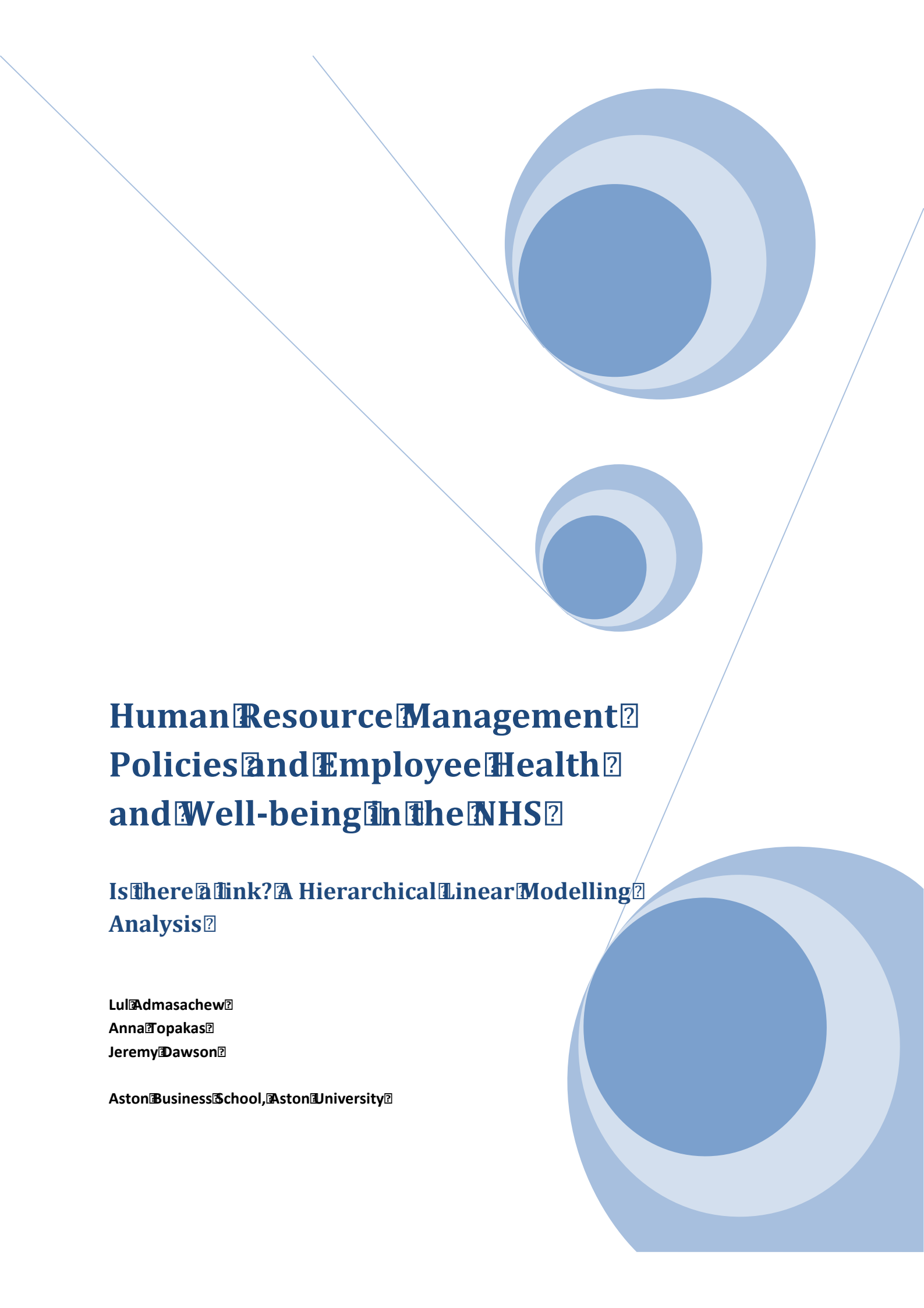


An abstract graphic featuring three concentric blue circles of varying sizes. Two smaller circles are positioned in the upper right quadrant, while a larger circle is in the lower right quadrant. Thin blue lines intersect the circles and extend across the page.

Human Resource Management Policies and Employee Health and Well-being in the NHS

Is there a link? A Hierarchical Linear Modelling Analysis

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Executive Summary

- The main focus of this report is the health and well-being of staff working in the National Health Service (NHS) in England. We particularly looked at whether the health and well-being, presenteeism and supervisor interest for health and well-being are associated with Human Resource Management (HRM) practices of the NHS. Some of the HRM indicators we looked at include appraisal and well structured team work.
- We have also looked at the association between health and well-being, presenteeism and supervisor interest for health and well-being and four outcome variables namely job satisfaction, intention to leave, injury rate and work-related stress.
- In section 1 we describe how the overall report is laid out. In section 2 we discuss the research design which includes details of hierarchical linear modelling analysis; the research framework and details of variables we used from the 2009 NHS Staff Survey. In all of our analysis we used the characteristics of employees (e.g. ethnic background, gender, age and health status), job characteristics, economic status of employees and characteristics of organizations as control variables.
- In section 4, we discuss the research findings. The answer to the research question ‘Does the HRM policy of the NHS predict employee health and well-being, presenteeism and supervisor interest for health?’ is affirmative. Overall, feeling valued by colleagues is the strongest indicator of all four outcome variables.
- With the exception of work pressure, all of the HRM policy indicators are positively and significantly related with general health and well-being, health and well-being in the last four weeks and supervisor interest for health. Moreover, with the exception of work pressure, all of the HRM policy indicator variables are negatively and significantly related to presenteeism and its construct namely working while feeling unwell.
- Relative to the other two appraisal variables, quality of appraisal best predicts all four outcome variables mentioned above.
- Likewise, the finding for the one of our objectives: ‘Does employee health and well-being, presenteeism and supervisor interest for health and well-being predict work-related stress, injury rate, job satisfaction and intention to leave?’ is as follows. Job satisfaction is best predicted by supervisor interest for health. Intention to leave is best predicted by presenteeism due to pressure from supervisors. General health and well-being has the strongest negative relationship with injury rate and work-related stress. Presenteeism best

predicts work-related stress while its construct has the strongest positive relationship with injury rate. Section 5 concludes the study with a few recommendations.

1. Introduction

- 1.1. This report focuses on the link between Human Resource Management (HRM) policies and the health and well-being of the National Health Service (NHS) staff in England.
- 1.2. In section 2 we briefly highlight the definition of health and well-being and contextualise it within the workplace and the NHS respectively. We briefly touch on the benefits and antecedents of health and well-being at the workplace. Moreover, we discuss HRM policies that could enhance health and well-being.
- 1.3. In section 3 we present the Research Design which includes the aim of the study, source of data and methodology.
- 1.4. In sections 4, we present the link between human resource management (HRM) policies and health and well-being of NHS staff. This section has six subsections due to the different research question and themes we have attempted to address. Overall, the section provides answers to the following research questions.
 - Does HRM policy of the NHS predict employee health and well-being and presenteeism?
 - Does HRM policy of the NHS predict supervisor's interest for the health of employees?
 - Do employee health and well-being and presenteeism predict work-related stress, injury rate, job satisfaction and intention to leave?
 - Does supervisor's interest for the health of employees predict work-related stress, injury rate, job satisfaction and intention to leave?
- 1.5. Section 5 wraps up the report with brief conclusion and recommendation. As this study is based on cross-sectional data, the findings cannot lead to inferences about causality. Instead, they lay the foundation for further research in the topic.

2. Health and Well-being: Definition and Outcomes

- 2.1. In this section we conceptualise health and well-being in general and within the workplace and the NHS in particular.

- 2.2. We believe this short review will provide a good rational for the research we have conducted herewith.

The Definition of Health and Well-being

- 2.3. The definitions and measures of health and well-being vary tremendously.
- 2.4. Health ‘encompass[es] both physiological and psychological symptomology within a more medical context’ (Danna and Griffin, 1999, pg. 364).

Definitions of Health & Well-being and its Consequences

1. Person-related dimension
 - 1.a. Physical symptomatology and epidemiological rates of physical illnesses and diseases.
 - 1.b. Mental, psychological, or emotional aspects of workers as indicated by emotional states and epidemiological rates of mental illnesses and diseases
2. Societal dimension (e.g. the consequences of alcohol abuse).

Source: (Danna and Griffin, 1999)

- 2.5. The World Health Organization provides a broader definition of health as a ‘state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity’ (World Health Organization, 1998).
- 2.6. Danna and Griffin (1999) view well-being as concept that covers a broader range of variables as compared to health. Well-being measures need to be context-free and encompass both life- and work-related experiences.
- 2.7. Overall, well-being is a broad concept that encompasses aspects of the ‘whole person’ (Warr, 1990). It is often as a continuous construct ranging from feeling good to bad.

The Definition of Health and Well-being at the Workplace

- 2.8. Health and well-being at work is a widely researched topic and several, seemingly disjointed bodies of literature exist under a wide range of topic areas (Danna and Griffin, 1999).
- 2.9. In general there are certain commonalities in the existing measures of health and well-being in that they focus on two specific aspects; person-related and societal dimensions. The person-related measures tend to address physical and emotional factors relating to overall health and well-being. The details of this perspective will be uncovered in the following paragraphs and the box below depicts the summary of this concept (Danna and Griffin, 1999).

2.10. Although well-being is generally viewed as a continuum between feeling good or bad, Warr (1999) suggests that it well-being can be conceptualised as a three-dimensional construct, with subdimensions referring to displeasure/pleasure, anxiety/comfort and depression/enthusiasm.

Work-related antecedents of health and well-being

- Health and safety and other perils
- Relationships at work (with supervisor and colleagues)
- Role in organisation (ability to make a difference; job satisfaction)
- Career development (availability of training; good quality appraisal and personal development plan)
- Work-life balance
- Organisational climate (e.g. job design and work pressure)
- Others

Source: Adopted from Danna and Griffin, 1999

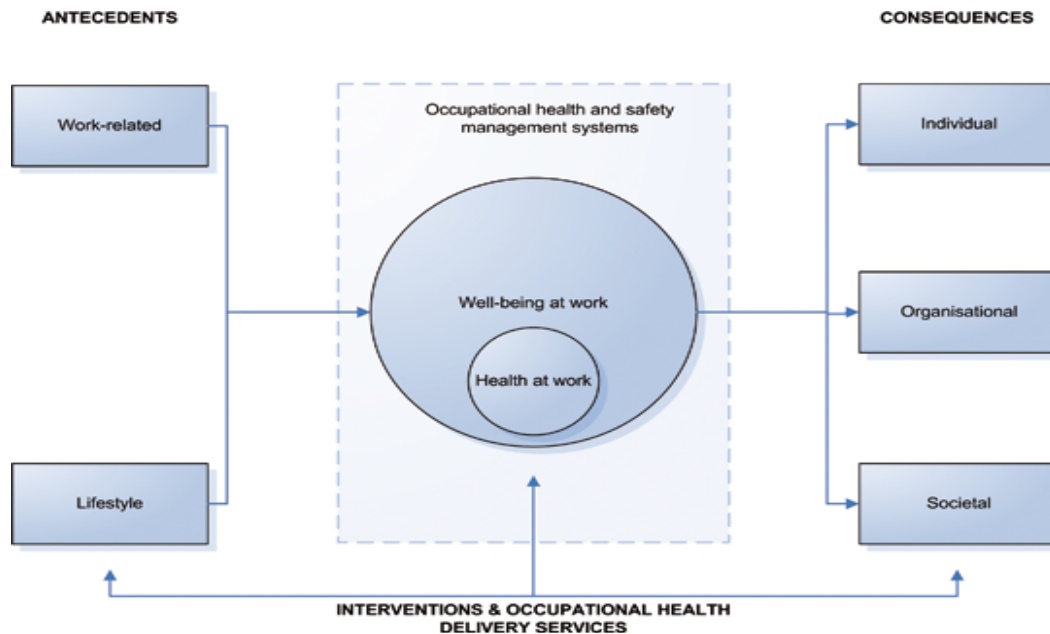
What are the Antecedents and Consequences of Poor Health and Well-being at work?

- 2.11. Poor health and well-being at work leads to increased absenteeism and can have adverse effects on significant individual, organizational, economic and societal consequences (Boorman, 2009).
- 2.12. Indeed, the exposure to work-related hazards varies across occupations and industries (Hassan *et al.*, 2009). Encouraging evidence indicates that there is a marked decrease in work-related injuries in industrialised countries, due to a general change in the nature of jobs. Nevertheless, policy makers and workers are increasingly concerned with improving the quality of jobs overall. (Hassan *et al.*, 2009).
- 2.13. Employees' overall well-being will be affected by factors such as physical security, the extent to which their position is socially valued and the extent to which they are given opportunities to use their skills in their job (Hassan *et al.*, 2009). However, job-specific well-being is not influenced only by these key job-features. Factors at the individual level, such as demographic variables or personality, will also have an effect on employees' wellbeing (Warr, 1999).
- 2.14. Hassan and his colleagues have reported measurable degrees and effects of work-related injuries. They report that 'during 2007/08 an estimated 2.1 million people suffered from an illness that they believed was caused or made worse by their current or past work; 229 workers suffered fatal injuries at work; and 299,000 self-reported injuries occurred... 34 million working days were lost overall (1.4 days per worker),

28 million due to work-related ill-health and 6 million due to workplace injury' (Hassan *et al.*, 2009, pg. 7).

- 2.15. The Health and Safety Executive (2009) estimates the annual costs to individuals of workplace accidents and work-related ill-health to be between £10.1 and £14.7 billion in Great Britain. These costs include loss of income, extra expenditure of dealing with injury or ill-health, subjective costs of pain, grief and suffering (Pathak, 2008).
- 2.16. Likewise, in 2000/2001 alone, the cost of work-related injury and ill health for individuals was estimated to be between 10.1 and 14.7 billion. The cost for employers was between 3.9 and 7.8 billion; and to society 20 to 31.8 billion (Health and Safety Executive, 2004).
- 2.17. Hassan and colleagues (2009) have demonstrated the antecedents and consequences of health and well-being at work and their interlinked nature (see figure 1 below). The figure clearly demonstrates that health at work cannot be understood only in terms of work-related antecedents. The relationships between health and work are not uni-factorial: the deterioration of workers' health may be caused by work and non-work-related factors.
- 2.18. The authors describe health at work in terms of physical, physiological, mental and psychological ailments and wellbeing in the workplace as work/job-related satisfaction. There is lifestyle and work related antecedents of health and well-being which are also interlinked.

Figure 1: A conceptual framework of health and well-being at work



Source: Hassan *et al.* (2009) adopted from Danna and Griffin (1999).

- 2.19. The work-related antecedents are divided into two separate strands. The first antecedent stems from the work setting (e.g. health and safety hazards and other perils). The second one is occupational stresses which include factors intrinsic to the job; role in organization; relationships at work; career development; organizational structure and climate; home/work interface and other factors.
- 2.20. The individual consequences of health and wellbeing in the workplace include physical, psychological and behavioral consequences. The organizational consequences include health insurance costs, compensable disorders/lawsuits, productivity decline, increased risk of injury, absenteeism as well as presenteeism. Social exclusion, anti-social behaviours, high unemployment rates and payments for unemployment benefits are some of the societal consequences of poor health and well-being at work.

Health and Well-being in the NHS

- 2.21. In line with other organizations, healthcare providers are focusing on selecting and employing managerial policies and practices that will optimise productivity and organizational effectiveness (West *et al.*, 2006). Light stipulates that '[h]ealth care is

a template on which different stakeholders project their values, ambitions, fears and institutional reforms' (2001 ,pg. 1168).

- 2.22. The NHS employs a large number of employees over a wide range of professions, including nurses, allied health professionals, doctors, catering etc. (Pearson *et al.*, 2004).
- 2.23. The Department of Health and NHS organizations have a long-term goal of promoting and improving employees' health and wellbeing in the NHS (Boorman, 2009).
- 2.24. Indeed, the Boorman review (2009) recommends that all NHS organizations provide staff health and well-being services that focus on both work and non-work factors that are linked to ill-health, are in accordance to wider public health policies and initiatives, and are viewed as a motivating factor for working in the.
- 2.25. The review has identified the crucial importance of NHS staff health and well-being in terms of several outcomes, such as the capacity of staff to deliver improvements in patient care, as outlined in the NHS Constitution. Thus, the NHS is crucial to the delivery of the improvements in patient care envisaged in the NHS Constitution.
- 2.26. The review also recommends that all NHS leaders and managers are developed and equipped to recognize the link between staff health and well-being and organizational performance. Additionally, it is recommended that managers are evaluated on the positive or negative impact they have on employee health and well-being.
- 2.27. Due to the large number of organizations in the NHS (450) there are evident inconsistencies in the extent to which they support staff and promote their health and well-being at work. Compared to public sector figures, the NHS in England appears to have a higher number of working days lost per staff per year, as well as longer individual sickness absences. (Hassan *et al.*, 2009).
- 2.28. On the whole, it is recognized that the NHS faces major challenges recruiting, motivating and retaining employees in the current unstable period that is characterized by growth and significant changes (Pearson *et al.*, 2004).

3. Research Design

Aim and Objective of the Study

- 3.1. This report focuses on the link between HRM policies and the health and well-being of the NHS staff.
- 3.2. The particular objective of this analysis is to investigate the relationship between the predictor and outcome variables amongst the overall NHS staff as well as across the 390 trusts. The specific research questions are:
 - Does HRM policy of the NHS predict employee health and well-being and presenteeism?
 - Does HRM policy of the NHS predict supervisor's interest for the health and well-being of employees?
 - Does employee health and well-being and presenteeism predict work-related stress, injury rate, job satisfaction and intention to leave?
 - Does supervisor's interest for the health of employees predict work-related stress, injury rate, job satisfaction and intention to leave?
- 3.3. We believe the specific research questions laid out above would enable us to understand the association between HRM policies and employee health and well-being; HRM policies and supervisor interest for health and well-being and well-being; employee health and well-being and its association with work-related stress, injury rate and organisational outcomes (i.e. job satisfaction and intention to leave). The last two research questions laid out in the paragraph above will enable us to understand whether supervisor's interest for the health of employees predict health outcomes such as work-related stress and injury rate as well as job satisfaction and intention to leave.

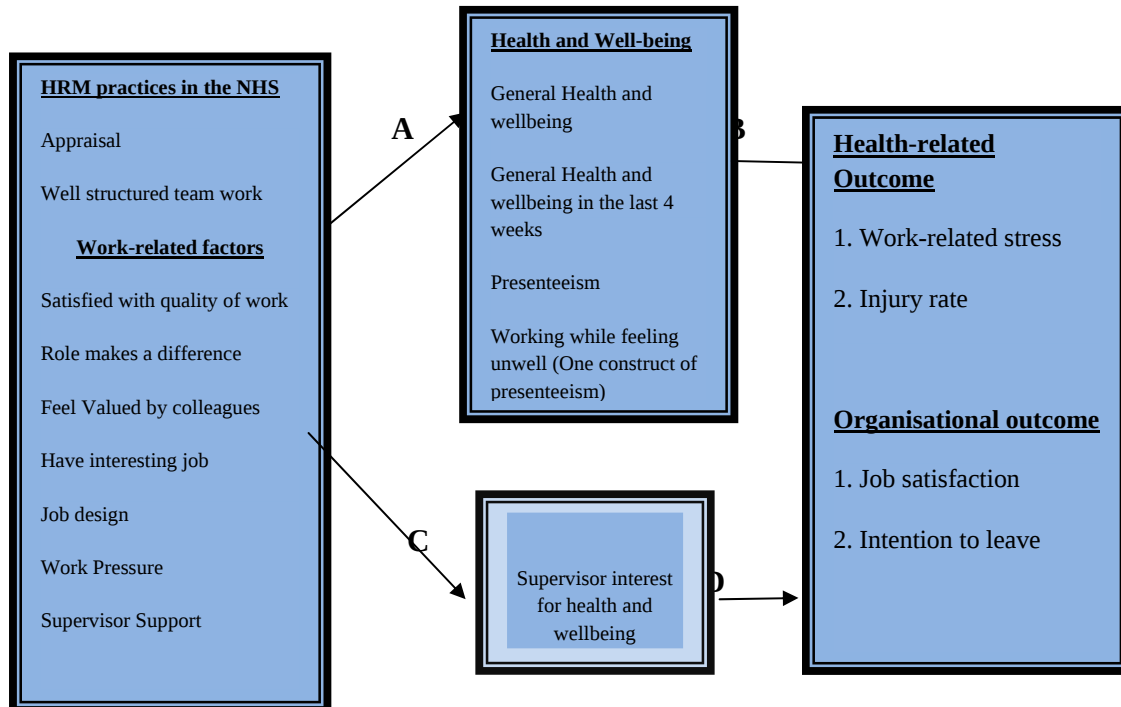
The Conceptualisation of the Research Objectives

- 3.4. In figure 2 below, we present the research framework we have followed while conducting the analysis.
- 3.5. We have adopted this framework from Hassan *et al.* (2009) in the bid to achieve our research objectives and have logical themes.
- 3.6. We are not in any way generalising that some of the HRM variables we have incorporated in the analysis are interlinked. However, within the sample we are

investigating, this type of scenario has unfolded in only a few cases (See appendix 1 for detail). Conceptually however, we expect that HRM policies to be interlinked somehow. For instance, working in a well structured team and being valued by colleagues normally go hand in hand. The same principle applies for work pressure and supervisor support. We expect these two to be correlated negatively but our results show that the correlation is not strong (See appendix 1).

- 3.7. In order to answer the question ‘Does HRM policy of the NHS predict employee health and well-being and presenteeism?’ we analysed appraisal, team work and work-related factors as predictors of employee health and well-being presenteeism. The outcome variables we have looked at are general health and well-being, health and well-being in the last 4 weeks, presenteeism as well as working while feeling unwell. Figure 2 illustrates the analysis described thus far. Arrow A demonstrates the direction of the prediction.
- 3.8. In order to answer the question ‘Does HRM policy of the NHS predict supervisor interest for health?’ we analysed appraisal, team work and work-related factors as predictors of employee health and well-being. The outcome variables we have looked at are general health and well-being, health and well-being in the last 4 weeks, presenteeism as well as working while feeling unwell. Figure 2 illustrates the analysis described thus far. Arrow C demonstrates the direction of the prediction.
- 3.9. In order to answer the question ‘Does employee health and well-being and presenteeism predict work-related stress, injury rate, job satisfaction and intention to leave?’ we analysed health and well-being variables as predictors of work-related stress, injury rate, job satisfaction and intention to leave. Figure 2 illustrates the analysis described herewith. Arrow B demonstrates the direction of the prediction.
- 3.10. In order to answer the question ‘Does supervisor interest for health and well-being and well-being and presenteeism predict work-related stress, injury rate, job satisfaction and intention to leave?’ we analysed supervisor interest for health and well-being and well-being as predictor of work-related stress and injury rate. Figure 2 illustrates the analysis described. Arrow D demonstrates the direction of the prediction.

Figure 2: The Research Framework



Note: The arrows indicate the direction of prediction

Research Method and Source of Data

- 3.11. We analyzed the 2009 NHS Staff Survey which includes over 150,000 staff across all English NHS trusts.
- 3.12. We conducted hierarchical linear modelling in which the health and well-being variables and its constructs were used either as predictors or outcome variables (see figure 2). This was an individual level analysis whereby the sample was also clustered within 390 trusts.
- 3.13. In instances where the outcome variable is dichotomous/binary, we conducted logistic multilevel modelling.
- 3.14. We conducted all of the analysis in SPSS, except for the logistic multilevel models. For these models, we used a statistical package called STATA.

3.15. HRM practices of the NHS we have incorporated in our analysis are indicated in above figure 2. Here, we would like to give a little bit more detail about the HRM variables. These variables have been used only as predictors:

i. Three appraisal variables

- ‘% having appraisal in the last 12 months’
- ‘% having a well-structured appraisal in the last 12 months’
- ‘% agreeing personal development plan (PDP) in the last 12 months’

ii. Well-structured team work

iii. Seven work related key scores which are listed below. Indeed, one can see that some of these factors are indirectly related to work related factors. For instance, feeling valued by colleagues can be a result of each individual employee’s effort and the predisposition to think positively as well as the result of effective team work, job design, role clarity and supervisory support.

- Satisfied with quality of work
- Role makes a difference
- Feel valued by colleagues
- Have interesting job
- Job design
- Work Pressure
- Supervisor Support

3.16. The health and well-being indicators in these models are listed below. The variables listed in (i) and (ii) below have been used both as outcome and predictor variables. The last two have only been used as outcome variables.

i. Health and well-being and health and well-being in the last 4 weeks

ii. Presenteeism and working while feeling unwell - which is one of the constructs of presenteeism.

iii. Work-related stress

iv. Injury rate

3.17. Supervisor interest for health and well-being, job satisfaction and intention to leave are also included in our analysis.

3.18. The control variables included in all of the multilevel models are listed below.

- i. Characteristics of employees: Ethnic background, gender, age and health status
- ii. Job characteristics and economic status: Job tenure, hours worked (i.e. full-time vs. part-time) managerial status and Occupational group (i.e. Nurses, Central Functions &

Administrative staff, Allied Health Professionals (AHPs), Clinical, Scientific & Technical Support, Medical/ Dental, Management, Paramedic & Ambulance Services and Social Care Services.

- iii. Characteristics of organization: Size of trust, location of trust (i.e. London vs. other regions of the UK) and trust type (i.e. Acute, Primary Care Trusts (PCTs), Mental Health and Ambulance).

4. Results and Discussion

- 4.1. The 2009 NHS staff survey is a rich data set which consists of 156,951 respondents, 20% of which are male respondents.
- 4.2. The great majority of the respondents (i.e. 98.5%) are between the ages of 21 and 65. Overall, the white ethnic group is the majority (87%) and from this 'British White' makes up 83%.
- 4.3. Only about 13% of the respondents are ethnic minorities, Indians and Black Africans being the largest groups (3.2% and 2.7% respectively).
- 4.4. The diverse professions of the NHS staff are regrouped into eight major occupational groups (see table 1 below). The table shows that staffs working in central functions and administration are highly represented in the sample, closely being followed by nurses.

Table 1: The Occupational Groups of NHS Staff

	Frequency	Percent	Cumulative Percent
Allied Health Professionals	24160	16.0	16.0
Central functions & Administration	45297	29.9	45.9
Clinical, scientific & Technical support	16646	11.0	56.9
Medical Dental	8202	5.4	62.3
Nurses	43371	28.7	91.0
Paramedic & ambulance services	3237	2.1	93.1
Social care services	1288	0.9	94.0
Management	9153	6.0	100.0
Total	151354	100.0	
Missing value	5597		
Grand Total	156951		

- 4.5. In the next few sections, we will discuss the results of the multilevel and logistic hierarchical linear modelling. The analysis is presented in line with the research

framework we have described above (see figure 2). We believe that the thematic arrangement of the sections will make it easy to follow for the reader.

- 4.6. We present the full details of these analyses in the appendices.

Does the HRM Policy of the NHS Predict Employee Health and Well-being and Presenteeism?

- 4.7. In the first two columns of table 2 below, we present the results of HRM practices of the NHS and their association with health and well-being variables. The last two columns refer to the association between HRM policies and presenteeism. The summary of these results are presented in the box at the right hand side of this page.

- 4.8. The table shows that all three appraisal indicators are positively and significantly related to general health and well-being as well as health and wellbeing in the last 4 weeks. We can see that relative to the other two appraisal variables, good quality appraisal best predicts general health and well-being as well as health and well-being in the last 4 weeks.

- 4.9. Positive and significant results were obtained for ‘working in well-structured team’, confirming the fact that harmony and good working relationships can enhance employees’ health and well-being.

- 4.10. All but one work-related factor have a positive relationship with general health and well-being as well as health and well-being in the last 4 weeks.

- 4.11. Indeed, various factors are related to the health and well-being of workers: work-related, lifestyle and socio-economic factors (Hassan *et al.*, 2009). The negative association we observe between work pressure and the health and well-being

Summary of Analysis

- With the exception of work pressure, all of the HRM policy indicator variables are positively and significantly related with general health and well-being as well as health and well-being in the last four weeks. Work pressure has a negative and significant relationship with these outcome variables.
- With the exception of work pressure, all of the HRM policy indicator variables are negatively and significantly related to presenteeism and its construct namely working while feeling unwell. Work pressure has a positive and significant relationship with these outcome variables.
- Relative to the other two appraisal variables, quality of appraisal best predicts all four outcome variables mentioned above.
- Overall, feeling valued by colleagues is the strongest indicator of all four outcome variables. This is followed by satisfaction with quality of work, although this is not an effective predictor of the presenteeism variable best predictor is quality appraisal

variables is what we might expect. As workers are subjected to increased levels of stress, their minds and bodies are stretched and they are less likely to make health lifestyle choices. As a result, their immune systems may become weaker, increasing the probability of contacting new disease (e.g. cold, musculoskeletal illness, repetitive strain injury and headache) or worsening a pre-existing illnesses.

- 4.12. Table 2 indicates that feeling valued by colleagues is the strongest predictor of employees general health and well-being as well as their health and well-being in the last four weeks.
- 4.13. We can see from the table that the association between supervisor support and these health and well-being variables is positive but not as strong when compared with the results with feeling valued by colleagues. This is perhaps because employees tend to relate and open up more to the colleagues they work most closely with, but to whom they do not report.
- 4.14. Table 2 also demonstrates the association between HRM practices and presenteeism as well as one of its constructs, namely working while feeling unwell. The results are negative and significant across the board for all outputs except work pressure. Indeed this is what we normally expect. Amongst other factors, it is work pressure that makes people attend work when sickness absenteeism is justifiable (Hemp, 2004).
- 4.15. On the whole, the odds ratios indicate that all three appraisal variables are negatively and significantly related to presenteeism and its construct. Again, quality appraisal strongly predicts presenteeism and its construct when compared with the other two appraisal variables.

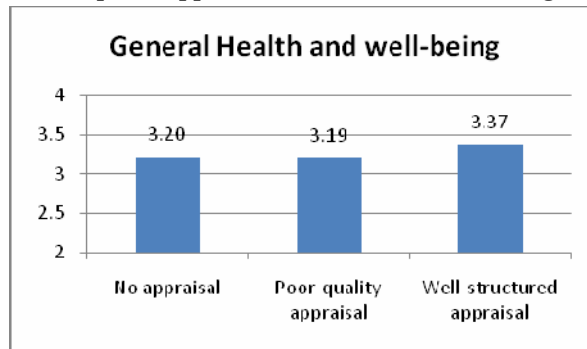
Table 2: The association between HRM Practices Predicting Health & Well-being as well as Presenteeism in the NHS

	General health and Well-being		Health in last 4 weeks		Presenteeism		Working while feeling unwell	
	Estim.	T value	Estim.	T value	OR	Z value	OR	Z value
Had appraisal in the last 12 months	.072***	15.901	.121***	17.019	0.821***	-12.14	0.947***	-3.94
Good quality appraisal	.172***	39.462	.317***	46.869	0.388***	-50.83	0.623***	-35.41
Agreed personal development plan	.078***	18.080	.142***	20.959	0.781***	-15.73	0.946***	-4.14
Working in well structured team	.109***	26.478	.172***	26.765	0.549***	-37.91	0.769***	-20.73
Satisfied with quality of work	.267***	53.198	.476***	62.074	0.463***	-46.24	0.559***	-35.48
Role makes a difference	.193***	26.740	.346***	31.101	0.577***	-23.59	0.767***	-11.62
Feel valued by colleagues	.315***	64.951	.489***	64.917	0.294***	-75.99	0.542***	-38.13
Have interesting job	.238***	45.507	.402***	49.578	0.451***	-45.23	0.648***	-25.96
Job design	.172***	87.188	.294***	96.446	0.449***	-99.98	0.660***	-62.18
Work Pressure	-.166***	-81.431	-.274***	-86.791	1.839***	75.52	1.662***	70.75
Supervisor Support	.120***	60.059	.201***	64.965	0.478***	-97.75	0.741***	-46.56

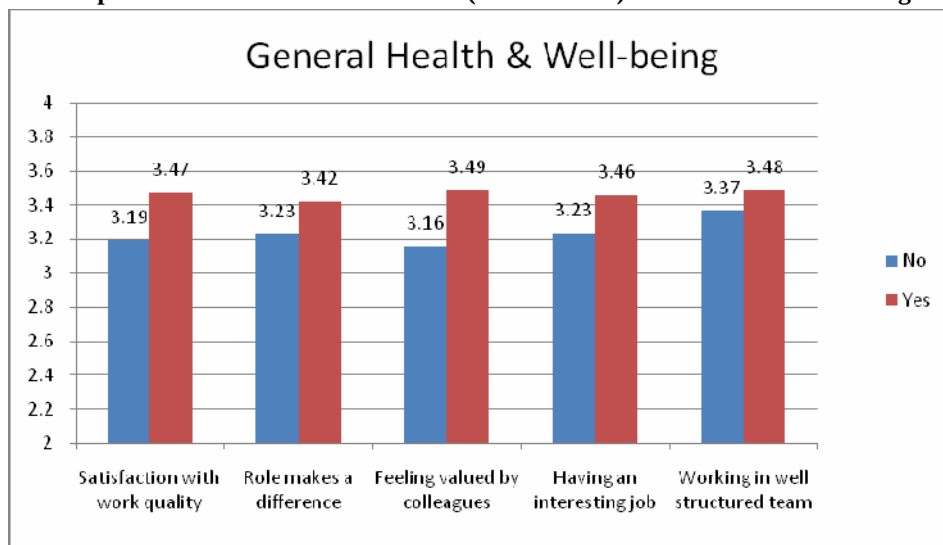
*0.01<p<0.05 ;**0.001<p<0.01;***p<0.001: OR=odds ratio; Estim=beta coefficient; **The values highlighted in blue indicate which work-related factor is the strongest predictor of the outcome variable.

- 4.16. Similar results were obtained for ‘working in well structured team’. Presenteeism and working in well structured team are negatively associated.
- 4.17. Feeling valued by colleagues has the strongest negative association with presenteeism. Employees who are valued by their colleagues are perceived as citizens of the organisation whose health and well-being really matters. Therefore, the pressure they feel from colleagues to show up at work will not be high because priority would be that placed on their health and well-being.

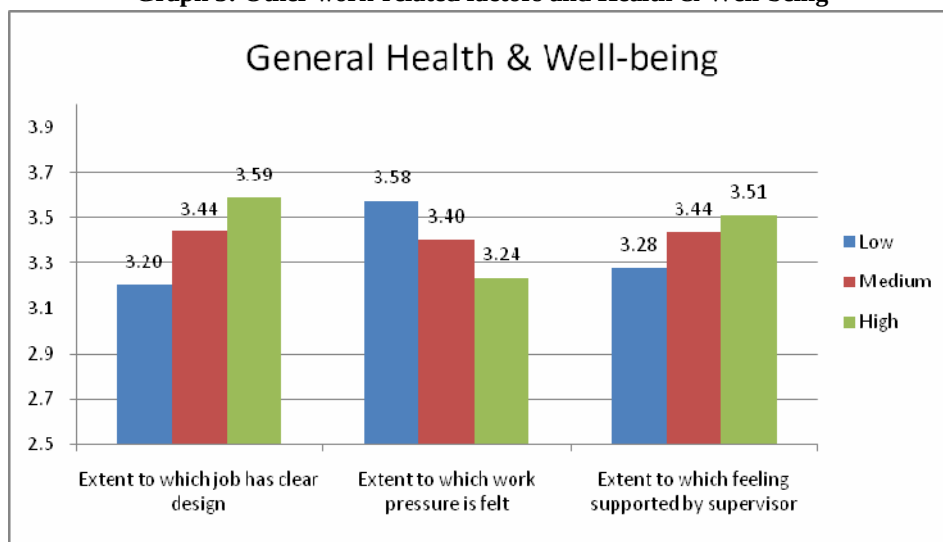
Graph 1: Appraisal and Health & Well-being



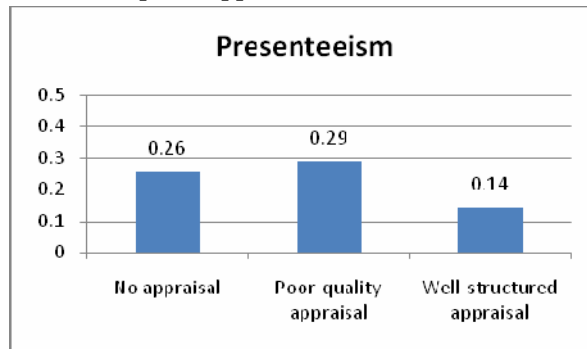
Graph 2: Other work-related factors (dichotomous) and Health & Well-being



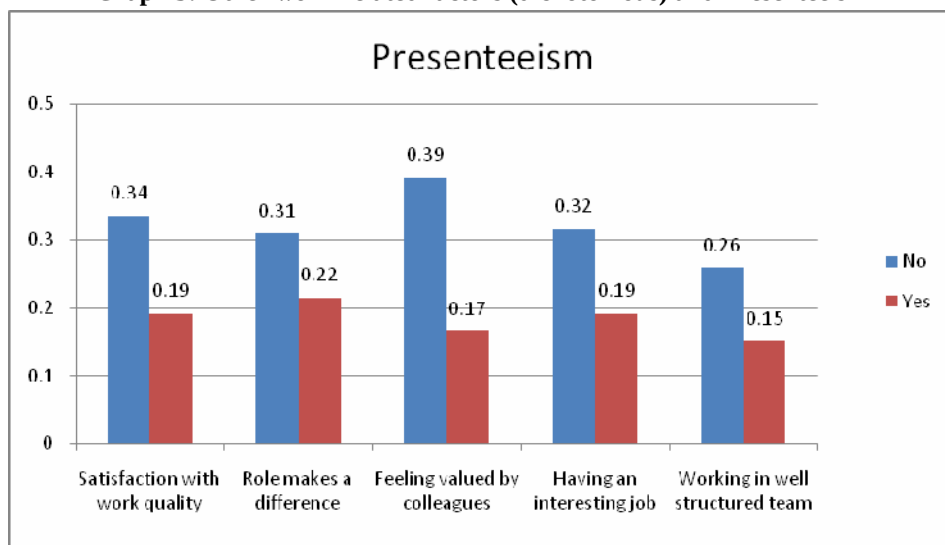
Graph 3: Other work-related factors and Health & Well-being



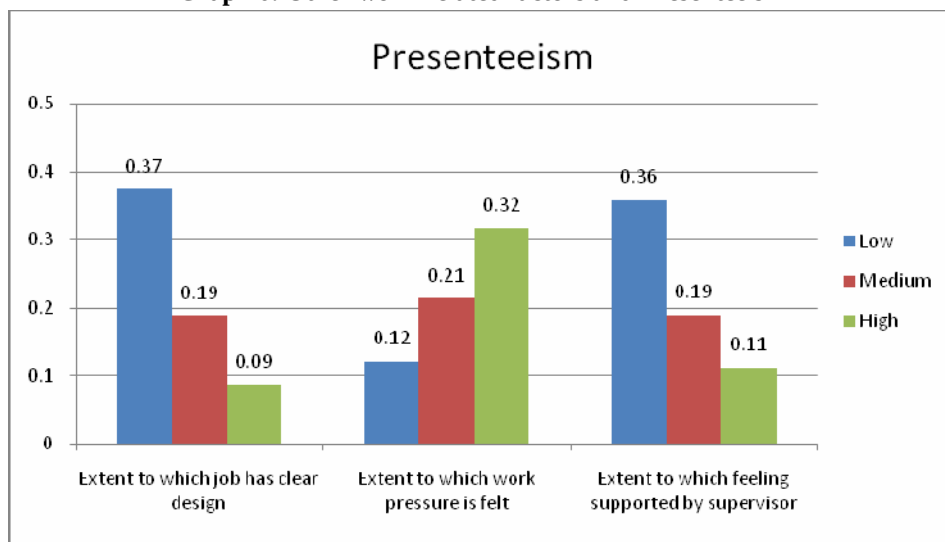
Graph 4: Appraisal and Presenteeism



Graph 5: Other work-related factors (dichotomous) and Presenteeism



Graph 6: Other work-related factors and Presenteeism



Does the HRM Policy of the NHS Predict Supervisor's Interest for the Health and Well-being of Employees?

4.18. In table 3 we present the results of the association between HRM Practices and Supervisor interest for the Health of NHS staff. Supervisor interest is a crucial element for maintaining the health and well-being of employees. The summary of these results are presented in the box at the right hand side of this page.

Summary of Analysis

- With the exception of work pressure, all of the HRM policy indicator variables are positively and significantly related with supervisor interest for health. Work pressure has a negative and significant relationship with this outcome variable.
- Relative to the other two appraisal variables, quality of appraisal best predicts all four outcome variables mentioned above.
- Overall, feeling valued by colleagues is the strongest indicator of supervisor interest for health.

- 4.19. All of the variables listed in table 3 have a positive and significant relationship with supervisor interest for health with the exception of work pressure.
- 4.20. All of the appraisal variables are positively and significantly linked with supervisor interest for health and well-being, quality of appraisal being the strongest predictor. When there is quality appraisal, employees would be more likely to discuss the antecedents of their health and well-being more openly.
- 4.21. In the 2009 NHS staff survey, supervisor interest for health and well-being is captured by a question 'My immediate manager takes a personal interest in my health and well-being'. Indeed, 'interest' could mean anything from enquiring about the health and well-being of an employee through an impersonal e-mail and the usual 'Are you alright?' to discussing what is affecting an employees' health and well-being at work or outside and finding a remedy for it. Line managers cannot always be doctors or counsellors and have the best the solution at their fingertips. Nonetheless, advising their employees what help is available when they are struggling with health and well-being issues is one area they should all be acquainted with. Moreover, it shows that they have interest in their employees' health and well-being when they try to rectify issues such as bullying and harassment through their own best conducts as well as by discouraging employees who resort to these disruptive behaviours.

Table 3: The association between HRM Practices and Supervisor interest for the Health of NHS staff

		Had appraisal in the last 12 months	Good quality appraisal	Agreed personal development plan	Working in well structured team	Satisfied with quality of work	Role makes a difference	Feel valued by colleagues	Have interesting job	Job design	Work Pressure	Supervisor Support
Supervisor interest for health	Estim.	.266***	.650***	.323***	.398***	.477***	.409***	.773***	.537***	.562***	-.286***	.704***
	t	42.173	111.208	52.815	70.421	69.473	41.1	118.49	74.644	236.528	-101.706	339.184

*0.01<p<0.05 ;**0.001<p<0.01;***p<0.001: Estim=beta coefficient; **The values highlighted in blue indicate which work-related factor is the strongest predictor of the outcome variable.

Does Employee Health and Well-being, Supervisor Interest for Health and Well-being and Presenteeism Predict Job Satisfaction, Intention to Leave, Work-related Stress and Injury rate?

- 4.22. In table 4 below we present the findings from the analysis we have conducted by using general health and well-being, health and well-being in the last four months, supervisor interest for health and well-being, presenteeism and one of its constructs called ‘working while feeling unwell’ as predictors of four outcome variables.
- 4.23. Two individual/organisational outcome variables are considered, namely job satisfaction and intention to leave. The other two outcome variables are the health indicators ‘work-related stress’ and ‘injury rate’.
- 4.24. The results show that job satisfaction has a positive relationship with both general health and well-being and health and well-being in the last 4 weeks. When we look at presenteeism and its construct however, the relationship job satisfaction has with the construct of presenteeism is a positive one. This is a surprising result as we normally expect people who go to work despite ill health are more likely to feel dissatisfied with their jobs. Indeed, this presenteeism construct is

general in nature as it only asks about the presence of employees at work despite ill health¹. It does not refer to 'pressure' per se. Perhaps that is why we observe this unexpected result.

4.25. Overall, the results indicate that supervisor interest for health best predicts job satisfaction.

4.26. On another level, we observe that intention to leave has a negative association with general health and well-being as well as health and well-being in the last 4 weeks. A similar relationship holds for supervisor interest for health.

4.27. When we look at presenteeism and its construct, the relationship intention to leave has with the construct of presenteeism is negative. This is a surprising result as we normally expect people who tend to be present at work despite feeling unwell to be more likely to want to leave their jobs. One reason for this might be the fact that people who are motivated and engaged can go to work even when they are not well (e.g. careerism). We need to bear in mind that this presenteeism construct is a general question and does not refer to pressure stemming from colleagues and supervisors.

4.28. Injury rate and work-related stress have a negative association with general health and well-being. This is indeed what we normally expect because as general health and well-being declines the susceptibility for injury increases. Employees who are unwell may lose their usual levels of concentration and vigour. The same holds for work-related stress as indeed general health and well-being usually goes hand in hand with good mental health.

4.29. Surprisingly, the association we observe between health and well-being within the last 4 weeks and injury rate as well as work-related stress is positive. This might be due to the fact that respondents might not really perceive the injuries and work-related stress they experience in a short span of time (i.e. a month) as significant.

4.30. Supervisor interest for health and well-being has a negative relationship with both injury rate and work-related stress. On the other hand, presenteeism and its construct have a positive relationship with both of these outcome variables.

Summary of Analysis

- Job satisfaction is best predicted by supervisor interest for health.
- Intention to leave is best predicted by presenteeism.
- General health and wellbeing has the strongest negative relationship with both injury rate and work-related stress.
- Presenteeism best predicts work-related stress while its construct has the strongest positive relationship with injury rate.

¹ The exact wording of the question is 'In the last three months have you ever come to work despite not feeling well enough to perform your duties?'

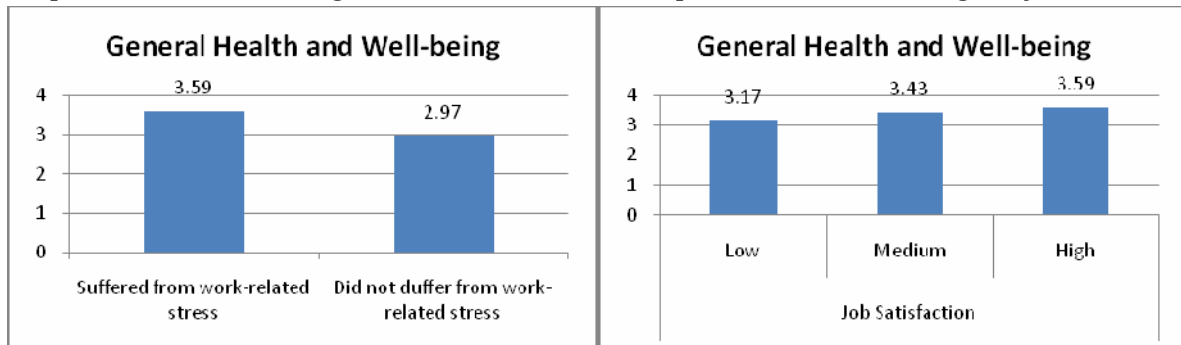
- 4.31. General health and well-being has the strongest negative association with both injury rate and work-related health.
- 4.32. Presenteeism best predicts work-related stress while its construct has the strongest positive relationship with injury rate.

Table 4: Health and Well-being and its outcomes

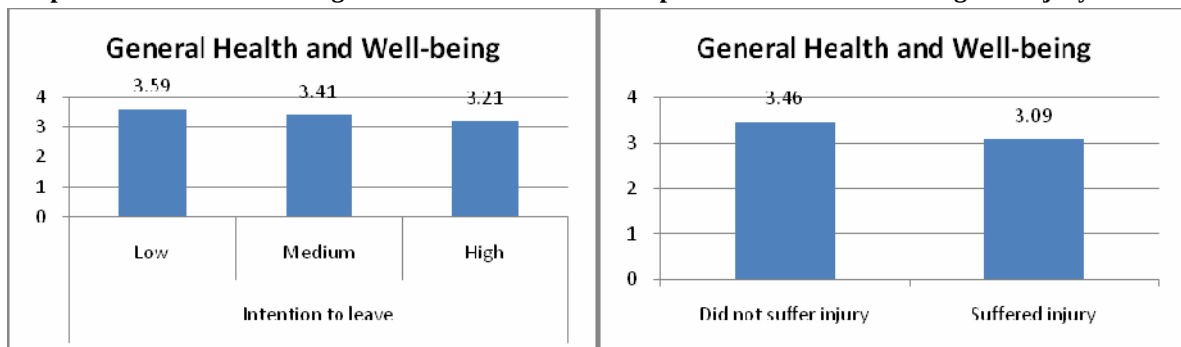
Outcome variables below	Job Satisfaction		Intention to leave		Injury rate		Work-related stress	
	Estim	t	Estim	t	OR	Z	OR	Z
Health and Well-	.181***	95.571	-.273***	-97.191	0.599***	-.531	0.349***	-118.2
Health in last 4 weeks	.194***	103.12	-.287***	103.156	1.358***	0.292	1.934***	110.49
Supervisor interest for	.422***	270.78	-.411***	-155.853	0.748***	-38.11	0.606***	-81.98
Presenteeism	-.638***	-136.539	.764***	107.16	2.510***	48.89	4.041***	91.45
Working while feeling unwell	.306***	73.208	-.461***	-74.227	2.548***	0.884	3.841***	1.314

*0.01<p<0.05 ;**0.001<p<0.01;***p<0.001: Estim=beta coefficient; **The values highlighted in blue indicate which predictor is the strongest predictor of the outcome variables.

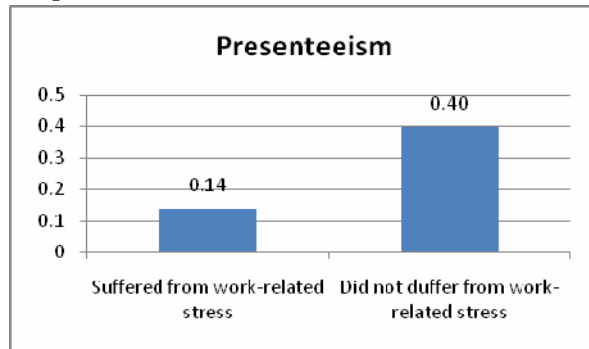
Graph 7: Health & Well-being and work-related stress Graph 8: Health & Well-being and job satisfaction



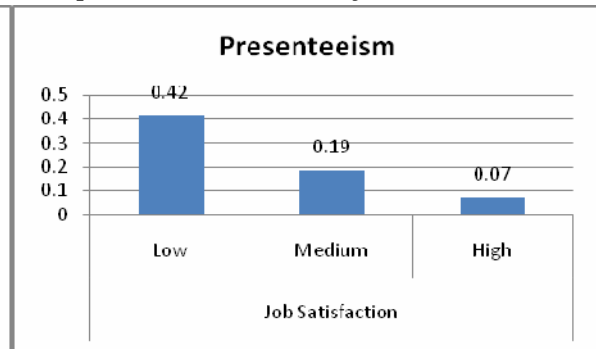
Graph 9: Health & Well-being and intention to leave Graph 10: Health & Well-being and injury rate



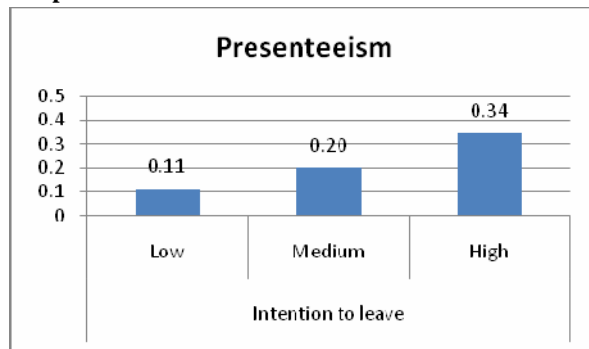
Graph 11: Presenteeism and work-related stress



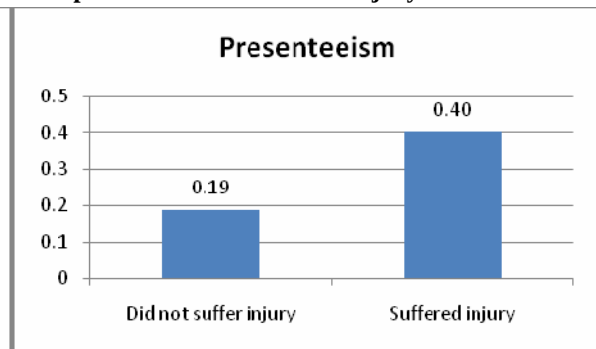
Graph 12: Presenteeism and job satisfaction



Graph 13: Presenteeism and intention to leave



Graph 14: Presenteeism and injury rate



5. Conclusion

5.1. On the whole, we feel this research is informative especially in the NHS context. It supports what is recommended by the Boorman review (2009) especially in terms of exploring health and well-being and presenteeism in the NHS.

5.2. On the whole, the analysis we have conducted indicates that the HRM policies of the NHS are related to employees' health and well-being, presenteeism and supervisor interest for health and well-being. For example, having appraisal and being able to work in a well structured team are associated with these outcome variables.

5.3. Moreover, we have observed that health and well-being, presenteeism and supervisor interest for health and well-being can predict job satisfaction and intention to leave which are by and large the indirect measures of productivity. Indeed, less productivity means a decline in patient care which is the one of the cores of the NHS pledges.

5.3.1. In addition, we have observed that health and well-being, presenteeism and supervisor interest for health and well-being can predict injury rate and work-related stress. This implies that HRM policies which promote the health and well-being of NHS staff in one way or another can indeed curtail injury rate and work-related stress. Apart from the damage it brings to employees' welfare, injury rates increase sickness absence, damage productivity and incur higher medical legal fees for the NHS.

5.4. The direction of causality cannot be inferred as this is a cross sectional study. Longitudinal and qualitative studies that explore the health and well-being of NHS staff and how these interlink with HRM policies are essential.

5.5. Studies that explore the meaning of some ambiguous terms are essential. For instance, supervisor interest for health and well-being can be ambiguous as the term 'interest' can mean different things for different employees.

Summary of the Concluding Remarks

- Before planning and implementing health and wellbeing enhancing policies, the HRM practices of the NHS should pay particular attention to variations of work culture that are prevalent among various occupational groups
- We recommend that such policies should be piloted extensively.
- Longitudinal and qualitative studies should be undertaken in order to broaden our understanding of the health and wellbeing of the NHS staff.

Appendix 1: Correlation Matrix of HRM Variables.

	Had appraisal in the last 12 months	Good quality appraisal	Agreed personal development plan	Satisfied with quality of work	Role makes a difference	Feel valued by colleagues	Have interesting job	Job design	Work Pressure	Working in well structured team	Supervisor Support
Had appraisal in the last 12 months	1	.321**	.836**	.037**	.042**	.100**	.071**	.175**	-.014*	.088**	.146**
Good quality appraisal	.321**	1	.337**	.145**	.092**	.151**	.108**	.343**	-.155**	.154**	.304**
Agreed personal development plan	.836**	.337**	1	.041**	.059**	.121**	.104**	.217**	-.014*	.115**	.189**
Satisfied with quality of work	.037**	.145**	.041**	1	.334**	.137**	.112**	.299**	-.401**	.085**	.143**
Role makes a difference	.042**	.092**	.059**	.334**	1	.195**	.275**	.205**	-.053**	.074**	.120**
Feel valued by colleagues	.100**	.151**	.121**	.137**	.195**	1	.270**	.368**	-.042**	.175**	.290**
Have interesting job	.071**	.108**	.104**	.112**	.275**	.270**	1	.208**	.039**	.095**	.160**
Job design	.175**	.343**	.217**	.299**	.205**	.368**	.208**	1	-.270**	.302**	.585**
Work Pressure	-.014*	-.155**	-.014*	-.401**	-.053**	-.042**	.039**	-.270**	1	-.078**	-.160**
Working in well structured team	.088**	.154**	.115**	.085**	.074**	.175**	.095**	.302**	-.078**	1	.226**
Supervisor Support	.146**	.304**	.189**	.143**	.120**	.290**	.160**	.585**	-.160**	.226**	1

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed); *** Cells highlighted in blue indicate moderate to strong correlation.

Appendix 2: HRM Practices of the NHS as predictors of Health & Well-being

Appendix 2A: The case of appraisal and teamwork

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	-1.279	0.000	-1.213	0.000	-1.258	0.000	-1.227	0.000
Gender	0.058	0.000	0.058	0.000	0.060	0.000	0.056	0.000
Age (16-20)	-0.424	0.000	-0.418	0.000	-0.420	0.000	-0.431	0.000
Age (21-30)	-0.342	0.000	-0.330	0.000	-0.345	0.000	-0.347	0.000
Age (31-40)	-0.313	0.000	-0.300	0.000	-0.317	0.000	-0.321	0.000
Age (41-50)	-0.285	0.000	-0.271	0.000	-0.286	0.000	-0.292	0.000
Age (51-65)	-0.223	0.000	-0.210	0.000	-0.223	0.000	-0.231	0.000
Management Status (1=Yes, 2=No)	0.004	0.341	-0.003	0.582	0.003	0.496	-0.001	0.812
Tenure (<1 year)	0.106	0.000	0.093	0.000	0.105	0.000	0.088	0.000
Tenure (1-2 years)	0.023	0.002	0.011	0.151	0.023	0.003	0.022	0.004
Tenure (3-5 years)	0.004	0.561	-0.003	0.609	0.003	0.674	0.006	0.404
Tenure (6-10 years)	-0.011	0.079	-0.013	0.040	-0.012	0.067	-0.007	0.277
Tenure (11-15 years)	-0.011	0.143	-0.011	0.144	-0.011	0.137	-0.009	0.246
Part-Time (<= 29 hours)	0.062	0.000	0.061	0.000	0.062	0.000	0.058	0.000
AHP	-0.042	0.000	-0.032	0.001	-0.046	0.000	-0.034	0.001
Central Functions & Admin	0.018	0.045	0.023	0.012	0.022	0.022	0.018	0.052
Clinical, Scientific & Technical Support	-0.038	0.000	-0.044	0.000	-0.039	0.000	-0.034	0.002
Medical/ Dental	0.068	0.000	0.088	0.000	0.059	0.000	0.077	0.000
Nurses	-0.078	0.000	-0.072	0.000	-0.082	0.000	-0.070	0.000
Paramedic & Ambulance Services	-0.064	0.042	-0.047	0.131	-0.070	0.030	-0.051	0.102
Social Care Services	-0.030	0.214	-0.030	0.222	-0.037	0.135	-0.023	0.333

London Location	0.005	0.500	0.006	0.445	0.004	0.616	0.006	0.396
Acute Type	-0.018	0.532	-0.019	0.511	-0.019	0.516	-0.023	0.434
PCT Type	-0.042	0.152	-0.044	0.127	-0.047	0.117	-0.055	0.061
Mental Health Type	-0.062	0.037	-0.067	0.023	-0.064	0.035	-0.068	0.023
Health Status (1=Good, 2=Poor)	-0.465	0.000	-0.459	0.000	-0.465	0.000	-0.463	0.000
Ethn. White	0.090	0.000	0.111	0.000	0.089	0.000	0.092	0.000
Ethn. Mixed	0.000	0.997	0.018	0.491	0.007	0.791	-0.010	0.716
Ethn. Asian	-0.038	0.059	-0.039	0.050	-0.035	0.086	-0.044	0.029
Ethn. Black	0.106	0.000	0.107	0.000	0.105	0.000	0.113	0.000
The name of predictor is indicated above	0.072	0.000	0.172	0.000	0.078	0.000	0.109	0.000
Trust size	0.002	0.467	0.003	0.310	0.002	0.466	0.003	0.377

Appendix 2B: The case of satisfaction with quality of work; role makes a difference; feeling valued by colleagues; and having interesting job

	Satisfied with quality of work		Role makes a difference		Feel valued by colleagues		Have an interesting job	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	-1.265	0.000	-1.298	0.000	-1.225	0.000	-1.278	0.000
Gender	0.056	0.000	0.054	0.000	0.059	0.000	0.061	0.000
Age (16-20)	-0.433	0.000	-0.444	0.000	-0.424	0.000	-0.401	0.000
Age (21-30)	-0.318	0.000	-0.327	0.000	-0.336	0.000	-0.318	0.000
Age (31-40)	-0.291	0.000	-0.304	0.000	-0.303	0.000	-0.295	0.000
Age (41-50)	-0.258	0.000	-0.274	0.000	-0.270	0.000	-0.265	0.000
Age (51-65)	-0.199	0.000	-0.216	0.000	-0.209	0.000	-0.207	0.000
Management Status (1=Yes, 2=No)	0.012	0.023	0.004	0.389	-0.017	0.000	-0.010	0.035
Tenure (<1 year)	0.083	0.000	0.091	0.000	0.095	0.000	0.087	0.000
Tenure (1-2 years)	0.018	0.028	0.021	0.008	0.029	0.000	0.022	0.004
Tenure (3-5 years)	0.002	0.744	0.002	0.798	0.012	0.082	0.004	0.511
Tenure (6-10 years)	-0.009	0.183	-0.010	0.132	-0.003	0.597	-0.007	0.221
Tenure (11-15 years)	-0.005	0.522	-0.007	0.369	-0.003	0.706	-0.008	0.271
Part-Time (<= 29 hours)	0.059	0.000	0.060	0.000	0.054	0.000	0.066	0.000
AHP	0.006	0.625	-0.043	0.000	-0.048	0.000	-0.054	0.000
Central Functions & Admin	0.022	0.086	0.011	0.282	0.023	0.010	0.044	0.000
Clinical, Scientific & Technical Support	-0.029	0.038	-0.044	0.000	-0.025	0.015	-0.037	0.000
Medical/ Dental	0.111	0.000	0.070	0.000	0.052	0.000	0.055	0.000
Nurses	-0.032	0.012	-0.082	0.000	-0.084	0.000	-0.092	0.000
Paramedic & Ambulance Services	-0.124	0.003	-0.096	0.010	-0.056	0.066	-0.081	0.009
Social Care Services	-0.008	0.769	-0.032	0.201	-0.022	0.338	-0.030	0.199
London Location	0.010	0.198	0.005	0.509	0.005	0.456	0.005	0.483

Acute Type	-0.081 ²	0.040	-0.026 ²	0.460	-0.019 ²	0.503	-0.002 ²	0.947 ²
PCT Type	-0.103 ²	0.010	-0.048 ²	0.180	-0.052 ²	0.070	-0.024 ²	0.412 ²
Mental Health Type	-0.129 ²	0.001	-0.069 ²	0.055	-0.068 ²	0.019	-0.046 ²	0.119 ²
Health Status (1=Good, 2=Poor)	-0.460 ²	0.000	-0.464 ²	0.000	-0.446 ²	0.000	-0.460 ²	0.000 ²
Ethn. White	0.121 ²	0.000 ²	0.103 ²	0.000 ²	0.072 ²	0.000 ²	0.075 ²	0.000 ²
Ethn. Mixed	0.020 ²	0.473 ²	0.003 ²	0.923	-0.011 ²	0.664	-0.018 ²	0.500 ²
Ethn. Asian	-0.044 ²	0.036	-0.036 ²	0.079	-0.047 ²	0.016	-0.043 ²	0.029 ²
Ethn. Black	0.121 ²	0.000 ²	0.122 ²	0.000 ²	0.116 ²	0.000 ²	0.111 ²	0.000 ²
The name of predictor is indicated above	0.267 ²	0.000 ²	0.193 ²	0.000 ²	0.315 ²	0.000 ²	0.238 ²	0.000 ²
Trust size	0.004 ²	0.200 ²	0.003 ²	0.285 ²	0.003 ²	0.336 ²	0.003 ²	0.392 ²

Appendix 2C: The case of job design, work pressure, feeling valued, and Supervisor Support

	Job Design		Work Pressure		Supervisor Support	
	Estimate	p	Estimate	p	Estimate	p
Constant	-1.340	0.000	-1.399	0.000	-1.320	0.000
Gender	0.063	0.000	0.050	0.000	0.058	0.000
Age (16-20)	-0.411	0.000	-0.426	0.000	-0.437	0.000
Age (21-30)	-0.306	0.000	-0.286	0.000	-0.340	0.000
Age (31-40)	-0.276	0.000	-0.253	0.000	-0.308	0.000
Age (41-50)	-0.247	0.000	-0.220	0.000	-0.273	0.000
Age (51-65)	-0.186	0.000	-0.166	0.000	-0.209	0.000
Management Status (1=Yes, 2=No)	-0.038	0.000	0.050	0.000	-0.009	0.051
Tenure (<1 year)	0.078	0.000	0.038	0.000	0.068	0.000
Tenure (1-2 years)	0.019	0.010	-0.002	0.762	0.011	0.134
Tenure (3-5 years)	0.005	0.474	-0.007	0.263	-0.001	0.869
Tenure (6-10 years)	-0.007	0.241	-0.013	0.028	-0.012	0.044
Tenure (11-15 years)	-0.003	0.676	-0.006	0.368	-0.009	0.193
Part-Time (<= 29 hours)	0.057	0.000	0.045	0.000	0.057	0.000
AHP	-0.036	0.000	0.017	0.074	-0.028	0.003
Central Functions & Admin	0.014	0.105	-0.002	0.781	0.022	0.013
Clinical, Scientific & Technical Support	-0.045	0.000	-0.047	0.000	-0.036	0.001
Medical/ Dental	0.096	0.000	0.114	0.000	0.105	0.000
Nurses	-0.059	0.000	-0.018	0.044	-0.066	0.000
Paramedic & Ambulance Services	0.027	0.365	-0.051	0.091	0.006	0.835
Social Care Services	-0.029	0.211	-0.025	0.293	-0.025	0.281
London Location	0.012	0.084	0.003	0.654	0.004	0.563

Acute Type	-0.049 ²	0.082	-0.027 ²	0.352	-0.008 ²	0.791 ²
PCT Type	-0.069 ²	0.014	-0.054 ²	0.062	-0.041 ²	0.159 ²
Mental Health Type	-0.093 ²	0.001	-0.082 ²	0.005	-0.068 ²	0.019 ²
Health Status (1=Good, 2=Poor)	-0.435 ²	0.000	-0.446 ²	0.000	-0.455 ²	0.000 ²
Ethn. White	0.119 ²	0.000 ²	0.124 ²	0.000 ²	0.093 ²	0.000 ²
Ethn. Mixed	0.022 ²	0.395 ²	0.021 ²	0.413 ²	0.005 ²	0.852 ²
Ethn. Asian	-0.047 ²	0.015	-0.054 ²	0.005	-0.038 ²	0.053 ²
Ethn. Black	0.114 ²	0.000 ²	0.098 ²	0.000 ²	0.114 ²	0.000 ²
The name of predictor is indicated above	0.172 ²	0.000	-0.166 ²	0.000 ²	0.120 ²	0.000 ²
Trust size	0.005 ²	0.075 ²	0.003 ²	0.424 ²	0.005 ²	0.122 ²

Appendix 3: HRM Practices of the NHS as predictors of Health in the last 4 weeks

Appendix 3A: The Case of appraisal and teamwork

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	-1.976	0.000	-1.849	0.000	-1.953	0.000	-1.927	0.000
Gender	0.150	0.000	0.150	0.000	0.155	0.000	0.148	0.000
Age (16-20)	-0.807	0.000	-0.789	0.000	-0.799	0.000	-0.793	0.000
Age (21-30)	-0.598	0.000	-0.570	0.000	-0.592	0.000	-0.570	0.000
Age (31-40)	-0.532	0.000	-0.500	0.000	-0.526	0.000	-0.510	0.000
Age (41-50)	-0.507	0.000	-0.477	0.000	-0.499	0.000	-0.488	0.000
Age (51-65)	-0.428	0.000	-0.399	0.000	-0.419	0.000	-0.409	0.000
Management Status (1=Yes, 2=No)	0.048	0.000	0.036	0.000	0.044	0.000	0.042	0.000
Tenure (<1 year)	0.196	0.000	0.172	0.000	0.194	0.000	0.167	0.000
Tenure (1-2 years)	0.077	0.000	0.053	0.000	0.075	0.000	0.075	0.000
Tenure (3-5 years)	0.035	0.001	0.021	0.050	0.030	0.005	0.037	0.000
Tenure (6-10 years)	0.019	0.047	0.014	0.159	0.020	0.047	0.022	0.023
Tenure (11-15 years)	-0.012	0.311	-0.014	0.236	-0.014	0.221	-0.011	0.321
Part-Time (<= 29 hours)	0.089	0.000	0.088	0.000	0.091	0.000	0.086	0.000
AHP	-0.044	0.004	-0.029	0.053	-0.054	0.001	-0.032	0.038
Central Functions & Admin	-0.010	0.508	-0.002	0.896	-0.008	0.601	-0.009	0.527
Clinical, Scientific & Technical Support	-0.022	0.184	-0.033	0.048	-0.033	0.053	-0.015	0.359
Medical/ Dental	0.142	0.000	0.175	0.000	0.123	0.000	0.154	0.000
Nurses	-0.024	0.095	-0.015	0.285	-0.035	0.017	-0.013	0.373
Paramedic & Ambulance Services	-0.068	0.164	-0.028	0.562	-0.070	0.159	-0.049	0.319

Social Care Services	-0.070 ²	0.063	-0.067 ²	0.075	-0.078 ²	0.044	-0.072 ²	0.056 ²
London Location	0.011 ²	0.400 ²	0.012 ²	0.349 ²	0.008 ²	0.523 ²	0.012 ²	0.365 ²
Acute Type	-0.066 ²	0.167	-0.063 ²	0.186	-0.063 ²	0.197	-0.065 ²	0.169 ²
PCT Type	-0.160 ²	0.001	-0.161 ²	0.001	-0.163 ²	0.001	-0.176 ²	0.000 ²
Mental Health Type	-0.201 ²	0.000	-0.205 ²	0.000	-0.199 ²	0.000	-0.202 ²	0.000 ²
Health Status (1=Good, 2=Poor)	-0.711 ²	0.000	-0.698 ²	0.000	-0.711 ²	0.000	-0.709 ²	0.000 ²
Ethn. White	-0.080 ²	0.005	-0.049 ²	0.089	-0.077 ²	0.009	-0.083 ²	0.004 ²
Ethn. Mixed	-0.101 ²	0.014	-0.082 ²	0.045	-0.089 ²	0.033	-0.110 ²	0.007 ²
Ethn. Asian	0.007 ²	0.815	-0.007 ²	0.818 ²	0.012 ²	0.695	-0.005 ²	0.879 ²
Ethn. Black	0.206 ²	0.000 ²	0.198 ²	0.000 ²	0.207 ²	0.000 ²	0.210 ²	0.000 ²
The name of predictor is indicated above	0.121 ²	0.000 ²	0.317 ²	0.000 ²	0.142 ²	0.000 ²	0.172 ²	0.000 ²
Trust size	-0.001 ²	0.887 ²	0.001 ²	0.875	-0.001 ²	0.848	-0.001 ²	0.790 ²

Appendix 3B: The case of satisfaction with quality of work; role makes a difference; feeling valued by colleagues; and having interesting job

	Satisfied with quality of work		Role makes a difference		Feel valued by colleagues		Have an interesting job	
	Estimate	p	Estimate	p	Estimate	p	Estimate	p
Constant	-1.935	0.000	-1.962	0.000	-1.922	0.000	-2.007	0.000
Gender	0.162	0.000	0.154	0.000	0.156	0.000	0.159	0.000
Age (16-20)	-0.808	0.000	-0.803	0.000	-0.757	0.000	-0.720	0.000
Age (21-30)	-0.547	0.000	-0.562	0.000	-0.557	0.000	-0.529	0.000
Age (31-40)	-0.481	0.000	-0.504	0.000	-0.486	0.000	-0.473	0.000
Age (41-50)	-0.457	0.000	-0.481	0.000	-0.454	0.000	-0.447	0.000
Age (51-65)	-0.389	0.000	-0.409	0.000	-0.377	0.000	-0.374	0.000
Management Status (1=Yes, 2=No)	0.065	0.000	0.047	0.000	0.018	0.014	0.026	0.000
Tenure (<1 year)	0.149	0.000	0.167	0.000	0.175	0.000	0.162	0.000
Tenure (1-2 years)	0.061	0.000	0.072	0.000	0.084	0.000	0.074	0.000
Tenure (3-5 years)	0.034	0.003	0.033	0.003	0.047	0.000	0.037	0.000
Tenure (6-10 years)	0.014	0.166	0.016	0.102	0.027	0.004	0.020	0.032
Tenure (11-15 years)	-0.011	0.360	-0.009	0.444	-0.002	0.873	-0.009	0.419
Part-Time (<= 29 hours)	0.080	0.000	0.084	0.000	0.078	0.000	0.097	0.000
AHP	0.034	0.085	-0.061	0.000	-0.056	0.000	-0.067	0.000
Central Functions & Admin	0.009	0.644	-0.019	0.253	-0.003	0.840	0.033	0.018
Clinical, Scientific & Technical Support	-0.004	0.840	-0.044	0.013	-0.002	0.921	-0.018	0.277
Medical/ Dental	0.204	0.000	0.123	0.000	0.114	0.000	0.116	0.000
Nurses	0.056	0.004	-0.042	0.009	-0.035	0.012	-0.049	0.001
Paramedic & Ambulance Services	-0.171	0.007	-0.153	0.008	-0.047	0.322	-0.081	0.092
Social Care Services	-0.004	0.911	-0.067	0.080	-0.058	0.113	-0.072	0.053

London Location	0.017 ²	0.201 ²	0.007 ²	0.617 ²	0.010 ²	0.436 ²	0.010 ²	0.445 ²
Acute Type	-0.174 ²	0.005	-0.103 ²	0.069	-0.062 ²	0.177	-0.029 ²	0.539 ²
PCT Type	-0.266 ²	0.000	-0.198 ²	0.000	-0.174 ²	0.000	-0.124 ²	0.008 ²
Mental Health Type	-0.335 ²	0.000	-0.250 ²	0.000	-0.206 ²	0.000	-0.166 ²	0.001 ²
Health Status (1=Good, 2=Poor)	-0.692 ²	0.000	-0.704 ²	0.000	-0.680 ²	0.000	-0.700 ²	0.000 ²
Ethn. White	-0.035 ²	0.241	-0.069 ²	0.020	-0.110 ²	0.000	-0.105 ²	0.000 ²
Ethn. Mixed	-0.042 ²	0.324	-0.098 ²	0.021	-0.109 ²	0.006	-0.119 ²	0.003 ²
Ethn. Asian	-0.003 ²	0.923 ²	0.010 ²	0.748	-0.004 ²	0.882 ²	0.003 ²	0.921 ²
Ethn. Black	0.228 ²	0.000 ²	0.223 ²	0.000 ²	0.221 ²	0.000 ²	0.217 ²	0.000 ²
The name of predictor is indicated above	0.476 ²	0.000 ²	0.346 ²	0.000 ²	0.489 ²	0.000 ²	0.402 ²	0.000 ²
Trust size	0.002 ²	0.694	-0.001 ²	0.813	-0.001 ²	0.825	-0.002 ²	0.715 ²

Appendix 3C: The case of job design, work pressure, feeling valued by colleagues, and supervisor support

	Job Design		Work Pressure		Supervisor Support	
	Estimate	p	Estimate	p	Estimate	p
Constant	-2.098	0.000	-2.196	0.000	-2.055	0.000
Gender	0.163	0.000	0.142	0.000	0.153	0.000
Age (16-20)	-0.747	0.000	-0.771	0.000	-0.791	0.000
Age (21-30)	-0.510	0.000	-0.479	0.000	-0.577	0.000
Age (31-40)	-0.443	0.000	-0.407	0.000	-0.506	0.000
Age (41-50)	-0.417	0.000	-0.377	0.000	-0.473	0.000
Age (51-65)	-0.341	0.000	-0.312	0.000	-0.391	0.000
Management Status (1=Yes, 2=No)	-0.021	0.003	0.127	0.000	0.028	0.000
Tenure (<1 year)	0.146	0.000	0.082	0.000	0.131	0.000
Tenure (1-2 years)	0.068	0.000	0.034	0.002	0.055	0.000
Tenure (3-5 years)	0.036	0.000	0.016	0.109	0.026	0.013
Tenure (6-10 years)	0.022	0.018	0.012	0.214	0.013	0.157
Tenure (11-15 years)	-0.001	0.898	-0.007	0.523	-0.013	0.261
Part-Time (<= 29 hours)	0.082	0.000	0.064	0.000	0.082	0.000
AHP	-0.037	0.012	0.051	0.001	-0.025	0.097
Central Functions & Admin	-0.016	0.259	-0.044	0.002	-0.003	0.838
Clinical, Scientific & Technical Support	-0.032	0.047	-0.033	0.038	-0.017	0.294
Medical/ Dental	0.186	0.000	0.216	0.000	0.203	0.000
Nurses	0.007	0.609	0.075	0.000	-0.006	0.659
Paramedic & Ambulance Services	0.095	0.043	-0.042	0.376	0.057	0.235
Social Care Services	-0.060	0.096	-0.058	0.111	-0.064	0.080
London Location	0.022	0.067	0.007	0.563	0.009	0.486

Acute Type	-0.115 ²	0.011	-0.077 ²	0.095	-0.044 ²	0.340 ²
PCT Type	-0.208 ²	0.000	-0.180 ²	0.000	-0.157 ²	0.001 ²
Mental Health Type	-0.253 ²	0.000	-0.233 ²	0.000	-0.210 ²	0.000 ²
Health Status (1=Good, 2=Poor)	-0.659 ²	0.000	-0.678 ²	0.000	-0.693 ²	0.000 ²
Ethn. White	-0.036 ²	0.186	-0.026 ²	0.340	-0.079 ²	0.005 ²
Ethn. Mixed	-0.059 ²	0.133	-0.057 ²	0.145	-0.087 ²	0.030 ²
Ethn. Asian	-0.009 ²	0.760	-0.020 ²	0.508 ²	0.009 ²	0.762 ²
Ethn. Black	0.217 ²	0.000 ²	0.193 ²	0.000 ²	0.218 ²	0.000 ²
The name of predictor is indicated above	0.294 ²	0.000	-0.274 ²	0.000 ²	0.201 ²	0.000 ²
Trust size	0.003 ²	0.552	-0.002 ²	0.726 ²	0.002 ²	0.720 ²

Appendix 4: HRM Practices of the NHS as predictors of Presenteeism

Appendix 4A: The Case of appraisal and teamwork

	Had appraisal in the last 12 months		Good quality appraisal		Agreed personal development plan		Work in well structured team	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.780	0.000	0.711	0.000	0.711	0.000	0.780	0.000
Age (16-20)	7.583	0.000	7.648	0.000	7.459	0.000	8.484	0.000
Age (21-30)	6.433	0.000	6.406	0.000	6.571	0.000	7.297	0.000
Age (31-40)	5.369	0.000	5.258	0.000	5.434	0.000	6.120	0.000
Age (41-50)	4.357	0.000	4.257	0.000	4.391	0.000	5.039	0.000
Age (51-65)	3.258	0.000	3.172	0.000	3.268	0.000	3.772	0.000
Management Status (1=Yes)	0.986	0.423	1.028	0.116	0.814	0.562	0.536	0.133
Tenure (<1 year)	0.496	0.000	0.507	0.000	0.491	0.000	0.536	0.000
Tenure (1-2 years)	0.808	0.000	0.863	0.000	0.804	0.000	0.813	0.000
Tenure (3-5 years)	0.938	0.01	0.975	0.325	0.933	0.006	0.938	0.011
Tenure (6-10 years)	1.048	0.036	1.069	0.003	1.039	0.093	1.037	0.111
Tenure (11-15 years)	1.065	0.017	1.071	0.01	1.060	0.031	1.069	0.013
Part-Time (<= 29 hours)	0.810	0.000	0.801	0.000	0.814	0.000	0.817	0.000
AHP	1.147	0.000	1.110	0.008	1.162	0.000	1.119	0.004
Central Functions & Admin	1.054	0.158	1.024	0.526	1.036	0.354	1.054	0.164
Clinical, Scientific & Technical Support	1.477	0.000	1.505	0.000	1.490	0.000	1.424	0.000
Medical/ Dental	1.056	0.27	0.970	0.542	1.088	0.093	1.013	0.789
Nurses	1.627	0.000	1.602	0.000	1.657	0.000	1.563	0.000
Paramedic & Ambulance Services	2.522	0.000	2.312	0.000	2.555	0.000	2.321	0.000
Social Care Services	1.520	0.000	1.531	0.000	1.524	0.000	1.568	0.000
London Location	1.091	0.003	1.092	0.003	1.093	0.003	1.091	0.003
Acute Trust	1.305	0.022	1.334	0.014	1.316	0.022	1.332	0.014

PCT	0.877	0.259	0.892	0.33	0.887	0.318	0.949	0.652
Mental Health	0.851	0.172	0.882	0.294	0.856	0.202	0.881	0.283
Health Status (1=Good)	0.534	0.000	0.544	0.000	0.533	0.000	0.542	0.000
Ethn. White	1.066	0.34	0.974	0.701	1.072	0.306	1.037	0.583
Ethn. Mixed	1.290	0.006	1.187	0.071	1.298	0.006	1.326	0.002
Ethn. Asian	0.925	0.284	0.961	0.588	0.924	0.29	0.946	0.443
Ethn. Black	0.941	0.419	0.952	0.525	0.943	0.45	0.914	0.237
The predicting variable is highlighted above	0.821	0.000	0.388	0.000	0.781	0.000	0.549	0.000
Trust size	1.024	0.052	1.017	0.166	1.024	0.056	1.019	0.117

Appendix 4B: The case of satisfaction with quality of work; role makes a difference; feeling valued by colleagues and having an interesting job

	Satisfied with quality of work		Role makes a difference		Feel valued by colleagues		Have an interesting job	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.711	0.000	0.779	0.000	0.755	0.000	0.763	0.000
Age (16-20)	7.029	0.000	6.667	0.000	7.319	0.000	6.314	0.000
Age (21-30)	5.974	0.000	5.867	0.000	6.581	0.000	5.820	0.000
Age (31-40)	4.845	0.000	4.864	0.000	5.292	0.000	4.916	0.000
Age (41-50)	3.829	0.000	3.942	0.000	4.207	0.000	3.996	0.000
Age (51-65)	2.955	0.000	3.017	0.000	3.111	0.000	3.019	0.000
Management Status (1=Yes)	0.969	0.085	0.985	0.4	0.922	0.000	0.969	0.068
Tenure (<1 year)	0.521	0.000	0.517	0.000	0.495	0.000	0.526	0.000
Tenure (1-2 years)	0.782	0.000	0.798	0.000	0.775	0.000	0.811	0.000
Tenure (3-5 years)	0.930	0.007	0.941	0.017	0.902	0.000	0.939	0.01
Tenure (6-10 years)	1.044	0.068	1.045	0.056	1.022	0.338	1.044	0.053
Tenure (11-15 years)	1.056	0.048	1.062	0.026	1.043	0.11	1.068	0.012
Part-Time (<= 29 hours)	0.816	0.000	1.058	0.000	0.816	0.000	0.790	0.000
AHP	0.958	0.387	1.106	0.016	1.194	0.000	1.196	0.000
Central Functions & Admin	1.057	0.266	1.058	0.17	1.022	0.562	0.946	0.137
Clinical, Scientific & Technical Support	1.419	0.000	1.465	0.000	1.392	0.000	1.447	0.000
Medical/Dental	0.906	0.09	1.023	0.654	1.145	0.006	1.107	0.036
Nurses	1.382	0.000	1.591	0.000	1.710	0.000	1.711	0.000
Paramedic & Ambulance Services	2.645	0.000	2.740	0.000	2.478	0.000	2.680	0.000
Social Care Services	1.408	0.001	1.537	0.000	1.470	0.000	1.519	0.000
London Location	1.082	0.008	1.085	0.007	1.096	0.002	1.087	0.005

Acute Trust	1.424	0.02	1.380	0.02	1.323	0.017	1.243	0.061
PCT	0.943	0.699	0.917	0.531	0.922	0.489	0.832	0.113
Mental Health	0.934	0.658	0.905	0.476	0.886	0.31	0.824	0.101
Health Status (1=Good)	0.541	0.000	0.530	0.000	0.564	0.000	0.541	0.000
Ethn. White	1.007	0.921	1.073	0.301	1.158	0.029	1.132	0.06
Ethn. Mixed	1.270	0.014	1.361	0.001	1.313	0.004	1.383	0.000
Ethn. Asian	0.934	0.363	0.930	0.327	0.939	0.39	0.932	0.326
Ethn. Black	0.957	0.576	0.956	0.563	0.885	0.109	0.925	0.295
The predicting variable is highlighted above	0.463	0.000	0.577	0.000	0.294	0.000	0.451	0.000
Trust size	1.025	0.046	1.023	0.064	1.025	0.046	1.025	0.048

Appendix 4C: The Case of Job Design, Work Pressure and Supervisor Support

	Job Design		Work Pressure		Supervisor Support	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.714	0.000	0.777	0.000	0.743	0.000
Age (16-20)	7.386	0.000	7.875	0.000	8.335	0.000
Age (21-30)	6.055	0.000	5.738	0.000	6.962	0.000
Age (31-40)	4.831	0.000	4.641	0.000	5.483	0.000
Age (41-50)	3.805	0.000	3.702	0.000	4.246	0.000
Age (51-65)	2.797	0.000	2.818	0.000	3.069	0.000
Management Status (1=Yes)	0.838	0.000	0.833	0.000	1.084	0.000
Tenure (<1 year)	0.516	0.000	0.608	0.000	0.574	0.000
Tenure (1-2 years)	0.792	0.000	0.868	0.000	0.851	0.000
Tenure (3-5 years)	0.918	0.001	0.966	0.168	0.961	0.124
Tenure (6-10 years)	1.032	0.176	1.059	0.011	1.064	0.007
Tenure (11-15 years)	1.044	0.118	1.056	0.042	1.080	0.005
Part-Time (<= 29 hours)	0.806	0.000	0.840	0.000	0.808	0.000
AHP	1.207	0.000	0.930	0.067	1.083	0.048
Central Functions & Admin	1.120	0.004	1.144	0.000	1.015	0.697
Clinical, Scientific & Technical Support	1.648	0.000	1.536	0.000	1.469	0.000
Medical/Dental	0.998	0.964	0.871	0.006	0.853	0.002
Nurses	1.643	0.000	1.319	0.000	1.579	0.000
Paramedic & Ambulance Services	2.006	0.000	2.502	0.000	1.680	0.000
Social Care Services	1.618	0.000	1.484	0.000	1.513	0.000
London Location	1.128	0.000	1.077	0.01	1.088	0.004
Acute Trust	1.646	0.000	1.358	0.008	1.259	0.053

PCT	1.054	0.663	0.914	0.437	0.882	0.293
Mental Health	1.033	0.789	0.925	0.507	0.906	0.412
Health Status (1=Good)	0.582	0.000	0.554	0.000	0.548	0.000
Ethn. White	0.897	0.111	0.911	0.164	1.040	0.567
Ethn. Mixed	1.089	0.374	1.127	0.201	1.191	0.068
Ethn. Asian	0.941	0.413	0.965	0.625	0.889	0.115
Ethn. Black	0.880	0.101	0.941	0.423	0.863	0.058
The predicting variable is highlighted above	0.449	0.000	1.839	0.000	0.478	0.000
Trust size	1.017	0.183	1.027	0.023	1.012	0.343

Appendix 5: HRM Practices of the NHS as predictors of A Construct of Presenteeism: Coming to Work Whilst Unwell

Appendix 5A: The case of appraisal and teamwork

	Had appraisal in the last 12 months		Good quality appraisal		Agreed personal development plan		Work in well structured team	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.706	0.000	0.701	0.000	0.701	0.000	0.702	0.000
Age (16-20)	4.637	0.000	4.556	0.000	4.478	0.000	4.656	0.000
Age (21-30)	3.892	0.000	3.848	0.000	3.884	0.000	3.849	0.000
Age (31-40)	3.282	0.000	3.206	0.000	3.271	0.000	3.247	0.000
Age (41-50)	2.836	0.000	2.769	0.000	2.807	0.000	2.832	0.000
Age (51-65)	2.129	0.000	2.077	0.000	2.103	0.000	2.125	0.000
Management Status (1=Yes)	1.175	0.000	1.208	0.000	1.174	0.000	1.194	0.000
Tenure (<1 year)	0.600	0.000	0.599	0.000	0.603	0.000	0.611	0.000
Tenure (1-2 years)	0.883	0.000	0.911	0.000	0.887	0.000	0.885	0.000
Tenure (3-5 years)	0.945	0.007	0.965	0.093	0.947	0.01	0.941	0.004
Tenure (6-10 years)	1.025	0.199	1.030	0.125	1.020	0.298	1.020	0.313
Tenure (11-15 years)	1.065	0.006	1.064	0.007	1.066	0.005	1.070	0.003
Part-Time (<= 29 hours)	0.709	0.000	0.704	0.000	0.709	0.000	0.710	0.000
AHP	0.929	0.014	0.914	0.003	0.934	0.026	0.925	0.01
Central Functions & Admin	0.930	0.01	0.912	0.001	0.929	0.011	0.927	0.008
Clinical, Scientific & Technical Support	1.013	0.684	1.023	0.493	1.021	0.531	0.997	0.916
Medical/ Dental	0.854	0.000	0.816	0.000	0.860	0.000	0.837	0.000
Nurses	1.136	0.000	1.121	0.000	1.149	0.000	1.121	0.000
Paramedic & Ambulance Services	1.336	0.002	1.229	0.032	1.346	0.002	1.285	0.009
Social Care Services	1.018	0.804	1.022	0.773	1.032	0.676	1.011	0.88
London Location	1.079	0.001	1.078	0.001	1.072	0.002	1.082	0.000

Acute Trust	1.054 ²	0.549 ²	1.051 ²	0.572 ²	1.060 ²	0.513 ²	1.074 ²	0.414 ²
PCT	1.054 ²	0.55 ²	1.054 ²	0.551 ²	1.062 ²	0.503 ²	1.104 ²	0.256 ²
Mental Health	1.095 ²	0.308 ²	1.113 ²	0.232 ²	1.098 ²	0.306 ²	1.125 ²	0.183 ²
Health Status (1=Good)	0.470 ²	0.000 ²	0.476 ²	0.000 ²	0.470 ²	0.000 ²	0.473 ²	0.000 ²
Ethn. White	1.298 ²	0.000 ²	1.225 ²	0.000 ²	1.282 ²	0.000 ²	1.287 ²	0.000 ²
Ethn. Mixed	1.811 ²	0.000 ²	1.744 ²	0.000 ²	1.808 ²	0.000 ²	1.873 ²	0.000 ²
Ethn. Asian	1.017 ²	0.779 ²	1.025 ²	0.677 ²	1.001 ²	0.986 ²	1.033 ²	0.588 ²
Ethn. Black	1.231 ²	0.001 ²	1.228 ²	0.001 ²	1.224 ²	0.001 ²	1.227 ²	0.001 ²
The predicting variable is highlighted above	0.947 ²	0.000 ²	0.623 ²	0.000 ²	0.946 ²	0.000 ²	0.769 ²	0.000 ²
Trust size	1.023 ²	0.016 ²	1.018 ²	0.054 ²	1.022 ²	0.021 ²	1.021 ²	0.026 ²

Appendix 5B: The case of satisfaction with quality of work; role makes a difference; feeling valued by colleagues and having an interesting job

	Satisfied with quality of work		Role makes a difference		Feel valued by colleagues		Have an interesting job	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.723	0.000	0.719	0.000	0.698	0.000	0.697	0.000
Age (16-20)	4.466	0.000	4.774	0.000	4.497	0.000	4.262	0.000
Age (21-30)	3.720	0.000	3.763	0.000	3.803	0.000	3.607	0.000
Age (31-40)	3.109	0.000	3.166	0.000	3.166	0.000	3.071	0.000
Age (41-50)	2.692	0.000	2.751	0.000	2.712	0.000	2.647	0.000
Age (51-65)	2.047	0.000	2.096	0.000	2.037	0.000	2.004	0.000
Management Status (1=Yes)	1.149	0.000	1.164	0.000	1.225	0.000	1.206	0.000
Tenure (<1 year)	0.605	0.000	0.591	0.000	0.598	0.000	0.611	0.000
Tenure (1-2 years)	0.890	0.000	0.876	0.000	0.873	0.000	0.886	0.000
Tenure (3-5 years)	0.946	0.017	0.946	0.011	0.932	0.001	0.944	0.006
Tenure (6-10 years)	1.035	0.103	1.033	0.109	1.015	0.421	1.023	0.23
Tenure (11-15 years)	1.086	0.001	1.078	0.002	1.059	0.012	1.069	0.003
Part-Time (<= 29 hours)	0.708	0.000	0.707	0.000	0.712	0.000	0.699	0.000
AHP	0.783	0.000	0.911	0.005	0.944	0.052	0.951	0.091
Central Functions & Admin	0.868	0.001	0.939	0.051	0.917	0.002	0.884	0.000
Clinical, Scientific & Technical Support	0.914	0.04	0.999	0.976	0.986	0.657	1.007	0.82
Medical/ Dental	0.735	0.000	0.844	0.000	0.886	0.001	0.876	0.000
Nurses	0.957	0.268	1.115	0.001	1.154	0.000	1.165	0.000
Paramedic & Ambulance Services	1.457	0.003	1.454	0.001	1.329	0.003	1.382	0.001
Social Care Services	0.869	0.083	0.985	0.838	1.012	0.875	1.018	0.809

London Location	1.080	0.001	1.071	0.002	1.087	0.000	1.084	0.000
Acute Trust	1.306	0.022	1.164	0.146	1.080	0.373	1.043	0.626
PCT	1.318	0.018	1.170	0.132	1.100	0.27	1.041	0.643
Mental Health	1.395	0.005	1.226	0.053	1.138	0.14	1.087	0.341
Health Status (1=Good)	0.473	0.000	0.475	0.000	0.482	0.000	0.473	0.000
Ethn. White	1.260	0.000	1.301	0.000	1.350	0.000	1.339	0.000
Ethn. Mixed	1.772	0.000	1.834	0.000	1.840	0.000	1.864	0.000
Ethn. Asian	0.971	0.632	0.992	0.897	1.026	0.662	1.020	0.739
Ethn. Black	1.230	0.002	1.234	0.001	1.219	0.001	1.228	0.001
The predicting variable is highlighted above	0.559	0.000	0.767	0.000	0.542	0.000	0.648	0.000
Trust size	1.022	0.021	1.022	0.019	1.020	0.032	1.020	0.031

Appendix 5C: The Case of Job Design, Work Pressure, and Supervisor Support

	Job Design		Work Pressure		Supervisor Support	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.683	0.000	0.703	0.000	0.697	0.000
Age (16-20)	4.437	0.000	4.709	0.000	4.572	0.000
Age (21-30)	3.596	0.000	3.445	0.000	3.785	0.000
Age (31-40)	3.009	0.000	2.814	0.000	3.155	0.000
Age (41-50)	2.577	0.000	2.391	0.000	2.689	0.000
Age (51-65)	1.930	0.000	1.824	0.000	2.002	0.000
Management Status (1=Yes)	1.312	0.000	1.036	0.018	1.216	0.000
Tenure (<1 year)	0.617	0.000	0.695	0.000	0.638	0.000
Tenure (1-2 years)	0.890	0.000	0.950	0.028	0.910	0.000
Tenure (3-5 years)	0.945	0.007	0.982	0.391	0.960	0.051
Tenure (6-10 years)	1.021	0.277	1.040	0.046	1.034	0.082
Tenure (11-15 years)	1.061	0.01	1.068	0.005	1.076	0.001
Part-Time (<= 29 hours)	0.702	0.000	0.726	0.000	0.707	0.000
AHP	0.920	0.006	0.789	0.000	0.904	0.001
Central Functions & Admin	0.933	0.016	0.980	0.473	0.914	0.001
Clinical, Scientific & Technical Support	1.023	0.495	1.029	0.392	1.000	0.995
Medical/Dental	0.797	0.000	0.754	0.000	0.783	0.000
Nurses	1.090	0.003	0.958	0.137	1.109	0.000
Paramedic & Ambulance Services	1.085	0.398	1.297	0.007	1.102	0.311
Social Care Services	1.013	0.866	1.005	0.947	1.017	0.823
London Location	1.102	0.000	1.081	0.001	1.080	0.000
Acute Trust	1.162	0.09	1.094	0.316	1.027	0.76

PCT	1.160	0.094	1.111	0.239	1.056	0.532
Mental Health	1.224	0.024	1.190	0.056	1.123	0.191
Health Status (1=Good)	0.490	0.000	0.480	0.000	0.477	0.000
Ethn. White	1.218	0.000	1.173	0.004	1.284	0.000
Ethn. Mixed	1.736	0.000	1.684	0.000	1.763	0.000
Ethn. Asian	1.029	0.631	1.038	0.534	1.000	0.994
Ethn. Black	1.225	0.001	1.258	0.000	1.207	0.003
The predicting variable is highlighted above	0.660	0.000	1.622	0.000	0.741	0.000
Trust size	1.015	0.104	1.023	0.017	1.015	0.099

Appendix 6: HRM Practices of the NHS as predictors of Supervisor Interest in health

Appendix 6A: The Case of appraisal and teamwork

	Had appraisal in the last 12 months		Good quality appraisal		Agreed personal development plan		Work in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	3.765	0.000	4.023	0.000	3.830	0.000	3.906	0.000
Gender	-0.086	0.000	-0.088	0.000	-0.078	0.000	-0.091	0.000
Age (16-20)	-0.192	0.000	-0.148	0.003	-0.198	0.000	-0.206	0.000
Age (21-30)	-0.233	0.000	-0.175	0.000	-0.262	0.000	-0.206	0.000
Age (31-40)	-0.229	0.000	-0.161	0.000	-0.251	0.000	-0.209	0.000
Age (41-50)	-0.274	0.000	-0.209	0.000	-0.292	0.000	-0.258	0.000
Age (51-65)	-0.244	0.000	-0.185	0.000	-0.256	0.000	-0.235	0.000
Management Status (1=Yes, 2=No)	0.061	0.000	0.033	0.000	0.055	0.000	0.038	0.000
Tenure (<1 year)	0.282	0.000	0.227	0.000	0.285	0.000	0.191	0.000
Tenure (1-2 years)	0.132	0.000	0.080	0.000	0.131	0.000	0.121	0.000
Tenure (3-5 years)	0.076	0.000	0.045	0.000	0.075	0.000	0.075	0.000
Tenure (6-10 years)	0.043	0.000	0.030	0.000	0.041	0.000	0.043	0.000
Tenure (11-15 years)	0.016	0.112	0.014	0.157	0.016	0.114	0.014	0.175
Part-Time (<= 29 hours)	0.028	0.000	0.026	0.000	0.028	0.000	0.013	0.049
AHP	-0.090	0.000	-0.055	0.000	-0.112	0.000	-0.055	0.000
Central Functions & Admin	-0.064	0.000	-0.047	0.000	-0.056	0.000	-0.057	0.000
Clinical, Scientific & Technical Support	-0.118	0.000	-0.136	0.000	-0.133	0.000	-0.087	0.000
Medical/ Dental	-0.411	0.000	-0.341	0.000	-0.442	0.000	-0.375	0.000
Nurses	-0.184	0.000	-0.164	0.000	-0.207	0.000	-0.150	0.000
Paramedic & Ambulance Services	-0.694	0.000	-0.623	0.000	-0.682	0.000	-0.634	0.000

Social Care Services	-0.101 ²	0.003	-0.092 ²	0.005	-0.103 ²	0.003	-0.102 ²	0.002 ²
London Location	0.006 ²	0.653 ²	0.009 ²	0.430 ²	0.005 ²	0.666 ²	0.013 ²	0.275 ²
Acute Type	-0.010 ²	0.820	-0.011 ²	0.786 ²	0.012 ²	0.796	-0.008 ²	0.858 ²
PCT Type	0.111 ²	0.012 ²	0.103 ²	0.012 ²	0.119 ²	0.008 ²	0.077 ²	0.072 ²
Mental Health Type	0.154 ²	0.001 ²	0.134 ²	0.001 ²	0.171 ²	0.000 ²	0.155 ²	0.000 ²
Health Status (1=Good, 2=Poor)	-0.013 ²	0.100 ²	0.011 ²	0.157	-0.009 ²	0.279	-0.007 ²	0.401 ²
Ethn. White	-0.007 ²	0.788 ²	0.058 ²	0.019	-0.001 ²	0.963	-0.009 ²	0.731 ²
Ethn. Mixed	-0.057 ²	0.119	-0.013 ²	0.710	-0.053 ²	0.151	-0.067 ²	0.066 ²
Ethn. Asian	0.064 ²	0.020 ²	0.039 ²	0.144 ²	0.072 ²	0.010 ²	0.042 ²	0.126 ²
Ethn. Black	0.012 ²	0.689	-0.001 ²	0.980 ²	0.011 ²	0.711 ²	0.015 ²	0.609 ²
The name of predictor is indicated above	0.266 ²	0.000 ²	0.650 ²	0.000 ²	0.323 ²	0.000 ²	0.398 ²	0.000 ²
Trust size	-0.016 ²	0.003	-0.014 ²	0.004	-0.018 ²	0.001	-0.016 ²	0.002 ²

Appendix B: The case of satisfaction with quality of work; role makes a difference; feeling valued by colleagues; and having interesting job

	Satisfied with quality of work		Role makes a difference		Feel valued by colleagues		Have an interesting job	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	3.696	0.000	3.698	0.000	3.838	0.000	3.716	0.000
Gender	-0.069	0.000	-0.083	0.000	-0.081	0.000	-0.080	0.000
Age (16-20)	-0.212	0.000	-0.196	0.001	-0.164	0.001	-0.105	0.034
Age (21-30)	-0.193	0.000	-0.203	0.000	-0.188	0.000	-0.161	0.000
Age (31-40)	-0.192	0.000	-0.207	0.000	-0.175	0.000	-0.170	0.000
Age (41-50)	-0.223	0.000	-0.248	0.000	-0.211	0.000	-0.213	0.000
Age (51-65)	-0.204	0.000	-0.228	0.000	-0.186	0.000	-0.193	0.000
Management Status (1=Yes, 2=No)	0.090	0.000	0.073	0.000	0.022	0.001	0.042	0.000
Tenure (<1 year)	0.202	0.000	0.209	0.000	0.223	0.000	0.204	0.000
Tenure (1-2 years)	0.130	0.000	0.130	0.000	0.145	0.000	0.130	0.000
Tenure (3-5 years)	0.076	0.000	0.071	0.000	0.091	0.000	0.075	0.000
Tenure (6-10 years)	0.040	0.000	0.038	0.000	0.054	0.000	0.043	0.000
Tenure (11-15 years)	0.022	0.044	0.012	0.257	0.026	0.007	0.015	0.141
Part-Time (<= 29 hours)	0.024	0.001	0.021	0.003	0.006	0.322	0.033	0.000
AHP	-0.060	0.001	-0.100	0.000	-0.093	0.000	-0.104	0.000
Central Functions & Admin	-0.121	0.000	-0.081	0.000	-0.052	0.000	-0.006	0.618
Clinical, Scientific & Technical Support	-0.167	0.000	-0.145	0.000	-0.074	0.000	-0.104	0.000
Medical/ Dental	-0.410	0.000	-0.428	0.000	-0.438	0.000	-0.428	0.000
Nurses	-0.174	0.000	-0.211	0.000	-0.194	0.000	-0.210	0.000
Paramedic & Ambulance Services	-0.764	0.000	-0.764	0.000	-0.666	0.000	-0.736	0.000

Social Care Services	-0.123 ²	0.001	-0.121 ²	0.000	-0.076 ²	0.016	-0.101 ²	0.002 ²
London Location	0.010 ²	0.433 ²	0.007 ²	0.585 ²	0.008 ²	0.474 ²	0.009 ²	0.482 ²
Acute Type	0.009 ²	0.873	-0.002 ²	0.968 ²	0.000 ²	0.991 ²	0.034 ²	0.432 ²
PCT Type	0.137 ²	0.017 ²	0.125 ²	0.017 ²	0.094 ²	0.023 ²	0.156 ²	0.000 ²
Mental Health Type	0.178 ²	0.002 ²	0.169 ²	0.002 ²	0.147 ²	0.000 ²	0.196 ²	0.000 ²
Health Status (1=Good, 2=Poor)	-0.008 ²	0.373	-0.024 ²	0.004 ²	0.032 ²	0.000	-0.003 ²	0.694 ²
Ethn. White	0.034 ²	0.200 ²	0.003 ²	0.909	-0.058 ²	0.016	-0.049 ²	0.050 ²
Ethn. Mixed	-0.039 ²	0.313	-0.066 ²	0.080	-0.069 ²	0.047	-0.090 ²	0.011 ²
Ethn. Asian	0.058 ²	0.042 ²	0.069 ²	0.015 ²	0.043 ²	0.098 ²	0.053 ²	0.051 ²
Ethn. Black	0.023 ²	0.434 ²	0.025 ²	0.396 ²	0.027 ²	0.321 ²	0.015 ²	0.603 ²
The name of predictor is indicated above	0.477 ²	0.000 ²	0.409 ²	0.000 ²	0.773 ²	0.000 ²	0.537 ²	0.000 ²
Trust size	-0.016 ²	0.005	-0.018 ²	0.002	-0.019 ²	0.000	-0.019 ²	0.000 ²

Appendix C: The case of job design, work pressure, feeling valued, and Supervisor Support

	Job Design		Work Pressure		Supervisor Support	
	Estimate	p	Estimate	p	Estimate	p
Constant	3.521 ²	0.000 ²	3.482 ²	0.000 ²	3.597 ²	0.000 ²
Gender	-0.065 ²	0.000	-0.102 ²	0.000	-0.069 ²	0.000 ²
Age (16-20)	-0.106 ²	0.013	-0.193 ²	0.000	-0.207 ²	0.000 ²
Age (21-30)	-0.085 ²	0.002	-0.119 ²	0.000	-0.211 ²	0.000 ²
Age (31-40)	-0.076 ²	0.004	-0.107 ²	0.000	-0.180 ²	0.000 ²
Age (41-50)	-0.119 ²	0.000	-0.146 ²	0.000	-0.201 ²	0.000 ²
Age (51-65)	-0.097 ²	0.000	-0.133 ²	0.000	-0.160 ²	0.000 ²
Management Status (1=Yes, 2=No)	-0.068 ²	0.000 ²	0.153 ²	0.000	-0.013 ²	0.008 ²
Tenure (<1 year)	0.169 ²	0.000 ²	0.125 ²	0.000 ²	0.082 ²	0.000 ²
Tenure (1-2 years)	0.119 ²	0.000 ²	0.088 ²	0.000 ²	0.062 ²	0.000 ²
Tenure (3-5 years)	0.074 ²	0.000 ²	0.056 ²	0.000 ²	0.043 ²	0.000 ²
Tenure (6-10 years)	0.047 ²	0.000 ²	0.034 ²	0.000 ²	0.027 ²	0.000 ²
Tenure (11-15 years)	0.027 ²	0.001 ²	0.015 ²	0.119 ²	0.010 ²	0.202 ²
Part-Time (<= 29 hours)	0.012 ²	0.033	-0.004 ²	0.510 ²	0.008 ²	0.094 ²
AHP	-0.066 ²	0.000 ²	0.029 ²	0.027	-0.020 ²	0.046 ²
Central Functions & Admin	-0.073 ²	0.000	-0.101 ²	0.000	-0.021 ²	0.029 ²
Clinical, Scientific & Technical Support	-0.127 ²	0.000	-0.122 ²	0.000	-0.084 ²	0.000 ²
Medical/ Dental	-0.315 ²	0.000	-0.309 ²	0.000	-0.195 ²	0.000 ²
Nurses	-0.119 ²	0.000	-0.075 ²	0.000	-0.110 ²	0.000 ²
Paramedic & Ambulance Services	-0.376 ²	0.000	-0.680 ²	0.000	-0.231 ²	0.000 ²
Social Care Services	-0.090 ²	0.001	-0.094 ²	0.004	-0.071 ²	0.004 ²
London Location	0.030 ²	0.001 ²	0.006 ²	0.589	-0.001 ²	0.929 ²

Acute Type	-0.092 ²	0.009	-0.009 ²	0.818 ²	0.045 ²	0.129 ²
PCT Type	0.031 ²	0.374 ²	0.104 ²	0.012 ²	0.099 ²	0.001 ²
Mental Health Type	0.065 ²	0.071 ²	0.136 ²	0.001 ²	0.096 ²	0.001 ²
Health Status (1=Good, 2=Poor)	0.080 ²	0.000 ²	0.015 ²	0.054 ²	0.052 ²	0.000 ²
Ethn. White	0.077 ²	0.000 ²	0.049 ²	0.046	-0.013 ²	0.496 ²
Ethn. Mixed	0.036 ²	0.239	-0.014 ²	0.693	-0.004 ²	0.878 ²
Ethn. Asian	0.038 ²	0.102 ²	0.036 ²	0.179 ²	0.056 ²	0.006 ²
Ethn. Black	0.028 ²	0.249	-0.001 ²	0.960 ²	0.033 ²	0.121 ²
The name of predictor is indicated above	0.562 ²	0.000	-0.286 ²	0.000 ²	0.704 ²	0.000 ²
Trust size	-0.011 ²	0.007	-0.020 ²	0.000	-0.006 ²	0.069 ²

Appendix 7: Does Employee Health and Wellbeing, Presenteeism, Health and well-being in the last 4 weeks, Working while feeling unwell and Supervisor interest in health predict Job satisfaction, Intention to Leave, Injury Rate and Work-related Stress?

Appendix 7A: Job Satisfaction as an Outcome Variable

	General health and well-being		Presenteeism		Health and well-being in the last 4 weeks		Working while feeling unwell		Supervisor interest for health	
	Estimate	P	Estimate	P	Estimate	P	Estimate	P	Estimate	P
Gender	-0.050	0.000	-0.062	0.000	-0.062	0.000	-0.062	0.000	0.002	0.593
Age (16-20)	-0.168	0.000	-0.131	0.000	-0.139	0.000	-0.160	0.000	-0.179	0.000
Age (21-30)	-0.183	0.000	-0.140	0.000	-0.170	0.000	-0.166	0.000	-0.171	0.000
Age (31-40)	-0.187	0.000	-0.158	0.000	-0.177	0.000	-0.176	0.000	-0.168	0.000
Age (41-50)	-0.188	0.000	-0.180	0.000	-0.176	0.000	-0.186	0.000	-0.145	0.000
Age (51-65)	-0.176	0.000	-0.177	0.000	-0.162	0.000	-0.176	0.000	-0.129	0.000
Management Status (1=Yes)	0.133	0.000	0.127	0.000	0.126	0.000	0.141	0.000	0.104	0.000
Tenure (<1 year)	0.134	0.000	0.099	0.000	0.128	0.000	0.123	0.000	0.068	0.000
Tenure (1-2 years)	0.045	0.000	0.034	0.000	0.038	0.000	0.043	0.000	-0.003	0.555
Tenure (3-5 years)	0.010	0.098	0.007	0.280	0.006	0.364	0.008	0.240	-0.020	0.000
Tenure (6-10 years)	-0.014	0.016	-0.009	0.120	-0.018	0.001	-0.015	0.011	-0.032	0.000
Tenure (11-15 years)	-0.018	0.009	-0.008	0.264	-0.017	0.010	-0.012	0.107	-0.024	0.000
Part-Time (<= 29 hours)	0.025	0.000	0.019	0.000	0.025	0.000	0.016	0.001	0.031	0.000
AHP	-0.075	0.000	-0.072	0.000	-0.078	0.000	-0.082	0.000	-0.059	0.000
Central Functions & Admin	-0.070	0.000	-0.059	0.000	-0.065	0.000	-0.065	0.000	-0.040	0.000

Clinical, Scientific & Technical Support	-0.115	0.000	-0.096	0.000	-0.121	0.000	-0.128	0.000	-0.081	0.000
Medical/ Dental	-0.111	0.000	-0.093	0.000	-0.118	0.000	-0.100	0.000	0.057	0.000
Nurses	-0.138	0.000	-0.110	0.000	-0.153	0.000	-0.146	0.000	-0.087	0.000
Paramedic & Ambulance Services	-0.436	0.000	-0.332	0.000	-0.440	0.000	-0.418	0.000	-0.165	0.000
Social Care Services	-0.102	0.000	-0.071	0.002	-0.103	0.000	-0.108	0.000	-0.070	0.000
London Location	0.006	0.529	0.003	0.720	0.005	0.569	0.006	0.580	0.002	0.759
Acute Trust	0.017	0.591	0.047	0.125	0.023	0.455	0.021	0.515	0.008	0.744
PCT	0.099	0.002	0.085	0.006	0.116	0.000	0.100	0.002	0.035	0.159
Mental Health	0.111	0.001	0.095	0.003	0.131	0.000	0.113	0.001	0.026	0.305
Health Status (1=Good)	-0.028	0.000	-0.068	0.000	-0.023	0.000	-0.091	0.000	-0.132	0.000
Ethn. White	0.032	0.061	0.047	0.006	0.066	0.000	0.061	0.001	0.054	0.000
Ethn. Mixed	-0.037	0.124	-0.036	0.147	-0.025	0.298	-0.016	0.529	-0.021	0.288
Ethn. Asian	0.060	0.001	0.030	0.105	0.051	0.005	0.040	0.039	0.023	0.140
Ethn. Black	-0.025	0.192	-0.021	0.284	-0.032	0.088	0.003	0.890	-0.008	0.619
The predicting variable is highlighted above	0.181	0.000	-0.638	0.000	0.194	0.000	0.306	0.000	0.422	0.000
Trust size	-0.014	0.001	-0.011	0.008	-0.013	0.002	-0.012	0.007	-0.005	0.102

Appendix B: Intention to Leave as an Outcome Variable

	General health and well-being		Presenteeism		Health and well-being in the last 4 weeks		Working while feeling unwell		Supervisor interest for health	
	Estimate	P	Estimate	P	Estimate	P	Estimate	P	Estimate	P
Gender	0.127	0.000	0.135	0.000	0.143	0.000	0.143	0.000	0.069	0.000
Age (16-20)	0.478	0.000	0.483	0.000	0.434	0.000	0.488	0.000	0.545	0.000
Age (21-30)	0.577	0.000	0.557	0.000	0.556	0.000	0.570	0.000	0.612	0.000
Age (31-40)	0.505	0.000	0.498	0.000	0.487	0.000	0.505	0.000	0.529	0.000
Age (41-50)	0.473	0.000	0.488	0.000	0.452	0.000	0.485	0.000	0.471	0.000
Age (51-65)	0.337	0.000	0.359	0.000	0.312	0.000	0.352	0.000	0.322	0.000
Management Status (1=Yes)	-0.040	0.000	-0.032	0.000	-0.029	0.000	-0.050	0.000	-0.012	0.052
Tenure (<1 year)	-0.212	0.000	-0.179	0.000	-0.205	0.000	-0.197	0.000	-0.161	0.000
Tenure (1-2 years)	-0.013	0.191	0.001	0.953	-0.005	0.634	-0.010	0.345	0.029	0.003
Tenure (3-5 years)	0.051	0.000	0.057	0.000	0.056	0.000	0.055	0.000	0.077	0.000
Tenure (6-10 years)	0.083	0.000	0.082	0.000	0.090	0.000	0.088	0.000	0.101	0.000
Tenure (11-15 years)	0.068	0.000	0.062	0.000	0.066	0.000	0.065	0.000	0.074	0.000
Part-Time (<= 29 hours)	-0.066	0.000	-0.066	0.000	-0.066	0.000	-0.054	0.000	-0.080	0.000
AHP	-0.076	0.000	-0.072	0.000	-0.072	0.000	-0.062	0.000	-0.086	0.000
Central Functions & Admin	-0.067	0.000	-0.073	0.000	-0.076	0.000	-0.067	0.000	-0.098	0.000
Clinical, Scientific & Technical Support	-0.157	0.000	-0.172	0.000	-0.147	0.000	-0.137	0.000	-0.183	0.000
Medical/ Dental	-0.238	0.000	-0.268	0.000	-0.228	0.000	-0.255	0.000	-0.411	0.000
Nurses	0.021	0.093	-0.001	0.922	0.043	0.001	0.037	0.006	-0.018	0.138

Paramedic & Ambulance Services	-0.064	0.135	-0.182	0.000	-0.063	0.138	-0.084	0.063	-0.324	0.000
Social Care Services	-0.061	0.065	-0.075	0.034	-0.062	0.060	-0.043	0.230	-0.088	0.005
London Location	-0.106	0.000	-0.100	0.000	-0.106	0.000	-0.106	0.000	-0.104	0.000
Acute Trust	0.069	0.158	0.030	0.555	0.054	0.259	0.062	0.224	0.072	0.115
PCT	0.111	0.024	0.124	0.014	0.081	0.094	0.107	0.038	0.169	0.000
Mental Health	0.075	0.135	0.100	0.054	0.044	0.378	0.078	0.139	0.159	0.001
Health Status (1=Good)	-0.019	0.020	0.064	0.000	-0.024	0.002	0.077	0.000	0.141	0.000
Ethn. White	-0.032	0.207	-0.068	0.010	-0.083	0.001	-0.086	0.001	-0.069	0.004
Ethn. Mixed	0.051	0.153	0.027	0.465	0.023	0.523	-0.002	0.965	0.025	0.466
Ethn. Asian	-0.099	0.000	-0.071	0.012	-0.086	0.001	-0.082	0.005	-0.064	0.012
Ethn. Black	-0.007	0.807	-0.028	0.342	0.005	0.866	-0.056	0.060	-0.040	0.137
The predicting variable is highlighted above	-0.273	0.000	0.764	0.000	-0.287	0.000	-0.461	0.000	-0.411	0.000
Trust size	-0.002	0.744	-0.006	0.377	-0.004	0.536	-0.006	0.420	-0.012	0.069

Appendix C: Injury rate as an Outcome Variable

	General health and well-being		Presenteeism		Health and well-being in the last 4 weeks		Working while feeling unwell		Supervisor interest for health	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.978	0.328	0.997	0.9	0.994	0.808	1.016	0.511	0.925	0.001
Age (16-20)	1.709	0.001	1.661	0.003	1.709	0.001	1.670	0.002	2.025	0.000
Age (21-30)	1.591	0.000	1.534	0.001	1.621	0.000	1.559	0.000	1.798	0.000
Age (31-40)	1.300	0.021	1.276	0.049	1.330	0.012	1.301	0.034	1.444	0.001
Age (41-50)	1.295	0.022	1.318	0.025	1.318	0.014	1.330	0.021	1.410	0.002
Age (51-65)	1.364	0.006	1.405	0.006	1.373	0.005	1.432	0.004	1.447	0.001
Management Status (1=Yes)	0.747	0.000	0.757	0.000	0.761	0.000	0.731	0.000	0.773	0.000
Tenure (<1 year)	0.751	0.000	0.803	0.000	0.752	0.000	0.793	0.000	0.774	0.000
Tenure (1-2 years)	1.101	0.002	1.138	0.000	1.109	0.001	1.114	0.001	1.144	0.000
Tenure (3-5 years)	1.115	0.000	1.138	0.000	1.124	0.000	1.125	0.000	1.145	0.000
Tenure (6-10 years)	1.150	0.000	1.152	0.000	1.160	0.000	1.158	0.000	1.178	0.000
Tenure (11-15 years)	1.157	0.000	1.154	0.000	1.155	0.000	1.149	0.000	1.173	0.000
Part-Time (<= 29 hours)	0.824	0.000	0.845	0.000	0.822	0.000	0.863	0.000	0.808	0.000
AHP	2.244	0.000	2.301	0.000	2.248	0.000	2.336	0.000	2.217	0.000
Central Functions & Admin	1.745	0.000	1.776	0.000	1.720	0.000	1.773	0.000	1.694	0.000

Clinical, Scientific & Technical Support	3.917	0.000	3.991	0.000	3.939	0.000	4.115	0.000	3.854	0.000
Medical/Dental	2.208	0.000	2.162	0.000	2.208	0.000	2.186	0.000	1.862	0.000
Nurses	2.851	0.000	2.849	0.000	2.953	0.000	2.967	0.000	2.795	0.000
Paramedic & Ambulance Services	11.123	0.000	10.096	0.000	11.157	0.000	10.852	0.000	9.380	0.000
Social Care Services	2.531	0.000	2.435	0.000	2.494	0.000	2.599	0.000	2.487	0.000
London Location	1.040	0.206	1.047	0.139	1.040	0.213	1.041	0.208	1.041	0.184
Acute Trust	1.343	0.032	1.295	0.067	1.328	0.038	1.324	0.045	1.393	0.016
PCT	0.870	0.313	0.912	0.514	0.848	0.23	0.861	0.286	0.949	0.706
Mental Health	0.572	0.000	0.604	0.000	0.558	0.000	0.568	0.000	0.643	0.002
Health Status (1=Good)	0.648	0.000	0.567	0.000	0.625	0.000	0.574	0.000	0.509	0.000
Ethn. White	0.823	0.005	0.776	0.000	0.752	0.000	0.745	0.000	0.778	0.000
Ethn. Mixed	1.147	0.165	1.099	0.355	1.107	0.295	1.063	0.543	1.136	0.191
Ethn. Asian	0.842	0.024	0.866	0.069	0.856	0.039	0.866	0.066	0.884	0.102
Ethn. Black	0.820	0.013	0.793	0.005	0.820	0.012	0.760	0.001	0.769	0.001
The predicting variable is highlighted above	0.599	0.000	2.510	0.000	1.358	0.000	2.548	0.000	0.748	0.000
Trust size	1.037	0.004	1.031	0.015	1.034	0.007	1.028	0.029	1.028	0.022

Appendix D: Work-related stress as an outcome variable

	General Health and well-being		Presenteeism		Health and well-being in the last 4 weeks		Working while feeling unwell		Supervisor interest for health	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.869	0.000	0.879	0.000	0.901	0.000	0.911	0.000	0.788	0.000
Age (16-20)	1.980	0.000	2.108	0.000	1.880	0.000	2.122	0.000	2.944	0.000
Age (21-30)	2.177	0.000	2.061	0.000	2.126	0.000	2.069	0.000	2.789	0.000
Age (31-40)	2.185	0.000	2.133	0.000	2.161	0.000	2.126	0.000	2.716	0.000
Age (41-50)	2.356	0.000	2.384	0.000	2.299	0.000	2.326	0.000	2.762	0.000
Age (51-65)	2.429	0.000	2.448	0.000	2.342	0.000	2.427	0.000	2.689	0.000
Management Status (1=Yes)	1.241	0.000	1.238	0.000	1.271	0.000	1.172	0.000	1.265	0.000
Tenure (<1 year)	0.471	0.000	0.512	0.000	0.482	0.000	0.503	0.000	0.502	0.000
Tenure (1-2 years)	0.715	0.000	0.744	0.000	0.736	0.000	0.730	0.000	0.765	0.000
Tenure (3-5 years)	0.872	0.000	0.879	0.000	0.891	0.000	0.880	0.000	0.911	0.000
Tenure (6-10 years)	0.975	0.201	0.971	0.143	0.996	0.829	0.977	0.234	1.005	0.794
Tenure (11-15 years)	0.991	0.695	0.985	0.533	0.992	0.714	0.981	0.4	1.005	0.831
Part-Time (<= 29 hours)	0.673	0.000	0.680	0.000	0.677	0.000	0.715	0.000	0.657	0.000
AHP	1.156	0.000	1.188	0.000	1.172	0.000	1.229	0.000	1.158	0.000
Central Functions & Admin	0.886	0.000	0.888	0.000	0.866	0.000	0.910	0.002	0.855	0.000

Clinical, Scientific & Technical Support	0.856	0.000	0.852	0.000	0.890	0.001	0.940	0.08	0.864	0.000
Medical/ Dental	1.112	0.009	1.030	0.47	1.128	0.003	1.070	0.098	0.837	0.000
Nurses	1.205	0.000	1.182	0.000	1.295	0.000	1.277	0.000	1.191	0.000
Paramedic & Ambulance Services	1.404	0.002	1.131	0.257	1.431	0.001	1.307	0.012	1.033	0.756
Social Care Services	1.009	0.911	0.994	0.945	1.025	0.746	1.090	0.272	1.013	0.861
London Location	1.090	0	1.088	0.001	1.089	0	1.085	0.001	1.081	0.001
Acute Trust	1.102	0.343	1.008	0.938	1.068	0.516	1.034	0.741	1.113	0.283
PCT	1.206	0.069	1.261	0.026	1.116	0.278	1.156	0.155	1.318	0.006
Mental Health	1.243	0.037	1.309	0.011	1.139	0.201	1.188	0.095	1.417	0.001
Health Status (1=Good)	0.780	0.000	0.575	0.000	0.755	0.000	0.595	0.000	0.494	0.000
Ethn. White	0.990	0.863	0.912	0.123	0.840	0.003	0.849	0.006	0.899	0.062
Ethn. Mixed	1.089	0.311	1.056	0.524	1.019	0.816	0.955	0.584	1.061	0.461
Ethn. Asian	0.785	0.000	0.873	0.037	0.844	0.007	0.849	0.011	0.874	0.029
Ethn. Black	0.810	0.002	0.768	0.000	0.838	0.007	0.707	0.000	0.738	0.000
The predicting variable is highlighted above	0.349	0.000	4.041	0.000	1.934	0.000	3.841	0.000	0.606	0.000
Trust size	1.023	0.027	1.013	0.261	1.017	0.088	1.013	0.212	1.007	0.508

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