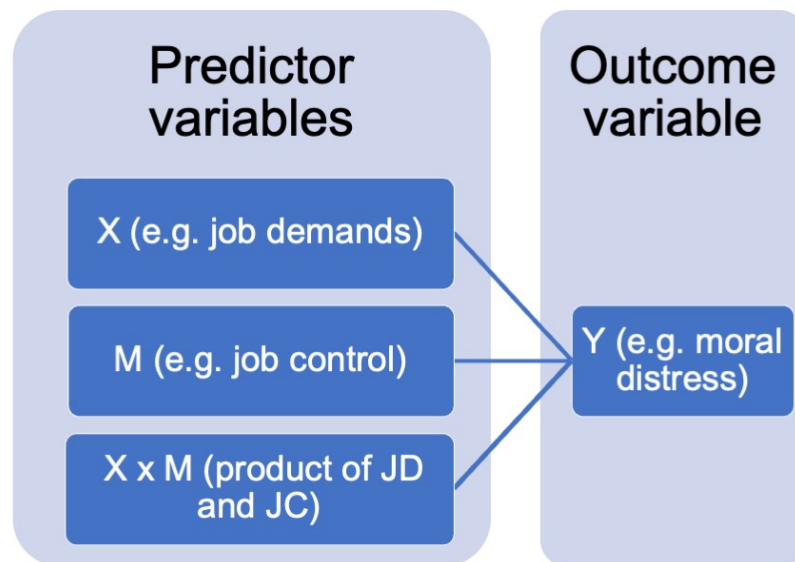
#### **5.7.5 Moderated Regression Analysis**

According to Van der Doef and Maes (1999), two mechanisms could underpin Karasek's (1979) model. There could be an additive effect between the impact of low job control and high job demands (the strain hypothesis) or there could be an interaction between demand and control where control moderates or buffers the impact of demand (the buffer hypothesis).

Thus, the impact of changes to workload affecting the outcome variables were assessed using moderated regression analysis with SPSS. Job demands and job control were considered as possible moderators. The interaction was tested by entering a multiplicative interaction term into the multiple regression equation predicting the relevant outcome variable in a second step (after the main effect terms of job demands and control in the first step). This is shown diagrammatically in Figure 15.

For the moderated regression analyses, the predictors were first centred around the mean value. Where both predictors are quantitative, it is necessary to centre the scores on each predictor before forming the product term that represents the interaction. This produces a meaningful zero point for each of the predictors. The purpose of centring is to reduce the correlations between the interaction terms and predictors, so that the effect of predictors is distinguishable from the interactions (Warner, 2013, pp. 611-644).

Figure 15: Model of interaction between predictors of outcome variable



## **5.8 Results**

### **5.8.1 Descriptive statistics**

In the following sections, descriptive statistics are reported for each section of the questionnaire, detailing the response and where applicable the reliability of the scale.

#### **5.8.1.1 Changes to manage workload**

Uptake of the GP Forward View ten High Impact Actions by respondents is detailed in Table 29 and Figure 16.

At the time this questionnaire was administered, all GP practices in England were required to be members of a PCN. It is noted that this was specifically mentioned by only 10 respondents.

Uptake of other strategies to manage workload is detailed in Table 30. Free text comments on the strategies taken at a personal level included reducing hours or sessions, increasing annual leave, changing roles (for example from partner to salaried GP or locum in four cases), as well as taking on other professional roles or interests. Specific practice-level strategies in the free text included the introduction of new roles in the practice such as a mental health worker, duty receptionist and PA, and introducing systems such as e-consult or text messaging.



Table 29: Uptake of the GP Forward View Ten 'High Impact Actions'

	Yes		No	
	Count	%	Count	%
<b>Develop the team</b>	178	81.7	40	18.3
<b>Social prescribing</b>	164	75.2	54	24.8
<b>Active signposting</b>	160	73.4	58	26.6
<b>Partnership working</b>	157	72.0	61	28.0
<b>Productive workflow</b>	142	65.1	76	34.9
<b>Support self-care</b>	123	56.4	95	43.6
<b>New consultation type</b>	114	52.3	104	47.7
<b>Personal productivity</b>	89	40.8	129	59.2
<b>Reduce (Did not attend) DNA</b>	75	34.4	143	65.6
<b>Develop QI expertise</b>	54	24.8	164	75.2

Figure 16: Uptake of the Ten High Impact Actions

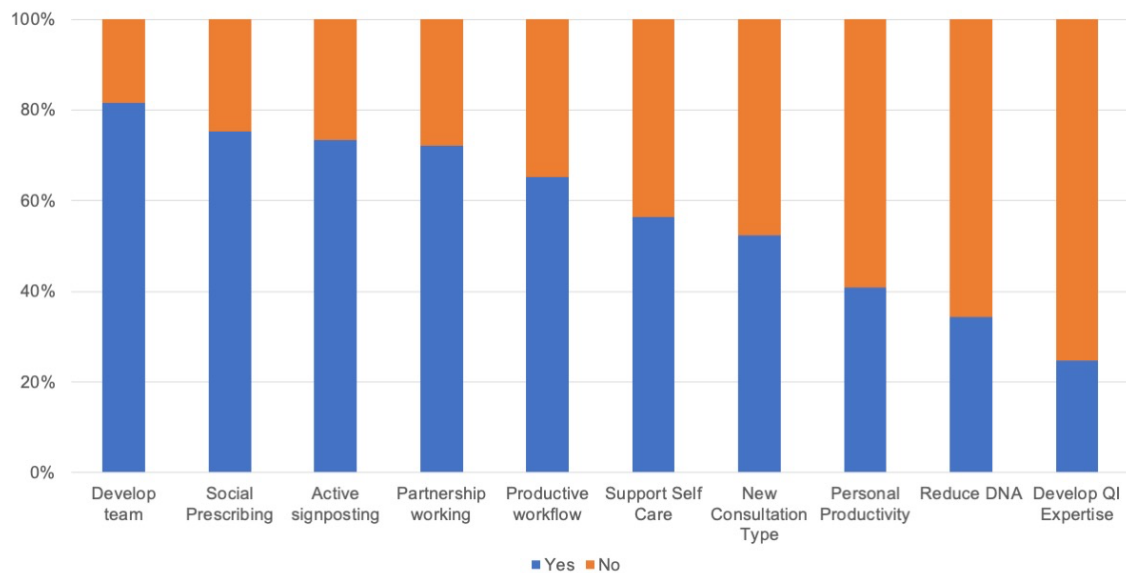


Table 30: Implementation of other strategies to manage workload.

Level	Strategies	Yes	%	No	%
<b>Patient</b>	Patient education	129	59.1	89	40.9
<b>Personal</b>	Improved efficiency of working day	136	62.4	82	37.6
	Personal coping strategies	97	44.5	121	55.5
	Taking leave	85	39.0	133	61.0
	Other	19	8.7	199	91.3
<b>Practice</b>	Delegating tasks	168	77.1	50	22.9
	Sharing work with other clinical staff	154	70.6	64	29.4
	Extending roles of non-clinical staff	159	72.9	59	27.1
	Increased use of telephone/online	137	62.8	81	37.2
<b>Organisational</b>	Working at scale in Federations and hubs	135	61.9	83	38.1
	PCN working	10	4.6	208	95.4
	Others (mergers (n=3) and system changes (n=2))	5	2.3	213	97.7

The next sections provide the descriptive statistics for each of the standardised outcome measures (which are summarised in Table 31). Reliability for each of the scales (using Cronbach's  $\alpha$ ) and internal consistency (using item-total correlation) were within acceptable limits. Detailed results are included in Appendix B.

Table 31: Summary of descriptive statistics for standardised outcome measures

Measure	Subscale	Mean	SD	Cronbach $\alpha$
<b>HSE</b>	Job Demands (8 items)	18.84	6.37	.890
	Job Control (6 items)	18.15	5.01	.869
<b>Brief COPE</b>	Active Coping	6.00	1.47	
	Planning	6.05	1.49	
	Positive reframing	5.24	1.56	
	Dispositional optimism (6 items)	17.29	3.59	.803
	Denial	2.75	1.23	
	Behavioural disengagement	3.11	1.29	
	Instrumental support	5.23	1.66	
	Dispositional pessimism (4 items)	5.86	2.25	.762
<b>Perceived Stress (4 items)</b>		6.81	2.63	.725
<b>Moral distress</b>		3.99	2.74	
<b>Copenhagen Burnout</b>	Personal (6 items)	53.99	20.24	.901
	Work related (7 items)	53.79	20.15	.863
	Client related (6 items)	40.68	19.96	.886
<b>Morale in General</b>	Total score (14 items)	20.81	3.71	.729
<b>Practice</b>	Job Control (1 item)	1.89	0.67	
	Social Support (2 items)	2.54	0.98	
	Home-work balance (1 item)	1.83	0.70	

### **5.8.1.2 Job demands and Job control.**

The mean item score for Health and Safety Executive Management Standards Job Demands was 2.36 and that for Job Control, 3.03. These were both lower than in a small study of all community trust clinical and administrative employees (which reported Job Demands mean of 3.3 and Job Control, 3.3) (Kerr, McHugh and McCrory, 2009). They are more comparable to the findings in a larger study of veterinary surgeons (Job Demands mean 2.96 and Job Control mean 3.47) (Bartram, Yadegarfar and Baldwin, 2009).

The implication of these scores was that the respondents perceived their jobs to be relatively high demand, and that they had little control over this.

Cronbach's  $\alpha$  for each of the scales was comparable to published figures in a systematic review of the HSE Management Standards Tool (Bartram, Yadegarfar and Baldwin, 2009). Item total correlations were all  $>0.3$ .

For the purposes of use within the HSE Management Standards Tool, low demands are preferable from the employers' perspective so the scoring for Job Demands scale means that low scores equate to high demands. The results for the scale are reported as described in the scoring manual for the tool. For later analysis, the scoring is reversed, so that higher scores equate to higher perceived demand.

### **5.8.1.3 Coping**

The brief COPE scores are broadly in accord with published figures from a cross-sectional study of 1651 UK doctors across a range of specialties (McKinley *et al.*, 2020). Additionally, the scores for the subscales correlating with dispositional optimism (active coping, planning and positive reframing) and dispositional pessimism (denial and behavioural disengagement) were computed using SPSS. Cronbach's  $\alpha$  and the corrected total-item correlation for all the items were within acceptable limits.

### **5.8.1.4 Perceived stress**

Perceived stress (PSS-4) results were similar to those reported in a recent population study of 1568 English adults (mean 6.11 and SD 3.14) (Warttig *et al.*, 2013). Notably, Warttig *et al.*'s (2013) study population had higher PSS-4 scores

than in Cohen's original validation study in America (1983). The reliability of the scale was comparable to published data (Cronbach  $\alpha$  0.725) with all item-total correlation values  $>0.3$ .

#### **5.8.1.5 Moral distress**

The mean Moral Distress Scale score of 3.99 was higher than in Wocial and Weaver (2013)'s original validation studies. This was a study of 529 nurses working in both adult and paediatric inpatient units in the America. The mean score in this study was 2.9 (with a median of 2.0) and the Moral Distress Thermometer results correlated significantly with adult and paediatric versions of Corley's Moral Distress Scale (Corley *et al.*, 2005). However, Wocial and Weaver (2013) acknowledged that the levels of moral distress in their study group were relatively modest. Further evidence for concurrent validity in this study was established by comparing subgroups. Those who had never considered leaving their position had lower mean scores than those who had left or considered leaving.

#### **5.8.1.6 Burnout**

Cronbach's  $\alpha$  for each of the three subscales of the Copenhagen Burnout Inventory was acceptable and similar to the values in Kristensen *et al.*'s (2005b) original publication. Item-total correlations for each of the items was  $>0.3$ . The mean values for each of the subscales was greater than those in published data for similar occupational groups but showed a similar pattern to other health professionals with lower scores in the client-related burnout domain.

#### **5.8.1.7 Morale in General Practice**

Mean, median and 75<sup>th</sup> centile scores on the MAGPI scale were similar to those in studies of Scottish GPs (McKinstry *et al.*, 2004; McKinstry *et al.*, 2007). Cronbach's  $\alpha$  was within acceptable limits at 0.718.

In terms of internal consistency, the lowest value for item total correlation was that relating to being up to date with General Practice. A possible explanation for this could be the relatively large proportion of GPs who were educationally active as either trainers or appraisers. The questions on alcohol/drug misuse, problems with colleagues and questions about having chosen the right career were the others

which failed to meet the item-total correlation threshold of 0.3. These results were consistent with McKinstry's studies where perceptions of being up to date, attitudes to alcohol and concerns about family had similarly low-item total correlations.

## **5.8.2 Exploratory analysis**

### **5.8.2.1 Analysis of variance**

Separate one-way analyses of variance (ANOVA) were conducted to explore the difference in the mean scores for each of the dependent variables (perceived stress, moral distress, burnout, morale, and job demands/control) across each level of the independent categorical variables. The outputs of these are summarised in Table 32 and Table 33. Despite reaching significance, the actual effect size of these associations was small (eta squared <0.6). Where there were more than two levels in a category, significant differences were explored further with post-hoc tests. The results are summarised in relation to the hypotheses in section 5.8.2.3.

### **5.8.2.2 Correlation**

Correlation analyses were undertaken to explore the associations between the continuous independent variables (and the categorical dummy variables) with the dependent variables of Moral Distress, Perceived Stress, Burnout, Morale, and Job Demands/Control. The results of these are presented in Table 34 and Table 35.

The brief COPE subscales for active coping, planning and positive reframing were combined to give a score for dispositional optimism and those for denial and behavioural disengagement to give a score for dispositional pessimism'. Correlation of these and the brief COPE subscale for seeking instrumental support with the outcome measures was undertaken. The results are presented in Table 36.

The outcomes are summarised in relation to the hypotheses in the following section.

### 5.8.2.3 Outcomes in relation to hypotheses 1-6

#### H1: Personal characteristics

- Respondents who were female had significantly higher levels of perceived stress ( $F(1,216) = 4.09, p \leq 0.05$ ), personal burnout ( $F(1,216) = 11.85, p \leq 0.001$ ), and work-related burnout ( $F(1,216) = 4.37, p \leq 0.05$ ) than men, but had lower client-related burnout ( $F(1,210) = 4.35, p \leq 0.05$ ) and HSE Job Control ( $F(1,216) = 5.521, p \leq 0.05$ ).
- Age was negatively associated with perceived stress ( $r = -.15, p \leq 0.05$ ), personal ( $r = -.17, p \leq 0.05$ ) and client burnout ( $r = -.15, p \leq 0.05$ ) and measures for seeking instrumental support. Similarly, there was a negative correlation between number of years as a GP and personal burnout ( $r = -.20, p \leq 0.01$ ). The similar pattern was not surprising, since those who had been working for more years were likely to be older and had perhaps devised personal coping mechanisms, so were less likely to seek support from others.
- Unexpectedly, there were no significant associations between caring responsibilities and any of the outcome variables.
- Compared to UK medical graduates, those qualifying overseas (EU and rest of the world) had higher levels of moral distress ( $F(1,213) = 8.82, p \leq 0.05$ ), perceived stress ( $F(1,215) = 12.49, p \leq 0.001$ ), personal burnout ( $F(1,215) = 4.98, p \leq 0.05$ ), work-related burnout ( $F(1,215) = 5.33, p \leq 0.05$ ) and for (poor) morale ( $F(1,215) = 5.23, p \leq 0.05$ ). They had higher scores for (poor) home-work balance ( $F(1,215) = 8.78, p \leq 0.01$ ). They had lower perceptions of job control on both measurements (HSE ( $F(1,215) = 5.61, p \leq 0.05$ ) and MAGPI ( $F(1,215) = 9.22, p \leq 0.05$ ), as well as higher HSE job demands ( $F(1,215) = 4.70, p \leq 0.05$ ).

#### H2: Professional role

- According to GP role, partners had significantly higher levels of moral distress ( $F(2,209) = 3.24, p \leq 0.05$ ) and job demands ( $F(2, 211) = 7.45, p \leq 0.001$ ) than locums. Partners had lower levels of job control compared to locums ( $F(2,211) = 7.45, p \leq 0.001$ ). There were no significant differences for salaried doctors.

- Considering specific additional roles held by respondents, being a GP trainer was associated with lower mean scores for both personal ( $F(1,216) = 5.09, p \leq 0.05$ ) and work-related burnout ( $F(1,216) = 8.54, p \leq 0.01$ ).  
Being an out-of-hours GP was associated with HSE lower job demands ( $F(1,216) = 9.57, p \leq 0.01$ ) and lower MAGPI job control (a single item) (but there was no difference in the six-item HSE Job Control scale).  
Holding an additional PCN role was associated with higher job demands ( $F(1,216) = 8.12, p \leq 0.01$ )

### **H3: Social Support and Home-work balance**

- There were significant positive associations between perceptions of poor social support with perceived stress ( $r = .27, p \leq 0.001$ ), personal burnout ( $r = .17, p \leq 0.05$ ), and morale ( $r = .56, p \leq 0.001$ ).
- There were significant positive associations between perceptions of difficulty in maintaining a balance between home and work and moral distress ( $r = .35, p \leq 0.001$ ), perceived stress ( $r = .40, p \leq 0.001$ ), personal burnout ( $r = .43, p \leq 0.001$ ), work-related burnout ( $r = .49, p \leq 0.001$ ), client burnout ( $r = .24, p \leq 0.001$ ), morale ( $r = .61, p \leq 0.001$ ) and HSE job demands ( $r = .52, p \leq 0.001$ ). There was a negative association between difficulty in maintaining a balance between home and work and HSE job control ( $r = -.26, p \leq 0.001$ ).

### **H4: Coping strategies**

- As anticipated, there was a significant negative association between optimism and perceived stress ( $r = -.18, p \leq 0.01$ ) (although there was no significant correlation with the other positive coping strategy of instrumental coping).
- Conversely, there were positive correlations between dispositional pessimism and perceived stress ( $r = .32, p \leq 0.001$ ), moral distress ( $r = .40, p \leq 0.001$ ), personal burnout ( $r = .31, p \leq 0.001$ ), work-related burnout ( $r = .28, p \leq 0.001$ ), client burnout ( $r = .18, p \leq 0.01$ ) and morale ( $r = .29, p \leq 0.001$ ). There was a positive correlation between pessimism and HSE job demands ( $r = .22, p \leq 0.001$ ) and a negative correlation with HSE job control ( $r = -.21, p \leq 0.01$ ).



## H5: Workplace factors

- There was a positive association between the numbers of sessions worked and moral distress ( $r = .17$ ,  $p \leq 0.05$ ), perhaps as there was greater exposure to challenging decisions.
- Although there were no significant associations with the number of other GPs or the number of other clinical staff in the practice team, there was a positive association between the number of GP vacancies and measures of moral distress ( $r = .18$ ,  $p \leq 0.01$ ), perceived stress ( $r = .26$ ,  $p \leq 0.001$ ), personal burnout ( $r = .19$ ,  $p \leq 0.01$ ), work-related burnout ( $r = .25$ ,  $p \leq 0.001$ ), client burnout ( $r = .21$ ,  $p \leq 0.01$ ) and morale ( $r = .24$ ,  $p \leq 0.001$ ). The number of vacancies was positively correlated with Job Demand ( $r = .24$ ,  $p \leq 0.001$ ) and negatively with Job Control ( $r = -.24$ ,  $p \leq 0.001$ ).
- With regard to practice list size, there was a significant difference in perceived stress ( $F(3,214) = 3.35$ ,  $p \leq 0.05$ ). Post-hoc comparisons using the Tukey HSD test found that the mean score for perceived stress was significantly lower between practices with list sizes between 10 and 15,000 patients compared to lists of between 5 and 10,000 patients ( $p \leq 0.05$ , 95% CI = [-2.33, -.09]).

There was a significant difference in client-related burnout ( $F(3,208) = 2.67$ ,  $p \leq 0.05$ ). Post-hoc comparisons using the Tukey HSD test indicated a lower mean score in practices with between 10 and 15,000 patients compared to those with lists >15,000 ( $p \leq 0.05$ , 95% CI = [-17.36, -.01]).

There was a significant difference in HSE Job Control ( $F(3,214) = 3.57$ ,  $p \leq 0.05$ ), post hoc comparison using the Tukey HSD test showed that this was significantly higher in the smallest practices compared to the largest ( $p \leq 0.05$ , 95% CI = [-8.77, -.10]).

- There was a significant difference in perceived stress according to practice location ( $F(3,214) = 2.69$ ,  $p \leq 0.05$ ). Post hoc comparison indicated that this was lower in rural practices compared to suburban practices.

## **H6: Adopting measures to free up time**

Unexpectedly, there were no consistent differences in the outcome measures between those who had implemented each of the GP Forward View High Impact Actions compared to those who had not.

Table 32: Differences in mean scores of outcome variables for each of the categorical variables

	n	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands Recode	HSE Job Control
<b>Sex</b>												
Male	109	3.99	6.45	49.39	50.97	43.51	20.57	1.81	2.5	1.78	28.68	18.94
Female	107	3.99	7.17	58.60	56.62	37.84	21.06	1.97	2.58	1.89	29.63	17.36
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		.000	4.09	11.850	4.365	4.348	.935	3.349	.390	1.354	1.224	5.521
Sig.		1	.044*	.001**	.038*	.038*	.335	.069	.533	.246	.27	.02*
<b>GP role</b>												
Partner	143	4.16	6.66	53.67	53.60	39.27	20.91	1.95	2.55	1.92	29.97	18.48
Salaried Dr	56	4	7.27	56.40	57.38	44.24	20.80	1.91	2.43	1.70	28.63	16.39
Locum	15	2.21	6.73	50.83	44.70	42.62	20	1.33	2.67	1.67	23.73	21.47
df		(2,209)	(2,211)	(2,211)	(2,211)	(2,205)	(2,211)	(2,211)	(2,211)	(2,211)	(2,211)	(2,211)
F		3.236	1.077	.582	2.452	1.282	.406	6.052	.464	2.512	7.138	7.447
Sig.		.041*	.343	.560	.089	.280	.667	0003*	.630	.084	.001**	.001**
<b>Caring responsibility</b>												
Caring responsibility	157	4.12	6.91	54.62	54.06	40.58	20.69	1.9	2.53	1.8	29.31	17.76
No caring responsibility	61	3.66	6.54	52.40	53.11	40.92	21.11	1.85	2.56	1.93	28.77	19.15
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		1.271	.868	.531	.097	.012	.563	.26	.038	1.724	.309	3.418
Sig.		.261	.353	.467	.756	.914	.454	.608	.846	.191	.579	0066

Note \*= p<0.05. \*\*= p<0.001

	n	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Supp	MAGPI HWB	HSE Job Demands Recode	HSE Job Control
<b>PMQ group</b>												
UKG	173	3.72	6.50	52.44	52.26	40.66	20.55	1.82	2.52	1.77	28.62	18.51
IMG	42	5.1	8.05	60.08	60.11	40.53	21.98	2.16	2.60	2.12	31.16	16.67
df		(1,213)	(1,215)	(1,215)	(1,215)	(1,209)	(1,215)	(1,215)	(1,215)	(1,215)	(1,215)	(1,215)
F		8.821	12.491	4.975	5.326	.001	5.225	9.233	.240	8.776	5.612	4.695
Sig.		.003*	.001**	.027*	.022*	.970	.023*	.003*	.624	.003*	.019*	.031*
<b>List size (patients)</b>												
<5000 patients	10	3.8	7.5	57.92	55.34	41.60	20.4	1.6	2.6	1.8	25.2	21.2
5001-10000	64	3.94	7.3	57.29	56.83	38.27	20.89	1.97	2.48	1.88	30.13	18.12
10001-15000	80	3.9	6.09	49.74	49.29	37.76	20.26	1.78	2.52	1.74	28.28	18.89
>15001 patients	64	4.19	7.11	55.40	56.15	44.46	21.48	2	2.59	1.92	30	16.77
df		(3,212)	(3,214)	(3,214)	(3,214)	(3,208)	(3,214)	(3,214)	(3,214)	(3,214)	(3,214)	(3,214)
F		.163	3.353	2.000	2.165	2.673	1.342	2.323	.151	.925	2.823	3.566
Sig.		.921	.02*	.115	.093	.048*	.262	.076	.929	.429	.04*	.015*
<b>Practice location</b>												
Rural	17	3.29	5.47	46.08	47.43	34.35	18.82	1.65	2.12	1.71	26.88	19.71
Semi-rural	61	4.17	6.93	56.56	57.29	43.25	21.13	1.93	2.66	1.84	30.92	17.69
Suburban	75	4.23	7.28	56.28	55.44	43.08	21.15	1.97	2.47	1.93	29.13	17.84
Urban	65	3.73	6.49	51.03	50.28	37.04	20.65	1.82	2.62	1.75	28.12	18.52
df		(3,212)	(3,214)	(3,214)	(3,214)	(3,208)	(3,214)	(3,214)	(3,214)	(3,214)	(3,214)	(3,214)
F		.818	2.689	2.004	2.031	1.944	2.053	1.501	1.635	.980	2.923	.934
Sig.		.485	.047*	.114	.11	.124	.108	.215	.182	.403	.035*	.425

Note \*= p<0.05. \*\*= p<0.001

Table 33: Differences in mean scores of outcome variables according to additional roles held

	n	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands recode	HSE Job Control
<b>GP trainer</b>												
GP trainer	92	3.74	6.41	50.41	49.21	38.00	20.4	1.88	2.47	1.83	28.85	18.71
Not GP trainer	126	4.18	7.1	56.61	57.14	42.57	21.11	1.9	2.59	1.84	29.38	17.74
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		1.352	3.619	5.092	8.537	2.710	1.949	.032	.804	.025	.371	1.996
Sig.		.246	.058	.025*	.004*	.101	.164	.859	.371	.875	.543	.159
<b>OOH GP</b>												
OOH GP	32	3.13	6.84	53.39	49.41	40.29	20.75	1.66	2.69	1.78	26	19.16
Not OOH GP	186	4.14	6.8	54.10	54.55	40.73	20.82	1.93	2.51	1.84	29.7	17.97
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		3.795	.007	.034	1.786	.012	.010	4.641	.897	.220	9.568	1.527
Sig.		.053	.933	.854	.183	.912	.0919	.0032*	.345	.64	.002*	.218
<b>GP appraiser</b>												
GP appraiser	37	3.57	6.59	50.90	49.06	39.53	20.57	1.73	2.59	1.76	28.35	18.46
Not appraiser	181	4.08	6.85	54.63	54.76	40.89	20.86	1.92	2.52	1.85	29.32	18.08
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		1.064	.290	1.041	2.476	.133	.192	2.567	.157	.555	.710	.173
Sig.		.303	.59	.309	.117	.716	.661	.111	.693	.457	.4	.678

Note \*= p<0.05. \*\*= p<0.001

	n	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands recode	HSE Job Control
<b>CCG role</b>												
CCG role	34	4.67	6.88	52.70	55.11	46.61	21.26	1.91	2.62	2.03	30.5	19.18
Not CCG role	184	3.87	6.79	54.23	53.55	39.66	20.73	1.89	2.52	1.8	28.91	17.96
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		2.383	.033	.165	.170	3.248	.598	.043	.277	3.151	1.800	1.708
Sig.		.124	.857	.685	.681	.073	.44	.0836	.599	.077	.181	.193
<b>GPwSI</b>												
GPwSI	34	3.79	6.82	52.08	52.38	41.74	21.18	1.88	2.5	1.94	28.32	18.35
Not GPwSI	184	4.03	6.8	54.35	54.06	40.49	20.74	1.89	2.54	1.82	29.31	18.11
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		.207	.002	.358	.198	.108	.388	.005	.057	.931	.687	.068
Sig.		.65	.969	.55	.656	.743	.534	.943	.812	.336	.408	.795
<b>PCN role</b>												
PCN role	34	4.71	6.91	55.15	55.00	40.63	20.97	2.09	2.5	2.12	31.97	18.21
No PCN role	184	3.86	6.79	53.78	53.57	40.68	20.78	1.85	2.54	1.78	28.64	18.14
df		(1,214)	(1,216)	(1,216)	(1,216)	(1,210)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)	(1,216)
F		2.768	.063	.130	.143	.000	.073	3.573	.057	6.766	8.121	.006
Sig.		.098	.802	.719	.706	.741	.989	.06	.812	.01*	.005*	.941

Note \*= p<0.05. \*\*= p<0.001

Table 34: Correlation between independent variables and outcome variables

	n = total	n	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Social Support	MAGPI Job control	MAGPI Home-Work Balance	HSE Job Demand recode	HSE Job Control
Male	218	209	.000	-.136*	-.288**	-.141*	.142*	-.066	-.042	-.124	-.079	-.075	.158*
Partner	214	143	.084	-.089	-.036	-.036	-.110	.036	.032	.114	.152*	.176**	.097
Salaried	214	56	.008	.100	.065	.101	.104	-.002	-.058	.012	-.123	-.052	-.209**
Caring responsibility	218	157	.077	.063	.049	.021	-.007	-.051	-.013	.035	-.089	.038	-.125
UKG	217	174	-.199**	-.234**	-.150*	-.155*	.003	-.154*	-.033	-.203**	-.198**	-.159*	.146*
List <5000	218	10	-.015	.058	.043	.017	.010	-.024	.014	-.095	-.011	-.136*	.134*
List 5-10,000	218	64	-.013	.120	.105	.097	-.078	.014	-.035	.076	.037	.098	-.003
List 10-15,000	218	80	-.026	-.209**	-.160*	-.171*	-.110	-.113	-.009	-.131	-.106	-.115	.113
List >15,000	218	64	.047	.074	.045	.076	.189**	.117	.038	.106	.080	.086	-.178**
Rural/semi-rural	218	78	-.005	-.055	.010	.050	.025	-.037	.001	-.020	-.029	.104	-.003
Urban/semi-urban	218	140	.005	.055	-.010	-.050	-.025	.037	-.001	.020	.029	-.104	.003
GP trainer	218	92	-.079	-.128	-.152*	-.195**	-.113	-.095	-.061	-.012	-.011	-.041	.096
GP appraiser	218	37	-.070	-.037	-.069	-.106	-.025	-.030	.027	-.108	-.051	-.057	.028
GPwSI	218	34	-.031	.003	-.041	-.030	.023	.042	-.016	-.005	.066	-.056	.018
OOH GP	218	32	-.132	.006	-.013	-.091	-.008	-.007	.064	-.145*	-.032	-.206**	.084
PCN role	218	34	.113	.017	.025	.026	-.001	.018	-.016	.128	.174**	.190**	.005
CCG role	218	34	.105	.012	-.028	.028	.123	.053	.036	.014	.120	.091	.089
Age (years)	208		-.019	-.149*	-.171*	-.130	-.154*	-.023	.053	-.026	.075	.065	.080
Years as GP	218		-.025	-.132	-.195**	-.123	-.131	-.034	.021	-.010	.063	.040	.078
Sessions as GP	217		.170*	.038	.145*	.116	.189**	.120	-.089	.100	.124	.091	.030
No. other GPs	212		-.040	-.084	-.088	-.079	-.045	-.053	.003	-.047	-.018	-.075	-.024
No. GP vacancies	206		.180**	.255**	.189**	.246**	.206**	.235**	-.007	.322**	.208**	.241**	-.235**
No. Clinical staff	207		-.007	-.048	-.061	-.054	.020	-.069	-.086	-.024	.016	-.050	.023

Note: \* correlation is significant at the 0.05 level; \*\* correlation is significant at the 0.01 level

Table 35: Correlations between Social Support or Home-Work Balance and outcome variables

	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	HSE Job Demands recode	HSE Job Control
<b>MAGPI Social Support</b>	.021	.265**	.171*	.075	.038	.562**	.078	-.095
<b>MAGPI Home-Work Balance</b>	.346**	.399**	.427**	.489**	.235**	.613**	.521**	-.258**

Note \*= p<0.05. \*\*= p<0.01

Table 36: Correlation between COPE traits and outcome variables

	Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Social Support	MAGPI Job control	MAGPI Home-Work Balance	HSE Job Demands recode	HSE Job Control
<b>Pessimism</b>	.323**	.399**	.305**	.284**	.180**	.294**	0.12	.235**	.161*	.222**	-.206**
<b>Optimism</b>	-.023	-.180**	-.055	-.012	-.051	-0.11	-.037	-.03	.029	.087	.093
<b>Seeking instrumental support</b>	-.023	-.053	-.003	-.029	-.112	-.11	-.092	-.064	-.09	-.011	.042
<b>Behavioural disengagement</b>	.318**	.412**	.296**	.319**	.176**	.344**	0.118	.238**	.184**	.250**	-.225**
<b>Denial</b>	.257**	.296**	.246**	.185**	.144*	.176**	.096	.179**	.102	0.144*	-.141*
<b>Positive reframing</b>	-.047	-.162*	-.017	-.026	-.109	-.085	.038	.043	.041	-.117	-.023
<b>Planning</b>	.059	-.07	.013	.065	.013	-.01	-.025	.029	.092	.121	.059
<b>Active coping</b>	-.065	-.196**	-.128	-.068	-.020	-.169*	-.105	-.150*	-.067	-.035	.192**

Note \*= p<0.05. \*\*= p<0.01

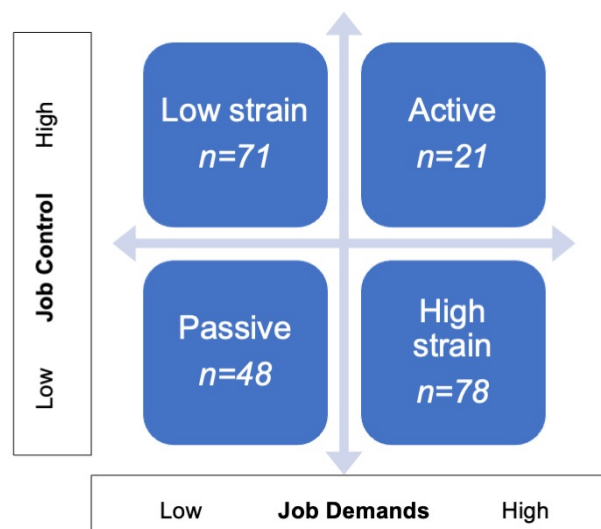


#### 5.8.2.4 Outcomes in relation to hypothesis 7

As described in Section 5.7.4, the responses were divided into four groups according to the median values for the HSE Job Demands and Job Control Scale. The distribution of respondents in each group (according to Karasek's (1979) categorisation) is shown in Figure 17.

The mean scores for moral distress, perceived stress, the three dimensions of burnout and MAGPI overall score for these four groups were compared (testing for significant variance with ANOVA). The results are shown in Table 37.

Figure 17: Distribution of respondents according to Karasek's (1979) categorisation



The differences between the groups for all of the outcome measures tested were significant. For each of the outcome variables, the highest scores were seen in the High-Strain group (with low scores for Job Control and high scores for Job Demands), as in accord with Karasek's (1979) model.

Post-hoc comparisons for each of these dependent variables demonstrated a similar pattern. In each case, the F ratio was large (showing more variance between the groups than within the group) and Levene's test

for equality of variance demonstrated that the variability of scores within each group was similar.

With regard to moral distress, post-hoc comparisons using the Tukey HSD test indicated that the mean score for moral distress was significantly higher in the high-strain group than the passive ( $p \leq 0.001$ , 95% CI = [.93, 3.24]), the low strain ( $p \leq 0.001$ , 95% CI = [2.04, 4.12]), and the active ( $p \leq 0.01$ , 95% CI = [.48, 3.58]) (but there were no significant differences between the other three groups).

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for perceived stress was significantly higher for the high-strain group than either the passive (mean difference 2.85,  $p \leq 0.05$ , 95% CI = [.60, 2.84]) or low-strain groups (mean difference 1.72,  $p \leq 0.01$ , 95% CI = [1.85, 3.85]), and for the active compared to the low-strain group (mean difference 1.78,  $p \leq 0.05$ , 95% CI = [.26, 3.29]).

Post-hoc comparisons for personal burnout indicated that the mean scores for the low-strain group were significantly lower than the active (mean difference 20.78,  $p \leq 0.01$ , 95% CI = [9.55, 32.00]), passive (mean difference 11.27,  $p \leq 0.001$ , 95% CI = [2.827, 19.71]), and high-strain groups (mean difference 24.55,  $p \leq 0.001$ , 95% CI = [17.14, 321.96]).

Post-hoc comparisons for work-related burnout showed that, compared to the high-strain group, the passive (mean difference 18.23,  $p \leq 0.001$ , 95% CI = [10.73, 25.72]) and low-strain groups (mean difference 29.88,  $p \leq 0.001$ , 95% CI = [23.18, 36.58]) had lower mean scores. Compared to the active group, the mean score for the low-strain group was lower (mean difference 22.13,  $p \leq 0.001$ , 95% CI = [11.98, 32.27]).

For client burnout, compared to the high-strain group, both the passive group (mean difference 11.20,  $p \leq 0.01$ , 95% CI = [1.98, 20.42]) and the low-strain group (mean difference 15.01,  $p \leq 0.001$ , 95% CI = [6.85, 23.19]) scores were significantly lower.

For MAGPI, the high-strain group score was significantly higher than the passive (mean difference 2.41,  $p \leq 0.001$ , 95% CI = [.84, 3.98]) and low-

strain (mean difference 18.23,  $p \leq 0.001$ , 95% CI = [2.76, 5.57]) groups. The MAGPI score for the active group was higher than the low-strain group (mean difference 2.39,  $p \leq 0.05$ , 95% CI = [.27, 4.52]).

Moderated regression was used to explore whether there was an interaction between Job Demands and Job Control- the *buffer effect* of Job Control upon Job Demands. Each of the variables was centred around the mean and an interaction term (cJob Demands x cJob Control) was created. For each of the outcome variables (perceived stress, moral distress, the dimension of burnout and morale) no significant moderation effect between Job Demands and Job Control was demonstrated.

Table 37: Comparison of mean scores according to Karasek's (1979) job categorisation

Karasek categorisation	Passive	Low strain	High strain	Active	ANOVA		
					df	F	Sig.
Moral Distress	3.56	2.57	5.65	3.62	(3,212)	20.59	$p \leq 0001$
Perceived Stress	6.50	5.37	8.22	7.14	(3,212)	18.53	$p \leq 0001$
Personal Burnout	52.00	40.73	65.28	61.51	(3,214)	26.07	$p \leq 0001$
Work Burnout	50.06	38.40	68.29	60.53	(3,214)	46.64	$p \leq 0001$
Client Burnout	37.27	33.45	48.47	42.44	(3,214)	8.19	$p \leq 0001$
MAGPI	20.46	18.70	22.87	21.10	(3,214)	19.98	$p \leq 0001$

### **5.8.3 Regression analyses**

The results of the regression analyses are reported in the following sections. The analysis for each of the outcome measures is presented separately followed by a summary of the significant associations in section 5.8.3.9.

#### **5.8.3.1 Perceived stress**

In the first step, the predictors related to personal characteristics were entered (sex and age). This model was significant ( $F(2,196) = 3.52$ ;  $p \leq 0.05$ ) and explained 3% variance in perceived stress.

In the second step, the predictors related to professional role characteristics were entered. This model was significant ( $F(4,194) = 7.77$ ;  $p \leq 0.001$ ) and explained a further 10% variance in perceived stress.

In the third step, after addition of the COPE styles of behavioural disengagement, denial and active coping, the total variance explained by the model was 26% ( $F(7,191) = 10.84$ ;  $p \leq 0.001$ ). This third step explained an additional 14% of variance in perceived stress.

In the final step, with the addition of the MAGPI Social Support and Home-Work Balance items, the variance explained was 40% ( $F(9,189) = 13.98$ ;  $p < 0.001$ ).

In the final adjusted model, perceived stress was significantly predicted by six of the predictor variables: GP age ( $\beta = -.155$ ,  $p < 0.01$ ), practice list size (10-15,000) ( $\beta = -.195$ ,  $p < 0.01$ ), number of GP vacancies ( $\beta = .158$ ,  $p < 0.01$ ), COPE behavioural disengagement ( $\beta = .242$ ,  $p < 0.001$ ), MAGPI home-work balance ( $\beta = .272$ ,  $p < 0.001$ ), and MAGPI social support ( $\beta = .191$ ,  $p < 0.001$ ). This is summarised in Table 38.

Table 38: Hierarchical multiple regression model of perceived stress

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.186	.035*					
Sex				.572	.377	.109	1.518
Age				-.037	.021	-.130.	-1.809
<b>Step 2</b>	.372	.138	.103***				
Sex				.581	.358	.111	1.622
Age				-.036	.020	-.126	-1.848
List size 10-15k				-1.052	.364	-.193**	-2.890
No. GP vacancies				.783	.210	.249***	3.723
<b>Step 3</b>	.533	.284	.146***				
Sex				.578	.331	.110	1.749
Age				-.033	.018	-.115	-1.831
List size 10-15k				-1.064	.335	-.195**	-3.1762
No. GP vacancies				.619	.196	.196**	3.162
COPE active coping				-.088	.122	-.049	-.721
COPE denial				.208	.163	.098	1.277
COPE diseng.				.606	.162	.297***	3.741
<b>Step 4</b>	.632	.400	.115***				
Sex				.379	.306	.072	1.238
Age				-.045	.017	-.155**	-2.670
List size 10-15k				-.890	.310	-.163**	-2.867
No. GP vacancies				.496	.183	.158**	2.710
COPE active coping				-.060	.112	-.033	-.530
COPE denial				.192	.150	.090	1.277
COPE diseng.				.493	.150	.242***	3.276
MAGPI Social Supp				.516	.155	.191***	3.320
MAGPI HWB				1.025	.224	.272***	4.576

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001

### **5.8.3.2 Moral distress**

In the first step, the predictors related to professional role characteristics (GP role, PMQ, number of sessions worked and GP vacancies) were entered. This step was clinically significant ( $F(4,201) = 5.73$ ;  $p \leq 0.001$ ) and explained 10% variance in moral distress.

After addition of the COPE styles of behavioural disengagement and denial in step two, the total variance explained by the model was 17% ( $F(6,199) = 6.96$ ;  $p \leq 0.001$ ). This second step explained an additional 7% of variance in moral distress.

In the final step, with the addition of the MAGPI Home-Work Balance items, the variance explained was 22% ( $F(7,178) = 8.13$ ;  $p \leq 0.001$ ).

In the final adjusted model, moral distress was significantly predicted by COPE behavioural disengagement ( $\beta = .190$ ,  $p < 0.05$ ) and MAGPI Home-Work Balance ( $\beta = .241$ ,  $p < 0.001$ ). This is summarised in Table 39.

Table 39: Hierarchical multiple regression model of Moral Distress

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.320	.102***					
GP role				.471	.390	.082	1.206
PMQ group				1.192	.461	.174**	2.586
No. sessions				.153	.062	.165*	2.450
No. GP vacancies				.586	.222	.179**	2.645
<b>Step 2</b>	.416	.173	.071***				
GP role				.584	.377	.101	1.547
PMQ group				.709	.471	.103	1.505
No. sessions				.136	.060	.147*	2.256
No. GP vacancies				.486	.216	.148*	2.247
COPE diseng.				.483	.171	.227**	2.818
COPE denial				.170	.184	.077	.927
<b>Step 3</b>	.472	.223	.050***				
GP role				.348	.373	.061	.935
PMQ group				.454	.463	.066	.980
No. sessions				.107	.059	.116	1.810
No. GP vacancies				.333	.214	.102	1.556
COPE diseng.				.403	.168	.190*	2.396
COPE denial				.198	.179	.089	1.107
MAGPI HWB				.944	.265	.241***	3.562

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001

### **5.8.3.3 Personal burnout**

In the first step, predictors related to personal characteristics were entered. This model was significant ( $F(2,196) = 7.18; p \leq 0.01$ ) and explained 7% variance in personal burnout.

In the second step, the predictors related to professional role characteristics were entered. This model was significant ( $F(4,194) = 6.14; p \leq 0.001$ ) and explained a further 4% variance in personal burnout.

The third step, after addition of the COPE styles of behavioural disengagement and denial, was significant ( $F(6,192) = 7.87; p \leq 0.001$ ) and explained an additional 9% of variance in personal burnout.

In the final step, with the addition of social support and home-work balance items, the additional variance explained was 14% ( $F(8,190) = 11.82, p \leq 0.001$ ).

The final adjusted model explained 33% of the total variance. Personal burnout was significantly predicted by three predictor variables, sex ( $\beta = .139, p < 0.05$ ), age ( $\beta = -.164, p < 0.01$ ) and MAGPI home-work balance ( $\beta = .361, p < 0.001$ ). This is summarised in Table 40.



Table 40: Hierarchical multiple regression model of personal burnout

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.261	.068***					
Sex				8.105	2.849	.201**	2.845
Age				-.288	.156	-.130.	-1.848
<b>Step 2</b>	.335	.112	.044**				
Sex				7.359	2.830	.182**	2.600
Age				-.294	.153	-.133	-1.922
No. GP vacancies				4.347	1.649	.179**	2.636
GP trainer				3.887	2.821	.095	1.378
<b>Step 3</b>	.444	.197	.085***				
Sex				7.137	2.708	.177**	2.635
Age				-.275	.146	-.125	-1.880
No. GP vacancies				3.434	1.598	.142*	2.149
GP trainer				4.916	2.706	.120	1.817
COPE denial				2.214	1.313	.135	1.686
COPE diseng				3.048	1.271	.194*	2.399
<b>Step 4</b>	.577	.332	.135***				
Sex				5.620	2.495	.139*	2.252
Age				-.363	.135	-.164**	-2.691
No. GP vacancies				2.003	1.491	.083	1.343
GP trainer				4.760	2.487	.116	1.914
COPE denial				2.118	1.205	.129	1.758
COPE diseng				2.034	1.177	.130	1.728
MAGPI Soc Supp				1.828	1.258	.088	1.453
MAGPI HWB				10.444	1.802	.361***	5.794

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001

#### **5.8.3.4 Work-related burnout**

In the first step, the predictors related to personal characteristics and professional factors were entered. This model was significant ( $F(3,203) = 7.64$ ;  $p \leq 0.001$ ) and explained 10% variance in work-related burnout.

In the second step, after addition of the COPE styles of behavioural disengagement and denial, the total variance explained by the model was 19% ( $F(5,201) = 9.35$ ;  $p \leq 0.001$ ). This second step explained an additional 9% of variance in work-related burnout.

The third step with the addition of MAGPI Home-Work Balance, explained an additional 16% of the variance ( $F(6,200) = 17.96$ ;  $p \leq 0.001$ ).

The final adjusted model explained 35% of the total. Work-related burnout was significantly predicted by three of the variables: COPE behavioural disengagement ( $\beta = .223$ ,  $p < 0.01$ ), non-GP trainer status ( $\beta = .182$ ,  $p < 0.01$ ) and MAGPI Home-Work Balance ( $\beta = .417$ ,  $p < 0.001$ ). This is summarised in Table 41.

Table 41: Hierarchical multiple regression model of work-related burnout

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.319	.102***					
Sex				4.522	2.713	.112	1.667
No. GP vacancies				5.500	1.613	.228*	3.409
GP trainer				6.260	2.759	.154*	2.268
<b>Step 2</b>	.434	.189	.087***				
Sex				4.066	2.594	.101	1.567
No. GP vacancies				4.396	1.561	.182**	2.816
GP trainer				7.240	2.644	.178**	2.738
COPE denial				.356	1.284	.022	.278
COPE diseng.				4.469	1.271	.286***	3.598
<b>Step 3</b>	.592	.350	.161***				
Sex				2.820	2.334	.070	1.208
No. GP vacancies				2.609	1.424	.108	1.833
GP trainer				7.413	2.373	.182**	3.124
COPE denial				.320	1.152	.020	.278
COPE diseng.				3.484	1.123	.223**	3.102
MAGPI HWB				12.006	1.703	.417***	7.049

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001

### **5.8.3.5 Client-related burnout**

In the first step, the predictors related to personal characteristics and professional factors were entered. This model was significant ( $F(4,194) = 5.91; p \leq 0.001$ ) and explained 11% variance in client-related burnout.

In the second step, after addition of the COPE styles of behavioural disengagement and denial, the total variance explained by the model was 14% ( $F(6,192) = 5.37; p \leq 0.001$ ). This second step explained an additional 3% of variance in client-related burnout.

The third step with the addition of MAGPI Home-Work Balance, explained an additional 4% of the variance ( $F(7,191) = 6.15; p \leq 0.001$ ).

The final adjusted model explained 18% of the total variance. Client-related burnout was significantly predicted by three of the variables: sex ( $\beta = -.204, p \leq 0.01$ ), age ( $\beta = -.247, p \geq 0.001$ ) and MAGPI Home-Work Balance ( $\beta = .210, p \geq 0.01$ ). This is summarised in Table 42.

Table 42: Hierarchical multiple regression model of client-related burnout

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.330	.109***					
Sex				-7.522	2.870	-.182**	-2.621
Age				-.524	.157	-.231**	-3.328
No. GP vacancies				4.265	1.686	.172*	2.530
List size 10-15k				-4.047	2.918	-.094	-1.387
<b>Step 2</b>	.379	.144	.035*				
Sex				-7.593	2.831	-.184**	-2.683
Age				-.512	.155	-.226***	-3.302
No. GP vacancies				3.663	1.682	.148*	2.178
List size 10-15k				-4.040	2.875	-.094	-1.405
COPE denial				1.114	1.389	.066	.802
COPE diseng				2.283	1.343	.142	1.700
<b>Step 3</b>	.429	.184	.154**				
Sex				-8.426	2.784	-.204**	-3.027
Age				-.560	.153	-.247***	-3.669
No. GP vacancies				2.784	1.671	.112*	1.666
List size 10-15k				-3.103	2.831	-.072	-1.096
COPE denial				1.086	1.359	.065	.799
COPE diseng				1.768	1.325	.110	1.335
MAGPI HWB				6.222	2.031	.210**	3.064

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001

### 5.8.3.6 *Morale in General Practice (MAGPI)*

In the first step, the predictors related to professional factors were entered. This model was significant ( $F(1, 205) = 11.22; p \leq 0.001$ ) and explained 5% variance in MAGPI.

In the second step, after addition of the COPE styles of behavioural disengagement, denial and active coping, the total variance explained by the model as a whole was 15% ( $F(4, 202) = 9.06; p \leq 0.001$ ). This second step explained an additional 10% of variance in MAGPI.

In the final adjusted model, MAGPI was significantly predicted by two of the variables: number of GP vacancies ( $\beta = .179, p < 0.01$ ) and COPE behavioural disengagement ( $\beta = -.322, p < 0.001$ ). This is summarised in Table 43.

(Although there was a correlation between the total MAGPI score and the scores for perceived social support and home-work balance, these were not included in the regression model for MAGPI since these items are part of the total MAGPI score).

Table 43: Hierarchical multiple regression model of MAGPI

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	$\beta$	t
<b>Step 1</b>	.228	.052***					
No. GP vacancies				1.013	.302	.228**	3.349
<b>Step 2</b>	.390	.152	.100***				
No. GP vacancies				.795	.292	.179**	2.727
COPE active coping				-.103	.180	-.041	-.568
COPE denial				-.104	.243	-.035	-.428
COPE diseng.				.925	.241	.322***	3.834

Note statistical significance \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### **5.8.3.7 Job demands**

In the first step, the predictors related to professional factors were entered. This model was significant ( $F(5,200) = 7.02; p \leq 0.001$ ) and explained 15% variance in job demands.

The second step, after addition of the COPE styles of behavioural disengagement and denial, was significant and explained an additional 4% of variance in job demands ( $F(7,198) = 6.38; p \leq 0.001$ ).

The final adjusted model (after the addition of home-work balance) explained 35% of the variance, ( $F(8,197) = 13.54; p \leq 0.001$ ). Job demands were significantly predicted by three of the variables: number of GP vacancies ( $\beta = .130, p < 0.05$ ), additional role as an OOH GP ( $\beta = .185, p < 0.05$ ) and MAGPI Home-Work Balance ( $\beta = .444, p < 0.001$ ). This is summarised in Table 44.

Table 44: Hierarchical multiple regression model of Job Demands

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	β	t
<b>Step 1</b>	.386	.149***					
No. GP vacancies				1.811	.503	.237***	3.602
Salaried GP role				-.768	.951	-.054	-.807
PMQ group				2.107	1.044	.132*	2.019
OOH GP				3.290	1.179	.183**	2.789
PCN GP				-2.816	1.168	-.161*	-2.410
<b>Step 2</b>	.429	.184	.035*				
No. GP vacancies				1.622	.500	.213***	3.243
Salaried GP role				-.991	.940	-.070	-1.054
PMQ group				1.533	1.091	.096	1.405
OOH GP				3.396	1.165	.189**	2.916
PCN GP				-2.457	1.158	-.140*	-2.122
COPE denial				-.069	.427	-.013	-.162
COPE diseng.				.993	.397	.201*	2.499
<b>Step 3</b>	.596	.355	.171***				
No. GP vacancies				.993	.454	.130*	2.184
Salaried GP role				-.122	.847	-.009	-.144
PMQ group				.348	.987	.022	.352
OOH GP				3.326	1.038	.185**	3.203
PCN GP				-1.381	1.043	-.079	-1.324
COPE denial				.055	.381	.011	.145
COPE diseng.				.662	.357	.134	1.853
MAGPI HWB				4.048	.561	.444***	7.217

Note statistical significance \* p<0.05, \*\* p<0.01, \*\*\*p<0.001



### **5.8.3.8 Job control**

In the first step, the predictors related to personal characteristics were entered. This model was significant ( $F(2,203) = 4.86; p \leq 0.01$ ), and explained 5% variance in job control.

In the second step, the predictors related to professional role characteristics were entered (number of GP vacancies and role as a salaried GP). This model was significant ( $F(4,201) = 6.52; p \leq 0.001$ ), and explained a further 7% variance in job control.

In the third step, after addition of the COPE styles of behavioural disengagement, denial and active coping, the additional variance explained by the model was 4% ( $F(7,198) = 5.28; p \leq 0.001$ ).

The final adjusted model (including home-work balance) explained 20% of the variance ( $F(8,197) = 5.95; p \leq 0.001$ ). Job control was significantly predicted by four of the variables: number of GP vacancies ( $\beta = -.140, p < 0.05$ ), salaried GP role ( $\beta = -.183, p < 0.01$ ), COPE active coping ( $\beta = .145, p < 0.05$ ) and MAGPI Home-Work Balance ( $\beta = -.207, p < 0.01$ ). This is summarised in Table 45.

Table 45: Hierarchical multiple regression model of Job Control

	R	R <sup>2</sup>	R <sup>2</sup> change	B	SE	$\beta$	t
<b>Step 1</b>	.214	.046**					
Sex				-1.558	.685	-.156*	-2.273
PMQ				-1.806	.860	-.144*	-2.100
<b>Step 2</b>	.339	.115	.069**				
Sex				-1.168	.685	-.117	-1.706
PMQ				-1.664	.835	-.133*	-1.994
No. GP vacancies				-1.215	.402	-.203**	-3.020
Salaried GP				-1.675	.773	-.150*	-2.169
<b>Step 3</b>	.397	.157	.042*				
Sex				-1.257	.676	-.126	-1.860
PMQ				-1.388	.873	-.111	-1.591
No. GP vacancies				-1.073	.400	-.179**	-2.683
Salaried GP				-1.603	.762	-.143*	-2.104
COPE active coping				.499	.247	.146*	2.022
COPE denial				.114	.344	.028	.331
COPE diseng.				-.462	.329	-.119	-1.406
<b>Step 4</b>	.441	.195	.037**				
Sex				-1.014	.667	-.101	-1.519
PMQ				-.971	.866	-.077	-1.121
No. GP vacancies				-.837	.400	-.140*	-2.095
Salaried GP				-2.050	.761	-.183**	-2.694
COPE active coping				.496	.242	.145*	2.050
COPE denial				.079	.338	.019	.233
COPE diseng.				-.337	.325	-.087	-1.036
MAGPI HWB				-1.484	.491	-.207	-3.022

Note statistical significance \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 46: Summary of significant associations in regression analyses

	Age	Sex	Number of GP vacancies	Number of sessions	Practice list size 10-15k	GP trainer	OOH GP	PCN role	Salaried Dr	COPE behavioural disengage.	COPE active coping	MAGPI social support	MAGPI HWB
<b>Moral Distress</b>										Yes			Yes
<b>Perceived Stress</b>	Yes		Yes		Yes					Yes		Yes	Yes
<b>Personal Burnout</b>	Yes	Yes											Yes
<b>Work Burnout</b>						Yes				Yes			Yes
<b>Client Burnout</b>	Yes	Yes											Yes
<b>MAGPI</b>			Yes							Yes		Not tested	Not tested
<b>Job Demands</b>			Yes				Yes						Yes
<b>Job Control</b>			Yes						Yes		Yes		Yes

### **5.8.3.9 Summary of regression analyses:**

A summary of the significant associations between the independent predictor and outcome variables is listed in Table 46. These associations are shown schematically in **Error! Reference source not found.**

- a. Perceived Stress was predicted by age, practice size, the number of GP vacancies, the coping strategy of behavioural disengagement, perceptions of social support and Home-Work Balance
  - b. Moral Distress was predicted by COPE behavioural disengagement and MAGPI Home-Work Balance
  - c. Personal burnout was predicted by sex, age, and Home-Work Balance
  - d. Work-related burnout was predicted by COPE behavioural disengagement, GP trainer status and Home-Work Balance
  - e. Client-related burnout was predicted by sex, age and Home-Work Balance
  - f. Morale in General Practice was predicted by the number of GP vacancies and COPE behavioural disengagement.
  - g. HSE Job Demands were predicted by the number of GP vacancies, having an additional role as an OOH GP and Home-Work Balance
  - h. HSE Job Control was predicted by the number of GP vacancies, being a salaried GP, COPE active coping and Home-Work Balance
- 
- a. The best predictor of perceived stress, moral distress, all dimensions of burnout, job demands, and job control was MAGPI Home-Work Balance
  - b. The best predictor of MAGPI (Morale in general practice) was COPE behavioural disengagement.

Moderated regression analysis did not demonstrate any significant interaction between job demands and control for the outcome variables (using a multiplicated interaction term for job demands x job control as well as ones for social support x job demand and social support x job control). There was no significant interaction between COPE behavioural disengagement and the number of GP vacancies for any of the outcome variables.

## 5.9 Summary of results

This phase of the study aimed to permit exploration and refinement of the concepts and themes identified in the first phase, testing whether expected relationships were present. It tested areas where the aspects of interest were measurable, with the purpose of providing evidence for the operation of mechanisms.

This phase examined predictors of stress and burnout in GPs using a structured questionnaire. The analysis has been presented in relation to significant associations between personal and professional characteristics of the respondents and measured outcome variables of coping, perceived stress, burnout, morale and social support.

There were high levels of malaise in the doctors who responded to this study, demonstrated in high levels of burnout and stress with concomitant low morale. Although there were some differences in measures according to sex and age, in contrast to expectations from the interview study, there were no significant associations with caring responsibilities.

As discussed previously, workload is a key consideration in terms of occupational stress. This group of doctors responded by implementing some of the GP Forward View High Impact Actions, particularly those related to active signposting and developing the practice team. Such actions reduced the volume of GP work by delegation or directing the query to alternative individuals. Similar themes were noted in the other strategies adopted by respondents who listed sharing work with other clinical staff as well as extending the roles of non-clinical team members. These findings are in accord with those reported in the initial qualitative interview study.

The strategies these GPs adopted were similar to those described in an interview study of GPs by Fisher *et al.* (2017). It is notable that both studies included strategies which reduced time in the workplace, such as taking leave, reducing hours and changing to a salaried role (from partnership) in order to manage workload. As Fisher *et al.* (2017) summarise, reducing sessions and commitment in the context of increasing patient demand and a reducing workforce, are matters of concern.

Importantly, the response to workload depends upon individual perceptions. In Lazarus and Folkman (1984) transactional model of coping, the individual's cognitive appraisal of the situation and a secondary appraisal of their ability to cope will determine the response. Thus, the individual's coping style may determine the extent of the effect of stress. In this study, coping traits were measured using brief COPE. Broadly, the responses may be considered as adaptive or maladaptive. Perceived stress, burnout and morale measures were positively associated with maladaptive coping mechanisms (denial and behavioural disengagement). The highest scoring COPE trait in this study was for planning (thinking about how to confront the stressor, planning one's active coping efforts), followed by active coping (taking action to remove or circumvent the stressor). In this context, it is unsurprising to see that there had been active moves to address workload.

Stress was measured using the four-item Perceived Stress Scale, in accord with Lemaire, Wallace and Jovanovic (2013). Scores in women were significantly higher than in men, and there was a negative correlation with age. A similar pattern was seen in measures of burnout, with higher scores in women and younger GPs. The authors postulate that this was related to women facing different challenges in their work experiences and career pathways, suggesting that those from 'Generations X and Y' have grown up under different social and economic contexts from the 'Baby Boomers' which may have altered their expectations and acceptance of workplace stress. A further contributing factor may be increasing rates of retirement at earlier ages than previously (a selection effect). In contrast to the findings of the initial interview phase, caring responsibilities were not related to stress scores.

Burnout was considered in three dimensions. Client-related burnout scores were lower than those for personal- and work-related burnout. This trend was more marked in female GPs. Having an additional role as a GP trainer was associated with significantly lower personal- and work-related burnout scores, suggesting that teaching was a protective factor. This is in accord with the findings from the initial interview phase when GPs spoke of their enjoyment of patient-facing duties and a frustration with administration.

In a recent study of Lithuanian hospital doctors by Žutautienė *et al.* (2020), which used the Copenhagen Burnout Inventory, there was a similar distribution of scores. According Lemaire, Wallace and Jovanovic (2013), typically, physicians enjoy spending time with patients and work-related stress may relate to other occupational responsibilities (such as administration). Morrison and Smith (2000) and Lyon-Maris *et al.* (2015) have written of the need to redesign health care, focusing it upon patient care to address these challenges.

Karasek (1979) focused upon the interaction between job demands and control in predicting strain. Perceptions of job demands and control were measured using the HSE Management Standards tool. There were significant associations according to GP characteristics, professional features and practice characteristics. Those who had qualified overseas perceived significantly higher levels of job demands as well as lower levels of job control. Similarly, there was a significant positive correlation between the number of GP vacancies with job demand and negative correlation with job control. When the data were modelled using Karasek's (1979) Job Demands/Control, the highest scores were in the high strain group as predicted. Van der Doef and Maes (1999) suggest that there are two alternative hypotheses for this model. The *strain* hypothesis states that greater strain will always be seen in the high strain quadrant. The *buffer* hypothesis is that control moderates or buffers the impact of demand. Testing this hypothesis using an interactive term in a moderated regression, suggested that this did not apply to this group of respondents. Similarly, social support did not moderate the effects of job demands and control.

In terms of the regression analyses, age and sex were associated with personal- and work-related burnout when the effect of other variables was controlled for. As predicted, those who were older, or male had lower levels of burnout. There was a similar effect for age in relation to perceived stress.

Regarding practice factors, a practice size of 10-15,000 patients was negatively associated with perceived stress. The number of GP vacancies was a more consistent predictor of poor outcomes. This positive prediction persisted after controlling for the effect of other variables in relation to perceived stress, MAGPI, and job demands, as did the negative prediction for job control. A plausible

explanation may be that a consequence of vacant posts is an increased workload and thus a negative impact upon outcome measures related to stress.

In each of the cases where it was included in the regression equation, perceptions of home-work balance were a stronger predictor of outcomes than the other independent variables. This suggests that the impact is more complex than simply workload (such as may be associated with increased vacancies).

Carlson, Kacmar and Williams (2000) suggest that work-family conflict may be considered in the domains of time, strain, and behaviour. Applying these domains and considering the findings of the first phase of the study, it could be postulated that long working hours and fatigue (as well as workload) contribute to this negative impact.

Although the coping trait of behavioural disengagement was utilised relatively infrequently, it was significantly associated with negative outcome measures. This is similar to the findings in McCain *et al.* (2018) study in an acute hospital trust and McKinley *et al.* (2020) in a larger sample of doctors in England.

Behavioural disengagement represents giving up or withdrawing effort from the attempt to attain the goal with which the stressor is interfering. It is a state of passive acceptance or learned helplessness. For Abramson, Seligman and Teasdale (1978), some people are more prone to thinking in this way and attributing their helplessness to a cause which may vary in three dimensions: stable or unstable, global or specific, and internal or external. The chosen attribution determines expectations of future helplessness. More recently, this state of learned helplessness and hopelessness has been described in relation to trainees' well being during the COVID-19 pandemic (Shaw, 2020). In the initial phase of this study, helplessness was expressed in metaphorical terms as '*swimming in the ocean in the dark*' and as lobsters desensitized in increasingly hot water.

### **5.9.1 Limitations**

The major limitation of this study was that it included a relatively small number of respondents, recruited using a convenience sampling approach, meaning that the population to which the questionnaire link was distributed is unknown. It is not possible to comment completely upon whether there was under-coverage of a



particular sector of the GP population, but there was unequal inclusion of respondents from different geographical regions of England and a relatively greater proportion who held an additional role as a GP trainer than might have been anticipated. Similarly, only those who chose to participate will have responded, suggesting a voluntary response bias. The inclusion criteria only recruited those currently in the workforce, not those absent for ill-health reasons or who had left the workforce.

The rationale for the choice of a survey delivered on an online platform is discussed in Section 3.7.2. Although attention had been given to ensuring that questions were worded neutrally to avoid response bias, on reviewing the invitation critically, there may have been some framing in highlighting that the study was about factors exacerbating workplace stresses. Potentially, this may have introduced response bias.

In a questionnaire, there is a tension between seeking sufficient information and the time taken to complete it, hence the shortened form of standardised scales were chosen in this study. For the same reason, items within the MAGPI scale were used for measuring perceptions of social support and home-work balance. This limited the detail available (and ability to compare with published evidence).

One of the challenges of a survey is that the respondents can only answer the questions given, and it is not possible to explore these responses in further depth. For example, it was surprising to note that there was no association between caring responsibilities and measured outcomes. Without further exploration it was not possible to determine if this was because there truly was no association or whether there were other factors (for example, had the respondent already adjusted their working pattern to take account of this). Likewise, it would be helpful to understand expectations of work-life balance as well as actual hours worked.

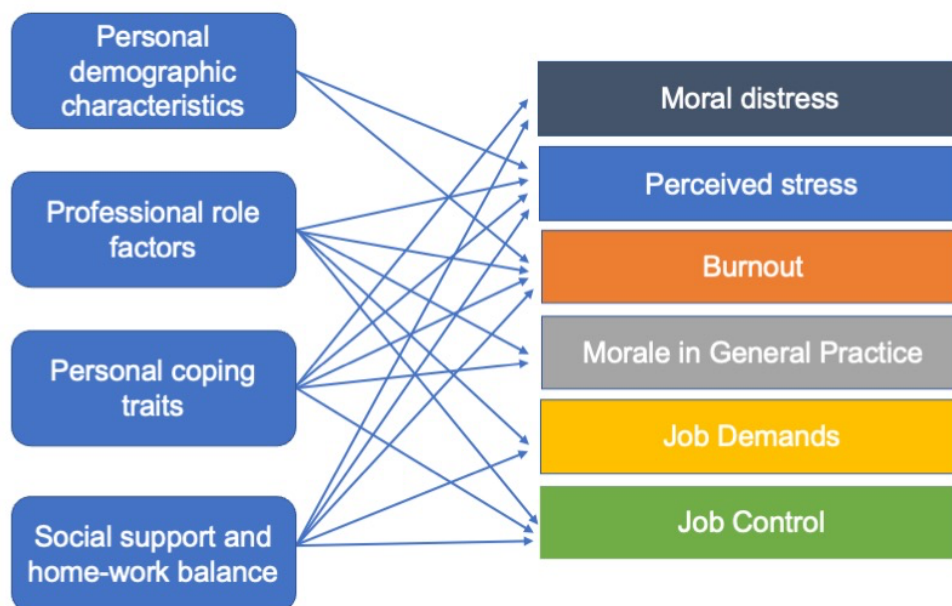
## **5.10 Conceptual framework**

From a design perspective, this second phase of the study aimed to develop a greater understanding of the structural and contextual conditions existing in the respondents' practices and to consider how these related to each other and

impacted upon the GPs. These interactions are illustrated in **Error! Reference source not found.**

There is a complex interaction between personal factors (demographic and coping styles), professional factors and perceptions of social support and home-work balance that impact upon the measured outcome variables. This phase has contributed additional information about the influences of both workplace and home 'structures' upon GPs.

Figure 18: Conceptual diagram of the associations between independent variables and outcome measures



## 5.11 Chapter summary

The questionnaire phase of this study has considered the predictors of stress and burnout in a sample of GPs working in England. These predictors were derived from theoretical expectations based upon the initial qualitative interviews and the literature review. It has considered the relationships between the personal and professional characteristics of GPs alongside the measured variables of coping mechanisms, perceived stress, moral distress, burnout, morale and social support.

Measures of psychological distress are particularly associated with perceptions of challenge in maintaining a home-work balance and with behavioural disengagement as a coping trait. The findings of this study are consistent with Karasek's (1979) Job Strain Model in that the highest levels of workplace-associated stress are seen in those who perceive their jobs to be of high workload demand with low levels of control.

The regression analyses identified that the independent predictor variables which most predicted outcomes, when the effect of other variables was controlled for, were demographic (age and sex), workplace related (number of GP vacancies, practice size and additional roles held) and personal coping strategies. The strongest predictor was respondent perception of home-work balance.

The findings of this phase provided fragments of empirical evidence, extending an understanding of the complex open system of GPs' working lives. In the next phase of this study, these factors will be explored further with expert stakeholders, considering possible mechanisms which underpin the observations (recognising that these mechanisms may themselves be unobservable). The theoretical understanding generated from observations in the first two phases of the study will be tested and refined.

## **6 Chapter Six: Phase Three Interviews**

### **A stakeholder study of the Working Life of General Practitioners in 2020**

#### **6.1 Introduction**

This third phase of the study sought to confirm and consolidate the theory gleaned and refined in the first two phases. A series of interviews with an expert group of stakeholders focussed upon identifying underlying mechanisms to explain the empirical findings. This involves retroductive reasoning and integrating the findings of the earlier qualitative and quantitative phases.

This chapter presents the results of the analysis of the data collected from a series of telephone interviews with GP stakeholders. The chapter begins with information about the organisations from whom these participants are drawn. The results from the analysis of the interview data are presented under the key emergent themes which are illustrated by selected quotes from the interviews. The chapter concludes with the presentation of a conceptual framework drawn from these interviews.

#### **6.2 Aim and Objectives**

##### **Primary Aim:**

To explore how stakeholders perceive the nature of the demands of the role as primary health care practitioners.

##### **Objectives:**

- To explore stakeholders' perceptions of the demands of the role of GPs
- To share the findings of the first two phases of this thesis with stakeholders; and
- To explore the issues raised at a strategic level.

### 6.3 Critical realist perspectives

The first two phases of this study have examined the context and experiences of those practicing as GPs in England, considering this alongside expectations from the literature. This process has uncovered patterns in these empirical observations. In Emmel (2014)'s terms, these are fragments of evidence contributing to a greater understanding of the complex open system. The third phase of the study is conducted with stakeholders, viewing the situation from a different perspective, and designed to purposively consider the relationships between agents and structures. Through dialogue and sharing understanding from the first two phases, the aim was to consolidate theory and understanding, considering underpinning causal mechanisms that may be considered to explain the empirical findings. This abductive reasoning process typically begins with an incomplete set of observations and considers the most likely explanation for those findings (Mukumbang *et al.*, 2020).

The context of this phase of the data collection in 2020, had shifted significantly from the first two phases. It took place just after the end of the first wave of the COVID-19 pandemic with the attendant impacts upon primary care and the GP workforce.

### 6.4 Description of the sample

For this study, key organisations and groups involved in primary health care were considered as stakeholders. These organisations and groups were chosen as they offer different perspectives on primary care. Representatives of six organisations were invited, and interviews were arranged with five of these (all of whom were qualified GPs). Each of the individual interviewees is described in the following section, along with a brief comment about the organisation they represented:

- GP A: NHS England (NHSE), which is responsible for commissioning primary care and manages practitioner performance. The NHSE Board is the senior decision-making structure in NHS England and is supported by seven regional teams which include a number of GPs. The interviewee was a Senior Clinical Advisor for one of the regions

and had responsibilities for the management of GP performance and complaints processes

- GP B: Health Education England (HEE), which supports the education, training and development of the workforce. It is a non-departmental public body, which operates through seven Local Education and Training Boards (LETBs). These include a number of GPs. The interviewee held a senior role in one of the LETBs
- GP C: The General Practitioners' Committee (GPC) of the BMA is the representative body for GPs in England. It has 86 members, 43 of whom are directly elected regional representatives. The remainder are either elected at the annual representative meeting (ARM), appointed from subcommittees or groups or are ex-officio members. The interviewee was one of the elected members
- GP D: The Royal College of General Practitioners (RCGP) is the professional membership body for family doctors. It has over 50,000 members at all stages of their careers. The interviewee held a senior elected role in the organisation
- GP E: Practitioner Health (PH) provides a specialist service to doctors and dentists with mental illnesses. It operates across England with bases in London and 13 areas across England. The interviewee held a clinical leadership role and was involved in assisting fellow GPs seeking support
- Resilient GP is a social media forum for GPs

Although responses were obtained from individuals from each of these organisations, it was not possible to schedule an interview with a member of Resilient GP forum within the timeframe of the study. The interviews lasted between 39 and 43 minutes, with an average duration of 41 minutes.

In order to preserve anonymity of individuals, specific demographic details are not given for each of the interviewees. Three were women and two men. At the time of the study, each of the interviewees was practicing as a GP, in addition to their role within the respective organisation. Four of the five had previously worked as GP partners, although none were partners at the time of interview. Three were in formal

salaried roles whilst the others had flexible commitments to practice. Their time commitment to the clinical role ranged from two days a week to a portfolio commitment, averaging half a day per week. All had gained their primary medical qualification in the UK (between 16 and 41 years previously). Geographically, their clinical commitments were distributed across England in the Northwest, the Midlands, the Southeast and East of England.

## **6.5 Interview themes**

Themes were initially derived from the literature and refined in the initial interview and questionnaire phases of the study. Analysis followed a framework approach (described in Chapter 3). This entailed initially coding then indexing and sorting the data under parent nodes before charting to identify patterns in the data.

The results from the analysis of the interviews with stakeholders are presented under the following major themes: Policy, External Environment, Complexity, Power and Hierarchy, Impacts on the Individual Doctor's Job Satisfaction and Cultural/Societal Factors. These are listed with their constituent sub-themes in Table 47.

Table 47: Key themes and subthemes from data analysis

Themes	Sub themes
<b>Policy</b>	Policy implementation Resources and time Unintended consequences of new policies
<b>External environment</b>	Regulation and societal expectations Organisational change and new models of working COVID-19
<b>Complexity</b>	
<b>Power and hierarchy in the system</b>	Workplace Healthcare system
<b>Impacts on the individual doctor's job satisfaction</b>	Personality characteristics Demographic and other individual factors Autonomy
<b>Cultural and societal factors</b>	Gender External responsibilities Race and International Medical Graduates <ul style="list-style-type: none"> <li>• Cultural differences</li> <li>• Racism</li> </ul> What it means to be a doctor Ill-health in doctors

### 6.5.1 Policy

Whilst discussions in the initial interview phase focused on the impact of specific policies, such as the 2004 contract or local CCG policy, these discussions were more centred on the processes of policy implementation and how this might impact the frontline of medicine. With all of the interviewees, there was a sense of frustration in the ways in which successive governments had implemented policy changes.



### **6.5.1.1 Policy implementation**

Several spoke of the difficulties in local delivery of centrally written policy. For GP D there was a question about whether centrally written policy, with a uniform approach across the county, was the correct approach:

*'I haven't been impressed over the lifetime of the last two or three governments about the translation between funding and strategic intention and deliverables in practice and I'm afraid that I think one of the reasons is the marketisation of the NHS and social care .....one size doesn't fit all and what you need in general practice in Yarmouth isn't the same as what you need in Bromley-by-Bow in London .....I think it's a combination of the way that political will is handled and the fact that we've got so much diversification at ground level ...'* (GP D- RCGP).

GP C highlighted that there may be inadequate communication leading to confusion, recognising that although they heard about organisational changes, this might not be the case for those who were less well-connected in the system. This related both to a lack of messaging and a lack of clarity in communications:

*'I think that's what I realised certainly locally, is that things have sort of percolated down and there has been some benefit, but it might not have been heralded as, 'This is where it's come from' .....so, there is a lot of confusion'* (GP C- GPC).

### **6.5.1.2 Resources and time**

For others, there was the sense that implementing change took time and this was not always permitted. It may be for this reason that schemes such as the Ten High Impact Actions appeared to have had limited impact in the questionnaire study.

GP A acknowledged that there had been investment into primary care but then spoke of the challenges and complexities of implementing change at grassroots level, suggesting that perhaps there was a need for patience:

*'the whole issue around policy and policy implementation and I think that the very high level of investment about improving it, about the commitment, have always been very difficult to put into practice and you know*

*...it takes time to achieve change, it takes even longer to build the change and I think that's probably why ...some doctors have felt that there's been very little movement particularly around the workforce which has been the greatest challenge of all .....so I think, I think that's very much down to how change is industrialised and brought into the NHS and I don't think that I've ever been convinced that we have a change model that is strong enough to achieve what we need to do, because of you know, either political issues, financial issues or the fact that actually the way our change agents work doesn't encourage delivery' (GP A- NHSE).*

GP E had a more sceptical view of the same issues, suggesting that continual change meant that there was insufficient time to see the benefit of new initiatives and that in reality, the underlying problem was of unacknowledged, inadequate resourcing for health care, compounded by inadequate finances seen at the grassroots level:

*'Short answer, there's an awful lot of hot air and empty promises. Over-promising and under-delivering with initiatives and support and monies and nothing's ever given time to bed in, change things and then consolidate that change and benefit from it. So, we just live in a swarm where there's papers churned out and initiatives and money attached to them and cascades and infographics, but do the people on the ground see any of it or feel the benefit of any of it? Often not ...some of the sort of revolutionary thinking is great but you've got, you know, change takes time, people have to adapt to it, you've got to get them onside and you have to support the bumpy phase when it's a bugger's muddle until it will be better .....so change fatigue and weariness and also, and never enough resources because there never will be. You know, there's not enough humans on the ground to do the job and not enough money to make all the things that need to happen' (GP E- PHP).*

There was some doubt about the concept of a PCN and the time investment required to make them work, as GP E voiced:

*'I've never been convinced that forced marriages of medics work, throwing people together into a big organisation and expecting them to get on better than they used to when they were separate. Again, it's the investment*

*of time, I mean the PCN concept has some mileage, the timeline was absurd, and the must-dos were absurd ...I was talking to somebody who's working with one of the PCNs and I said, "Is it working? Is it working yet?" and she just burst out laughing you know; they haven't even made friends yet' (GP E- PHP).*

### **6.5.1.3 Unintended consequences of new policies**

In the months prior to the stakeholder interviews, NHSE announced a PCN contract including additional resourcing for groups of practices to employ up to 26,000 more primary care healthcare professionals. GP B was concerned that the possible consequences of this had not been adequately considered and perversely might lead to an additional burden on GPs. GP B's comments echoed those made in the initial phase of this study:

*'But I think we've just made the work too intensive and as this new initiative of the 26,000 wider workforce comes in, unless we change our consultation model and we put in space for us to have time to do it and time to recover, then we will lose even more doctors because you know, the patient that comes in with a joint problem is a light relief to the one that comes in with a lot of other things but if all the joint problems go to the first contact physio, I'm going to lose my light relief. So, I think .....the initiatives are not necessarily wrong, it is that we then don't realise the unintended consequences of them' (GP B- HEE).*

The NHS pensions' policy was also identified as having unintended consequences on the workforce by GP E:

*'... also the pension thing .....people who have been you know pushed into making that decision by absurd finances and I know in my LMC of at least two members of the committee who've retired this year for that reason, that they were just in a position of paying to go to work and said, "This is becoming ridiculous" you know (laughs), so they retired because of the tax implications' (GP E- PHP).*

## **6.5.2 The external environment**

### **6.5.2.1 Regulation and societal expectation**

GP A summarised the regulatory changes and the impact which they perceived these had upon fellow GPs who felt constrained by expectations:

*‘working in primary care and the changes over time and certainly we moved from the 80s from a period where one was almost completely unregulated to a point where there is much more external regulation and observation and the standards that we are expected to work to are, can conflict with one’s professional and ethical code in some circumstances and I think that some doctors find that quite difficult’ (GP A- NHSE).*

This was in accord with views noted during the initial exploratory interview study. Similar considerations of a loss of independence and autonomy were also noted by GP A:

*‘..... we are often subject to things that are outside of our control, and yet we are trying to manage people and we can be sometimes individually and organisationally responsible for things that we have not controlled or have not wished, and that can be really difficult when there are, there are situations where you know, what needs to be done and what can be done, but you cannot because of the environment or the context and you lose control’ (GP A- NHSE).*

### **6.5.2.2 Organisational change and new models of working**

These stakeholder interviews took place after the end of the first lockdown of the COVID-19 pandemic, so it was not surprising that interviewees spoke of its impact. It appeared to have brought concepts identified in the initial interview phase into sharper focus and to have accelerated the implementation of change. Furthermore, these discussions added to the theoretical discussions about the effect of the changing nature of the relationship between doctor and patient.

GP A felt that the model of primary care had changed and listed examples of the organisational changes which had taken place in response to COVID-19 pandemic.

*'But we certainly know that during COVID for example, practices had a huge amount of organisational change not only with the new models of consulting but also having to equip themselves with cold hubs, hot hubs, hot surgeries, cold surgeries, having to don PPE etc. so that has made it more tricky in some aspects' (GP A- NHSE).*

New models of working featured in most of the interviews, with the rapid move to remote consulting either by telephone, video or digitally. Although several spoke of the negative impacts upon the doctor-patient relationship, GP D was aware that the situation was not clear cut, as for some doctors this way of working had increased their flexibility:

*'It's not as rewarding doing on-line consultations. It's not as nice because ...it's harder to have the social chat. The consultations are harder and ...you might see the patient, you might hear them but you're not noticing that they're shuffling into the room .....so, I think there's the loss of the social animal ... then loss of the other senses, the sense of isolation and I think that is in one direction. On the flipside I've talked to people who have been able to work more sessions now because they don't have to be in at the surgery. They can be a carer but work from home. So, I think there are pros and cons to it and I don't think we yet know quite how nuanced that is' (GP D- RCGP).*

GP A felt that remote access to health care was advantageous to patients but was less sure of the impact upon doctors:

*'I think the benefits are though that, that remote consulting has now become easier and video consulting has made opportunities for patients to access care without coming to the surgery, so I think there's some plusses. Whether or not that is going to be seen overall as a benefit to doctors' working lives, I'm not sure' (GP A- NHSE).*

Meanwhile, GP E felt that not all patients were ready to accept this change:

*'we were agile, we did everything and now we're getting crap from the government, crap from the press and now the patients are saying, "Oh you were shut all the time and I can't get an appointment"' (GP E- PHP).*

### **6.5.3 Complexity**

In contrast to the initial qualitative phase, there was relatively little discussion about the content of GP work. One interviewee (GP B) spoke of the increasing number of problems brought to a consultation by patients:

*'none of the patients came with less than three problems and one was as many as five. The consultation length is still 10 minutes. Now, I believe that as those actions have been brought in, what they've done is increase our work intensity'* (GP B- HEE).

### **6.5.4 Power and hierarchy in the system**

#### **6.5.4.1 Workplace**

The questionnaire identified that salaried doctors had lower levels of perceived job control. This was explored further in these interviews. Some of the uncertainties described related to the nature of employment contracts. GP C and GP B separately identified inequalities in being a locum or salaried doctor, with concerns about power and hierarchy limiting their ability to challenge employers.

*'it's very difficult, how do you articulate to someone and say, "Listen, I don't feel safe, you've put me you know, with someone who's got COVID symptoms without PPE" it's very difficult'* (GP C- GPC).

*'that's really hard as a locum to do that because of the power dynamic and then you might never ever get a job again you know, in the practice, so yeah it's really, really been quite challenging'* (GP C- GPC).

GP B echoed this in relation to salaried doctors:

*'it's interesting during COVID I have heard repeatedly that the salaried doctors are often the ones still seeing face-to-face. And I'm concerned that we, if we're not careful, we will create an underclass'* (GP B-HEE).

#### **6.5.4.2 Healthcare system**

Issues of powerlessness were identified at the level of General Practice within the wider healthcare system. For GP B, this was articulated as an uncertainty about

the nature of General Practice in the future (recognising that primary care had responded positively to the challenges of COVID-19 pandemic), with a concern about further increases in workload:

*'I think now post-COVID, so from a systems-viewpoint I think we're going to see increased workload and we are from secondary care because they say they can't do things. They haven't been as agile as general practice in terms of adjusting how their ways of working to suit, you know, so remote digitalisation etc. and ...the default historically has always been, "The GP can do it" and I think that's got worse. And I think some also are now seeing this as an opportunity to redraw how they deal with things and that that pressure will therefore continue rather than abate or reduce, so we'll have increased pressure from secondary care with lots of people being discharged off lists so then we're being asked to manage hospital patients without necessarily the extra time, capacity or funding and resource that should follow these patients' (GP B-HEE).*

#### **6.5.5 Impacts upon the individual doctor's job satisfaction**

The interviewees were asked to reflect upon the factors which might underpin the high levels of malaise noted in the questionnaire respondents. At a general level, these were linked to GPs as social beings relating to those around them as fellow human beings. For GP A, this may reflect their motivation to be a doctor:

*'but some people do take a view that they find change and they find restriction of the freedom you know, to care for people, does actually cause a fair amount of, of stress, I've certainly seen that' (GP A- NHSE).*

##### **6.5.5.1 Personality characteristics**

Interestingly, two respondents commented upon the impact of personality and how GPs respond to work-related problems. GP B spoke of GPs being overcritical with themselves:

*'It doesn't stop us still having to deal with the complainants and such like and it's not even the complaints. I once had a patient say to me, "Dr [name] if you ever make a mistake with me, I won't need to sue you or*

*complain because you'll be harder on yourself than I ever could be" and I thought, "What an amazingly perceptive patient" (GP B- HEE).*

For GP C, this was seen as a tendency for some to ruminate excessively:

*'And I think that if you are a Type A neurotic person and you don't get it off your chest quite quickly you then start to ruminate on it and it, that then becomes a sort of spiral, it's a bit like the burnout spiral that if you, if you look at GPs that are burning out, they're very quickly, their workload is going up rather than down because they're, they're re-doing things, they're spending longer on it' (GP C- GPC).*

In other cases, there might simply be professional isolation, as described by GP D:

*'Some people I think just not feeling very included, again because general practice is very diverse, you know, even the college would say, well we've got faculties and we want to mentor you and support you, but I think, still think people on training post level in particular you know, going round different parts of a big county, it may be quite isolating so' (GP D- RCGP).*

It was identified by GP B that GPs as a whole, needed to recognise that as individuals, they had limited capacity for work:

*'I need a more politically correct version of this, but my analogy is that a GP is like an ovary, in that we only have a certain number of empathic consultations in us .....and that if you're doing nine or ten sessions a week in practice and a couple of out-of-hours sessions and things, you're going to hit the empathic menopause sooner' (GP B- HEE).*

However, others felt that the ability to cope was related more to personal insights and being able to switch off from work. GP C felt that losing empathy in the role was a sign of potential burnout:

*I think it depends on your personality .....I think that actually when ... you've lost empathy, you're shutting down because you're trying to carry on but actually you should be stopping ...actually that's a sign that you need to be stepping back from clinical work and having a break because the whole*



*point of being a doctor and particularly a GP is that you don't do that, that you are engaged, that you are empathetic, that you are interested and so that's, that's just a sign that perhaps actually you're not well and you just need to have a bit of a break' (GP C- GPC).*

GP E described working with a doctor who was able to switch off at the end of the day, knowing they had done their best:

*'...I used to work with a chap ...who no matter what happened, always seemed to be able to go home at the end of the day and there's a poem ...it starts with the line that's along the lines of you know, "When the day is done, the day is done" you know, he had that ability to just reconcile and think, "I've done my best and tomorrow is another day"' (GP E- PHP).*

These quotes, link to the differences in burnout and coping mechanisms identified in the earlier phases of the study. In the initial interviews, individuals described optimism and burnout. In the questionnaire, behavioural disengagement was identified as a maladaptive trait, which links to the 'black humour' which GP-B saw as a negative feature of medical training.

#### **6.5.5.2 Demographic and other individual factors**

In relation to age, there was a suggestion that older doctors had the benefit of experience as well as fewer external pressures, allowing them more freedom in their working pattern. GP A summarised these issues from their perspective:

*'An older doctor ...may well have formulated approaches to problems, they may well have a better armamentarium, they may, through experiencing, have encountered many of the more difficult scenarios before and be more confident perhaps at solving the issues, so it could be experience-related issues there' (GP A- NHSE).*

And additionally, GP A thought older doctors were in a better financial position than younger ones:

*'...as doctors become more financially secure ...their financial pressures and the need to work long hours is less' (GP A- NHSE).*

Other respondents recognised that the structure of the study, sampled from a self-selected group who were continuing to work, excluded those who had taken their pensions or left the workforce for other reasons. In some cases, this may have been precipitated by structural reasons. GP A noted appraisal as a factor in this regard:

*'I think that we've seen evidence of that in the appraisal system where doctors are coming up for their revalidation, it's all too much and whereas they would be quite happy to work for an extra few years, that the burden of appraisal or at least the thoughts around revalidation sometimes precipitates them into [retirement]'* (GP A- NHSE).

Additionally, presentations of stress and burnout may be complicated in GP A's view by substance misuse:

*'having a factor with drug misuse and alcohol misuse, which are still hidden gems really and often we forget about those'* (GP A – NHSE).

### **6.5.5.3 Autonomy**

In reflecting upon the factors underpinning stress, GP B highlighted the recently published GMC report (West and Coia, 2019) which specifically lists autonomy as a key factor in doctors' well being. The initial phases of the study identified lowest levels of stress in medium-sized practices. GP B's perception was that lack of autonomy was likely to be an important stress factor for those GPs working in larger practices:

*'And you don't get autonomy in a large group practice. And I think the bigger it gets above, certainly when there were five or six partners in my practice, we all still had a say, now it's up to sort of seven or eight, and there's a few salaried doctors and such like, there's less autonomy. So, I think it's about, it's about having a say, it's about the employment model, it's about feeling valued. And (sighs) yeah, I just think we're, we're losing something'* (GP B- HEE).

Meanwhile GP D recognised that there might be an issue at the other end of the spectrum in smaller practices too, but for different reasons:

*'quite a lot of the smaller, single-handed or two-man/woman practices .....that's obviously a vulnerable group in the current climate, people don't want those partnerships, they've often got liabilities with premises, and you know the upscaling of general practice is challenging so some people may be stressed by finding that that's you know, happening to them at the end of their careers' (GP D- RCGP).*

GP C linked autonomy to a lack of control in the working environment more generally:

*'...people might not have been able to articulate or recognise ...we are often subject to things that are outside of our control, and yet we are trying to manage people and we can be sometimes individually and organisationally responsible for things that we have not controlled or have not wished, and that can be really difficult when there are ...situations where you know, what needs to be done and what can be done, but you cannot because of the environment or the context and you lose control' (GP C- GPC).*

#### **6.5.5.4 Moral distress and moral injury**

Whilst the questionnaire had considered levels of moral distress, the respondents in this phase of the study considered this concept more broadly. Moral injury considers the personal impact of a mismatch between knowing the right thing to do, but being prevented from pursuing the right course by institutional constraints (Jameton, 1984). In reflecting upon this, the interviewees considered whether moral injury was an appropriate term to use in relation to healthcare professionals. GP A identified that challenges to an individual's moral code were a source of stress:

*'absolutely ...I think that is a factor that does cause a degree of internal stress ...and I think ...that's true across the board, not just in doctors ...when you have to do something which is against your moral code and you can't see the purpose of it' (GP A- NHSE).*

GP B felt that this was present to varying degrees and might be labelled across a spectrum:

*'I use the terms moral labour, moral injury and moral distress ...I think they are most certainly there' (GP B- HEE).*

GP E articulated this in relation to specific examples of care on a busy day and when there are inadequate resources which compromise the GP's ability to offer optimal care:

*'I do think moral injury exists and in many subtle ways, you know, it's okay to have to compromise occasionally on a Monday morning when it's just flat out horribly busy in surgery and you know you've not been your best self or god forbid you've had a late night and you're a bit tired and you think, "Hmm could have done that a bit better" it's not okay for the normal to be that it's impossible to do things properly' (GP E-PHP).*

*.....And that undermines people's well-being, you know, I know my own way of practicing, I wouldn't say I'm a perfectionist but I like to do it well and for me to do clinical practice at the pace some of my colleagues are doing now, it would tear me to shreds because I know that I would be unhappy with what I'm doing through no fault of my own because there's either inadequate resources, blocked pathways, not enough time etc. etc. and so it is definitely part of the picture and a complex issue because yes, we have to take responsibility for our own mental wellbeing but if there are things out there that you can't change and that severely impact on your work on a regular basis, it's no different to sending a soldier into battle with no armour' (GP E-PHP).*

#### **6.5.6 Cultural and societal factors**

Analysis of the data identified themes relating to attitudes which the respondents recognised both within the medical community and wider society that had an impact upon the working lives of individual GPs.

### 6.5.6.1 Gender

The questionnaire study demonstrated higher levels of stress in women than men. This was a surprising finding for GP A who conjectured that this could be due to reporting bias as they felt that women had a greater degree of self-awareness in this regard:

*'...I got the impression that actually some of the female doctors are sometimes better equipped to deal with different stresses and tasks and ... seem to have a little bit more nous and emotional intelligence in handling situations ...I suppose they could have reported it but they might manage it well too ...so maybe one's got to dig a little bit deeper into a question of do they have a greater degree of recognition? Probably. Perhaps the males may not, well may be stressed but don't recognise it or don't report it.'* (GP A-NHSE).

However, this view was not shared by others. GP D linked these differences to the juxtaposition of women's roles in the home and workplace:

*'women tend to feel more inadequate if people aren't happy or things aren't going well, because again, they're the domestic team's problem-solver and that projects onto workplaces ...it's personal, cultural assumptions and then it's the way that that plays out in the particular working setting that women tend to burden, to shoulder the burden a bit more and that makes them more stressed.'* (GP D- RCGP).

Similarly, GP E spoke of the backdrop of society expecting women to pick up the unpaid and unnoticed domestic duties, feeling that in regard to stress occupational factors were compounded by these expectations:

*'women probably present more readily so it may be more visible. It may be that it's, there's a higher incidence in the men but we don't see it because of the cultural reluctance to come forward for help so it may be a visibility thing. But I think however much we think society is equal, the reality is it isn't and the majority of the sort of family juggling home, multi-tasking stuff that goes on in medical and allied health professional marriages and households, probably lands on the women's shoulders and actually juggling it all is a stress*

*on its own so it may manifest as, in the workplace but it's actually the sum of the parts. That's my theory' (GP E- PHP).*

The negative impact of societal attitudes was shared by GP C:

*'Because men tend to be the partner so they're earning more and the women tend to be the salaried because they have to sort of, while their children are younger. So, there's ...a structural, there's a cultural and then there's the sort of the family societal element as well .....we can be doctors but we're not equal necessarily on an equal footing with our male counterparts ...so there is a gender pay gap in GP [practice]' (GP C- GPCP).*

These gendered attitudes in medicine were echoed by GP B:

*'...well I think there is some good evidence that medicine, it still has some gender bias ...I do think that the bulk of carer, family and home responsibilities is probably still disproportionately applied to women and therefore that female colleagues may be juggling more stresses than male colleagues' (GP B- HEE).*

However, the situation was more complex than simply considering societal expectations around working and domestic responsibilities. GP D felt that gender differences existed in the case mix of patients seen by female GPs with a disproportionate number of vulnerable and emotionally demanding patients choosing to see these doctors:

*'...So women are still in most societies, raised to have a double burden of care and duty and also to be more emotionally open to others, and so if that projects both onto you know, the way they handle patients, that's often why you get a gendered case mix you know, the sadder more vulnerable people end up seeing the women doctors because they get a different vibe, although of course as younger men have become more emotionally literate so that you know, it's not quite as stereotypically true as it was' (GP D- RCGP).*

Equally, with changes in society, GP D recognised that similar considerations related to men with comparable responsibilities:

*'...there are gendered things in the workforce that still may favour male doctors. One of the things that a lot of women struggle with, is the desire to work less than full-time and that tends to be seen as them taking the work less seriously and that can then reflect in their salaries, so you get a pay gap and a choice gap. And again, I've had some interesting conversations with some men who say, "Oh you know, I'm a gay man and I've got kids and you try and negotiating that one" so it's, some of it's about the carer burden, the double burden, as well as the sex of the doctor' (GP D- RCGP).*

GP B related some of the differences to generational issues as well as to gender, extending the discussion to consider imposter syndrome, which refers to a lack of internal acknowledgement of accomplishment in high functioning individuals associated with low self-confidence (Clance and Imes (1978). However, as with GP D, they recognised that this does not relate simply to gender:

*'...if you look at Generation X onwards ...the desire to have a work-life balance, to work part-time and such like, is not only seen in women. Also, I would suggest if we were to look at the workforce in terms of how it's changed from a gender balance, women would bring strengths to our workforce ...for example there is evidence that women are often more empathic. And if that's the case then we must be careful not to use terms that make it sound like there's a detriment to there being more women in the profession ...I wrote a piece on suffering from imposter syndrome ...I did a literature search and found that imposter syndrome, the research is ...almost entirely in women, because it was originally identified as something that women suffered from. Now I happen to think that many of us suffer from it as well ...so I don't think those attributes are necessarily entirely a binary thing between males and females' (GP B- HEE).*

#### **6.5.6.2 External responsibilities**

The findings in relation to the impact of external responsibilities are contradictory in the first two phases. Caring responsibilities were mentioned in the initial interviews but were not evidenced as having a significant impact in the questionnaire. However, they were considered significant by the stakeholder respondents.

Although it was recognised that many with external responsibilities had made adjustments for these in their roles, it was identified that they were often a factor when individuals were stressed. For example, GP A said:

*So, I think that that could just be because the majority of people make reasonable adjustments, but I guess that we tend to see people presenting with stress-related issues and when we look more deeply there are often extraneous factors such as child caring or there may be illness in a loved one or sometimes we do see bereavements and loss having a factor' (GP A- NHSE).*

However, GP C felt that there was an ongoing challenge with the system being too rigid, and this meant that doctors left GP practice unnecessarily, sometimes at a relatively early stage in their careers. In this situation, those who left would not be in the workforce to respond to the questionnaire:

*'...we are still not flexible enough to support those who have major caring responsibilities and therefore they have often opted out' (GP C- CPC).*

Paradoxically for GP E, the workplace was unsupportive and uncaring and consequently, doctors felt a need to just get on with it:

*'it's quite close to compassion fatigue ...and a lack of ...caring in how people are working and that's not a good thing to see' (GP E- PHP).*

These comments were tempered by the recognition that there may be a collusion of silence about difficult family circumstances, with GPs reluctant to admit that they were struggling:

*'people don't necessarily talk about it and ...I think it's difficult for people to talk about because there's a degree of shame in saying, "I'm absolutely driven nuts by my mother's dementia or my father's wandering" or you know, "The demands of a difficult child"' (GP E- PHP).*

GP D had more positive reports of flexible working practices which ameliorated the difficulties of coping with pressures at home alongside work:



*'...so the people who'd found a solution ...working in a practice ...if granny was sick, people ...would say, "That's all right [name] ...come in later and ...I'll cover you for this" ...or you know, "I covered you for this, can you cover me for that?" so if people have got a stable, flexible, respectful, supportive home-life and work-life, even if they're delivering quite a lot of caring, they won't be too stressed by it, they'll still be enjoying ...the relationships and feeling they're doing the right thing'* (GP D- RCGP).

#### **6.5.6.3 Race and International Medical Graduates (IMG)**

The questionnaire study demonstrated higher levels of stress in those who had qualified outside of the UK. They had low measures of job control and high levels of job demands. Exploring this further, the respondents identified a number of factors which might underpin this.

#### **6.5.6.4 Cultural difference**

Not unsurprisingly, there were issues related to being distant from family and support structures, as well as the need to acclimatise to a new culture and system, as described by GP B:

*'I think some of it, depending on how long the IMG has been here, obviously some of the people who are newer here are still struggling with getting their qualifications, getting used to being in the country, getting used to being in the NHS, getting used to the career opportunity, like anybody who goes to a new place and doesn't already have all of that tied up, it's a demanding thing to do'* (GP B- HEE).

For GP E, this also included the challenge of understanding the complex concept of 'Britishness' which encompassed both linguistic and social elements:

*'And so why do we expect them to know all the weird things patients say so, so I think every consultation is more complex, every interaction is more complex. Different cultures have different hierarchies and ways of interacting between primary and secondary care, you know, whether you ask for something or tell or instruct, so people can be assessed as bullish, when actually that's normal in the culture that they've grown up in and actually*

*you're assertive if you want something and you don't fanny around asking for it, you say, "I need so-and-so, please give it to me".'*

*'sadly, the, the expectations of the training, I don't mean individual training programmes, but the way GPs are trained in this country, so an overseas doctor who comes here and then joins a GP training scheme, is not given adequate time to adopt and integrate and understand the weird and wonderful thing that is British-ness, that is different five miles down the road from one village to the next, never mind one county or one region' (GP E-PHP).*

Several mentioned the challenges of differential attainment as a possible root cause. This was compounded by structural factors in, for example, recruitment to training schemes where placement is dependent upon selection assessment scores. This has often meant that doctors from overseas are more likely to be in more remote areas, as described by GP C:

*'...differential attainment starts ...when you take up your job ...the further north you went into the less sort of city focus, you had a concentration of people perhaps from certain backgrounds who'd scored less .....so it's your environment ...where you're training, who you're training with, what opportunities are available to you and also ...whether people understand your background' (GP C- GPC).*

#### **6.5.6.5 Racism**

Of concern was the description of overt racism in both the medical system and from patients. Worryingly, systemic racism was specifically mentioned by several of the interviewees. One interviewee highlighted research on discrimination in recruitment practices (Esmail and Everington, 1993), commenting that awareness had improved, but the problem persisted.

GP D described the impact of patients' behaviour towards doctors from different backgrounds:

*'some doctors whatever their stage are still talking about racism in the system, so we've seen some very vivid stories being told recently around the*

*Black Lives Matter movement about people saying ... “So ...dad was born and brought up here and so was I, but they [patients] still won't speak to the black doctor with the funny name”...’ (GP D- RCGP).*

GP E spoke of the lack of support and the ‘right’ opportunities

*So... they've just not been given the right opportunities and the right support along the way ...and actually, if you get into their world and understand what it's like to have come from a completely different culture into the NHS and be expected to be the same as everybody else, it's no wonder there's a differential in achievement and never mind the whole entrenched you know, racism and hideous bullying and stuff that undeniably goes on. But actually, even without that, they've got twice the challenge, they're starting with a handicap if you like’ (GP E- PHP).*

There was a sense that there was not a level playing field and that doctors from overseas were judged by different standards and were afraid to speak up. GP C perceived that there were parallels with female doctors but that the situation was worse for IMGs because of the potential language barrier and fears about saying the wrong thing or being ‘*judged by different standards*’ (GP C GPC) to non-IMGs:

GP D (RCGP) spoke of ‘*systematic bias*’ in relation to IMGs, with other GPs in the practice not advocating on their behalf if there was an issue: ‘*colleagues don't speak up for them*’ (GP D)

Whilst lack of trust in the wider system was echoed by GP B:

*‘I heard from BAME colleagues that they don't trust the systems for speaking up, that they see the systems as stacked against them. So whereas if somebody does trust it, they might raise a low-level concern, it'll be treated as a low-level concern, it'll get addressed. What I heard from that is often things are terrible before somebody feels safe to raise it. Or if you, if you believe that the whole system is against you and you raise it, then I think there will be a fear that you're the one that's persecuted for what you've said, rather than it be addressed. So I'm sure there are cultural factors there’ (GP B- HEE).*

GP B spoke of the '*many guises*' of systemic racism and how experiencing it in practice from both patients and colleagues, inevitably took its toll on IMGs: '*there's the weathering effect of the day-to-day racism*' (GP B HEE).

GP E summarised that there is a sense of futility in the IMGs about trying to challenge these systemic influences

*'I think the longer anybody lives anywhere, the more adapted they become but I don't think the unsavoury bits go away, so the racism, the sexism, the things that, you know, there's no doubt that female BAME doctors are having a rough ride. There's you know, differential attainment in terms of that glass ceiling thing for leadership positions or senior positions and it's a sort of having to justify everything twice, you have to be better than everybody else to get through that. So yeah I think some of it does persist and probably the, that cohort would divide themselves subconsciously into probably two camps; those who just knuckle down and just get on with the job and try not to worry about the bigger picture and those who are in the minority who will step forward and speak up'* (GP E- PHP).

#### **6.5.6.6 What it means to be a doctor**

As well as individual responses to stress, GP C spoke of attitudinal problems within the profession as a whole. This had been ingrained from an early stage of medical training, leading to an acceptance of poor working practices and conditions. They acknowledged that these attitudes would be unacceptable for a patient. This was perhaps evidenced by an interviewee in the first phase, when speaking of a colleague with severe illness with blunted emotion.

*'It is appalling .... and it's bad because we're supposed to be a caring profession and if a patient came ...and told you that you'd be like, 'What?' but somehow we accept things that, and I think that's across medicine, it's not just in GP, it's across medicine, we, we accept things that we wouldn't for our patients which is quite interesting'* (GP C- GPC).

*'I remember, ... when I was a medical student, we had lectures from eight till six without a break one day. Someone pointed out that we needed to have some lunch ...you know we're expected to be there from when we're a*

*student all the time. .... you feel that you are letting people down because you know that it puts a strain on them and whether this is because in the workforce we don't have laxity to accommodate sickness. So if we're already over-stretched and you have someone off sick, .... it's really quite stressful and then you get stressed about the impact on your colleagues because if people are off sick that also impacts on colleagues as well.'* (GP C- GPC).

The career structure for GPs was felt to be complex and lacking in the certainty seen in some other branches of medicine. This was described by GP D:

*'I think the one thing is that a GP career pathway is very individualised, so every time you take a step you have to negotiate it for yourself ...there's none of the structural certainty that exists in some of the other pathways, and obviously any individual in medicine you know, you're still up against competition and you have to make choices, but I think the complexity of the options in general practice is quite demanding'* (GP D- RCGP).

Alongside the expectation of working long hours was a perception of the need to manage whatever was presented. GP B described this illusion of invincibility and attributed it to deficiencies in the training system for doctors. This comment is apposite, given that the interviewee had a professional responsibility for postgraduate education:

*'I wonder if it's because we are trained to believe that we are superhuman and therefore if we're not coping this must be a weakness and therefore, we must try and switch it off and not share it with anybody else. I think when I went into medicine, the predominant coping strategy was black humour, but that has, for good reason, ceased'* (GP B- HEE).

GP D spoke of the lack of insight in colleagues regarding the emotional toll of caring:

*'...denial or presenteeism you know, "Life is tough, it's always been tough, but I'm a doctor and I can cope with all that" ....so I think some of it is how we're conditioned to cope with the more emotionally challenging side of our jobs. And therefore, we probably do have a sort of higher threshold for realising when the going's getting tough'* (GP D- RCGP).

Perhaps some of this presenteeism came from a (misplaced) sense of duty and responsibility to colleagues, as GP C said:

*'there is still a stigma attached to it so saying, "I can't do it" there's a guilt, you don't want to let colleagues down if you go off, particularly in general practice if you've got a clinic on or you're carrying you know that and if then you're off sick, then that goes on to burden your colleagues' (GP C- GPC).*

This sense of responsibility to fellow team members had been noted particularly during the COVID-19 pandemic, with a sense of the profession pulling together and individuals not wanting to be found wanting by colleagues. GP C summarised the dichotomy between supporting colleagues alongside a personal lack of control:

*'I know over COVID people just did not want to get ill because they didn't want to let their colleagues down and it's quite a stressful time I think in general practice, in terms of gaps, so people just are really heightened and aware of that .....over COVID a lot of us are thinking on Sunday night, we dread going in' (GP C- GPC).*

Not all of the comments about being a doctor were negative. GP E identified that for some, caring for the sick during the COVID-19 pandemic had confirmed their vocation and was perceived as fulfilling their *raison d'être* as a physician:

*[A colleague] who was off sick at the beginning of the pandemic and went back to work having had a prolonged sickness absence, in the thick of it and is loving working hard, so absolutely like, "This is what I trained to do, this is my, this is my territory." So, there are some people who have thrived with the challenges' (GP E- PHP).*

The impact of being a doctor upon an individual's humanity was described by GP D, and although this was described in relation to COVID-19, it highlighted how different GPs' experiences were from those of the general population:

*'seeing people, both colleagues and patients go and, go and die, .... So I think it's cast a very stressful black shadow across our work and our personal lives and then on top of that, there's been the whole demand of*

*having to run the practice differently and you know, respond to different demands. .... as things go on and don't continue to normalise, I think we're also seeing the stresses' (GP D- RCGP).*

For GP B, there had been personal thoughts about the impact of being a doctor with an existential reflection, including a reappraisal of the balance between work and home:

*'...because of my underlying health condition and not knowing how badly COVID would affect that at the time, I sat down for four hours and wrote a long document in the event of my death .....and it made me probably realise what I hear a lot of colleagues realising at retirement, which is that they've spent too long at work and not enough time with their family and friends' (GP B- HEE).*

#### **6.5.6.7 Ill-health in doctors**

For GP E, there was a concern that a protective carapace might block the recognition of mental illness:

*'...doctors aren't allowed to get sick, it's, it's a no-no, there's stigma, there's pressure from colleagues and there's the self-imposed perfectionist trait that, "I'm meant to cope because I've trained to deal with everything and so I'm meant to just deal with that as well." I think there's a massive kind of blindness or lack of insight amongst professionals about their own mental health ...it's kind of a reluctance to see it in themselves and ...sadly still people who are very fearful of the ramifications of declaring a problem, you know, the people who are genuinely frightened that [name] will refer them to the GMC ...or that their colleagues will judge them, which sadly sometimes they do. So, you know then the stigma is sometimes reinforced by poor behaviour. But there's a pride, there's a stubbornness ...and we've been dehumanised, we've been made to think patients first and us last and it should be the other way round' (GP E- PHP).*

The stigmatisation of mental health problems and a fear of punitive actions from the system was also mentioned by GP D:

*'If I go off sick, if I admit to feeling depressed, what's going to happen? What's going to happen with the GMC? What's going to happen to my practice? What will people think of me? So, it's the fear of the consequences of mental health problems, whereas if I went skiing and I broke my leg, everybody would say, "Oh poor old you" so, I think it's also because mental health problems are stigmatised and doctors particularly worry about investigations into performance if they go down that road' (GP D-RCGP).*

However, GP E identified that there was a growing recognition that it was becoming more acceptable to talk about personal mental illness:

*'...It's very interesting to see an increasing number of medics owning their own mental health challenges and using the right, you know, using those words and saying, "Oh yeah I'm a chronic depressive" or "I'm on pills" in almost a sort of throw away conversational way so not, "Wow, I'm a doctor and I've had a mental health problem" sensational article, but just in normal conversation or in Twitter dialogues saying, "Yeah, you know, I'm on antidepressants, that's, you know, they work" yeah in amongst other subject matter, and I think that's a healthy thing, because it's a treatable condition' (GP E-PHP).*

As with other themes, the impact of COVID-19 was woven through the discussions. There was a sense of helplessness in the aftermath of the first wave of COVID-19 and a concern that there were unrecognised mental health problems within this, which GP E described:

*'but there's an, an exhaustion, a fatigue, a weariness, a frustration and an irritation and anger that we did all of that ...and I think that there's a very disaffected profession and I think there are a significant proportion who are probably unwell to a greater or lesser extent but don't yet know it and like any trauma response, many of them will pull through just with time alone and you know things will settle, but I think there will be people who will fall over and*



*come apart at the seams over the next six to 12 months. You know, I think we're going to see PTSD and long-term problems'* (GP E- PHP).

## **6.6 Summary of findings**

This phase of the study aimed to explore GP stakeholders' reflections of the findings of the initial exploratory interview and subsequent questionnaire survey. The data have been presented in relation to the key themes identified in the framework analysis. These stakeholder interviews sought to explore the expert informants' interpretations and analyses of the findings, as well as their thoughts about possible underlying causal mechanisms.

The stakeholders interviewed were familiar with recent policy changes but expressed frustrations with how these were enacted. Particular challenges were noted in the lack of sensitivity to local contexts, as well as in communicating change at the grassroots level. Although there had been central investment, it was perceived by respondents that there were difficulties in ensuring that this funding was available on the front line. Effective implementation necessitates alignment of political, financial and organisational factors, which is difficult to achieve in a behemoth of an organisation such as the NHS. These were seen to be systemic factors within the wider NHS.

The stakeholders described how there was often insufficient time for effective implementation, combined with inadequate staffing on the ground. There was a sense of suspicion of the management consultant approach. This resonates with the initial phase where GPs spoke of the challenges of keeping up to date and frequent changes which they found frustrating. These are perhaps symptoms of the mutual mistrust between the profession and NHS leadership, which Baird (2018) suggests needs to be replaced with a collaborative partnership for effective change to take place.

Alongside this were some of the perverse impacts of policies which had been implemented. These included doctors retiring early due to changes in the pension regulations. Developing the practice team to include allied health professionals, had the potential to increase the complexity and intensity of work, if not associated with other adjustments to the working day. This concurred with interviewees in the initial

phase who spoke of the increasing challenge of their own work as straightforward consultations were dealt with by other team members. In this phase, there was less consideration of the day-to-day content of the role as a GP than in the previous phases.

Not unsurprisingly, there was discussion in both interview phases about the adverse consequences of high workload and workforce shortages. The negative impact of job demands and control were considered, and particularly when these conflicted with the doctor's professional autonomy as a possible explanation for the findings of the questionnaire study.

In considering societal and professional expectations of General Practice, this phase highlighted power hierarchies within the system. At the level of the individual GP, this related to contractual arrangements as a salaried doctor or locum. At a wider level, there was discussion of the impacts of policy upon the individual doctor caring for a patient. This latter aspect had been identified in the first phase interviews where doctors spoke of being constrained by guidelines and local policies.

Alongside this were comments about adherence to group norms, conforming to expectations about being a doctor. In some cases, these expectations appeared to have been set through role modelling at medical school. Throughout, there was a sense of a collective commitment and responsibility to the peer group of doctors which was articulated in both sets of interviews. This was a two-way interaction, with support both to and from colleagues being valued.

In this final phase, the stakeholders reflected upon what it meant to be a doctor. There was a sense of the need to be superhuman and a hero, not admitting to failure. This final phase of interviews was scheduled towards the end of the first phase of the COVID-19 pandemic, which had perhaps served to perpetuate these preconceptions. Underpinning this, stakeholders spoke of the perfectionism and self-critical attitudes of doctors, with a reluctance to admit either illness or vulnerability.

In relation to the impacts upon individual GPs, although it was acknowledged that there may be differences which related to personality and coping mechanisms, there was discussion about how some of the differences (between demographic groups noted in the questionnaire phase) might be explained. These latter interviews

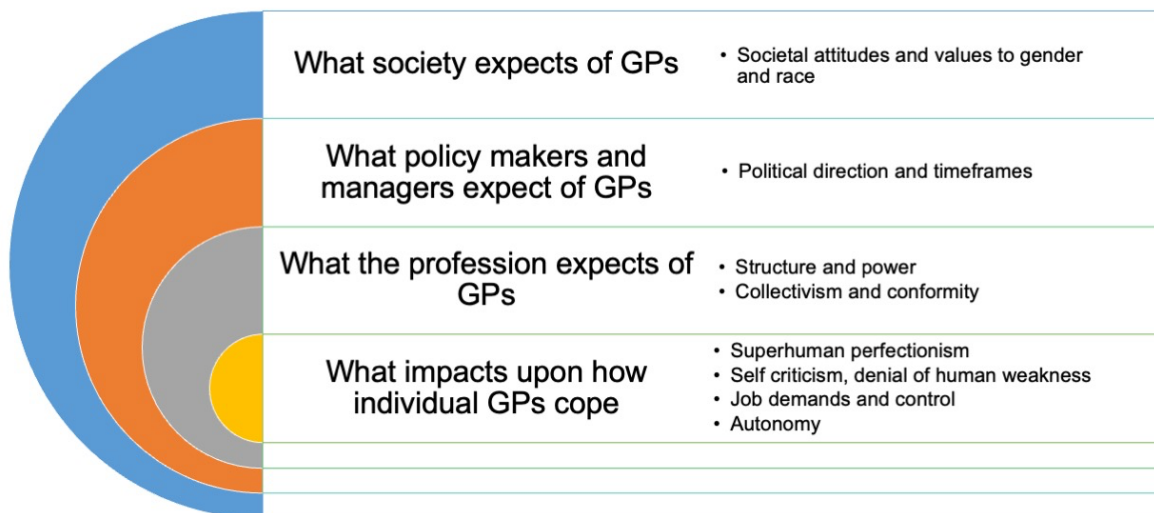
explored societal expectations of gender, which included perceptions about how part-time working was valued, and other perceived responsibilities. There were similar discussions about race, racism and acculturation in relation to patients and the profession. Alongside this, were considerations of the impact of age, acknowledging that aspirations may differ between generations.

## **6.7 Conceptual framework**

From a design perspective, this phase sought to identify and elaborate on structures and powers that may have interacted to generate the explicated events and to consider possible mechanisms. A conceptual framework of the interaction between the key themes that emerged during the analysis of the data is presented in Figure 19. This development of the framework considers the stratified, laminated open system in which GPs operate.

This differentiates between the expectations of the GP workforce from the perspective of the compact with society, which underpins the directions set by policy makers. It is apparent too that the medical profession and training have engrained a particular set of expectations of what it means to be part of that profession. At the heart of this are the GPs themselves, and their individual responses to the challenges of the role.

Figure 19: A conceptual framework of the relationship between the themes emerging from the GP stakeholder interviews.



## 6.8 Chapter summary

The third phase of this study has explored stakeholders' perceptions about how GPs perceive and manage the stresses of their professional role. It has begun to consider some of the underlying mechanisms and structures which may underpin these. This emergent theory will be further refined and consolidated in the discussion in the following chapter.

## 7 Chapter Seven: Discussion

### 7.1 Introduction

The overarching aim of this research was to explore the working lives of GPs from a critical realist perspective, considering:

- The current impacts upon the GP workforce
- Factors which made work difficult for individual GPs
- Workforce factors that exacerbated demands
- The support structures and mechanisms which were available to GPs
- Barriers and enablers to workforce well being in the working environment.

This was a mixed methods study with three sequential phases of data collection. The initial exploratory qualitative phase considered how individual GPs perceived the demands of their role, the support mechanisms in the workplace and how they managed the demands.

The main findings of the initial phase were that individual GPs were feeling pressurised by work. They perceived that workload, complexity and contractual changes were driving this pressure, describing their uncertainties and lack of autonomy. Support mechanisms were identified both within the practice and their families.

The second phase sought to examine the predictors of stress and burnout in GPs. Using a structured questionnaire, relationships were examined between the personal characteristics of GPs (including features of their job roles), and measured variables of coping, perceived stress, moral distress, burnout, and morale.

Findings indicated that there were high levels of psychological distress amongst the GPs. As anticipated (from the literature), these were generally higher in women and younger GPs. Unexpectedly, there was no relationship between psychological distress and personal caring responsibilities. There were significant associations between measures of psychological distress with perceptions of poor social support and difficulty maintaining a balance between home and work.

The lowest levels of distress were seen in medium-sized practices. In terms of workplace characteristics, there was a consistent pattern of association between numbers of GP vacancies and psychological distress. As expected, those who perceived that they had low control and high demand jobs had higher levels of distress.

In the third phase of the study, the findings of the first two phases were explored at a strategic level in a series of qualitative interviews with a range of (medical) stakeholders, seeking to identify possible explanatory mechanisms. Of note, this phase was conducted during the COVID-19 pandemic, which had led to rapid and significant change in the organisation and delivery of primary care. The stakeholders described their perceptions of the challenges of implementing policy changes, as well as the consequences of both high workload and workforce shortages. They highlighted power inequalities in the system operating at the level of the individual doctor, as well as within the practice organisation and wider NHS. The study identified inequalities concerning race, sex, and professional role. This phase articulated issues pertaining to medical identity and 'what it means to be a doctor'.

As a mixed methods study, there needs to be purposeful integration of the findings in analysis and interpretation of the data. This chapter considers the integration of the findings from the three phases of the study through a critical realist lens and presents an overarching explanatory framework.

Recognising that there are separate but interconnected strata in the complex open system of General Practice, the findings are presented in four main sections, representing the levels of a '*laminated system*' (Alderson, 2021). The first section considers findings at the individual GP level, whilst the second discusses findings at the social level, as well as the impacts of personal and professional relationships. The third section considers the system level (both the policy context and the medical profession), and the final section covers the wider societal impacts upon GPs.

The strengths and limitations of this study, as well as the implications for future practice and research, will be presented in the final chapter.

## **7.2 Individual level**

### **7.2.1 Stress and burnout**

Empirical observations from participating GPs in the initial phase of the study identified that there was a mismatch between the reality of life as a GP and individual expectations. Respondents were experiencing significant distress, expressed verbally during the interviews, and confirmed in measured responses to standard instruments in the questionnaire phase. Broadly, the sources of stress were similar to those described in other studies, such as the National GP Worklife Survey (Walker *et al.*, 2020).

The questionnaire phase of the study identified that there were demographic differences in the patterns of psychological distress. These were generally higher in women and younger doctors and are described fully in Section 5.8.1. From a theoretical perspective, it is helpful to consider possible underpinning mechanisms.

#### **7.2.1.1 Allostatic load**

At an individual level, respondents in the first phase described their usual working day, including comments about the relentless nature of their work. They spoke of the need to multi-task, of decision-making density and of long days with no time for breaks. These represented repeated stressors over the course of a day. One of the initial phase interviewees, used the analogy of a '*lobster boiling in the pot*', the notion of normalising the abnormal in terms of these stressors. Another spoke of how delegation of straightforward tasks to other team members allowed no time for light relief.

The literature review considered the concept of allostatic load referring to the cumulative physiological response to stress (McEwen and Stellar, 1993) (see Section 2.2.1). This model explains circumstances in which biological systems, designed to protect the body in response to stress, may become harmful. Where the body experiences repeated stressors, there may be a prolonged stress response or lack of adaptation. The example described above fits the description of multiple hits with no time for recovery and a prolonged response.

### **7.2.1.2 Cognitive appraisal of stress**

It is salient to consider the language used by participants in describing their work. In the first phase of the study, there was an appraisal of helplessness and an inability to cope, expressed in the use of metaphors such as *'treading water'* and *'being stretched thinly'*. Launer (2022) describes how the use of metaphor mirrors the thoughts which individuals have about their situation. Such phrases suggest that work was perceived negatively by GPs, and as a threat with limited ability to cope.

The questionnaire phase of the study included an assessment of coping strategies. Notably, there was a significant association between behavioural disengagement and negative outcome measures (although, given that this was a cross-sectional survey, it was not possible to determine the direction of this effect).

These findings are consistent with Lazarus and Folkman's (1984) Transactional Model in which the initial cognitive appraisal of the stressor and the secondary appraisal of ability to cope will determine the response.

In the questionnaire study, age was negatively correlated with perceived stress, as well as personal and client burnout. One of the stakeholders suggested that this might be related to an older doctor having a better armamentarium for problem solving. Considered from this stance, it may be that fewer events were perceived as stressors. An alternative suggestion (from the same stakeholder) was that those continuing to work were a self-selected group which excluded those who had left the workforce.

### **7.2.1.3 Job Demands and Control**

An alternative perspective on work-related stress is to consider the interactions in workplace factors which might cause stress for individuals. Using the HSE management standards to measure job demands and control, the results of the questionnaire phase found that those who perceived their jobs to have a combination of high demands and low levels of control, had higher levels of psychological distress. This is consistent with Karasek's Job Demand-Control model (1979).



The range of job demands was clearly articulated in the first phase interviews, as described in Chapter 4. It was apparent that GPs considered these demands as multifaceted in origin. The stakeholders reflected that perceived lack of control might be related to the individual impacts of external regulation, which was in accord with comments in the first phase interviews.

Additionally, in the stakeholder interviews, it was suggested that the observed lack of control may have been compounded by poor communication of policy changes and their intent with those on the front line. This is in accord with previously published findings (McKinlay and Marceau, 2011; McGlone and Chenoweth, 2001).

There is likely to be significant overlap between job demands and the factors causing allostatic load at a physiological level. It is anticipated to be compounded by factors discussed in the later policy section of this chapter, where the impacts upon professional autonomy are considered.

McGlone and Chenoweth (2001) noted the important contribution of job control to job satisfaction for GPs working in Australia. The factors ranked as having a negative impact upon job control resonated with comments made by interviewees in this study (such as accessing healthcare resources, government decisions, negative media coverage and increased litigation).

#### **7.2.1.4 Conservation of resources**

A consistent finding in both interview phases was the sentiment that GPs are at their limit of personal capacity for work. This was recognised as *'trying to do too much'*. One of the stakeholders articulated this using the metaphor of an *'ovary reaching an empathetic menopause'*.

One of the criticisms of the Job Demands-Control model is that it is reductive and does not include other factors which may affect the relationship between job characteristics and well-being. In this instance, Hobfoll's (2001) Conservation of Resources theory resonates with the findings.

Hobfoll (2001) suggests that physician resilience is the ability to invest personal resources in a way that initiates 'positive resource spirals', despite stressful working conditions. As an exception in the initial interviews, one GP articulated

several of these features, speaking positively about how their part-time work hours (with a short commute) were limited in relation to those of their spouse and of maintaining boundaries on workload. This perhaps exemplifies too the role of cognitive framing, discussed in relation to cognitive appraisal of threats in Section 7.2.1.2.

The concept of conservation of resources underpins the Work-Home Resources model proposed by Ten Brummelhuis and Bakker (2012), which suggests that personal resources (such as time, energy, and mood) link between domains of life. In this model, demands in one domain may deplete personal resources in the other. Resources may be considered to include personal time, which lies within the agency of the individual. It is plausible to consider that this is at least a partial explanation for the association between outcomes of psychological distress in the questionnaire study and home-work balance. This is in accord with the conclusions of Byrne *et al.* (2020) who considers the inability to control time (in the work context) as a factor which has influenced decisions to leave work in Ireland.

### **7.2.2 Impacts of caring for others**

The initial interviews identified that there was a complex relationship between GPs and their patients. On the one hand, GPs valued the professional relationship with individuals, yet this was juxtaposed with a perception that as a body, patients were presenting increasing and unreasonable demands. GPs described the emotional impacts of caring for patients, but that there was still enjoyment in this work. Intertwined with this was the notion that there were constraints preventing GPs from doing the right thing morally.

The concept of moral distress was measured in the questionnaire phase, which identified that there were higher levels of moral distress in this cohort (than in similar published studies). Those qualifying overseas had higher levels of moral distress than UK graduates.

Exploring this further, the stakeholders identified that there were emotional burdens in caring for others as well as the moral impacts, which could be variously termed as moral distress or moral injury. These are related but separate constructs which will be explored further in the following two sections.

Emotional labour is a term which relates to the management of emotions during interactions to achieve professional goals and conform to work-role requirements (Hochschild, 1979).

Moral distress is defined as the psychological unease when professionals identify an ethically correct action to take but are constrained in their ability to undertake that action (Jameton, 1984). Moral injury arises when sustained moral distress leads to impaired function or longer-term psychological harm (Greenberg, 2020). These concepts will be explored further in the following two sections.

### **7.2.2.1 Emotional labour**

The challenges which GPs faced in managing their emotions in the workplace were apparent in the initial interviews. Respondents described being tired and irritable, as well as emotionally blunted in response to a colleague's illness. The stakeholders spoke of the lack of insight in the profession about the emotional burdens of caring.

These findings are consistent with key themes identified in a review of emotional labour in the healthcare setting by Riley and Weiss (2016). They define emotional labour as the act or skill involved in the caring role, in recognising the emotions of others and in managing our own. In their review, studies relating to the nursing profession predominated. They comment that in prevailing masculine hegemonic cultures, individuals are socialised to suppress and control their emotions. They describe the challenges of the intrapersonal aspects of emotional labour and how healthcare professionals manage their own emotions in the workplace, recognising that there is a gap in the literature pertaining to doctors in this regard.

Likewise, a review by Załuski and Makara-Studzińska (2018) of emotional labour in the medical professions, considered that this was not widely acknowledged as an issue for doctors. Consequently, the necessary educational support and organisational changes are missing.

### 7.2.2.2 Moral impacts

In the initial interviews, there were several examples of the frustrations of GPs feeling constrained and unable to do what they felt their professional judgement dictated to be the correct course of action. This was related to workload and capacity constraints, as well as to external factors, and was borne out in the findings of the second phase of the study where moral distress was associated with both behavioural disengagement and workload factors (such as the number of sessions worked and GP vacancies).

This finding is unsurprising since the constraints of covering far larger numbers of patients exposes GPs to a greater number of challenging decisions, as well as the limits of their own resources to address these (and they have more limited time to engage with these dilemmas).

The term moral injury was not specifically mentioned by participants in the initial interviews but was a feature of the discussions with stakeholders during the latter part of 2020.

It is pertinent that this second series of interviews took place towards the end of the first wave of the COVID-19 pandemic. At this stage, there was perhaps more awareness of the need to care for individual healthcare professionals, and of the impacts of the pandemic upon them. One of the stakeholders spoke of moral injury in military terms, likening the failure to address the systemic factors (such as lack of resources), to sending a soldier into battle with no armour (relating to the difficulties in obtaining protective equipment during the pandemic).

Whilst witnessing the suffering of others can lead to distress, it is not necessarily moral distress. This arises when there is a sustained gap between what professional judgement dictates and what healthcare systems permit. As such, it is associated with powerlessness, and the impossibility of altering the situation (Sheather and Fidler, 2021). Sheather and Fidler (2021) reflect that *'the slow tightening of the garotte of underfunding has created ideal conditions for moral distress, sapping the joy from the doctor-patient relationship, depleting the rewards of clinical medicine, swapping pleasure for grinding distress'*. This quote summarises the views of interview respondents, as well as their sense of powerlessness.

Stone (2020), writing in the context of the COVID-19 pandemic, considers that GPs have a self-care deficit but that the major problem is moral distress. This occurs as GPs are aware of things critical to the well being of their patients, but which they as individuals are unable to provide. Pouring all of their personal resources into patient care is an insufficient substitute for systemic inadequacies. Compassion cannot compensate for health service gaps and as a consequence, GPs burn out.

Similarly in America, Frey (2021) describes this moral distress in terms of cognitive dissonance, citing the mismatch between the gratitude of communities to healthcare professionals, alongside behaviour that disregarded the safety of those individuals during the recent pandemic.

### **7.3 Social level**

Respondents to each phase of this study had a number of overlapping roles and identities.

Professionally, they had a duty of care for individual patients, providing this care in the context of English General Practice. From an employment perspective, they were either partners (with an additional responsibility for the effective operation of the practice), salaried GPs or locums. Tensions between the provision of care for individual patients, alongside guidance on practice, were evident in the interview studies. These were exemplified by comments about the requirements to change medication to alternative brands (as a cost-saving exercise).

It was evident that support from colleagues in the primary care team was an important factor ameliorating these tensions. Quantitative data highlighted the negative impacts of workforce shortages, but also the protective effects of working in a (medium-sized) team. The stakeholders articulated how the workplace might provide support, but suggested reasons that this might differ between different practices.

At an individual level, the situation for each person was more complex, as they held roles embedded in social structures such as families, with roles of parent, child and partner. These were described in the first and third phases of the study, but personal caring responsibilities did not appear to be significant factors in the questionnaire phase. However, there were significant associations between

challenges in maintaining home-work balance and measures of psychological distress.

### **7.3.1 Organisational impacts**

#### **7.3.1.1 Workload and workforce**

Each phase of this study identified that workload was a major stressor in the workplace. In the first phase, respondents described the sources of this stress in relation to patient needs, explaining how these had increased in both quantity and complexity. They described the length and density of the working day, as well as the need to support practice colleagues. Additionally, GPs spoke of external pressures in terms of both clinical guidance and contractual requirements. Broadly, sources of work-related stress were similar to those seen in an interview study of GPs (Fisher *et al.*, 2017) and are consistent with expectations.

- Practice structure

In the questionnaire phase, the perceptions of workload were assessed using the HSE Management Standards. Notably, those who were GP partners had a significantly higher level of job demand and lower levels of job control than those who were working as GP locums.

At a structural level within practices, the lowest levels of psychological distress were seen in medium-sized practices. Those who were GP trainers had lower scores for burnout. However, the most consistent association with all the outcome measures of distress was the number of GP vacancies. These findings are broadly in accord with expectations.

For the stakeholders, these findings were unsurprising since those in smaller practices were likely to feel more vulnerable and those in larger practices to consider that they had less autonomy.

- Measures to manage workload

In the initial interviews, GPs discussed measures which they had taken in an attempt to ameliorate these stresses, such as changing administrative systems.

Although NHS England has promoted a series of High Impact Actions to release time for patient care, uptake of these was mixed. The questionnaire phase

identified that most implemented actions involved developing the skill mix of the practice team and signposting patients. There was no association between outcome measures of psychological distress and uptake of these actions. This was contrary to the expectation that these measures would have had a positive impact upon work-related stress.

Other strategies which had been implemented included delegation of tasks and extending the roles of other staff in the team, as well as personal strategies to improve the efficiency of the working day. Notably, there was limited mention of working at scale in PCNs or Federations to manage workload.

The context of the stakeholder interviews, after the first phase of the COVID-19 pandemic, had changed significantly. For them, new models of working related to remote working, as well as organisational changes in relation to infection control measures. However, stakeholders recognised that GPs found their workload intensive. They considered that the GP workforce response to COVID-19 had been agile, but that the impacts of this upon the GP workload were mixed. For some, the increased flexibility was welcomed, whilst for others the reduction in social contact (with patients and colleagues) was problematic.

The stakeholders recognised that delegation of circumscribed patient problems to other clinicians paradoxically increased pressure upon GPs. This could be attributed to the increasing complexity of the remaining patients on the GP's list, whilst recognising that the GP still held vicarious responsibility for the delegated cases. This is in accord with the findings of a recent National Institute for Health and Care Research study on the impact of skill mix in primary care, which described how GPs' time has been taken up with tasks such as answering queries and supervising, and that this delegation has not so far had the desired impact upon GP workload and satisfaction (McDermott *et al.*, 2022).

Regarding the limited impact of at-scale working, the stakeholders commented that there had been limited time to build working relationships and that they were unconvinced about the concept of throwing people together in larger organisations and expecting this to work.

### **7.3.1.2 Role conflict, role ambiguity and organisational climate**

It was apparent that there were tensions inherent in the GP's working day. From a theoretical perspective, the concepts of role conflict and ambiguity may offer a possible explanation of the findings.

Role ambiguity describes a lack of clarity, certainty, or predictability in a job. Role conflict considers the competing and incompatible demands placed on an employee (McCormack and Cotter, 2013). Both of these have been linked to burnout in healthcare professionals (Tunc and Kutanis, 2009; Rovithis *et al.*, 2017), as well as in other professional groups.

A meta-analysis by Schmidt *et al.* (2014) concluded that both role conflict and role ambiguity were distinct concepts, each correlated to depression. In their conclusions they noted that as workplaces become increasingly unstable, it is becoming more important to clarify roles in the workplace, as well as tasks, responsibilities, and goals.

Schmidt *et al.*'s (2014) comments about role definition resonate with those of first phase interviewees who spoke of the competing demands as they managed a practice and their professional role with patients. Additionally, individuals were undertaking supervision of other healthcare professionals and there was a lack of clarity about the boundaries between these roles, meaning that the GP was still taking ultimate responsibility.

In a study of university academics in the UK exploring perceptions of organisational climate, role ambiguity, role conflict and job satisfaction, Schulz (2013) showed that organisational climates which allowed for more individual flexibility, were associated with greater job satisfaction and less job stress. These climates had lower levels of role conflict and ambiguity than those which were more driven by goals and targets.

In this study, the respondents who were working in medium-sized practices described features of a supportive and flexible organisational climate, working with colleagues and problem-solving with patients in a constructive manner. Structures related to the external bureaucratic arrangements of the wider NHS, with the imposition of central control and limitation of individual flexibility, could be considered



to create a less facilitative climate and were described in negative terms. This applied equally to more local reconfiguration in PCNs.

Studies in primary healthcare settings in America suggest that organisational culture and structure are important factors in predicting burnout (Dai *et al.*, 2020; Bodenheimer and Willard-Grace, 2016). Working in a tighter team structure with a strong team culture, was associated with less clinician exhaustion (using the Maslach Emotional Exhaustion Scale (Willard-Grace *et al.*, 2014). Team culture and structure may be factors which underpin the positive association between working in a medium-sized practice and better psychological outcomes.

### **7.3.1.3 Work-life balance**

In the first phase of the study, respondents spoke of the effect of their work upon their relationship with family members. For the majority, work spilt over into home life with long hours at work constraining time at home. Despite this, family members were identified as an important part of the support structure for individuals.

Personal caring responsibilities (for dependents) were mentioned in the initial interviews. However, in the questionnaire phase, a large proportion reported caring responsibilities, but these were not specifically associated with any of the outcome measures. The stakeholders postulated that potentially those individuals had already adjusted their job plan to mitigate for these responsibilities. Additionally in this phase of the study, stakeholders described the negative impacts of working away from family support structures. This will be discussed further in Section 7.5.2 of this chapter.

Work-life conflict was discussed in relation to the literature in Section 2.2.3. In relation to the work of Carlson, Kacmar and Williams (2000), the initial interviewees were experiencing interference between home and work on the basis of time, strain and their behaviours. For example, one described being an '*absent parent*', whilst another described their stress spilling over into interactions with family members. The significant levels of support provided by family members may be regarded as replenishing personal resources, in accord with the Work-Home Resources model of Ten Brummelhuis and Bakker (2012). This is akin to the discussion in Section 7.2.1.4, relating to conservation of resources at the individual level.

#### **7.3.1.4 Professional support**

The initial phase of the study noted that GPs valued and appreciated the peer support from practice colleagues. This could be face-to-face contact or remote. There was an awareness of professional support mechanisms, which one of the interviewees had accessed. Unsurprisingly, given their professional roles, the stakeholders had a greater awareness and understanding of the range of support available. They recognised that there was a reluctance to access this help.

Locally constructed support structures within practices could be regarded as part of an assistance matrix for individuals. The preference for support from known networks may link to the organisational climate within a practice with established personal relationships. However, reliance on these relationships has risks which were illustrated by one of the initial interviews where a practice was coping with the serious illness of a GP at the same time as others were struggling to cope. In such situations there may be a conflict between self-preservation and the need for objective support of all team members.

### **7.4 System level**

Having considered the results of this study as they relate to individual GPs, working with colleagues in practices alongside their home lives, the next section will consider the findings in relation to the wider context of the NHS where this work is situated.

#### **7.4.1 Policy context**

The initial phase perceived that external policies and guidance were major causes of workplace stress for GPs. Within these, they identified the 2004 GP contract and guidance from both national and local organisations which GPs perceived as restricting their clinical freedom. More specifically, the respondents spoke of the sheer volume and complexity of clinical guidance.

In the stakeholder interviews, there was a sense of frustration and disempowerment in relation to the implementation of policy, and a perception that the model of change management did not support effective operation of policy. There were specific mentions of a lack of time (and of workforce) for implementation

of change, combined with the frustrations of a single NHS model which was not necessarily sensitive to local need. These respondents noted that methods of communicating policy and guidance changes to staff at the front line were ineffective.

It was apparent that the respondents in this study felt that their autonomy was constrained by the requirements of organisations, such as NHS England and their local CCGs. One of the stakeholders went so far as to suggest that the direction of some of these changes might threaten professional codes.

Mintzberg (1980) considers that organisations with a standardisation of skills, with the standards for these being set externally, could be classified as a professional bureaucracy. Such organisational structures are designed to maintain uniformity and control, yet their organisational climates are at odds with the flexible working environments of independent practices (Schulz, 2013), as discussed in Section 7.3.1.2).

One of the respondents in the initial interviews considered the negative impacts of changes in health care brought about by an approach more suited to the retail sector. This resonates with a further question posed by Hart (2006, pp. 137-8) about whether a commercial operating model is appropriate for health care. They describe the hugely complex biological and sociological uncertainties in health care decision making, with the need for clinical expertise. Dehumanising decision making, they argue, succeeds mainly in demoralising staff and stifling all but commercial initiatives.

#### **7.4.2 *Street-level bureaucracy***

Given this professional ambivalence and concerns about professional autonomy, it is perhaps unsurprising that evidence of these internal conflicts was apparent in respondents who had little ownership of the policy changes they were being asked to implement. This is considered in this section through the theoretical lens of street-level bureaucracy (SLB).

The concepts of SLB help to articulate the frustrations voiced by GPs in this study with policy directives and the impact upon relationships with individual patients. Respondents to the study were cognisant of the limited resources at their disposal, as well as the challenges of working within the NHS with services free at the point of

delivery. It appears that, to a degree, SLB is operating in contradiction to central policies mandating engagement with clinicians.

SLB is a theory that seeks to explain the ways in which public sector workers interact with the public and exercise their discretion, as they cannot do their job according to ideal conceptions because of the limitations of the work structure (Lipsky, 2010, p. xv). Lipsky (2010) describes how street-level bureaucrats '*often spend their work lives in corrupted worlds of service... they believe themselves to be doing the best they can under adverse circumstances, and they develop techniques to salvage service and decision-making values within the limits imposed upon them by the structure of their work*'. There is a conflict between the bureaucratic model of policy delivery with the elimination of discretion and professional autonomy which leads to a question about where power is located in the system (Hupe, Hill and Buffat, 2015). Lipsky (2010) argues that the individual actions of the front-line workers add up to individual agency, the decisions they enact and the devices they invent to cope with uncertainties and work-load pressures, effectively become the public policies they carry out.

SLB can be applied to the work of doctors working in the NHS. Professional autonomy in the care of individual patients constitutes discretion which is not subject to bureaucratic oversight. GPs are customarily faced with greater demand for services than they are able to meet, and as a consequence, they develop patterns of practice that limit demand, including narrowing their operational objectives to those that can be delivered within available resources and modifying patients' expectations. Harrison (2015) highlights that as the services are non-marketed there is no financial disincentive to demand either on the part of clients or of those who refer them to professionals. This was articulated by several of the initial interview respondents.

Several of the first phase respondents spoke of the introduction of the GP contract in 2004 and of the impact of QOF. They described the changing emphasis from patient care to the challenges of managing data and pathways. This description of the impacts of bureaucratisation of significant areas of clinical practice is in accord with Harrison's (2015) view that the introduction of QOF in the 2004 GP contract was an attempt to attenuate medical SLB.

In an editorial discussion, Cooper, Sornalingam and O'Donnell (2015) consider that the lens of SLB helps to develop an understanding of GPs' behaviours towards targets and guidelines. It was apparent in the findings of this study that GPs made pragmatic decisions and that respondents were concerned with implementing policy in ways which limited demands upon themselves and their services.

#### **7.4.3 Membership of the medical profession**

Having considered GPs work enacting NHS policy, this section will consider how being a member of the medical profession impacts upon well being.

The findings of the first phase of the study demonstrated the tensions inherent in GPs' day-to-day work. They spoke of the mismatch between their reality and expectation. Days were long with limited time for a break and refreshment. This negative impact upon the GPs as healthcare providers is paradoxical, given that the overarching purpose of the healthcare system is to improve health and well being.

At an individual level, there were comments about perfectionism and the perceived need to be superhuman. There was a deep-rooted sense that illness was unacceptable for GPs. This was voiced by several respondents who spoke of fears of the unknown consequences for their careers (and identities as doctors) if they admitted to being ill. Of those interviewed, only one felt that it was becoming more acceptable to speak of personal illness.

GPs considered that patients were less aware of the doctor as an individual and had a feeling that respect had gone. Within this however, they recognised that the profession had to acknowledge that they were at least in part responsible as they identified that relinquishing 24-hour care was a factor in the changed dynamic. Similarly, the changing workforce including many more part-time doctors, meant that longitudinal continuity was more difficult to achieve. Despite this, there was still an enjoyment in their role.

In the questionnaire phase, there was a significant association between psychological distress measures and behavioural disengagement as a coping trait. Respondents who perceived that they had low levels of job control and high job demands had poorer outcomes.

In the final phase, the stakeholders identified possible weaknesses in medical training. They felt that this had not only ingrained an acceptance of long days without breaks but also fostered an illusion of invincibility and the need to be superhuman. Medicine was recognised as a demanding and competitive career choice. This, they felt, led to a culture of presenteeism and a stigma associated with letting colleagues down.

Taken together, these findings may be explained by the social structures associated with being a member of the medical profession and the impacts which they have upon individual agency.

Training as a doctor involves acquisition not only of biomedical knowledge but also cultural knowledge about the profession of medicine. The processes of professional socialisation and development of a professional identity are recognised as important aspects of medical education. Indeed, professional identity is not static and develops over a lifetime as personal and professional circumstances change (Wilson *et al.*, 2013), requiring the integration of personal values, morals and attributes with the norms of the profession.

Professional identity represents a combination of how an individual is perceived by others and how they perceive themselves (Cruess, Cruess and Steinert, 2019). It is inextricably entwined and interacting with the primary personal identity (Monrouxe and Sweeney, 2013). Rees and Monrouxe (2018) highlight that a strong professional identity as a doctor can foster confidence, cultivate collaborative leadership and develop well being. Conversely, this can also lead to negative outcomes, particularly when there is dissonance between personal and professional identities.

In this study, there was a dissonance between GPs' own expectations of the role, and their perceptions of what patients expected. Similarly, there were mismatches between their personal and professional roles.

Gerada (2019; 2021) considers that there is a medical matrix holding together the shared education and communication of doctors. In this model, identity of the doctor is both individual (as the medical self) and collective (as part of the medical matrix). They argue that doctors are less confident of their roles in society as the self

constructed in the certainty of medical school does not fit the reality of the working world. The certainty of the external matrix has been eroded by repeated restructuring, with a loss of connections and safe spaces. This loss of certainty in identity is one factor that makes it more difficult for doctors to seek help for illness, and should be regarded as one of the 'actual' mechanisms underpinning how GPs think and behave.

One of the challenges of such a medical matrix is that it may constrain individual responses. In this study, it was apparent that many at the front line perceived that they had limited job control. Although several of the stakeholders described ways in which the workplace might accommodate individual needs flexibly without compromising practice functioning, it was apparent that such possibilities were not discerned so simply at the front line. It may be that analogous to the shame perceived in admitting ill health, doctors find it difficult to challenge the hegemony of the medical establishment and its traditions which laud long working hours.

#### **7.4.4 Power and hierarchy**

The concept of power was threaded through the interviews in both phases. Expressions of power differentials in the initial interviews were noted in relation to contractual changes and increasing regulation by external bodies. Simultaneously, increased societal and patient expectations were rebalancing the dynamic between patient and professional. These were expressed in the questionnaire study in terms of the job demands and lack of control in the GP role.

Power issues within the profession were explored further in the stakeholder interviews. The impact of policy changes and a lack of communication were seen as disempowering. At a practice level, stakeholders described issues related to hierarchy within the profession, practice size and autonomy, as well as the role of the GP in the wider healthcare system. Issues relating to gender, culture and race are considered further below.

The term 'power' encompasses a range of concepts about how power operates and may be used to describe contradictory terms. Critical realism uses separate terms for *Power1*, (a creative, supporting and fulfilling power) and *Power2* (a destructive, coercive and deceptive power) (Alderson, 2021, p. 56). For Lukes

(2004), *Power 2* may be considered in three ways: obvious, so potentially resisted; covert or hidden (so people may be unaware of the options open to them); and finally, internalised and self-enforced. Central to all of these is the notion that power is a socially situated concept.

In the context of this study, power was perceived from a negative perspective. Some of this was obvious in terms of the employment hierarchies within practices, and stakeholders identified the covert aspects of poor communication of policy changes. At the third internalised level, this study identified beliefs inculcated during medical training.

It is helpful to consider the extent to which these inculcated values are beneficial. Whilst acknowledging the external pressures upon doctors, and their perceived powerlessness, Launer (2013, p. 182) considers that doctors have failed to reflect upon the considerable power which they still have, both in relation to patients and in their working life. Launer (2013) is concerned with the mismatch between the ease with which GPs notice they are affected by other people's power and the difficulty they have in acknowledging their own power to make personal choices and influence the life of others. He concludes that 'there are many things doctors are legitimately unhappy about, but their professional lives should not become dominated or defined by a sense of being victims.

Reflecting on the context of this study, it was apparent that in the initial interviews, the professionals regarded patients differently at different points in time. They were variously 'part of the solution' in an idealised world with continuity of care and 'part of the problem' with their unreasonable expectations. In neither case was the perspective of the patient included. It may be that this reflects an assumption of professional privilege where the narrative is used to legitimise the professional stance.

Similarly, the position of GPs themselves varied, on the one hand serving on committees or training others in an attempt to improve the system, whilst at the same time struggling with workload in their clinical role.



## 7.5 Wider societal impacts

### 7.5.1 Gender

The questionnaire phase observed that female GPs had higher levels of perceived stress and burnout. This is in accord with findings in other studies of occupational stress and burnout (which are discussed in detail in Section 2.1.2).

It was apparent during the interview phases that a number of the respondents perceived there were differences in the expectations of male and female GPs, based upon societal norms. This was expressed both in terms of differing responsibilities at home and in the workplace. It should be recognised that one of the stakeholders highlighted that it is important that assumptions are not made about the aspirations of male GPs, as requests for instance, for flexible working may legitimately be made by them too. Equally, it should not be presumed that female GPs are always the ones to work part time, which may be a response to a societal norm or a lack of adequate childcare.

In the stakeholder interviews, there was a view that despite the notion of an equal society, reality did not match this. Stakeholders mentioned obvious measures such as the gender pay gap, but also spoke of wider biases in society.

This is consistent with the literature. For example, Dacre *et al.* (2020) reported that there was a gender pay gap of 33% between male and female GPs, and that when figures were adjusted for contracted hours, a gap of 15% remained. There was variation in gender pay gap across GP roles with a gap of 7.7% for partners, and salaried GPs, 22.3% (and close to zero for locums). In commenting upon these figures, Mahase (2020) noted that women tended to be younger, work part time and were less likely to be partners. The reasons for this may include demographic changes in the medical workforce but, notwithstanding, it appears that structural reasons perpetuate this inequality.

Considering wider factors, Halley *et al.* (2018) considered physician mothers' experiences of workplace discrimination. These experiences had psychological impacts, affecting their career choices and families. The authors identified three drivers for this discrimination: the cultural norms of women's roles in society, as well as the culture and structure of medicine. Similarly, Shiner *et al.* (2020) considered

factors affecting the resilience of family doctors. They too noted gendered expectations of the female's role in society and systemic barriers in relation to the lack of flexibility and unreasonable expectations in the workplace. They noted that it was rare for participants to describe overt gender discrimination, as cultural expectations of females were often internalised.

It is interesting in the context of this study to reflect upon Shiner's findings. Explicit mention of discrimination was not made by those on the front line in the initial interviews but was prominent in discussion with the stakeholders. There was a concern about the pervasive impact of broader cultural norms and the structure of the medical workplace, with gendered assumptions about workplace ambition and professional capability which have perhaps been internalised and accepted by GPs. This is paradoxical at a time when the proportion of women in the GP workforce is increasing.

From a critical realist perspective, the 'real domain' contains social structures, including these gendered societal expectations which, as in Shiner's work, are hidden, but influence behaviours in the actual and empirical domains.

### **7.5.2 Race**

Race was not specifically explored in the first two phases of the study. The questionnaire phase of the study found that those who had qualified outside of the UK (20%) had higher levels of moral distress and lower scores for job control and higher job demands.

Issues relating to systemic inequalities concerning race and racism were highlighted by stakeholder interviewees in the third phase of the study as an underpinning causal mechanism for the empirical findings. This related to the ways in which patients behaved towards doctors from different backgrounds as well as structural factors within the health service. The stakeholders described the need for doctors to develop an understanding of cultural differences, particularly in relation to hierarchies within the medical profession. Within General Practice training and recruitment there are structural factors which may mean that they need to move away from family and support networks. There was a sense in which doctors from other backgrounds may be judged by different standards.

These findings resonate with the literature. In a BMJ editorial, Adebowale and Rao (2020, p. 530) commented that ‘the UK is trying to make sense of societal upheavals ...with race, racism and power under close scrutiny’. They highlight that ethnic minority doctors are more likely to be referred to the GMC, more likely to have cases investigated, and may face harsher sanctions. Racism is identified as a structural problem in the NHS, with differences by ethnicity in pay, as well as in the likelihood of experiencing bullying and harassment in the workplace (Godlee, 2021).

West and Coia (2019) identified (from the 2018 NHS Staff Survey in England) that staff from a black and minority ethnic status were more likely to experience discrimination at work on the grounds of ethnicity in the preceding 12 months than those from white backgrounds, commenting that discrimination has dramatic influences on workplace stress and physical health.

As with issues related to gender, racism is pervasive throughout a medical career. For Woolf (2020), medical education is a social experience and learning depends upon interactions between students, their peers and teachers and this is patterned by ethnicity. Minority students experience less positive learning environments and may be less likely to be familiar with assessment structures and requirements. There are also fewer mentors from minority backgrounds. Within the training environment, doctors from ethnic minorities are more likely to be appointed to unpopular rotations, away from family support (West and Coia, 2019). This latter point was highlighted by two of the stakeholder interviewees.

Racial microaggressions are the daily commonplace, subtle behaviours and attitudes towards others that arise from conscious or unconscious bias. These can affect access to power, resources and opportunity, and contribute to the persistent disparities faces by marginalised groups among healthcare professionals (Ehie *et al.*, 2021). Geronimus *et al.* (2006) described ‘weathering’ as the cumulative impact of multiple stressors related to race, which may be considered as the allostatic load impacting adversely on the health of American Blacks. It would be reasonable to consider that these microaggressions have a similar impact on doctors working in England. During this study, racism was described particularly in relation to doctors working in communities with few patients from ethnic minority backgrounds.

## 7.6 Critical Realist Overview of the findings

The adoption of a critical realist approach in this study facilitates consideration of the underpinning real mechanisms which have generated the actual events and empirical observations.

In the empirical domain, experiences, and observations about working life include the measures of stress and distress amongst working GPs. This is underpinned by 'events and regularities', such as policy changes. Retroductive analysis has suggested generative mechanisms in the structures of society and the NHS.

Social reality exists in open systems which are structured through interconnected processes. General Practice may be regarded as an open system with converging and competing influences, which have been explored in the preceding sections of this chapter.

For Porpora (1998), social structures may be considered as constraining, enabling or motivating, according to the relationships between the actors within them. From a critical realist perspective, these structures are powerful relationships that exist in and through human connections. They precede and outlast the individual agents, who do not individually construct them but constantly reproduce, resist, and modify them through their interaction with structures.

In this study, the structures could be considered as those of the medical profession (such as the GMC, the BMA and the Royal Colleges), of the NHS (both centrally and locally), as well as GP practices. Archer (2003) identifies that agents draw on these structures for knowledge and choices, then inwardly consider these before making personal decisions about outward action. These actions draw upon the individual's personal values, which in this study, were articulated in the very real dilemmas experienced daily. It may underpin the actions displayed as 'street-level bureaucracy'.

Alongside structure and agency, Archer (1996) also emphasises the need to consider culture. Agents are the actors within the health service, whilst the structures are the material, political and economic systems, and the culture provides the ethos and beliefs (for example about what it means to be a doctor).

Critical realism considers the four planes of social being: bodies in relation to nature, interpersonal relations, larger social relations, and structures and finally, the inner human being in the mental-social embodied personality (Alderson, 2021). In this study, respondents spoke of their basic human needs (and how these were being met or not) regarding breaks and sustenance. They spoke of their relationships with and support from practice team colleagues. They also perceived themselves as impotent in the face of changes in the wider NHS systems, with a sense of powerlessness. Finally, they spoke of the inner conflicts they experienced as doctors, with comments about their lack of autonomy and empirical measures of burnout and distress.

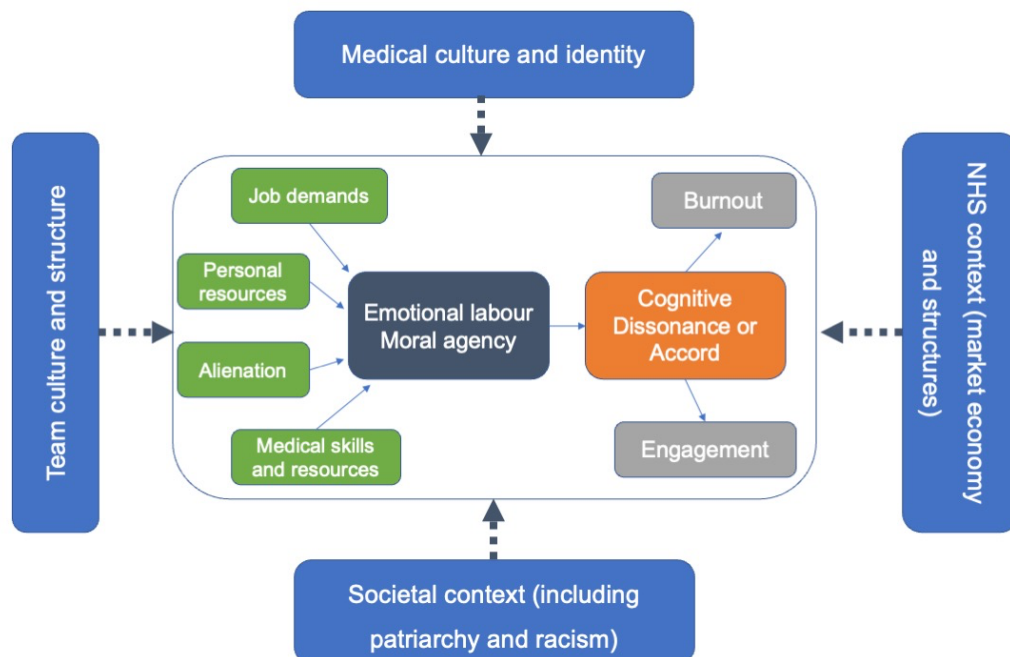
The laminated system of critical realism connects to every layer of human life, from the individual’s subconsciousness to macro structures. These strata are separate but interconnected in this complex open system. The layers in this study are summarised in Table 48.

A (final) version of the critical realist informed framework of the impacts upon GPs is presented considering that individual emotional responses are influenced by actual mechanisms in the workplace, and the generative mechanisms in wider society and medicine (Figure 20).

Table 48: Laminated system of General Practice

<b>Level</b>	<b>This study</b>
<b>Geo-historical</b>	Patriarchy, Racism
<b>Macro</b>	UK medical and NHS systems
<b>Structural</b>	Relational positioning between GP practice and commissioning system
<b>Social</b>	Interaction between GP and individual patients, colleagues and family members
<b>Sub-individual</b>	
<b>Biopsychosocial</b>	Individual biography, and measured outcomes of distress

Figure 20: Critical realist informed explanatory framework of the interacting impacts upon GPs.



## 7.7 Chapter Summary

This chapter has explored themes identified in relation to the working lives of GPs. It has considered underpinning mechanisms identified from retroductive analysis, which include power hierarchies within the medical system, gender, and race. At an individual level, constraints on moral agency and the work of emotional labour, engender internal conflict. These constructs have been examined, considering links to underpinning models of stress (such as allostatic load). The use of a critical realist approach has facilitated a deeper understanding of the real world complexities of primary care, purposively integrating the findings from the three phases of the study.

The next chapter will provide an overview of the study, including consideration of its strengths and limitations, as well as implications for future practice and recommendations for further research.

## 8 Chapter Eight: Conclusions

### 8.1 Introduction

This chapter will consider the original research questions in the light of the study findings and the contributions to current practice. It will discuss the study limitations as well as the recommendations for practice and future research. Finally, it will consider personal reflections on the experience of conducting this research.

#### Key findings

This study set out to explore the working lives of GPs from a critical realist perspective considering:

- The current impacts upon the GP workforce
- Factors which made life difficult for individual GPs
- Workforce factors that exacerbated demands
- The support structures and mechanisms available to GPs
- The barriers and enablers to workforce wellbeing in the working environment.

General Practice operates in a complex open system. Given that critical realism seeks to explicate causative mechanisms in a laminated stratified open system, the findings are organised according to the laminae (and the proposed mechanisms operating at each level) (rather than ordering by the research questions).

#### 8.1.1 *Individual*

It is apparent that GPs as a body find their professional life challenging. Whilst as doctors, they still enjoy patient contact, they identify practice workload and workforce constraints as problematic. There are measurable differences in how these challenges are perceived, with women and those who qualified overseas having higher levels of psychological distress.

The impact of work stressors upon individuals could be explained at a physiological level using the concept of allostatic load. Additionally, it appears that there is negative cognitive appraisal of these stressors and for some, there is a



negative appraisal of their ability to cope. There is an association between negative coping strategies, such as behavioural disengagement, and poor outcomes.

Those who perceive that their job presents high levels of demand and low levels of control have higher levels of psychological distress. This is in accord with Karasek's (1979) Job Control model. There are features of the perceptions of stress which are in accord with Hobfoll's (2001) Conservation of Resources theory, that each individual has only limited capacity to deal with demands.

The study identified that there is an emotional burden in caring for others and that this may result in moral impacts upon the individual when they feel constrained or unable to do what they feel is best for their patient.

### **8.1.2 Social level**

Although NHS England has promoted measures to limit demand upon GPs, there has been variable uptake of these. GPs were most likely to have extended the roles of others in the practice team and to have increased measures signposting patients. There was no association between uptake of these actions and measures of distress. There was, however, a recognition that increasing the skill mix of the practice team could paradoxically add to the burden of the working day.

GPs consider that they are well supported by colleagues within the practice. The lowest levels of distress in this study were seen in those working in medium-sized practices. The stakeholder group postulated that this was because those in small practices feel more exposed and there is more restriction on doctor autonomy in larger practices. Analysis of the findings considered that this may be related in part to the organisational climate.

There was an awareness of external support mechanisms, however there was limited uptake of these in the initial interviewees. The stakeholders considered that there is a professional reluctance to admit the need for additional support.

Although work-life conflict and personal caring responsibilities were discussed in the interview phases, contrary to expectations there was no association between caring responsibilities and the outcome measures in the questionnaire. There was an

association between perceptions of work-life balance and the outcome measures of psychological distress.

The discussion of the results has included consideration of the role conflict and ambiguity, i.e., the disparity between reality and expectations of the GP role, considering that this was a factor contributing to the levels of distress.

### **8.1.3 System level**

A further finding was the frustration experienced by GPs with regard to the impact of policy directives and guidance. The initial interviews highlighted the change in the GP contract in 2004, with the removal of 24-hour responsibility and the introduction of targets (in QOF) as a turning point in their relationship with patients. The stakeholders recognised that policy changes are sometimes poorly communicated and that there is often little time to embed these.

Social structures have an impact upon individual agency. In this study, the implications of being a member of the medical profession were considered, considering the development of individual identity as a doctor, as well as the collective identity. Power inequalities (some of which are hidden) between different parts of the system, as well as within practices, may explain some of the findings.

The lens of street-level bureaucracy helps to explain the GPs' attitudes and behaviours towards targets and guidelines. It is apparent in the findings of this study that GPs make pragmatic decisions and that respondents were concerned with implementing policy in ways which limited demands upon themselves and their services.

At a wider societal level, this study identified the negative impacts of gender and race. This study showed that there were higher levels of distress in women. In discussion with the stakeholders, it became apparent that gendered expectations persist in society. Likewise, those who had qualified outside of the UK had higher levels of distress. The stakeholders identified systematic inequalities in the training system and within medicine more widely, which are considered to have a 'weathering effect' on the individual.

## **8.2 Study's main contributions**

This study provides an overview of the workplace stresses for English GPs at a unique point in time, spanning both the introduction of a significant organisational change in primary care, as well as the early stages of the COVID-19 pandemic, which necessitated rapid transformation in triage and assessment of patients. It is situated when there are concerns about falling GP workforce numbers and consequent difficulties for patients in accessing services. There is an interest in understanding why GPs are reducing their working hours or leaving their practices. In this context, it is rational to identify (and thus be in a position to address) the aetiological factors.

This study offers an insight into the reasons that GPs are finding their work difficult. In adopting a mixed methods approach underpinned by critical realism, it is possible to consider the context and causation of empirical observations.

## **8.3 Strengths and limitations**

Chapter 3: Methodology, considered the strengths and limitations of the research study design and of each of the phases of the study. Additionally, the limitations of the questionnaire study were considered in Section 5.9.1. It is helpful to consider in this section, some of the overarching limitations and challenges.

Acknowledging the constraints of resources and time, the sampling process included GPs and stakeholders from across England. Given that the GP population is considered hard to reach, it is not surprising that there were a limited number of interviews in the first and third phases.

Access to research subjects was facilitated by being a member of a number of GP networks, but it is unknown to what extent this had an impact upon the characteristics of the respondents in the first two phases. Similarly, it is unclear the extent to which this may have influenced responses, particularly in the initial phase interviews where there could potentially be the risk of social desirability or acquiescence bias.

It is apparent, particularly in the questionnaire phase, that the distribution of respondents was uneven and included over-representation of GP educators. It is not

possible with the convenience sampling approach to ascertain the numbers who were invited but did not participate. However, measures to check the completeness of the themes identified in the first phase interviews (with a local peer group, as well as oral presentations at national academic GP conference), did not identify additional themes. Similarly, discussion with the stakeholder group considered that the findings presented were in accord with their experiences.

With hindsight, reflecting upon the design of the study, the researcher is conscious that this study is presented through the lens of medicine. By design, all of the respondents were GPs. Although discussion with project supervisors included their perspective as healthcare professionals, there is a lack of both the patient and managerial view, which should have perhaps been included in the stakeholder phase.

The sequential design and the changing context of practice over the duration, meant that data were gathered over a relatively prolonged period. Issues were raised in the later stages (such as remote consulting) which did not feature in the initial interviews, hence, the more limited information available about these topics from frontline GPs.

One of the key strengths of this study was the mixed methods design which included the perspectives of both frontline GPs and stakeholders. From a theoretical perspective, there was a clear rationale for the study, addressing a gap in the literature about underpinning reasons for workplace-related distress. Serendipitously, the final phase of data collection was timed at the end of the first peak of COVID-19. The stakeholders were able to offer their reflections and insights on the changes which had occurred in the context of practice over that time.

## **8.4 Implications for future practice**

This section considers actions which may be taken at the level of the individual practitioner and at a wider policy level.

### ***8.4.1 Recommendations at the practice and individual level***

Bodenheimer and Sinsky (2014) considered that optimising health system performance must include care of the health care providers.

Based upon the findings of this study, consideration should include how to optimise the balance between home and work commitments, since each individual has limited personal resources. Whilst the BMA (2018b) has published guidance on workload and demand management, this balance requires consideration of more than simple numbers of patient contacts. It should address the length of the working day and time for adequate breaks. Simple measures such as coffee breaks have been identified as important aspects of social support (Fisher *et al.*, 2017; Lawson, 2020; Hall *et al.*, 2018), but it is less clear how to introduce these successfully.

A culture change which is open to local discussion of flexible patterns of working to meet individual need, may be anticipated to increase the perceptions of job control and autonomy. This requires improved integration of those who work on a sessional basis or return to work at the end of a career. Jefferson and Holmes (2022) have highlighted that additional support for early career GPs helps to develop connections and reduce burnout. Barnett and Holmes (2022) described an example of this, provided in one large group practice. Similar support may be beneficial at other career stages.

Excessive administrative burden is a key facet of perceptions of extreme workload. Participants in this study identified both the amount and nature of administrative tasks as problematic. Secondary analysis of the 2015 Commonwealth Fund Survey suggested that job stress was associated with the percentage of time dedicated to administrative burden (and reduced where case managers were attached to practices) (Cohidon, Wild and Senn, 2020). One option to reduce the burden is the introduction of a dedicated medical assistant role (akin to a case manager), offering specifically targeted administrative support to the GP. This has been positively evaluated on a small scale (Skyrme and Grimwood, 2017).

Within the working day, there needs to be a reduction in the overall allostatic load. Throughout the study, it was notable that multiple interruptions and the density of decision making were part of the attrition upon GPs. Practices need to develop clear policies and procedures for managing patient and administrative queries, so that these can be managed more effectively in a circumscribed time slot.

Alongside this, the introduction of increased numbers of allied health professionals to assist with clinical workload appears to have compounded the

situation. As is highlighted in recent local HEE guidance, the supervision requirements for different roles vary (Hawes and Stillman, 2022). This support needs to be tailored to the individual healthcare professional and may vary according to the stage of career (Agarwal and Hoskin, 2021). There needs to be clear practice agreement about how this supervision can be safely managed in a defined manner.

The findings of this study support increasing the variety in the professional role of a GP. Thus, there is a need to promote opportunities for a portfolio career which might include GP training or work in an alternative setting (such as out of hours), alongside practice work. From a theoretical perspective, according to Warr's vitamin model (described in Section 2.2.2.1), this provides opportunity to have variety and develop new skills (Warr, 1987). Kelly *et al.* (2019) note that such initiatives are a dominant strand of recruitment initiatives in both the UK and Canada. The authors consider that these are most likely to be effective when they explicitly extend generalism as a discipline, for example, through teaching, research, and quality improvement.

Support for individual GPs should be normalised and readily accessible. Gerada (2020) has identified the challenges of professional isolation and the therapeutic benefits of providing safe spaces for reflection and support. At a practice level, such support might be provided in the form of Schwartz rounds. These are group reflective practice fora, giving staff an opportunity to reflect upon the emotional and social aspects of working in health care, and have been positively evaluated in the context of hospitals and hospices (Maben *et al.*, 2021). Less is known about their effectiveness in a small primary care organisation. An alternative approach, are 'Conversations Inviting Change' groups, which focus upon the 'stories' which doctors bring and help them to make sense of their experiences (Launer, 2008).

It would also be helpful to promote and offer local supervision (as is seen in other professional groups). There is evidence (from small-scale studies) that offering this support, reduces burnout and compassion fatigue in GPs (Tomlinson, 2015).

An alternative approach is to support GPs to develop mindfulness techniques. A pilot study in primary care has demonstrated reduction in measures of stress and burnout after an eight-week course (Hamilton-West, Pellatt-Higgins and Pillai, 2018).

#### **8.4.2 Recommendations at the system level**

Given that this study identified that the optimal practice size for practitioner well being is between 10-15,000 patients, it would be appropriate to factor this into plans for locality-based care (rather than continue to promote increased size units).

This study found that there was ambiguity about the role of a GP. It is apparent that the role has changed since respondents had qualified. Those training GPs of the future need to ensure that the curriculum is realistic in its description of the role of doctors. This needs to include working in multi-professional teams.

At a wider level, there is an apparent mismatch between GPs, patients, and the wider medical system about the expectations of the GP role. It would be appropriate as the next GP contract is negotiated, to have a realistic discussion about the role of the GP in current society and what is possible; this should involve all stakeholder groups.

Where there is policy change, this needs to be communicated effectively to those working at the front line and for them to be given adequate time for implementation. It is recognised that there is a problem with information overload in primary care (Hibble *et al.*, 1998). Approaches to resolving this might include an easily identified summary cascaded to all primary care users of NHS email, rather than relying upon information being cascaded out through complex channels, with further information readily available in a variety of formats.

There needs to be meaningful action to address issues relating to equality and inclusivity, reaching beyond mandatory training. In a large-scale study of postgraduate doctors in training, Rich *et al.* (2016) highlighted structural inequalities in the processes for selection and training, which had a differential impact upon women and those from minority groups. These structural factors which impact upon the development and maintenance of effective social networks, as well as individual well being, were acknowledged in the HEE Mental Wellbeing report (Health Education England, 2019) yet little has changed. The inequalities persist into the qualified GP community. At a national level, organisations such as the RCGP have a wide-ranging 'Equality Diversity and Inclusion Plan', which includes development of a

kitemark for practices who are exemplars in this area, with the potential to disseminate good practice.

### **8.4.3 Recommendations for future research**

Recommendations for future research stem from the unanswered questions which have arisen over the course of this study.

1. **The structure and content of the working day:** In the interview studies, participants reported their perceptions. It would be helpful to understand in more detail (perhaps in an ethnographic or diary study), the exact nature of the interruptions and difficult decisions, as well as to observe the relationships with other professionals in the team. A natural progression of this would be to consider the source, nature, and content of administrative tasks (and the perceived value of these to patient care).
2. **Home-work balance:** This study has raised questions about home-work balance. A future study may elucidate the degree to which this relates to the perceptions of balance of time or other resources. In the light of changes in working practices with more remote working, it should consider whether these have further exacerbated the blurring of boundaries between home and work or have ameliorated this in offering additional flexibility in working patterns.
3. **Optimal supervision for allied health professionals:** This appeared to be a cause of additional stress. This study raised questions about the nature of this stress and whether concerns relate to time pressures, interruptions, the skills required, or inadequate knowledge about the scope of these roles and the nature of the supervision required. More information about effective models of supervision would enable the development of evidence-based guidance and training.
4. **GP role ambiguity:** Whilst it might be anticipated that the role of the GP was understood, this study has highlighted a mismatch in perceptions and expectations (considering which is the priority, for example: continuity of care or urgent access; the necessity for the administrative burden associated with multiple demands for referrals and letters of support; or meeting the competing demands of regulatory and administrative burdens). Further work is needed to understand how the GP role is defined and viewed by different stakeholders (be



they patients, GPs, other practice colleagues, secondary care colleagues and commissioners). Likewise, there are questions over medical identity and what it means to be a doctor.

5. Practice support structures and mechanisms: It would be useful to determine which support measures are most beneficial at the local level (for example, regular informal coffee breaks, more formalised Schwartz-type case discussions or mindfulness-based approaches).

## **8.5 Personal reflections**

I began this research with a professional curiosity about resilience and workplace stress. The journey of discovery through this research has mirrored much of the change in my own circumstances and thinking over this time.

My professional journey has moved from a stable role as a GP partner. As we novated the practice contract to a Community Interest Company, I have become a part-time salaried GP. Within the practice, I have seen enormous upheaval as a consequence of the COVID-19 pandemic, changing overnight the ways in which I interacted with patients. I have been reminded too of how personal and professional lives collide, with family events, together with unplanned absence due to illness.

Alongside this, I have taken on a role as lead for GP placements in a new medical school. This has brought me into close contact with doctors of the future, appreciating that they come from a more diverse background and have very different aspirations to my own medical student colleagues in a more traditional school.

Through this study, I have a better understanding of research processes, managing larger amounts of data and learning how to integrate qualitative and quantitative approaches through the lens of critical realism. From a personal perspective, I see how I have moved from the strictly biomedical model of my early training to considering other lenses. Lifting my own medical carapace has at times been intensely uncomfortable, facing up to my previous unquestioning acceptance of the hegemony of the medical profession. I have reflected upon how GPs, as privileged professionals, may engage in an introspective narrative about their lives, perhaps bordering on professional solipsism.

As a researcher, I have considered what it means to be an insider and the preconceptions this may have brought to the study. The use of framework analysis for the initial phase interviews was a structured first step in this (Spencer *et al.*, 2014b). This reflexivity has been supported by regular challenge and discussion with my supervisors. Presenting this initial analysis to a peer group and subsequently to colleagues at an academic conference, opened it to further external scrutiny. Additionally, the move to working predominantly in a different context has been helpful, as I have learned from the medical students more about for example, race and racial microaggressions through their eyes. This has enabled me to see the power inequalities threaded through the system within practices, as well as within the wider medical profession.

## **8.6 Chapter Summary**

This chapter has presented a summary of the findings of this study in relation to the working lives of GPs practicing in England.

Although previous studies have considered those who have left the workforce, this study aimed to identify and explore aetiological factors in GP workplace stress in the current workforce. Understanding these should assist in designing approaches to address the issues before doctors leave the workforce. The sequential mixed methods design underpinned by critical realism, allowed for consideration of the context and causation of empirical observations in the first two phases.

The initial interview phase identified themes relating to how GPs perceive and manage their working lives. Further exploration in the questionnaire demonstrated significant levels of distress in the GP workforce, as determined using standard measures for moral distress, perceived stress, burnout, and morale. The nature and degree of these were related to both personal characteristics and professional workplace factors. The stakeholder interview phase identified possible underpinning factors in the medical system, as well as underpinning mechanisms for GP workplace stress identified from retroductive analysis. These include power hierarchies within the medical system, gender, and race. At an individual level, constraints on moral agency and the work of emotional labour, engender internal conflict.

This study suggests that systems and support for individual GPs are in place at a practice level. These could include building the support structures to include informal coffee breaks as well as more formal debrief meetings. Within the working day, there needs to be a review of the content of administrative work, considering what needs to be done and what may be delegated. A key priority is to address the allostatic load resulting from multiple interruptions and complex decision making. Job planning should be individualised, recognising the need to balance work and other commitments (and may include negotiation of flexible working patterns and promotion of portfolio working).

This study suggests that there is a mismatch in understanding the expectations of the GP role between patients, the wider health care community, and GPs themselves, which should be addressed in future contract discussions. Where there is policy change impacting upon GPs, there needs to be clear and direct communication of this, allowing adequate time for implementation and evaluation of change. There are significant structural inequalities in medicine which must be addressed.

This chapter has considered the strengths and limitations of the study and has highlighted unanswered questions as possible future areas for research. In the final section, I have reflected upon my personal learning through this research process.

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## Appendix A: Interview study

### *i. Interview guide*

1. *Introduction including clarification of the purpose of the interview Confirmation of consent and permission to audiotape*
2. *Demographic information*
  - Year and place of primary medical qualification
  - Higher qualifications in primary care
  - Additional roles in primary care (e.g., GP trainer/GPwSI)
  - Working arrangements (partner, salaried Dr, locum; full/part time)
3. *Let's think about yesterday- what were the things you found challenging? Was this typical? How would you describe the demands placed on GPs on a day-to-day basis?*
4. *Have these demands changed over time? Have particular policy changes had an impact upon your job?*
5. *How do you feel this is influencing your well being?*
6. *How do you manage the demands of your work?*
7. *Is there any structured support available to you?*
8. *Is there anything else you would like to tell me?*
9. *Conclusion- arrangements for verification of transcript. Thanks for your time.*

**ii. Participant Information Leaflet (PIL)**

***Working Life of General Practitioners in 2017***

My name is Kate Neden and I have been working as a GP in Kent since 1990. I am currently undertaking research into how GPs perceive their working life and you have been approached as you too are a GP. I would like to invite you to participate in this research project. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please read the following information and let me know if you would like clarification or further information.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England, as well as to consider factors that exacerbate and alleviate stresses in the working environment.

This is a self-funded project conducted as part of doctoral studies at Kent University.

For the purposes of this study, I plan to interview a number of GPs working in different situations. This telephone interview will be arranged at a mutually convenient time and will last no more than 20 minutes. With your permission, the interview will be audiotaped for later transcription.

Any information you provide is confidential (except in the unlikely event that information is disclosed that identifies a risk to yourself or others). Data will be stored securely in a locked filing cabinet and only the researcher conducting the study will have access to this. Audio recordings will be destroyed once the research is complete. The transcript of your interview will be anonymised. Direct quotes from the interview may be used in the research report but will not include identifiable information.

The results of this study will be submitted as part of my research at the University of Kent and may be submitted for publication. You may wish to receive a summary of the findings, if so please indicate that you would like a copy on your consent form.

A later phase of this research will involve a questionnaire study. If you would be happy to be invited to participate in this, please indicate this on the consent form.

If you choose to take part in this research, you may benefit from airing your views and submitting them to a study dedicated to representing the challenges of your role.

It is up to you to decide whether to take part or not. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason. If you wish to take part, please complete the form and return it to me by email.

This study has received ethics approval from the University of Kent.

If you have any questions or require more information about this study, please contact me using the contact details below.

If you wish to make a complaint or raise concerns about any aspect of this study and do not wish to speak to the researcher, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

Thank you for taking the time to read this information sheet.

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If you wish to participate, please return the following to....

Name

Work Address

Contact details      e-mail  
   telephone

Suggested times for interview

I would be happy to be contacted about the questionnaire study at a later date  
Yes/No



**iii. Consent form:**

**Please complete this form after you have read the Information Leaflet**

**Title of Study:** Working Life of General Practitioners in 2017

**University of Kent Research Ethics Committee Ref:**TBC

**Thank you for considering taking part in this research. If you have any questions arising from the Information Leaflet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.**

**Please tick or initial**

	Yes	No
I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason.		
The information you have submitted will be published as a report, please indicate whether you would like to receive a summary of the findings.		
I consent to the audiotaping of this interview for the purposes of transcription and understand that this will be retained until the research is complete.		
I would be happy to be contacted about the questionnaire study at a later date.		
I understand that personal information will be handled securely.		

Participant's Statement:

I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Leaflet about the project and understand what the research study involves.

Signed

Date

#### **iv. Debrief sheet**

Thank you for your participation in this study about the working lives of GPs.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England as well as to consider factors that exacerbate and alleviate stresses in the working environment.

Any information you provide is confidential (except in the unlikely event that information is disclosed that identifies a risk to yourself or others). Data will be stored securely in a locked filing cabinet and only the researcher conducting the study will have access to this. Audio recordings will be destroyed once the research is complete. The transcript of your interview will be anonymised. Direct quotes from the interview may be used in the research report but will not include identifiable information.

A later phase of this research will involve a questionnaire study. If you would be happy to be invited to participate in this, please indicate this on the consent form.

If you have any questions regarding this study, please feel free to ask me- Kate Neden. If you wish to raise concerns, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

In the event that you feel distressed by participating in this study, we encourage you to contact Kate Neden. In the event that you feel unable to contact anyone associated with the study, the BMA counselling service is available by telephone on 0330 123 1245 - 24 hours a day, 7 days a week.

**v. *Content of email to network contacts***

Dear X

I am writing to ask whether you would be willing to pass along the enclosed information to as many colleagues as you feel appropriate, about a telephone interview study about GP stress, which I am undertaking as part of my doctoral studies at the University of Kent.

As you will see, I would like to contact a range of doctors working in different circumstances (whom I do not know), and I hope that you may be able to help me with this. In all, I hope to interview 15-20 people at this stage.

With many thanks in anticipation of your time and consideration.

Yours sincerely

**vi. *Content of email to respondents not included in the interview study***

Dear X

Thank you for volunteering to take part in the interview study on the Working Life of GPs in 2017. As you may recall, I planned to interview a number of GPs, and I have already recruited the required number. I hope that I may contact you for the questionnaire study at a later stage.

With many thanks for your interest in my study.

Yours sincerely

vii. **Ethics application form**



**Research Ethics Committee (REC) Application Form**

*Please complete this Ethics Application form in conjunction with your supervisor. The supervisor must email the completed copy of the Application form, Consent form, Information Sheet and Research Instrument to: [c.e.smith@kent.ac.uk](mailto:c.e.smith@kent.ac.uk)*

**Name of Applicant: Catherine A Neden**

**Name of your Degree:** (e.g.PG/UG degree title) PhD

**Campus: Canterbury**

**Name of Supervisors: Dr Kate Hamilton West, Prof Patricia Wilson**

**Title of Project: An exploratory study of the working lives of General Practitioners in 2017**

**Please provide a brief jargon free background to the project in no more than 150 words:**

The context of General Practice in England is undergoing significant policy change, at a time of significant workforce shortage and increasing demands from an ageing population. This preliminary phase of the project aims to explore how individual GPs perceive this is impacting upon their role and the strategies that they are employing to manage this.

This application is for the initial exploratory phase of a mixed methods study. The findings of this phase will be used to contribute to the design of a subsequent questionnaire study and to capture specific areas that will be explored in

international case studies. Ethics approval will be sought for each phase of the study separately as the design of each is dependent upon the previous phase.

### **Research Methods:**

#### **A) Selection & number of interviewees/participants:**

Snowball/respondent-driven sampling from the GP workforce in England to include those from a range of demographic and contractual backgrounds. It is anticipated that 15-20 interviews will be sufficient to capture broad themes that can be explored in further phases and inform the design of a questionnaire.

#### **B) How will your project comply with the Data Protection Act? I.e. how much personal data do you plan to collect from respondents? How will you ensure that data is kept securely? Do you plan to destroy data after the project is completed?**

Demographic data, including details of the year and place of qualification and the interviewees' professional roles, will be collected and stored securely on a password-protected computer. Interview transcripts will be coded, and participants will not be identifiable from these. Identifying codes will be known only to the researcher. Only anonymised transcripts will be passed to supervisors. Digital interview recordings will be stored in a password-protected computer file, accessible only to the researcher.

#### **C) Anticipated start date & duration of data collection:**

Interviews will be recorded between February and May 2017.

#### **D) Details of payment, if any, to interviewees/participants?**

There will be no payment to interviewees.

#### **E) Source of funding (if any):**

This is a self-funded project conducted as part of the researcher's PhD study at the University of Kent.

#### **F) List questionnaire and other techniques to be used: N.B do not forget to attach these to your application**

A semi-structured interview format will be used, and a copy of the interview guide is appended to the application.

### **Ethical Considerations:**

#### **A) Indicate potential risks to participants (e.g. distress, embarrassment) and means adopted to safeguard against them:**

It is not anticipated that the interview will cause significant emotional distress to participants. Should any such concerns become apparent, the interview will be terminated. The researcher is aware of helplines for professional support (e.g., BMA counselling service) should these be required. Details of the service are contained in a debrief sheet for participants (see appended).

#### **B) What confidentiality issues might arise during data collection, analysis, and dissemination of results? How do you plan to protect participants' anonymity?**

Data will be stored securely with interview digital recording files and transcripts held separately from identifiable information. Transcripts will be coded with identifying codes known only to the researcher. Any direct quotes used in the research report will not include any identifiable information.

**C) *What difficulties might arise (e.g. regarding power and/or dependency imbalances between researcher and participants) and how do you safeguard against them?***

As the researcher is an established member of the GP community, the chosen sampling strategy aims to include a range of participants not personally known to them, mitigating against power and/or dependency imbalances.

**D) *How will the project take into consideration cultural diversity (e.g. through provision of interpreters where necessary)?***

All of those invited will be GPs in England who will use English for professional communication. The sampling strategy aims to include those from a range of demographic and professional backgrounds by using contacts with links into different GP networks.

**E) *Why, if at all, are you paying participants? What is the potential impact on them of such financial inducement?***

No financial inducement involved.

**F) *What provision are you making for giving feedback to participants about your findings?***

They will be offered the option to receive a summary of the research findings as part of the consent process.

**G) *What other ethics review procedures has this project already undergone (e.g. with funding bodies)?***

Health Research Authority approval not required- see attached.

#### **Consent:**

**A) *What procedures are you using to secure participants' informed consent (please append any forms etc. use for this)?***

Information leaflet and written consent, with confirmation of this prior to the commencement of the interview (see appended forms).

**B) *What procedures will you use with participants unable to give their own informed consent?***

Not applicable

**C) *Explain, where applicable, why the informed consent of the participants is not being sought?***

Not applicable

#### **Security Sensitive Material**

Does your research involve access to or use of material covered by the Terrorism Act?

No (please delete as appropriate)

*(The Terrorism Act (2006) outlaws the dissemination of records, statements and other documents that can be interpreted as promoting and endorsing terrorist acts. By answering 'yes' you are registering your legitimate use of this material with the Research Ethics Advisory Group. In the event of a police investigation, this registration will help you to demonstrate that your use of this material is legitimate and lawful).*

**Researcher, please sign, print name and date to testify the accuracy of this completed application:**

Sign: CA Neden

Print Name: Catherine Neden

Date: 16 1 2017

**Supervisor, please sign, print name a date to testify that you have seen and approve this Research Ethics Application:**

Sign:

Print Name:

Date:

**Please submit your application including your questionnaire and consent form via email to [c.e.smith@kent.ac.uk](mailto:c.e.smith@kent.ac.uk)**

Claire Smith  
SSPSSR Ethics Administrator  
Cornwallis North East  
University of Kent  
Canterbury  
Kent  
CT2 7NF



## Appendix B: Questionnaire study

### i. Questionnaire items

(as delivered via Qualtrics) with standardised scales highlighted

<b>About you and your practice</b>			
Sex	Male		
	Female		
Age (in years)		years	
Home circumstances	Live alone	Yes	No
	Partner at home	Yes	No
	Dependent Children	Yes	No
	Older dependents	Yes	No
GP role	Partner		
	Salaried		
	Locum		
Number of sessions in GP per week			
Country of Primary Medical Qualification			
Years as a GP		years	
Other roles	GP trainer		
	GP appraiser		
	CCG roles		
	GP with Special Interest		
	Out of hours		
	None of the above		
<b>Practice characteristics</b>	<5000 (small)		
List size	5001-10000 (medium)		
	10001-15000 (large)		
	>15000 (very large)		
Location	Rural		
	Semi-Rural		
	Suburban		
	Urban		
Region and STP area in which the practice is located	Drop down lists		
Number of other GPs in the practice			
Number of GP vacancies in the practice			
Number of clinical staff who are not GPs			
Number of non-clinical staff			

Have you made any changes to manage workload in the last 12 months?				
a. Implementation of the GP Forward View 10 High Impact actions	Active Signposting			
	Develop the team (e.g., other healthcare professionals in the team)			
	Support self-care			
	New consultation types (e-mail or phone)			
	Reduce DNAs			
	Social Prescribing			
	Partnership working (with other organisations and practices)			
	Productive workflows			
	Personal productivity (training and support to enable staff to work more efficiently)			
Develop QI expertise				
b. Patient-level strategies	Patient education		Yes	No
	Other: Please specify			
c. GP-level strategies	Improving efficiency of working day		Yes	No
	Personal coping strategies		Yes	No
	Taking leave		Yes	No
	Other: Please specify			
d. Practice-level strategies	Delegating tasks		Yes	No
	Sharing work with other clinical staff		Yes	No
	Extending roles of non-clinical staff		Yes	No
	Increased use of telephone/online		Yes	No
	Other: Please specify			
e. Organisational-level strategies	Working at scale in Federations and hubs		Yes	No
	Other: Please specify			

The next questions are about how you have found your working conditions over the last six months: **From HSE Management Standards (2007)**

	<b>Never</b>	<b>Seldom</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
I can decide when to take a break					Control
Different groups at work demand things from me that are hard to combine					Demands
I have unachievable deadlines					Demands
I have to work very intensively					Demands
I have a say in my own work speed					Control
I have to neglect some tasks because I have too much to do					Demands
I have a choice in deciding how I do my work					Control
I am unable to take sufficient breaks					Demands
I am pressured to work long hours					Demands
I have a choice in deciding what I do at work					Control
I have to work very fast					Demands
I have unrealistic time pressures					Demands
I have some say over the way I work					Control
My working time can be flexible					Control

## Brief COPE

We are interested in how people respond when they confront difficult or stressful events in their lives. These questions ask you to think about what you usually do when you are under a lot of stress or experiencing a stressful event.

Respond using one of the following choices for:

	<b>I don't do this at all</b>	<b>I usually do this a little bit</b>	<b>I usually do this a medium amount</b>	<b>I usually do this a lot</b>
1. I concentrate my efforts on doing something about it.				Active coping
2. I've been saying to myself "this isn't real."				Denial
3. I've been giving up trying to deal with it.				Behavioural disengagement
4. I've been taking action to try to make the situation better.				Active coping
5. I've been refusing to believe that it has happened.				Denial
6. I've been getting help and advice from other people.				Instrumental support
7. I've been trying to see it in a different light, to make it seem more positive.				Positive framing
8. I've been trying to come up with a strategy about what to do.				Planning
9. I've been giving up the attempt to cope.				Behavioural disengagement
10. I've been looking for something good in what is happening.				Positive framing
11. I've been trying to get advice or help from other people about what to do.				Instrumental support
12. I've been thinking hard about what steps to take.				Planning

**Perceived Stress Scale**

The next questions ask you about your feelings and thoughts during THE LAST MONTH.

	Never	Almost Never	Sometimes	Fairly Often	Often
How often have you felt that you were unable to control the important things in your life?					
How often have you felt confident about your ability to handle your personal problems?					
How often have you felt that things were going your way?					
How often have you felt difficulties were piling up so high that you could not overcome them?					

**Moral Distress thermometer**

Moral distress occurs when you believe you know the ethically correct thing to do but something or someone restricts your ability to pursue the right course of action. Please indicate the number on the scale that best describes how much moral distress you have been experiencing related to work in the past week including today.

0	1	2	3	4	5	6	7	8	9	10
None		Mild		Uncomfortable		Distressing		Intense		Worst possible

## Copenhagen Burnout Inventory

The next group of questions are about how you feel more generally:

	Always	Often	Sometimes	Seldom	Never/ almost never
How often do you feel tired?					
How often are you physically exhausted?					
How often are you emotionally exhausted?					
How often do you think: 'I can't take it anymore'?					
How often do you feel worn out?					
How often you feel weak and susceptible to illness?					
Is your work emotionally demanding?					
Do you feel burnt out because of your work?					
Does your work frustrate you?					
	To a very high degree	To a high degree	Somewhat	To a low degree	To a very low degree
Do you feel worn out at the end of the working day?					
Are you exhausted in the morning at the thought of another day at work?					
Do you feel that every working hour is tiring for you?					
Do you have enough energy for family and friends during leisure time?					
Do you find it hard to work with patients?					
Do you find it frustrating to work with patients?					
Does it drain your energy to work with patients?					
Do you feel that you give more than you get back when you work with patients?					
	Always	Often	Sometimes	Seldom	Never/ almost never
Are you tired of working with patients?					
Do you sometimes wonder how long you will be able to continue working with patients?					

**MAGPI** Please indicate which statement in each of the following groups best reflects how you feel about yourself and your job **in the past month**:

		Scoring	Score
	a. I feel in control of my work b. Sometimes I find it hard to manage my work c. I am having great difficulty with my workload	1 2 3	
	a. I have no problems with any of my colleagues b. I have some problems with one or more colleagues c. I have serious problems with one or more colleagues	1 2 3	
	a. I am more up to date with modern general practice than most b. I am as up to date with modern general practice as most c. I have not kept up to date with modern general practice	1 2 3	
	a. I feel well supported by people who work with me b. Sometimes I feel a bit unsupported by people who work with me c. I don't feel at all supported by people who work with me	1 2 3	
	a. I have no worries about my health b. I have only minor worries about my health c. I have been quite worried about my health	1 2 3	
	a. I am well supported at home b. I could be better supported at home c. I have little support at home	1 2 3	
	a. I can keep my home life and work in balance satisfactorily b. I sometimes find it difficult to keep a balance between work and home life c. I am finding it very difficult to keep a balance between work and home life	1 2 3	
	a. I am a happy person at the moment b. I feel OK but there have been happier times in my life c. I am unhappy a lot of the time	1 2 3	
	a. I have family or friends I can turn to b. I don't always feel I can turn to family or friends c. There is no-one I can turn to for help	1 2 3	
	a. I believe my patients think I do a good job for them b. I am not sure what my patients think of the job I do for them c. I believe my patients do not value the job I do	1 2 3	
	a. I believe my colleagues generally value me b. I don't know how my colleagues view me c. I don't believe my colleagues value me much	1 2 3	
	a. I have no problems with alcohol or other drugs b. I occasionally wonder if I have become too reliant on alcohol or other drugs c. I am worried about my use of alcohol or other drugs	1 2 3	
	a. I know that I have chosen the right career b. I sometimes wish I had chosen a different career c. I really regret having chosen my career	1 2 3	
	a. I have no particular worries about my family at the moment b. I have some worries about my family at the moment c. I have serious worries about my family at the moment	1 2 3	
	Total score		

## **ii. Participant Information Leaflet (PIL)**

### Working as a GP in 2019

My name is Kate Neden and I have been working as a GP since 1990. I am currently undertaking research into how GPs perceive their working life and you have been approached as you too are a GP. We would like to invite you to participate in this research project. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please read the following information and let me know (by email [can34@kent.ac.uk](mailto:can34@kent.ac.uk)) if you would like clarification or further information.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England as well as to consider factors that exacerbate and alleviate stresses in the working environment.

This is a self-funded project conducted as part of my PhD at the University of Kent.

For the purposes of this study, I plan to survey a number of GPs working in different situations. Your participation in this survey is completely voluntary and all of your responses are anonymous. None of the responses will be connected to identifying information. The survey will take an estimated 10 minutes to complete.

To participate please click on the following link: **XXXXX**

Any information you provide is anonymous. The survey is being conducted using Qualtrics, a cloud-based software that stores data on secure servers. Participants do not have to give their name and questionnaire scores will not be saved with email addresses or other personally identifiable information. Data will be extracted to a password-protected computer and only the researcher conducting the study and their supervisors will have access to this.

This study will be conducted in accordance with the General Data Protection Regulations. Further information about this may be accessed using the following link:

<https://research.kent.ac.uk/researchservices/wp-content/uploads/sites/51/2018/05/GDPR-Privacy-Notice-Research.pdf>

The results of this study will be submitted as part of my PhD thesis to the University of Kent and may be submitted for publication (not including any identifiable information, only broad trends). You may wish to receive a summary of the findings. If so, please email me separately ([can34@kent.ac.uk](mailto:can34@kent.ac.uk)) to indicate that you would like to receive a copy.

If you choose to take part in this research, you may benefit from airing your views and submitting them to a study dedicated to representing the challenges of your role.



It is up to you to decide whether to take part or not. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason.

This study has received ethics approval from the Social Sciences Faculty Research Ethics Committee at the University of Kent.

If you have any difficulty accessing the survey, have questions or require more information about this study, please contact me using the contact details below.

If you wish to make a complaint or raise concerns about any aspect of this study and do not wish to speak to me, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

Thank you for taking the time to read this information leaflet.

**iii. Consent form:**

Please complete this form after you have read the Information leaflet

Title of Study: Working as a GP in 2019

University of Kent Research Ethics Committee Ref: TBC

Thank you for considering taking part in this research.

	Yes	No
The information you have submitted will be included in a student thesis and may be submitted for publication. No identifiable information will be included.  If you would like to receive a summary of the findings, please contact me separately by email  ( <a href="mailto:can34@kent.ac.uk">can34@kent.ac.uk</a> ) to indicate that you would like to receive a copy.		
I understand that personal information will be handled securely.		

**Participant's Statement:**

I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Leaflet about the project, and understand what the research study involves.

Signed

Date

**iv. Content of email to network contacts**

Dear X

I am writing to ask whether you would be willing to pass along the enclosed information to as many colleagues as you feel appropriate, about a questionnaire study concerning the working lives of GPs, which I am undertaking as part of my doctoral studies at the University of Kent.

I would like to contact a range of doctors working in different circumstances (whom I do not know) and I hope that you may be able to help me with this.

Further information about the study and the questionnaire can be accessed from this link [XXXX](#)

With many thanks in anticipation of your time and consideration.

Yours sincerely

**v. Debrief statement**

Thank you for your participation in this study about the working lives of GPs.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England as well as to consider factors that exacerbate and alleviate stresses in the working environment.

Any information you provide is confidential (except in the unlikely event that information is disclosed that identifies a risk to yourself or others). Data will be stored securely in a password-protected computer.

If you have any questions regarding this study, please feel free to ask me- Kate Neden. If you wish to raise concerns, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

In the event that you feel distressed by participating in this study, we encourage you to contact the BMA counselling service which is available by telephone on 0330 123 1245 - 24 hours a day, 7 days a week.

## vi. University of Kent Ethics application

If any of the questions in Section IV(B) and/or IV(C) and/or IV(D) is answered 'yes', a full ethics application must be made to the REAG. This also applies for studies not defined as 'research' in the narrow sense, i.e. evaluations/audits, etc. Complete this form and send it to the Faculties Support Office along with supporting documentation: a copy of the full research proposal; any participant information sheets and consent forms; any surveys, interview schedules; any advertising material or proposed website wording. **It is important to note that you must not commence any research with human participants until full approval has been given by the Research Ethics Advisory Group - you will be notified via email when this has been granted.**

**During term time we aim to process a research ethics application within two weeks, however during vacation periods and busy times (e.g. exams and marking period) it can take up to four weeks.**

It is the applicant's responsibility to ensure that their application is submitted in good time.

### Overview

Name of Applicant(s)

Catherine A. Neden

Contact Details (Please include your UoK address, email and telephone number)

Centre for Health Services Studies  
School of Social Policy, Sociology and Social Research  
George Allen Wing  
Canterbury Campus  
[Can34@kent.ac.uk](mailto:Can34@kent.ac.uk)

Mobile 07768798930

### Title of Project

Working as a GP in 2019: A questionnaire study

Lay Summary (Please provide a brief summary of the study)

The context of General Practice in England is undergoing significant policy change, at a time of significant workforce shortage and increasing demands from an ageing population. This study aims to explore how individual GPs perceive this is impacting upon their role and the strategies that they are employing to manage this.

This study constitutes the second phase of a mixed methods PhD study. Building on the themes identified in the initial interview study, a questionnaire has been constructed to examine the relationships between personal characteristics of GPs and their job role and to explore the links with coping mechanisms, perceived stress, moral distress, morale and burnout. The findings of this work will be used to capture specific areas that will be explored in subsequent stakeholder interviews. Ethics approval will be sought for each phase of the study separately as the design of each is dependent upon the previous phase.

Name of Supervisor(s) (If applicable)

Dr Kate Hamilton West, Prof Patricia Wilson

### Risks and ethical issues

Please list the principal inclusion and exclusion criteria

GPs working in England as GP partners, salaried GPs or locums.

<p>GPs practicing in other areas of the UK.</p>
<p>How long will each research participant be in the study in total, from when they give informed consent until their last contact with the research team?</p>
<p>For the time taken to complete the questionnaire</p>
<p>What are the potential risks and burdens for research participants and how will you minimise them? (Describe any risks and burdens that could occur as a result of participation in the research, such as pain, discomfort, distress, intrusion, inconvenience or changes to lifestyle. Describe what steps would be taken to minimise risks and burdens as far as possible)</p>
<p>The main burden will be the time taken to complete the questionnaire. Some participants may find it distressing and experience emotional conflict. Information about professional support help lines will be available for participants, as well as the option to contact the researcher or their supervisor. In recognition of the time taken, a certificate of completion will be available which participants will be able to use for their professional appraisal.</p>
<p>Please describe what measures you have in place in the event of any unexpected outcomes or adverse effects to participants arising from involvement in the project</p>
<p>Information about professional support help lines is available as well as the opportunity to contact the researcher or their supervisor.</p>
<p>Will interviews/questionnaires or group discussions include topics that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could occur during the study?</p>
<p>It is not anticipated that completing the questionnaire will cause significant emotional distress to participants. The researcher is aware of helplines for professional support (e.g., BMA counselling service) should these be required and contact details are available in a debrief section at the end of the questionnaire.</p>
<p>If yes, please describe the procedures in place to deal with these issues</p>
<p>See above</p>
<p>What is the potential benefit to research participants?</p>
<p>A certificate of completion will be available to those who request it which may be used as evidence in their professional appraisal.</p>
<p>What are the potential risks to the researchers themselves?</p>
<p>None identified</p>
<p>Will there be any risks to the University? (Consider issues such as reputational risk; research that may give rise to contentious or controversial findings; could the funder be considered controversial or have the potential to cause reputational risk to the University?)</p>
<p>None identified</p>
<p>Will any intervention or procedure, which would normally be considered a part of routine care, be withheld from the research participants? (If yes, give details and justification). For example, the disturbance of a school child's day or access to their normal educational entitlement and curriculum).</p>
<p>No</p>
<p><b>Recruitment and informed consent</b></p>
<p>How and by whom will potential participants, records or samples be identified?</p>
<p>Snowball/respondent driven sampling from the GP workforce in England to include those from a range of demographic and contractual backgrounds.</p>

<p>The researcher is a member of a number of national professional networks, particularly through their links through the Royal College of General Practitioners, Health Education England and NHS England. This study will initially use contacts which the researcher has within these networks and will also utilise social media for dissemination of information about the study. The invitation will also be circulated through the CHAIN network.</p> <p>Paper copies of the questionnaire (and information leaflets and consent forms) will be available at relevant GP meetings for those who prefer to complete a hard copy.</p> <p>As the researcher is an established member of the GP community, the chosen sampling strategy aims to include a range of participants not personally known to them, mitigating against power and/or dependency imbalances.</p>
<p>Will this involve reviewing or screening identifiable personal information of potential participants or any other person? (If 'yes', give details)</p>
<p>No</p>
<p>Has prior consent been obtained or will it be obtained for access to identifiable personal information?</p>
<p>No identifiable personal information will be collected as part of the research study. Details of the email addresses of those wishing to be entered into the draw for the voucher or to receive copies of any publication will be stored separately (on a password-protected computer).</p>
<p>Will you obtain informed consent from or on behalf of research participants? (If 'yes' please give details. If you are not planning to gain consent, please explain why not).</p>
<p>Yes</p>
<p>Will you record informed consent in writing? (If 'no', how will it be recorded?)</p>
<p>Yes – electronically prior to completion of the questionnaire.</p>
<p>How long will you allow potential participants to decide whether or not to take part?</p>
<p>As long as they require.</p>
<p>What arrangements have been made for persons who might not adequately understand verbal explanations or written information given in English, or have special communication needs? (eg, translation, use of interpreters?)</p>
<p>None</p>
<p>If no arrangements will be made, explain the reasons (eg, resource constraints)</p>
<p>All potential participants are practicing as GPs in England who use English for professional communication.</p>

<p><b>Confidentiality</b></p>
<p><i>In this section personal data means any data relating to a participant who could potentially be identified. It includes pseudonymised data capable of being linked to a participant through a unique code number.</i></p>
<p>If you will be undertaking any of the following activities at any stage (including in the identification of potential participants) please give details and explain the safeguarding measures you will employ</p> <ul style="list-style-type: none"> <li>• Electronic transfer by magnetic or optical media, email or computer networks</li> <li>• Sharing of personal data outside the European Economic Area</li> <li>• Use of personal addresses, postcodes, faxes, emails or telephone numbers</li> <li>• Publication of direct quotations from respondents</li> <li>• Publication of data that might allow identification of individuals, either directly or indirectly</li> <li>• Use of audio/visual recording devices</li> <li>• Storage of personal data on any of the following: <ul style="list-style-type: none"> <li>– Manual files</li> <li>– University computers</li> <li>– Home or other personal computers</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>- Private company computers</li> <li>- Laptop computers</li> </ul>
<p>How will you ensure the confidentiality of personal data? (eg, anonymisation or pseudonymisation of data)</p> <p>No identifiable personal information is being collected.</p>
<p>Who will have access to participants' personal data during the study?</p> <p>No personal data identifying an individual are being collected as part of the research process. Email addresses for those wishing to receive the results of the study will be stored separately from the study data. All data will be stored on a private, password-protected computer, with the password known only to the researcher.</p>
<p>How long will personal data be stored or accessed after the study has ended? (If longer than 12 months, please justify)</p> <p>Data will be retained until the completion of the thesis and any publications arising from this work. After this, they will be securely destroyed.</p>
<p>Please note: as best practice, and as a requirement of many funders, where practical, researchers must develop a data management and sharing plan to enable the data to be made available for re-use, eg, for secondary research, and so sufficient metadata must be conserved to enable this while maintaining confidentiality commitments and the security of data.</p>

<p><b>Incentives and payments</b></p>
<p>Will research participants receive any payments, reimbursement of expenses or any other benefits or incentives for taking part in this research? (If 'yes', please give details)</p> <p>Participants will not be offered any payment for participation in the study. A certificate of completion of the study will be available to those completing the questionnaire for use in their appraisal.</p>
<p>Will individual researchers receive any personal payment over and above normal salary, or any other benefits or incentives, for taking part in this research? (If 'yes', please give details)</p> <p>No</p>
<p>Does the Chief Investigator or any other investigator/collaborator have any direct personal involvement (e.g. financial, share holding, personal relationship, etc) in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest? (If 'yes', please give details)</p> <p>No</p>

<p><b>Publication and dissemination</b></p>
<p>How do you intend to report and disseminate the results of the study? If you do not plan to report or disseminate the results please give your justification</p> <p>The study will be reported as part of the researcher's doctoral thesis and will be disseminated at relevant professional conferences and publications.</p>
<p>Will you inform participants of the results? (Please give details of how you will inform participants or justify if not doing so)</p> <p>A summary of findings will be available to participants who request this.</p>

<p><b>Management of the research</b></p>
<p>Other key investigators/collaborators. (Please include all grant co-applicants, protocol authors and other key members of the Chief Investigator's team, including non-doctoral student researchers)</p> <p>Supervisory team Dr Kate Hamilton West and Professor Patricia Wilson</p>



Has this or a similar application been previously rejected by a research Ethics Committee in the UK or another country? (If yes, please give details of rejected application and explain in the summary of main issues how the reasons for the unfavourable opinion have been addressed in this application)		
No		
How long do you expect the study to last?		
• Planned start date: September 2019	• Planned end date: February 2020	• Total duration: 6 months
Where will the research take place?		
At the participants' professional workplace or computer.		

<b>Insurance/indemnity</b>
Does UoK's insurer need to be notified about your project before insurance cover can be provided? <i>The majority of research carried out at UoK is covered automatically by existing policies, however, if your project entails more than usual risk or involves an overseas country in the developing world or where there is or has recently been conflict, please check with the Insurance Office that cover can be provided. Please give details below.</i>
No

<b>Children</b>
Do you plan to include any participants who are children under 16? (If no, go to next section)
No
Please specify the potential age range of children under 16 who will be included and give reasons for carrying out the research with this age group
Please describe the arrangements for seeking informed consent from a person with parental responsibility and/or from children able to give consent for themselves
If you intend to provide children under 16 with information about the research and seek their consent or agreement, please outline how this process will vary according to their age and level of understanding

<b>Participants unable to consent for themselves</b>	
Do you plan to include any participants who are adults unable to consent for themselves through physical or mental incapacity? (If yes, the research must be reviewed by an NHS REC or SCREC)	
Not applicable	
Is the research related to the 'impairing condition' that causes the lack of capacity, or to the treatment of those with that condition?	
<input type="checkbox"/> Yes	If 'yes' proceed to next question
<input checked="" type="checkbox"/> No	If 'no' the study should proceed without involving those who do not have the capacity to consent to participation
Could the research be undertaken as effectively with people who do have the capacity to consent to participate?	
<input type="checkbox"/> Yes	If 'yes' then the study should exclude those without the capacity to consent to participation
<input checked="" type="checkbox"/> No	If 'no' then the inclusion of people without capacity in the study can be justified

Is it possible that the capacity of participants could fluctuate during the research? (If yes, the research must be reviewed by an NHS REC or SCREC)
No
Who inside or outside the research team will decide whether or not the participants have the capacity to give consent? What training/experience will they have to enable them to reach this decision?
Not applicable
What will be the criteria for withdrawal of participants?

Declaration	
To be signed by the Chief Investigator	
<ul style="list-style-type: none"> <li>• I agree to comply, and will ensure that all researchers involved with the study comply with all relevant legislation, accepted ethical practice, University of Kent policies and appropriate professional ethical guidelines during the conduct of this research project</li> <li>• If any significant changes are made to the design of the research I will notify the Faculty of Social Sciences Research Ethics and Advisory Group (REAG) and understand that further review may be required before I can proceed to implement the change(s)</li> <li>• I agree that I will notify the Faculty of Social Sciences Research Ethics Advisory Group of any unexpected adverse events that may occur during my research</li> <li>• I agree to notify the Faculty of Social Sciences Research Ethics Advisory Group of any complaints I receive in connection with this research project</li> </ul>	
Signed: <i>CAWeden</i>	Date: 18 7 19

What to do next
<p><b>Send your completed form, along with all supporting documentation, to the Faculties Support Office, at <a href="mailto:fsoethics@kent.ac.uk">fsoethics@kent.ac.uk</a>.</b></p>

Checklist
<p>Please ensure you have included the following with your application (where relevant):</p> <ul style="list-style-type: none"> <li>• Full research proposal (current project) <input type="checkbox"/></li> <li>• Participant information sheet <input type="checkbox"/></li> <li>• Consent form <input type="checkbox"/></li> <li>• Covering letter (if relevant) <input type="checkbox"/></li> <li>• Any questionnaires/interview schedules/topic guides to be used <input type="checkbox"/></li> <li>• Any approved instruments/measures to be used <input type="checkbox"/></li> <li>• Any advertising material to be used to recruit participants <input type="checkbox"/></li> <li>• Confirmation that project is covered by UoK insurance policies (if necessary) <input type="checkbox"/></li> </ul>

**vii. Additional data describing the sample**

Table 49: Home circumstances of participants

	Number	% of the total (n=218)
Lives alone	11	5.0%
Lives with partner	153	70.2%
Dependent children at home	151	69.3%
Older dependents at home	10	4.6%

Table 50: GP role and country of Primary Medical Qualification (PMQ)

			GP role			Total
			Partner	Salaried Dr	Locum	
PMQ	UK	Count	113	48	13	174
		% of Total	52.1	22.1	6.0	80.2
	EU/EEA	Count	10	3	0	13
		% of Total	4.6	1.4	0.0	6.0
	Rest of world	Count	20	8	2	30
		% of Total	9.2	3.7%	0.9	13.8
Total		Count	143	59	15	217
		% of Total	65.9	27.2	6.9	100.0

Table 51: Number of working sessions and years as a GP for different roles

			Age (years)	Number of sessions	Years as GP
GP role	Partner	Mean	48	6.5	17.7
		Valid N	139	143	143
		Standard Deviation	9	1.8	9.1
	Salaried Dr	Mean	44	6.2	12.0
		Valid N	58	59	60
		Standard Deviation	9	4.8	9.9
	Locum	Mean	54	4.2	24.0
		Valid N	12	15	15
		Standard Deviation	8	2.1	11.2

- Omitted data for age and number of sessions account for missing data

Table 52: Other professional roles held by respondents

Professional role	Number	% of the total (n=218)
GP trainer	92	42.2%
Out of Hours GP	32	14.7%
GP appraiser	37	17.0%
CCG role	34	15.6%
GP with Special Interest	34	15.6%
Primary Care Network role	34	15.6%
Other	68	31.2%

The other category included an assorted range of roles including other educational roles (such as undergraduate teaching and training programme director, examining, appraising, work for organisations such as HEE, RCGP and NICE, additional GP including as a school medical officer and racecourse medical officer, work for the Local Medical Committee and for GP Federations). Some respondents held more than one of these roles.

Table 53: Practice patient list size

List size (patients)	Frequency	Percent	Cumulative Percent
<5,000	10	4.6	4.6
5,001-10,000	64	29.4	33.9
10,001-15,000	80	36.7	70.6
>15,000	64	29.4	100.0
<b>Total</b>	218	100.0	100.0

Table 54: Practice type (geographical location)

	Frequency	Percent	Cumulative Percent
Rural	17	7.80	7.8
Semi-rural	61	27.98	35.8
Suburban	75	34.40	70.2
Urban	65	29.82	100.0
<b>Total</b>	218	100.0	100.0

Table 55: Practice staffing characteristics

	Number of other GPs	Number of GP vacancies	Number of other clinical staff	Number of administrative staff
<b>Valid N</b>	211	203	207	203
<b>Mean</b>	8.49	0.58	9.68	25.60
<b>Median</b>	7	0	7	20
<b>SD</b>	5.29	0.84	11.35	24.24
<b>Min</b>	0	0	1	5
<b>Max</b>	40	5	80	200

- Omitted data account for missing data for other GPs, GP vacancies, clinical and administrative staff

Table 56: Geographical distribution of respondents according to STP area

NHS STP Region	Number	% of total (n=218)
East of England	16	7.3
London	7	3.2
Midlands	13	6.0
Northeast and Yorkshire	41	18.8
Northwest	15	6.9
Southeast	118	54.1
Southwest	8	3.7
	218	

**viii. Performance of the subscales**

Table 57: Job Demands and Job Control additional data

	<b>HSE Job demands</b> (8 items)	<b>HSE Job control</b> (6 items)
<b>Valid N</b>	218	218
<b>Mean</b>	18.84	18.15
<b>Median</b>	18	18
<b>SD</b>	6.37	5.01
<b>Min</b>	8	6
<b>Max</b>	36	30
<b>Percentile 25</b>	14	15
<b>Percentile 50</b>	18	18
<b>Percentile 75</b>	22	22
<b>Cronbach's Alpha</b>	.890	.869
<b>Cronbach's Alpha (Standardised Items)</b>	.892	.871

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
<b>Job demands</b>					
Different groups demand	16.25	31.86	.648	.489	.878
Unachievable deadlines	15.99	30.77	.708	.561	.872
Work intensively	17.13	33.68	.633	.449	.881
Need to neglect tasks	16.19	31.93	.610	.376	.882
Unable to take breaks	16.34	31.32	.617	.436	.882
Pressured to work long hours	16.45	28.78	.742	.573	.869
Have to work fast	16.92	33.97	.588	.455	.884
Unrealistic time pressure	16.63	30.17	.809	.683	.862
<b>Job control</b>					
Decide when break	15.19	18.64	.531	.293	.871
Say in work speed	15.12	17.49	.676	.476	.845
Choice how do work	14.86	17.67	.713	.547	.838
Choice what to do at work	15.39	17.36	.723	.550	.836
Say over way work	14.80	17.73	.765	.610	.831
Working time flexible	15.37	18.41	.611	.422	.856



Table 58: Results of the Brief COPE scales and subscales

	<b>Active coping</b>	<b>Planning</b>	<b>Positive reframing</b>	<b>Denial</b>	<b>Behavioural disengage</b>	<b>Instrumental Support</b>
<b>Valid N</b>	218	218	218	218	218	218
<b>Mean</b>	6.00	6.05	5.24	2.75	3.11	5.23
<b>Median</b>	6.00	6.00	5.00	2.00	3.00	5.00
<b>SD</b>	1.47	1.49	1.56	1.23	1.29	1.66
<b>Min</b>	2	2	2	2	2	2
<b>Max</b>	8	8	8	8	8	8
<b>Percentile 25</b>	5	5	4	2	2	4
<b>Percentile 50</b>	6	6	5	2	3	5
<b>Percentile 75</b>	7	7	6	3	4	6

	<b>Dispositional optimism (6 items)</b>	<b>Dispositional pessimism (4 items)</b>
<b>Valid N</b>	218	218
<b>Mean</b>	17.29	5.86
<b>SD</b>	3.59	2.25
<b>Min</b>	6	4
<b>Max</b>	24	15
<b>Cronbach's Alpha</b>	.803	.762
<b>Cronbach's Alpha (Standardised Items)</b>	.807	.772

Table 59: Perceived Stress Scale additional data

	<b>Perceived stress (4 items)</b>
<b>Valid N</b>	218
<b>Mean</b>	6.81
<b>Median</b>	7.00
<b>SD</b>	2.63
<b>Min</b>	1
<b>Max</b>	14
<b>Percentile 25</b>	5
<b>Percentile 50</b>	7
<b>Percentile 75</b>	9
<b>Cronbach's Alpha</b>	.725
<b>Cronbach's Alpha (Standardised Items)</b>	.731

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>Control important things</b>	4.73	4.17	.499	.269	.674
<b>Handle personal problems</b>	5.52	4.67	.444	.225	.703
<b>Things going your way</b>	5.11	4.54	.569	.328	.643
<b>Difficulties piling up</b>	5.06	3.62	.573	.336	.631

Table 60: Results of the Moral Distress Scale

	<b>Moral distress</b>
<b>Valid N</b>	216
<b>Mean</b>	3.99
<b>Median</b>	4
<b>SD</b>	2.74
<b>Min</b>	0
<b>Max</b>	10
<b>Percentile 25</b>	2
<b>Percentile 50</b>	4
<b>Percentile 75</b>	6

Table 61: Results of the Copenhagen Burnout Subscales

	<b>Personal burnout (6 items)</b>	<b>Work-related burnout (7 items)</b>	<b>Client-related burnout (6 items)</b>
<b>Valid N</b>	218	218	212
<b>Mean</b>	53.99	53.79	40.68
<b>Median</b>	54.17	53.57	39.50
<b>SD</b>	20.24	20.15	19.96
<b>Min</b>	0	10.14	3.83
<b>Max</b>	100	96.43	100
<b>Percentile 25</b>	37.50	39.29	25.00
<b>Percentile 50</b>	54.17	53.57	39.50
<b>Percentile 75</b>	66.67	68.71	54.17
<b>Cronbach's Alpha</b>	.901	.861	.886
<b>Cronbach's Alpha (Standardised Items)</b>	.903	.879	.892

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>Personal burnout</b>					
<b>Tired</b>	254.36	10971.71	.760	.658	.881
<b>Physically exhausted</b>	266.63	10226.25	.762	.669	.878
<b>Emotionally exhausted</b>	264.22	10459.30	.763	.614	.879
<b>Can't take it</b>	286.93	10438.90	.678	.529	.892
<b>Worn out</b>	263.99	10172.02	.772	.613	.877
<b>Weak and susceptible</b>	283.72	10424.84	.670	.463	.893

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>Work-related burnout</b>					
<b>Work emotionally exhausting</b>	307.87	15216.65	.680	.534	.863
<b>Burnt out due to work</b>	331.72	13935.06	.761	.614	.852
<b>Work frustrates</b>	322.55	15088.77	.659	.476	.865
<b>Worn out at end of day</b>	300.20	15313.47	.677	.497	.864
<b>Exhausted thought of work</b>	328.16	14211.52	.710	.563	.859
<b>Every working hour tiring</b>	330.24	13680.52	.759	.607	.852
<b>Energy for family and friends</b>	338.64	16855.82	.430	.205	.890

<b>Client-related burnout</b>					
<b>Hard to work with patients</b>	208.27	11279.44	.760	.663	.858
<b>Frustrating to work with patients</b>	206.32	11365.26	.755	.638	.859
<b>Drain energy patients</b>	195.54	11224.04	.691	.495	.868
<b>Give more back to patients</b>	186.02	10884.41	.629	.415	.880
<b>Tired of working with patients</b>	200.99	10970.60	.769	.623	.856
<b>Wonder how long can continue</b>	189.27	10632.00	.650	.479	.877

Table 62: Results of the Morale in General Practice scale

	<b>Total MAGPI score</b>	<b>Job control score</b>	<b>Social support score</b>	<b>Home-work balance score</b>
<b>Valid N</b>	218	218	218	218
<b>Mean</b>	20.81	1.89	2.54	1.83
<b>Median</b>	20	2	2	2
<b>SD</b>	3.71	0.67	0.98	0.70
<b>Min</b>	14	1	2	1
<b>Max</b>	32	3	6	3
<b>Percentile 25</b>	18	1	2	1
<b>Percentile 50</b>	20	2	2	2
<b>Percentile 75</b>	23	2	3	2
<b>Cronbach's Alpha</b>	.729			
<b>Cronbach's Alpha (Standardised Items)</b>	.718			

	<b>Scale Mean if Item Deleted</b>	<b>Scale Variance if Item Deleted</b>	<b>Corrected Item-Total Correlation</b>	<b>Squared Multiple Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
<b>Control workload</b>	18.92	11.68	.361	.344	.712
<b>Problems with colleagues</b>	19.30	12.65	.202	.185	.729
<b>Up-to-date general practice</b>	19.04	13.49	.019	.096	.744
<b>Support by colleagues</b>	19.44	12.05	.378	.299	.710
<b>Worries about health</b>	19.03	11.67	.376	.298	.710
<b>Support at home</b>	19.51	12.08	.311	.365	.718
<b>Work-life balance</b>	18.98	11.08	.474	.343	.696
<b>Happiness</b>	19.15	10.75	.624	.437	.676
<b>Family and friends</b>	19.57	12.03	.434	.393	.705
<b>Doing a good job</b>	19.63	12.61	.311	.298	.718
<b>Valued by colleagues</b>	19.63	12.13	.455	.368	.704
<b>Problems with alcohol or drugs</b>	19.69	13.39	.100	.144	.733
<b>Right career</b>	19.35	12.38	.282	.199	.720
<b>Worries about family</b>	19.30	11.77	.378	.244	.709

Table 63: Differences in mean scores of dependent variables according to implementation of the GP Forward View Ten High Impact Actions

		Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands	HSE Job Control
<b>Active signposting</b>												
<b>Yes</b>	Mean	4.03	6.75	53.8281	53.0652	39.386	20.72	1.89	2.52	1.89	29.22	18.34
	N	158	160	160	160	155	160	160	160	160	160	160
<b>No</b>	Mean	3.9	6.97	54.454	55.8079	44.1813	21.07	1.9	2.59	1.67	28.98	17.6
	N	58	58	58	58	57	58	58	58	58	58	58
<b>Sig.</b>		0.76	0.594	0.841	0.376	0.121	0.539	0.93	0.653	0.039*	0.81	0.336
<b>Develop team</b>												
<b>Yes</b>	Mean	3.99	6.61	53.7687	53.4117	39.5824	20.71	1.92	2.52	1.87	29.48	18.15
	N	177	178	178	178	172	178	178	178	178	178	178
<b>No</b>	Mean	4	7.68	55	55.5	45.375	21.28	1.75	2.63	1.7	27.73	18.15
	N	39	40	40	40	40	40	40	40	40	40	40
<b>Sig.</b>		0.981	0.021*	0.729	0.555	0.098	0.384	0.144	0.527	0.178	0.116	0.996
<b>Support self-care</b>												
<b>Yes</b>	Mean	4.02	6.7	54.7087	53.935	41.3008	20.72	1.93	2.51	1.88	29.23	18.35
	N	121	123	123	123	118	123	123	123	123	123	123
<b>No</b>	Mean	3.95	6.95	53.0702	53.6135	39.8901	20.93	1.83	2.57	1.78	29.06	17.88
	N	95	95	95	95	94	95	95	95	95	95	95
<b>Sig.</b>		0.837	0.491	0.555	0.907	0.61	0.69	0.259	0.674	0.3	0.851	0.498
<b>New consultation types</b>												
<b>Yes</b>	Mean	4.06	6.71	54.2763	54.9674	40.0621	20.97	1.97	2.51	1.87	29.06	18.17
	N	113	114	114	114	110	114	114	114	114	114	114
<b>No</b>	Mean	3.91	6.91	53.6859	52.5096	41.3366	20.63	1.8	2.57	1.8	28.76	18.13
	N	103	104	104	104	102	104	104	104	104	104	104
<b>Sig.</b>		0.69	0.571	0.83	0.37	0.643	0.502	0.053	0.659	0.459	0.382	0.951



		Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands	HSE Job Control
<b>Reduce DNA</b>												
<b>Yes</b>	Mean	4.24	6.85	54.5556	55.2933	41.6197	20.77	2	2.39	1.91	29.71	18.31
	N	75	75	75	75	71	75	75	75	75	75	75
<b>No</b>	Mean	3.86	6.78	53.7005	53.009	40.1998	20.83	1.83	2.62	1.8	28.87	18.06
	N	141	143	143	143	141	143	143	143	143	143	143
<b>Sig</b>		0.331	0.852	0.768	0.428	0.626	0.912	0.079	0.1	0.273	0.357	0.734
<b>Social prescribing</b>												
<b>Yes</b>	Mean	4.01	6.73	54.1667	53.9895	39.5094	20.56	1.91	2.48	1.87	29.63	18.1
	N	162	164	164	164	160	164	164	164	164	164	164
<b>No</b>	Mean	3.94	7.04	53.4722	53.2037	44.2628	21.57	1.83	2.72	1.74	27.72	18.28
	N	54	54	54	54	52	54	54	54	54	54	54
<b>Sig.</b>		0.886	0.461	0.828	0.804	0.136	0.082	0.476	0.107	0.255	0.056	0.825
<b>Partnership working</b>												
<b>Yes</b>	Mean	4	6.76	54.7771	54.7643	39.0508	20.64	1.95	2.45	1.88	29.68	18.04
	N	155	157	157	157	151	157	157	157	157	157	157
<b>No</b>	Mean	3.97	6.93	51.9809	51.2998	44.6967	21.25	1.74	2.75	1.72	27.82	18.41
	N	61	61	61	61	61	61	61	61	61	61	61
<b>Sig.</b>		0.937	0.658	0.361	0.255	0.062	0.283	0.036*	0.04*	0.135	0.053	0.63
<b>Productive workflow</b>												
<b>Yes</b>	Mean	4.14	6.85	55.5458	55	39.2542	20.82	1.92	2.51	1.84	29.74	18.4
	N	141	142	142	142	139	142	142	142	142	142	142
<b>No</b>	Mean	3.71	6.72	51.0965	51.5432	43.3813	20.8	1.83	2.59	1.83	28.07	17.67
	N	75	76	76	76	73	76	76	76	76	76	76
<b>Sig.</b>		0.268	0.732	0.122	0.228	0.153	0.978	0.327	0.54	0.927	0.064	0.306

		Moral distress	Perceived stress	Personal Burnout	Work Burnout	Client Burnout	MAGPI (total)	MAGPI Job control	MAGPI Social Support	MAGPI Home-Work Balance	HSE Job Demands	HSE Job Control
<b>Personal productivity</b>												
<b>Yes</b>	Mean	3.84	6.84	54.6348	53.9839	39.8721	20.66	1.84	2.58	1.88	28.73	19.06
	N	88	89	89	89	86	89	89	89	89	89	89
<b>No</b>	Mean	4.09	6.78	53.553	53.6645	41.2235	20.91	1.92	2.5	1.81	29.45	17.52
	N	128	129	129	129	126	129	129	129	129	129	129
<b>Sig.</b>		0.507	0.87	0.699	0.909	0.629	0.624	0.389	0.551	0.467	0.414	0.026
<b>QI expertise</b>												
<b>Yes</b>	Mean	3.96	6.74	54.5525	52.0714	38.6506	20.83	1.89	2.59	1.85	29.19	19.52
	N	54	54	54	54	52	54	54	54	54	54	54
<b>No</b>	Mean	4	6.83	53.811	54.3624	41.3333	20.8	1.89	2.52	1.83	29.15	17.7
	N	162	164	164	164	160	164	164	164	164	164	164
<b>Sig.</b>		0.932	0.831	0.816	0.47	0.401	0.961	0.99	0.628	0.837	0.969	0.02*

Note \*= p<0.05. \*\*= p<0.001

# Appendix C: Stakeholder interview study

## i. Interview Guide

Introduction including clarification of the purpose of the interview. Confirmation of consent and permission to audiotape

Demographic information

- Professional stakeholder role in relation to general practice
- Current working arrangements as a clinical GP?

Brief summary of research findings to date- setting the scene (these interviews are aiming to make sense of phases 1 and 2) (but acknowledging the inevitable impact of covid).

### Summary of findings to date

#### Phase 1 Exploratory interviews

Identified a number of factors impacting upon GP well being:

- External bureaucracy (concept of unease as in acting as street-level bureaucrats)
- There are perverse rewards in the system (*Paid as much if provide a bad service and chew garlic*) (*government knows the cost of everything and the value of nothing*)
- Endless societal demand, yet GPs are working in a system with increasing risk aversion (*Coping with whatever is thrown at them by NICE or CQC*) (*the decision density of the job*) (*GP workload is unlimited unlike a bank which shuts*)
- There is uncertainty in this changing system about the role and position of the GP
- GPs are experiencing a sense of a loss of control and autonomy as well as a loss of a 'certain identity' (*relentless workload like lobsters in boiling water or treading water in the Atlantic*)
- There is a change in the nature of the relationship with patients (*'plug in – plug out' salaried Dr with less of a longitudinal relationship*) (*managers of a system not therapist for a patient*) (New methods of communication viewed as adversaries)
- As human beings there are impacts related to their role as part of a family with a life beyond medicine.

#### Phase 2 Web Questionnaire

- There are high levels of 'malaise' in the doctors who responded. There are high levels of burnout and stress, with low morale (likely to equate to GHQ 'caseness')
- Some differences e.g., related to sex and age but no obvious difference in those with caring responsibilities

- Those in some roles appear to have lower burnout (GP trainer, salaried GP)
- Those working in middle-sized practices appear to be less stressed
- Little obvious uptake of the GP forward view High Impact actions, limited mention of PCNs
- Karasek model applies- worse outcome seen in high strain jobs (high demands, low control)

Striking association of behavioural disengagement with burnout, moral distress, stress and low morale

- Do you think that there are any particular policies or other reasons underpinning this situation (underlying mechanisms)?
- Does anything surprise you?

### Individual doctor factors

Age: Older Drs appear to be less stressed- why do you think this is?

- Is this because older Drs are more experienced?
- Has it arisen as older Drs who are stressed have been able to leave the workforce as they are financially secure (pensions' paradox)?

Sex: What do you see as the implications of the feminisation of the workforce- given that women appear to have higher levels of stress? (*mechanisms underpinning*)

- Why do you think this is the case?
- Is it related to selection or to additional roles?

Primary Medical Qualification: There are higher levels of stress in IMGs.

- What do you think are the underlying mechanisms for higher levels of stress in this group?

Caring does not appear to have a significant impact in the questionnaire- why is this? (suggested may be significant in the interviews) Is it because this is having an impact in more than one direction at the same time?

- Some of those with caring responsibilities have accommodated this in their choice of jobs
- For some the caring responsibility adds to their burden

Depression: Several of the scores included high values associated with thresholds for depression- yet these Drs are all working? (*need to expand on the background-statement re MAGPI and GHQ*)

- Why do Drs not consider themselves unwell- is this a culture of presenteeism and heroism?
- Why do you think that they behave in this way?

Moral distress and moral injury

- Do you consider that these are appropriate terms to use in relation to healthcare professionals- and if so, why?

Coping mechanism of behavioural disengagement

- What leads some Drs to cope in this way?

### Work-related factors

- GP vacancies- not surprisingly have such a large impact (*not so helpful as a question*)
- GPFV actions appear to have had limited impact- why do you think this is? (given the policy directions)
- Medium-sized practices appear to be associated with lower stress etc.- what are your reflections on this – particularly given the policy moves to PCNs and larger groupings?
- Additional roles such as GP trainer associated with lower levels of burnout- what do you think underlies this?
- Boiled lobster analogy in the interviews, sense in the questionnaire that high demands and low control were problematic. Why do you think that this combination has developed?

#### **Post covid:**

- How has the last six months changed things? Do you think that peoples' perspectives have changed?
- Are family demands different in the post covid era (home schooling, shielding etc.)
- Do you think that new models of access and new methods of consulting will alleviate or exacerbate the situation, *and reasons for this?*
- Changing levels of bureaucracy

#### **Ideas for future directions**

- What needs to be done next?
- Where should the profession go next to address this?

Is there anything else you would like to tell me?

Conclusion- arrangements for verification of transcript. Thanks for time.

**ii. Participant Information Leaflet**

***A Stakeholder Study of the Working Life of General Practitioners in 2020***

My name is Kate Neden and I have been working as a GP in Kent since 1990. I am currently undertaking research into how GPs perceive their working life and you have been approached as you too are considered to offer a 'stakeholder' perspective as an individual responsible for or affected by health and healthcare-related decisions.

I would like to invite you to participate in this research project. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please read the following information and let me know if you would like clarification or further information.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England as well as to consider factors that exacerbate and alleviate stresses in the working environment.

This is a self-funded project conducted as part of doctoral studies at Kent University.

For the purposes of this study, I plan to interview a number of stakeholders related to General Practice from a number of different perspectives. This telephone interview will be arranged at a mutually convenient time and will last around 20 – 30 minutes. With your permission, the interview will be audiotaped for later transcription.

Any information you provide is confidential (except in the unlikely event that information is disclosed that identifies a risk to yourself or others). Data will be stored securely in a locked filing cabinet and only the researcher conducting the study will have access to this. Audio recordings will be destroyed once the research is complete. The transcript of your interview will be anonymised. Direct quotes from the interview may be used in the research report but will not include identifiable information.

The results of this study will be submitted as part of my research to the University of Kent and may be submitted for publication. You may wish to receive a summary of the findings, if so please indicate that you would like a copy on your consent form.

If you choose to take part in this research, you may benefit from airing your views and submitting them to a study dedicated to representing the challenges of working in General Practice.

It is up to you to decide whether to take part or not. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason. If you wish to take part, please complete the form and return it to me by email. If you feel that there is another individual in your organisation who is better placed to respond to this, please pass the invitation to them.

This study has received ethics approval from the University of Kent. Information will be collected and stored in accordance with the University of Kent guidance on General Data Protection Regulation. Further information may be found at : <https://research.kent.ac.uk/researchservices/wp-content/uploads/sites/51/2018/12/GDPR-Privacy-Notice-Research-updated.pdf>

If you have any questions or require more information about this study, please contact me using the contact details below.

If you wish to make a complaint or raise concerns about any aspect of this study and do not wish to speak to the researcher, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

Thank you for taking the time to read this information leaflet.

If you wish to participate, please return the following to:

Name

Work Address

Contact details e-mail

telephone

Suggested times for interview

**iii. Consent form:**

**Please complete this form after you have read the Information Leaflet**

**Title of Study: A Stakeholder Study of the Working Life of General Practitioners in 2020**

**University of Kent Research Ethics Committee Ref:TBC**

Thank you for considering taking part in this research. If you have any questions arising from the Information Leaflet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Please tick or initial

Yes

No

I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason.

The information you have submitted will be published as a report; please indicate whether you would like to receive a summary of the findings.

I consent to the audiotaping of this interview for the purposes of transcription and understand that this will be retained until the research is complete.

I understand that personal information will be handled securely in accordance with GDPR

Participant's Statement:

I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Leaflet about the project and understand what the research study involves.

Signed

Date



#### **iv. Debrief sheet**

Thank you for your participation in this study about the working lives of GPs.

The purpose of this study is to explore the nature and range of demands experienced by GPs working in the NHS in England as well as to consider factors that exacerbate and alleviate stresses in the working environment.

Any information you provide is confidential (except in the unlikely event that information is disclosed that identifies a risk to yourself or others). Data will be stored securely in a locked filing cabinet and only the researcher conducting the study will have access to this. Audio recordings will be destroyed once the research is complete. The transcript of your interview will be anonymised. Direct quotes from the interview may be used in the research report but will not include identifiable information.

If you have any questions regarding this study, please feel free to ask me- Kate Neden. If you wish to raise concerns, you may contact my supervisor Dr Kate Hamilton West (email [K.E.Hamilton-West@kent.ac.uk](mailto:K.E.Hamilton-West@kent.ac.uk))

In the event that you feel distressed by participating this study, we encourage you to contact Kate Neden. In the event that you feel unable to contact anyone associated with the study, the BMA counselling service is available by telephone on 0330 123 1245 - 24 hours a day, 7 days a week.

**v. Ethics application form**



Research Ethics Committee (REC) Application Form

Please complete this Ethics Application form in conjunction with your supervisor.

The supervisor must email the completed copy of the Application form, Consent form, Information Sheet and Research Instrument to:  
I.towers@kent.ac.uk

Name of Applicant: Catherine A Neden ILP Yes/No

Name of your Degree: (e.g.PG/UG degree title) PhD

Campus: Canterbury

Name of Supervisor: Dr Kate Hamilton-West and Prof. Patricia Wilson

Title of Project: A stakeholder study of the Working Life of General Practitioners in 2020

Please provide a brief jargon free background to the project in no more than 150 words:

The context of General Practice in England is undergoing significant policy change, at a time of significant workforce shortage and increasing demands from an ageing population. This study aims to explore how a range of stakeholders view the working lives of GPs and to identify possible explanatory factors for the findings in the first two phases of this study.

This study constitutes the third and final phase of a mixed methods PhD study. Building on the themes identified in the initial interview study, a questionnaire study was conducted to examine the relationships between personal characteristics of GPs and their job role and to explore the links with coping mechanisms, perceived stress, moral distress, morale and burnout. Ethics approval will be sought for each phase of the study separately as the design of each is dependent upon the previous phase.

Research Methods:

G) Selection & number of interviewees/participants:

Members of key stakeholder groups will be contacted. The researcher is a member of a number of national professional networks, particularly through their links through the Royal College of General Practitioners, Health Education England and NHS England. This study will initially use contacts which the researcher has within these networks. If appropriate contacts are not available, then direct approaches will be made to relevant individuals using publicly available contact details.

It is anticipated that 6-8 interviews will be sufficient to capture broad themes and identify gaps in the initial studies.

(Should the pressures of the current coronavirus outbreak mean that it is not possible to arrange these interviews, then an amendment to the research protocol will be submitted to the ethics committee considering alternative methods of seeking the views of these informants).

H) How will your project comply with the General Data Protection Regulation (GDPR)? Please address the following questions:

a) What data do you need to collect (e.g. is this the minimum necessary for the research purposes)?

Data will be collected about the occupational role of the stakeholder within a particular organisation. Given that these are large organisations it is unlikely that the individual could be identified indirectly from this information.

b) Does it infringe on any personal rights?

No

c) What would happen if the data was leaked?

No personal information will be collected apart from information which is already in the public domain.

d) What measures have been put in place to mitigate risks to individuals?

All data will be stored on a private, password-protected computer with the password known only to the researcher.

Those wishing to have a summary of the research or a certificate for appraisal have been asked to email the researcher separately so that their email address cannot be linked to their responses.

e) How do you plan to store, access and work with, the data you collect?

Interview data will be digitally recorded and subsequently transcribed. Interview transcripts will be coded. Participants will not be personally identifiable from these. Only anonymised transcripts will be passed to supervisors.

Email addresses of those wishing to receive the results of the study will be stored separately from the study data.

All data will be stored on a private, password-protected computer with the password known only to the researcher.

f) Will there be any third-party involvement in processing the data?

The research supervisory team will be involved in analysis and discussion of the anonymised data.

g) Can you fully anonymise the data and still achieve the same results?

The data will be collected anonymously but for the purposes of this research it is relevant to identify the stakeholder organisation represented by the respondent.

h) What will you do with the data once you've finished with it?

Data will be retained until completion of the thesis and any publications arising from this work. After this, they will be securely destroyed.

I) Anticipated start date & duration of data collection:

From April to June 2020.

Given that the respondents are all healthcare professionals, it is recognised that data collection may need to extend over the following three months to September 2020 in the light of the unfolding coronavirus outbreak.

J) Details of payment, if any, to interviewees/participants?

No payments will be made to participants.

K) Source of funding (if any):

This is a self-funded project conducted as part of the researcher's PhD study at the University of Kent.

L) List questionnaire and other techniques to be used: N.B do not forget to attach these to your application

A semi-structured interview format will be used, and a copy of the interview guide is appended to the application.

Ethical Considerations:

H) Indicate potential risks to participants (e.g. distress, embarrassment) and means adopted to safeguard against them:

It is not anticipated that the interview will cause significant emotional distress to participants. Should any such concerns become apparent, the interview will be terminated. The researcher is aware of helplines for professional support (e.g., BMA counselling service) should these be required.

I) What confidentiality issues might arise during data collection, analysis, and dissemination of results? How do you plan to protect participants' anonymity?

No personally identifiable information is being collected during this study although the name of the stakeholder organisation will be collected.

The details of the initial network contacts or other contact will only be known to the researcher.

J) What difficulties might arise (e.g. regarding power and/or dependency imbalances between researcher and participants) and how do you safeguard against them?

As the researcher is an established member of the GP community, the chosen sampling strategy aims to include a range of participants in senior positions in organisations relating to primary care. In this context, power and/or dependency imbalances are not anticipated.

K) How will the project take into consideration cultural diversity (e.g. through provision of interpreters where necessary)?

All of those invited will be involved in positions of leadership and influence for GPs in England who will use English for professional communication. The sampling strategy will recruit leaders who are aware of the diversity of the population of GPs working in England.

L) Why, if at all, are you paying participants? What is the potential impact on them of such financial inducement?

No financial inducement is involved

M) What provision are you making for giving feedback to participants about your findings?

They will be offered the option to receive a summary of the research findings (by emailing the researcher separately).

N) What other ethics review procedures has this project already undergone (e.g. with funding bodies)?

Health Research Authority approval not required- see attached.

Consent:

D) What procedures are you using to secure participants' informed consent (please append any forms etc. use for this)?

Information leaflet and written consent, with confirmation of this prior to the commencement of the interview (see appended forms).

E) What procedures will you use with participants unable to give their own informed consent?

Not applicable

F) Explain, where applicable, why the informed consent of the participants is not being sought?

Not applicable

Security Sensitive Material

Does your research involve access to or use of material covered by the Terrorism Act?

No (please delete as appropriate)

(The Terrorism Act (2006) outlaws the dissemination of records, statements and other documents that can be interpreted as promoting and endorsing terrorist acts. By answering 'yes' you are registering your legitimate use of this material with the Research Ethics Advisory Group. In the event of a police investigation, this registration will help you to demonstrate that your use of this material is legitimate and lawful).

Researcher, please sign to testify the accuracy of this completed application:

*CANeden*

Sign:

Print Name: Catherine Neden

Date: 27<sup>th</sup> March 2020

Supervisor, please sign to testify that you have seen and approve this Research Ethics Application and add any additional comments for the reviewer if you wish:

Sign: *Kate Hamilton-West*

Print Name: Dr Kate Hamilton-West

Date: 30<sup>th</sup> March 2020

Please submit your application including your questionnaire and consent form via email to:

[l.towers@kent.ac.uk](mailto:l.towers@kent.ac.uk)

Lisa Towers  
SSPSSR Ethics Administrator  
Cornwallis North East  
University of Kent  
Canterbury  
Kent  
CT2 7NF

Alderson, P. (2021) *Critical Realism for Health and Illness Research: A Practical Introduction*. Bristol: Policy Press.

Clark, A. M. and Lissel, S. L. (2008) 'Complex Critical Realism: Tenets and Application in Nursing Research', *Advances in Nursing Science*, 31(4), pp. E67-E69.