



Staff Engagement in the NHS: A Multilevel Analysis

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Executive Summary

- The main focus of this report is staff engagement in the NHS. In section 1 we discuss the general definition of engagement and its meaning in the context of the NHS.
- In section 2 we explain our research design which includes details of multilevel analysis and the variables we used from the 2009 NHS Staff Survey.
- The analysis we have conducted is informed by existing literature. In sections 3-5, we have looked at Overall Engagement and its three components (i.e. Staff Advocacy, Motivation and Involvement) and whether these have links with Human Resource Management (HRM) policies, seven elements of work experience, along with work-related stress, health and well-being, and presenteeism.
- 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 3, we particularly looked at the relationship between engagement and both appraisal and team working. To explore appraisal we studied the effects of having any appraisal in the previous 12 months, having a good quality appraisal, and having a personal development plan in the previous 12 months. The results show that the relationship between Overall Engagement and appraisal is positive and significant. Involvement is best predicted by having an appraisal in the previous 12 months, agreeing a personal development plan in the previous 12 months and working in a well-structured team. Staff Advocacy is best predicted by good quality appraisal.
- In section 4, we looked at the relationship between work factors and engagement. The results show that satisfaction with quality of work and work pressure best predict Staff Advocacy of trusts, having an interesting job and roles making a difference best predict Staff Motivation, and feeling valued by colleagues, job design and supervisor support are most strongly related to being able to contribute to making improvements (i.e. Involvement).
- In section 5, we looked at the relationship between engagement and health-related outcomes. When we look at work-related stress and presenteeism, they are negatively

associated with engagement and its components. The results show that the Overall Engagement score best predicts work-related stress and presenteeism. The Overall Engagement score has the strongest relationship with the general health and well-being of NHS staff. Section 6 concludes the study with a few recommendations.

1. Introduction

- 1.1. This report focuses on staff engagement in the NHS. In section 1 we discuss the definition of engagement in organizations and in the NHS in particular, in order to contextualise the study and give a grounding for the analysis we have conducted using the 2009 NHS staff survey. In section 2 we present the Research Design which includes the aim of the study, source of data and methodology.
- 1.2. In sections 3-5, we present the research findings, which were achieved using multilevel modelling. In section 3, we present the associations between engagement (Overall Engagement and its components) and appraisal and well-structured team work. In section 4, we present the relationship between engagement and several work-related factors. In section 5, we present the association between engagement and health and well-being, work related stress and presenteeism. Section 6 wraps up the report with a brief conclusion and recommendation.

Definitions of Engagement

- 1.3. Despite the effort made by many researchers, measuring engagement proved to be a difficult phenomenon. This is because engagement involves assessing complex feelings and emotions (Macey and Schneider, 2008). It is also due to the multifaceted factors that tap into it, which include organisational factors (e.g. see figure 1 below).
- 1.4. Figure 1 shows a diagnostic tool which features how various HRM activities tap into engagement (IES, 2003). Amongst others, immediate management, performance and appraisal, health, communication and co-operation are related with employee engagement. The figure shows that there are a number of factors that are associated with employee engagement, some of which will be explored in our analysis.
- 1.5. The multifaceted natures of HRM activities have vital consequences for employee's engagement. For example, family friendliness combined with equal opportunity and fair treatment for families with young children or employees with other caring responsibilities would improve their engagement. Immediate management co-operation is also important to make this notion work.

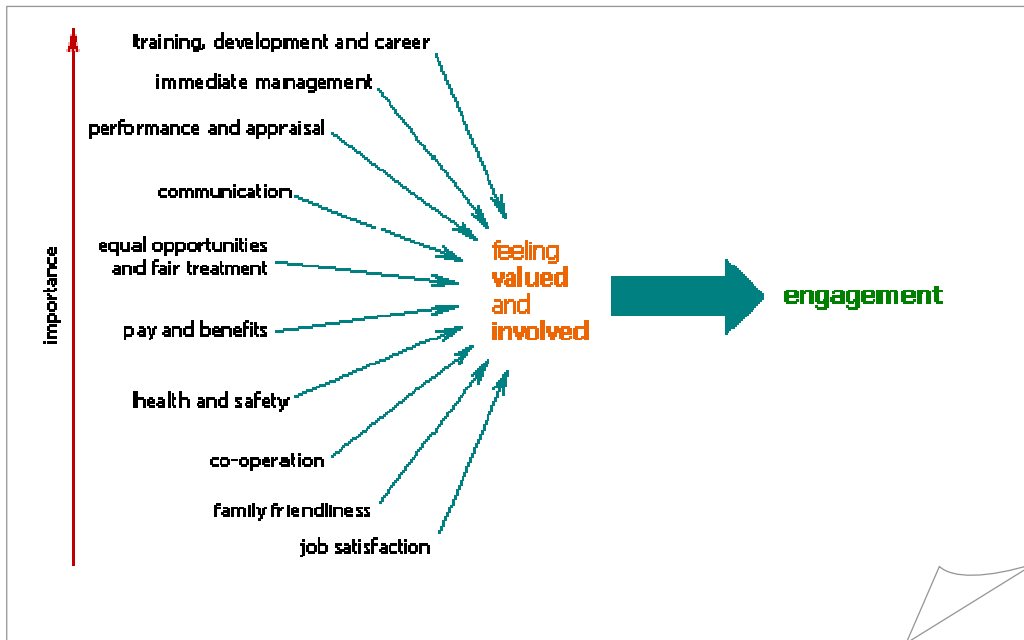


Figure 1: Diagnostic Tool of Staff Engagement

Source: IES Survey, 2003

1.6. In many cases, the definition of engagement is constructed based on in-depth interviews, consultations and qualitative studies with employees (Department of Health, 2008a; Department of Health 2008b; and Robinson *et al.*, 2007).

1.7. In non-academic contexts the term 'engagement' has been used for a wide range of factors ranging from psychological states such as commitment, to behaviours related to performance, to dispositions such as positive affect. (Macey and Schneider, 2008).

1.8. The use of staff satisfaction surveys has been criticised as inadequate for measuring employee engagement, as they most often deal with work conditions that could foster engagement rather than engagement itself. (Macey and Schneider, 2008).

1.9. It is believed that engagement is a precursor to organisational commitment, which explains why it is organisations' interest to improve knowledge of the direct causes of engagement. (Robinson *et al.*, 2004).

1.10. As Robinson and her colleagues (2004, pg. 4) observe 'the verb 'to engage' has a variety of meanings, ranging from straightforward and transactional (to hire someone to do a job), to exciting and mysterious (to fascinate and charm)'.

1.11. In the research that they conducted, Robinson *et al.* (2004) identified various factors that challenge employee engagement. These are summarised in the box presented to the right hand side of this page.

1.12. According to these researchers, engagement declines as employees get older. Other demographic differences are also linked to variations in engagement; for instance, respondents belonging to ethnic minority groups tend to report lower engagement as

Challenges to staff engagement

Employee attributes and job characters/experiences listed at the beginning of each bullet point increase employee engagement.

- Old age vs. Young age
- White vs. Ethnic minority
- Managers vs. other supporting occupations
- Short tenure vs. long tenure
- Not experiencing harassment and accident vs. experiencing these.
- Having appraisal and personal development plan (PDP) vs. not having appraisal and PDP.

Source: Robinson *et al.* (2004)

compared to their white colleagues, and the same is observed for employees in managerial and professional roles as compared to employees at lower levels.

1.13. These researchers also indicated that engagement levels decline as length of service increases and that having an accident or an injury at work, or experiencing harassment (especially from one's manager) both have a big negative impact on engagement.

1.14. Last but not least, they have also indicated that employees who have a personal development plan, and who have received a formal performance appraisal within the past year, have markedly higher engagement levels than those who have not.

Why is Engagement Important for the NHS?

1.15. Managers want to improve staff engagement because this improves staff performance, reduces turnover and improves the well-being of employees (Wright and Cropanzano, 2000; Taris *et al.*, 2003; Griffith, 2004; Michie and West, 2004; Macey and Schneider, 2008; and Hakanen et al, 2008).

1.16. It is a well known fact that the NHS is one of the world's largest employers accounting for a relatively large proportion of the UK working population. Thus, the well-being and overall health of the NHS staff is a salient precondition for the delivery of improved patient care services, as outlined in the NHS Constitution (Boorman, 2009).

1.17. The NHS Employers report on staff engagement explicitly identifies that '[s]taff engagement and the potential impact it can have on morale, productivity, organizational performance and patient experience are a high priority in the NHS' (NHS Employers, 2008, pg. 1).

1.18. Recently several employment-related improvements have been implemented within the NHS (such as improvements in contracts, development and progression routes etc.), motivating organisations to also focus on other improvements that relate to staff morale and organisational culture. (NHS Employers, 2008).

1.19. Indeed, policies that improve staff productivity, health and well-being and morale are the main focus of the NHS staff pledges. The importance of these issues is also discussed thoroughly in the High quality care for all: NHS Next Stage Review final report (Darzi, 2008).

1.20. Data from cases studies within the NHS show that there is a link between employees' opinions and experiences relating to their work and their engagement. (Robinson *et al.*, 2004).

HRM features which enhance engagement.

- *Involvement in decision making*
- *The extent to which employees feel able to voice their ideas, and managers listen to these views, and value employees' contributions.*
- *The opportunities employees have to develop their jobs.*
- *The extent to which the organization is concerned for employees' health and well-being.*

1.21. The findings from NHS staff survey, which is a large scale annual survey, indicate that on the whole NHS staff are largely satisfied at work. However, there is scope for further action that will improve employee involvement and engagement, especially since there are large variations between trusts. The importance of the psychological contract (mutual commitment and sense of fairness on behalf of the employer and the employee) is duly recognised within the NHS (NHS Employers, 2008).

The Definition of Engagement in the NHS Staff Survey

1.22. Engagement in the 2009 NHS staff survey is defined based on research conducted by Schaufeli and Bakker in 2003. The 17 item Utrecht Work Engagement Scale (UWES) designed and undertaken by these researchers' explored three dimensions. These are vigour, dedication and absorption scales.

1.23. On the whole, the engagement questions in the NHS Staff Survey reflected the vigour, dedication and absorption scales that were originally reflected in the UWES survey.

1.24. The questions in the NHS survey were slightly reworded in order to accommodate the opinions of the NHS Staff Survey Improvement Board members. The meanings of the new questions were tested by means of cognitive interviewing. This gives the engagement related questions in the NHS staff survey rigour and validity.

1.25. The Overall Engagement key score in the 2009 NHS staff survey is computed from the mean score of three key findings, the details of which are presented in Table 1 below.

1.26. The table clearly indicates that staff recommendation of trust as a place to work or receive treatment is associated with Staff Advocacy; that staff motivation at work is related with Motivation and staff being able to contribute towards improvements at work indicates their Involvement.

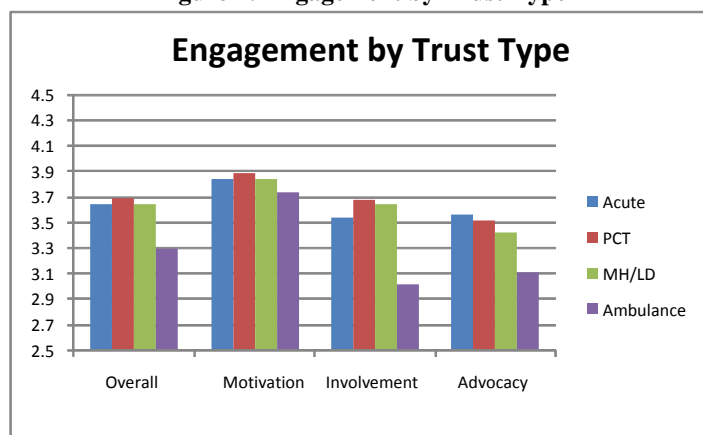
1.27. Overall, engagement can be described by the conditions under which people work (Macey and Schneider, 2008). In the 2009 NHS staff survey, the Overall Engagement of staff is calculated from the three different components that are presented in Table 1.

Table 1: The Components of Engagement in the NHS Staff Survey

Name of Question in NHS Staff Survey	Type of engagement the Question Indicates
Staff recommendation of Trust as a place to work or receive treatment	Staff Advocacy
Staff motivation at work	Motivation
Staff are able to contribute towards improvements at work	Involvement

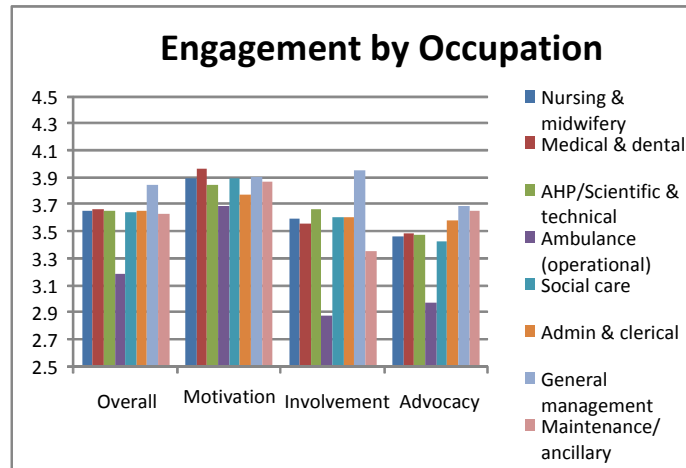
1.10. In Figures 2 and 3 below we present engagement by trust type and occupational groups. The figure shows that engagement is lowest amongst ambulance trusts; however, Motivation is still fairly high.

Figure 2: Engagement by Trust Type



1.11. Figure 3 also shows that Staff Advocacy tends to be higher amongst non-clinical occupational groups. On the other hand, Motivation tends to be more or less the same across all occupational groups.

Figure 3: Engagement by Occupational Group



2. Research Design

Aim of the Study

- 2.1. This study looks at the potential link between organisational and health-related factors and engagement. The particular objective of this analysis is to investigate differences in the relationship between the predictor and outcome variables amongst the overall NHS staff as well as across the 390 trusts. We conducted the analysis in two different ways.
- 2.2. Primarily, we investigated the relationship between Overall Engagement and its components (i.e. Staff Advocacy, Motivation and Involvement) and HRM practices. The HRM practices we investigated were appraisal, well-structured team working and seven work-related factors the details of which are presented in section 2. The HRM practices incorporated in our analysis directly tap into engagement – a view informed by the literature presented in Section 1.
- 2.3. We have also looked at the link between Overall Engagement and its components and work-related stress, health and well-being as well as presenteeism. In these analyses we

investigated whether engagement predicts work-related stress, presenteeism and health and well-being.

Research Method and Source of Data

- 2.4. We analyzed the 2009 NHS Staff Survey which includes over 150,000 staff across all English NHS trusts.
- 2.5. We conducted multilevel (hierarchical linear) modelling in which the Overall Engagement key score and its components were used either as predictors or outcome variables.
- 2.6. In the first instance the Overall Engagement score and its three components were included into the multilevel models as outcome variables. In these models, the predictor variables were appraisal, well-structured team work and seven other work related factors (for detail see below). For each of these we run separate models.
 - i. The three appraisal key score variables incorporated into the models are: ‘% having appraisal in the last 12 months’ ‘% having a well-structured appraisal in the last 12 months’ and ‘% agreeing personal development plan (PDP) in the last 12 months’,
 - ii. Well-structured team work and
 - iii. Seven work related key scores which are listed below.
 - Satisfied with quality of work
 - Role makes a difference
 - Feel Valued by colleagues
 - Have interesting job
 - Job design
 - Work Pressure
 - Supervisor Support
- 2.7. Following this, the overall engagement key score and its constructs variables entered into the multilevel analysis models as predictors. The outcome variables included in these models are
 - i. Health and well-being,

- ii. Work-related stress
- iii. Presenteeism

2.8. 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).

3. Appraisal Key Scores and Well-Structured Team Work as Predictors of Staff Engagement

- 3.1. In table 2 we present the association between Overall Engagement and its components (i.e. Staff Advocacy, Motivation and Involvement) and appraisal key scores and well-structured team work.
- 3.2. The table clearly shows which of the engagement variables is most strongly predicted by the appraisal key scores and well-structured team-work. We normally expect a positive relationship between engagement and appraisal. We also expect a positive relationship between engagement and well-structured team work.

Table 2: Links between Engagement and Appraisal Key Scores & Well-structured Team Work

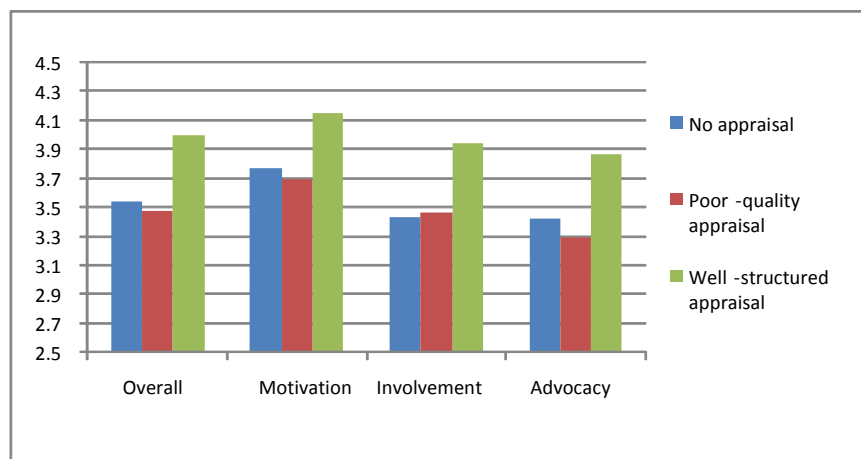
	Overall Engagement	Staff Advocacy	Motivation	Involvement
Had appraisal in the last 12 months	0.163	0.157	0.127	0.204
Good quality appraisal	0.450	0.495	0.408	0.448
Personal development plan in the last 12 months	0.199	0.188	.163	0.245
Well-structured Team Work	0.283	0.239	0.247	0.364

* The values highlighted in blue indicate which independent variable is the strongest predictor of engagement.

- 3.3. The results are in the expected direction and significant ($p < 0.001$). The details of the analysis results are presented in Appendix 1.
- 3.4. The table shows that good quality appraisal is the strongest predictor of Overall Engagement and all of its constructs (i.e. Staff Advocacy, Motivation and Involvement). This gives the message that good quality appraisal is the most important variable here. In contrast, having a poor-quality appraisal is no better than (and sometimes worse than) not having an appraisal at all.

- 3.5. The results show that Involvement is best predicted by having appraisal in the last 12 months, having personal development plan in the last 12 months and working in a well-structured team. Staff Advocacy is best predicted by good quality appraisal.
- 3.6. The relationship between the Overall Engagement and appraisal variables is fairly good when compared with the other variables. Figure 4 below depicts this more clearly.

Figure 4: Engagement and Appraisals



4. Work Related Factors as Predictors of Engagement

- 4.1. As briefly highlighted in figure 1 of section 1, many work related factors are associated with staff engagement. Some of these are incorporated in the analysis we present in this section, the details of which are presented in Appendix 2.
- 4.2. The summarised results of the multilevel analysis that highlight the relationship between Overall Engagement, its components and work-related factors are presented in table 3.
- 4.3. Except for work pressure, we expect all of the work related factors to have a positive relationship with staff engagement.

4.4. Indeed, the table shows that the results are in the expected direction and significant ($p < 0.001$). All of the work factors are related to the Overall Engagement variables as well as each one of the engagement constructs.

4.5. Motivation is strongly predicted by having an interesting job and role making a difference. Staff Advocacy is best predicted by being satisfied with quality of work and work pressure. Being valued by colleagues, job design and supervisor support are most strongly related to being able to contribute to making improvements (i.e. Involvement).

Table 3: Links between Work-related Factors and Engagement

	Overall	Staff Advocacy	Motivation	Involvement
Satisfied with quality of work	0.514	0.601	0.477	0.465
Role makes a difference	0.556	0.500	0.634	0.535
Feel Valued by colleagues	0.621	0.519	0.613	0.731
Have interesting job	0.660	0.490	0.890	0.603
Job design	0.405	0.385	0.358	0.472
Work Pressure	-.226	-.299	-.185	-.193
Supervisor Support	.317	.298	.272	.381

* The values highlighted in blue indicate which independent variable is the strongest predictor of engagement.

5. Work-Related Stress, Health & Well-being and Presenteeism as Outcomes of Engagement

5.1. The summarised results of multilevel analysis that show the relationship between Overall Engagement, its constructs and health related key scores are presented in table 4. The overall result is presented in appendix 3.

5.2. In this analysis, we have looked at whether engagement predicts the presenteeism, work-related stress and health and well-being of the NHS staff.

- 5.3. Here, we have conducted logistic regression for the outcomes work-related stress and presenteeism, due to the binary nature of these variables.
- 5.4. Overall, the results are in the expected direction and significant ($p < 0.001$). By this we mean that we always expect general health and well being and engagement and/or its construct to be positively associated. We also see a general decline in work-related stress and presenteeism when staff engagement improves.
- 5.5. When we look at work-related stress and presenteeism, the values of the odds ratios are below 1, indicating that work-related stress and presenteeism are negatively associated with engagement.
- 5.6. The results show that Overall Engagement better predicts work-related stress and presenteeism than its components do.
- 5.7. The Overall Engagement score has the strongest relationship with the general health and well-being of NHS staff. The second strongest predictor of general health and well-being of the NHS staff is Motivation.

Table 4: The Relationship between Engagement and Health Related Key Scores

	Overall	Staff Advocacy	Motivation	Involvement
Work-related stress	0.475	0.542	0.542	0.612
General Health and well-being	.207	.155	.197	.143
Presenteeism	0.424	0.530	0.530	0.499

* The values highlighted in blue indicate which engagement dimension is the strongest predictor of the outcome variable.

6. Conclusion

- 6.1. On the whole, the analysis we have conducted indicates that Overall Engagement and its components are predicted by HRM practices as hypothesised. For example, having appraisal and being able to work in a well structured team are associated with staff engagement. This indicates that NHS staff would be more engaged if policies that promote such HRM practices are promoted.

6.2. The analysis also shows that the health and well being of NHS staff, their presenteeism and mental well being are linked with the Overall Engagement and its constructs. As highlighted in Section 1, staff engagement will be beneficial not only to NHS staff but also to the patients that they serve. Amongst others, better health among the NHS staff would increase their productivity as well as patient care.

Summary of Recommendation

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

6.3. Longitudinal studies that explore the engagement of NHS staff will give us a thorough understanding of staff engagement in the NHS.

6.4. We also recommend qualitative studies that explore the meaning of engagement across various occupational groups of the NHS. This will provide us with a definitional insight and fully answers the issues related to ‘what works?’

Appendix 1: Appraisal Key Scores and Well-structured Team-work as Predictors of Staff Engagement

Motivation

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	4.599	.000	4.776	0.000	4.620	.000	4.709	.000
Gender	-.093	.000	-0.094	0.000	-.088	.000	-.095	.000
Age (16-20)	-1.039	.000	-1.007	0.000	-1.022	.000	-1.037	.000
Age (21-30)	-.848	.000	-0.811	0.000	-.852	.000	-.836	.000
Age (31-40)	-.708	.000	-0.664	0.000	-.710	.000	-.699	.000
Age (41-50)	-.600	.000	-0.559	0.000	-.599	.000	-.596	.000
Age (51-65)	-.473	.000	-0.434	0.000	-.470	.000	-.472	.000
Management Status (1=Yes, 2=No)	.129	.000	0.109	0.000	.124	.000	.115	.000
Tenure (<1 year)	.294	.000	0.269	0.000	.299	.000	.249	.000
Tenure (1-2 years)	.169	.000	0.138	0.000	.169	.000	.161	.000
Tenure (3-5 years)	.105	.000	0.086	0.000	.103	.000	.103	.000
Tenure (6-10 years)	.043	.000	0.035	0.000	.043	.000	.042	.000
Tenure (11-15 years)	.006	.411	0.003	0.687	.005	.475	.006	.389
Part-Time (<= 29 hours)	.025	.000	0.025	0.000	.024	.000	.018	.000
AHP	.000	.969	0.018	0.060	-.011	.287	.020	.049
Central Functions & Admin	-.057	.000	-0.044	0.000	-.052	.000	-.047	.000
Clinical, Scientific & Technical Support	.055	.000	0.044	0.000	.047	.000	.072	.000

Medical/ Dental	.042	.001	0.083	0.000	.025	.049	.061	.000
Nurses	.026	.006	0.038	0.000	.015	.111	.050	.000
Paramedic & Ambulance Services	-.157	.000	-0.103	0.001	-.141	.000	-.110	.001
Social Care Services	.016	.523	0.020	0.406	.013	.612	.022	.364
London Location	.022	.013	0.022	0.01	.020	.030	.026	.004
All except Mental Health Type	-.129	.000	-0.136	0.000	-.115	.000	-.140	.000
Health Status (1=Good, 2=Poor)	-.128	.000	-0.113	0.000	-.125	.000	-.121	.000
Ethn. White	-.090	.000		0.008	-.086	.000	-.098	.000
Ethn. Mixed	-.099	.000	-0.067	0.011	-.099	.000	-.113	.000
Ethn. Asian	.194	.000	0.177	0.000	.197	.000	.177	.000
Ethn. Black	-.007	.739	-0.017	0.426	-.006	.791	-.012	.568
The name of predictor is indicated above	.127	.000	0.408	0.000	.164	.000	.247	.000
Trust size	-.006	.074	-0.002	0.489	-.004	.253	.000	.944

Staff Advocacy

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	3.882	.000	4.103	.000	3.937	.000	3.977	.000
Gender	-.013	.020	-.014	.009	-.006	.262	-.015	.005
Age (16-20)	-.137	.000	-.094	.009	-.148	.000	-.156	.000
Age (21-30)	-.271	.000	-.223	.000	-.288	.000	-.261	.000
Age (31-40)	-.277	.000	-.223	.000	-.294	.000	-.273	.000
Age (41-50)	-.253	.000	-.200	.000	-.266	.000	-.253	.000
Age (51-65)	-.217	.000	-.167	.000	-.227	.000	-.219	.000
Management Status (1=Yes, 2=No)	.128	.000	.105	.000	.125	.000	.117	.000
Tenure (<1 year)	.322	.000	.292	.000	.321	.000	.271	.000
Tenure (1-2 years)	.179	.000	.140	.000	.179	.000	.174	.000
Tenure (3-5 years)	.092	.000	.068	.000	.089	.000	.091	.000
Tenure (6-10 years)	.031	.000	.021	.001	.029	.000	.030	.000
Tenure (11-15 years)	-.003	.709	-.006	.394	-.003	.708	-.004	.593
Part-Time (<= 29 hours)	.008	.105	.008	.091	.008	.106	.000	.953
AHP	-.191	.000	-.170	.000	-.204	.000	-.171	.000
Central Functions & Admin	-.019	.045	-.004	.629	-.014	.135	-.016	.079
Clinical, Scientific & Technical Support	-.004	.746	-.018	.079	-.014	.197	.011	.321
Medical/ Dental	-.216	.000	-.167	.000	-.234	.000	-.197	.000
Nurses	-.198	.000	-.185	.000	-.212	.000	-.180	.000

Paramedic & Ambulance Services	-.580	.000	-.523	.000	-.582	.000	-.541	.000
Social Care Services	-.174	.000	-.167	.000	-.175	.000	-.175	.000
London Location	.012	.626	.012	.636	.010	.683	.015	.563
All except Mental Health Type	-.014	.822	-.026	.656	-.017	.786	-.015	.811
Health Status (1=Good, 2=Poor)	-.097	.000	-.077	.000	-.095	.000	-.091	.000
Ethn. White	-.085	.000	-.038	.033	-.082	.000	-.092	.000
Ethn. Mixed	-.086	.001	-.057	.025	-.080	.003	-.104	.000
Ethn. Asian	.089	.000	.064	.001	.093	.000	.070	.001
Ethn. Black	.207	.000	.191	.000	.207	.000	.206	.000
The name of predictor is indicated above	.157	.000	.495	.000	.188	.000	.239	.000
Trust size	.000	.978	.004	.686	.002	.867	.005	.579

Involvement

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	3.693	.000	3.867	.000	3.755	.000	3.841	.000
Gender	-.007	.215	-.008	.125	.003	.566	-.011	.047
Age (16-20)	-.064	.084	-.038	.287	-.088	.020	-.069	.059
Age (21-30)	.000	.988	.042	.068	-.032	.188	.023	.321
Age (31-40)	.012	.601	.058	.009	-.016	.494	.028	.211
Age (41-50)	-.011	.631	.034	.123	-.035	.135	.001	.959
Age (51-65)	-.053	.018	-.012	.603	-.072	.002	-.046	.039
Management Status (1=Yes, 2=No)	.366	.000	.349	.000	.360	.000	.345	.000
Tenure (<1 year)	.113	.000	.069	.000	.115	.000	.042	.000
Tenure (1-2 years)	.022	.003	-.014	.063	.022	.004	.013	.083
Tenure (3-5 years)	-.006	.411	-.026	.000	-.006	.388	-.008	.246
Tenure (6-10 years)	-.018	.004	-.027	.000	-.018	.005	-.018	.004
Tenure (11-15 years)	-.027	.000	-.031	.000	-.025	.001	-.027	.000
Part-Time (<= 29 hours)	-.055	.000	-.058	.000	-.055	.000	-.067	.000
AHP	-.140	.000	-.113	.000	-.152	.000	-.114	.000
Central Functions & Admin	-.172	.000	-.159	.000	-.161	.000	-.165	.000
Clinical, Scientific & Technical Support	-.254	.000	-.266	.000	-.261	.000	-.230	.000
Medical/ Dental	-.294	.000	-.243	.000	-.316	.000	-.267	.000
Nurses	-.207	.000	-.192	.000	-.221	.000	-.178	.000

Paramedic & Ambulance Services	-.767	.000	-.724	.000	-.763	.000	-.704	.000
Social Care Services	-.210	.000	-.202	.000	-.208	.000	-.204	.000
London Location	-.024	.029	-.022	.030	-.023	.030	-.021	.035
All except Mental Health Type	.067	.049	.061	.062	.072	.036	.057	.081
Health Status (1=Good, 2=Poor)	-.101	.000	-.086	.000	-.098	.000	-.092	.000
Ethn. White	.060	.001	.105	.000	.063	.001	.057	.002
Ethn. Mixed	.009	.723	.037	.150	.017	.517	-.007	.793
Ethn. Asian	.012	.550	-.006	.764	.015	.459	-.007	.714
Ethn. Black	.016	.451	.009	.652	.015	.485	.017	.412
The name of predictor is indicated above	.204	.000	.448	.000	.246	.000	.364	.000
Trust size	-.036	.000	-.033	.000	-.035	.000	-.027	.000

Overall Engagement

	Appraisal in last 12 months		Quality appraisal		Personal Development Plan		Working in well structured team	
	Estimate	P	Estimate	p	Estimate	p	Estimate	p
Constant	4.063	.000	4.252	.000	4.107	.000	4.182	.000
Gender	-.037	.000	-.038	.000	-.030	.000	-.040	.000
Age (16-20)	-.414	.000	-.380	.000	-.419	.000	-.423	.000
Age (21-30)	-.375	.000	-.332	.000	-.392	.000	-.361	.000
Age (31-40)	-.327	.000	-.278	.000	-.342	.000	-.318	.000
Age (41-50)	-.292	.000	-.244	.000	-.302	.000	-.287	.000
Age (51-65)	-.252	.000	-.208	.000	-.259	.000	-.250	.000
Management Status (1=Yes, 2=No)	.208	.000	.188	.000	.203	.000	.193	.000
Tenure (<1 year)	.242	.000	.209	.000	.244	.000	.187	.000
Tenure (1-2 years)	.122	.000	.087	.000	.122	.000	.115	.000
Tenure (3-5 years)	.063	.000	.042	.000	.062	.000	.062	.000
Tenure (6-10 years)	.019	.000	.009	.047	.018	.000	.018	.000
Tenure (11-15 years)	-.008	.182	-.011	.044	-.007	.223	-.008	.176
Part-Time (<= 29 hours)	-.008	.040	-.009	.017	-.008	.043	-.017	.000
AHP	-.110	.000	-.087	.000	-.122	.000	-.089	.000
Central Functions & Admin	-.081	.000	-.067	.000	-.074	.000	-.076	.000
Clinical, Scientific & Technical Support	-.067	.000	-.079	.000	-.075	.000	-.049	.000
Medical/ Dental	-.155	.000	-.108	.000	-.175	.000	-.135	.000

Nurses	-.126	.000	-.112	.000	-.139	.000	-.103	.000
Paramedic & Ambulance Services	-.501	.000	-.450	.000	-.496	.000	-.453	.000
Social Care Services	-.123	.000	-.115	.000	-.124	.000	-.120	.000
London Location	.003	.782	.004	.752	.002	.863	.006	.611
All except Mental Health Type	-.027	.429	-.036	.251	-.022	.512	-.035	.290
Health Status (1=Good, 2=Poor)	-.109	.000	-.092	.000	-.106	.000	-.102	.000
Ethn. White	-.039	.009	.006	.695	-.035	.018	-.044	.002
Ethn. Mixed	-.059	.005	-.030	.138	-.055	.011	-.075	.000
Ethn. Asian	.097	.000	.077	.000	.100	.000	.079	.000
Ethn. Black	.072	.000	.061	.000	.072	.000	.070	.000
The name of predictor is indicated above	.163	.000	.450	.000	.199	.000	.284	.000
Trust size	-.014	.002	-.011	.011	-.012	.007	-.007	.096

Appendix 2: Work Related Factors as Predictors of Engagement

Motivation

	Satisfaction		Job Makes a Difference		Value		Interest		Job Design		Work pressure		Supervisor Support	
	Estim.	P	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p
Constant	4.651	.000	4.656	.000	4.696	.000	4.638	.000	4.473	.000	4.441	.000	4.525	.000
Gender	-.086	.000	-.094	.000	-.087	.000	-.072	.000	-.080	.000	-.103	.000	-.090	.000
Age (16-20)	-1.001	.000	-.968	.000	-1.012	.000	-.873	.000	-.986	.000	-1.042	.000	-1.038	.000
Age (21-30)	-.783	.000	-.787	.000	-.819	.000	-.739	.000	-.761	.000	-.781	.000	-.835	.000
Age (31-40)	-.650	.000	-.657	.000	-.669	.000	-.615	.000	-.616	.000	-.634	.000	-.684	.000
Age (41-50)	-.540	.000	-.554	.000	-.555	.000	-.506	.000	-.508	.000	-.524	.000	-.567	.000
Age (51-65)	-.422	.000	-.437	.000	-.430	.000	-.391	.000	-.385	.000	-.407	.000	-.436	.000
Management Status (1=Yes, 2=No)	.137	.000	.120	.000	.092	.000	.076	.000	.044	.000	.186	.000	.102	.000
Tenure (<1 year)	.255	.000	.263	.000	.270	.000	.245	.000	.235	.000	.206	.000	.213	.000
Tenure (1-2 years)	.167	.000	.168	.000	.180	.000	.168	.000	.160	.000	.141	.000	.142	.000
Tenure (3-5 years)	.110	.000	.101	.000	.118	.000	.105	.000	.104	.000	.092	.000	.093	.000
Tenure (6-10 years)	.039	.000	.038	.000	.053	.000	.047	.000	.046	.000	.038	.000	.037	.000
Tenure (11-15 years)	.012	.115	.008	.284	.017	.014	.009	.169	.016	.016	.009	.220	.006	.373
Part-Time (<= 29 hours)	.018	.000	.019	.000	.013	.006	.047	.000	.019	.000	.008	.100	.018	.000
AHP	-.014	.285	-.078	.000	-.010	.286	-.056	.000	.011	.231	.072	.000	.030	.001
Central Functions & Admin	-.088	.000	-.058	.000	-.040	.000	.050	.000	-.060	.000	-.077	.000	-.038	.000

Clinical, Scientific & Technical Support	-.034	.011	-.034	.003	.085	.000	.066	.000	.043	.000	.046	.000	.064	.000
Medical/ Dental	.009	.548	-.039	.002	.010	.383	-.026	.021	.096	.000	.099	.000	.126	.000
Nurses	.007	.586	-.054	.000	.017	.053	-.025	.003	.066	.000	.096	.000	.055	.000
Paramedic & Ambulance Services	-.277	.000	-.281	.000	-.120	.000	-.176	.000	.050	.079	-.139	.000	.019	.517
Social Care Services	-.026	.312	-.057	.020	.035	.131	.008	.714	.020	.356	.021	.378	.019	.411
London Location	.025	.004	.025	.004	.022	.008	.022	.004	.036	.000	.020	.016	.018	.031
All except Mental Health Type	-.164	.000	-.152	.000	-.137	.000	-.071	.011	-.189	.000	-.137	.000	-.125	.000
Health Status (1=Good, 2=Poor)	-.118	.000	-.127	.000	-.090	.000	-.102	.000	-.067	.000	-.108	.000	-.103	.000
Ethn. White	-.041	.029	-.076	.000	-.134	.000	-.157	.000	-.039	.019	-.055	.003	-.095	.000
Ethn. Mixed	-.069	.012	-.104	.000	-.109	.000	-.143	.000	-.041	.086	-.068	.009	-.084	.001
Ethn. Asian	.190	.000	.199	.000	.176	.000	.181	.000	.175	.000	.176	.000	.190	.000
Ethn. Black	-.007	.741	-.012	.562	-.001	.964	-.004	.844	-.001	.960	-.018	.377	-.002	.918
The name of predictor is indicated above	-.478	.000	-.634	.000	-.613	.000	-.891	.000	.358	.000	-.185	.000	.271	.000
Trust size	-.009	.005	-.011	.001	-.001	.836	-.005	.063	-.001	.570	-.006	.062	.005	.076

Staff Advocacy

	Satisfaction		Job Makes a Difference		Value		Interest		Job Design		Work pressure		Supervisor Support	
	Estim.	P	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p
Constant	3.852	.000	3.869	.000	3.945	.000	3.872	.000	3.735	.000	3.643	.000	3.796	.000
Gender	-.011	.053	-.015	.011	-.009	.080	-.005	.331	.002	.740	-.024	.000	-.009	.067
Age (16-20)	-.166	.000	-.132	.001	-.120	.001	-.055	.121	-.084	.008	-.126	.000	-.150	.000
Age (21-30)	-.217	.000	-.246	.000	-.245	.000	-.208	.000	-.173	.000	-.157	.000	-.255	.000
Age (31-40)	-.218	.000	-.255	.000	-.244	.000	-.225	.000	-.177	.000	-.155	.000	-.251	.000
Age (41-50)	-.189	.000	-.231	.000	-.215	.000	-.200	.000	-.153	.000	-.127	.000	-.218	.000
Age (51-65)	-.158	.000	-.199	.000	-.178	.000	-.169	.000	-.120	.000	-.107	.000	-.175	.000
Management Status (1=Yes, 2=No)	.141	.000	.128	.000	.100	.000	.104	.000	.039	.000	.216	.000	.100	.000
Tenure (<1 year)	.273	.000	.285	.000	.293	.000	.277	.000	.255	.000	.190	.000	.232	.000
Tenure (1-2 years)	.178	.000	.183	.000	.192	.000	.180	.000	.172	.000	.135	.000	.153	.000
Tenure (3-5 years)	.085	.000	.084	.000	.104	.000	.093	.000	.092	.000	.071	.000	.080	.000
Tenure (6-10 years)	.028	.000	.029	.000	.041	.000	.034	.000	.036	.000	.024	.000	.027	.000
Tenure (11-15 years)	.004	.561	.000	.951	.008	.254	.000	.972	.009	.177	.000	.971	-.002	.748
Part-Time (<= 29 hours)	.000	.977	.001	.819	-.003	.490	.018	.000	-.001	.789	-.021	.000	-.001	.881
AHP	-.150	.000	-.236	.000	-.196	.000	-.213	.000	-.177	.000	-.082	.000	-.158	.000
Central Functions & Admin	-.053	.000	-.034	.001	-.009	.296	.037	.000	-.024	.003	-.054	.000	-.002	.772
Clinical, Scientific & Technical Support	-.051	.000	-.060	.000	.022	.032	.004	.677	-.014	.147	-.015	.133	.008	.425

Medical/ Dental	-.199	.000	-.263	.000	-.239	.000	-.243	.000	-.155	.000	-.130	.000	-.121	.000
Nurses	-.168	.000	-.250	.000	-.206	.000	-.225	.000	-.156	.000	-.090	.000	-.169	.000
Paramedic & Ambulance Services	-.607	.000	-.632	.000	-.555	.000	-.601	.000	-.356	.000	-.544	.000	-.389	.000
Social Care Services	-.179	.000	-.220	.000	-.158	.000	-.176	.000	-.164	.000	-.163	.000	-.160	.000
London Location	.008	.737	.009	.722	.012	.637	.013	.607	.025	.271	.007	.766	.008	.745
All except Mental Health Type	.008	.899	.016	.811	-.018	.766	.023	.705	-.072	.186	-.023	.676	-.009	.874
Health Status (1=Good, 2=Poor)	-.078	.000	-.094	.000	-.064	.000	-.084	.000	-.031	.000	-.062	.000	-.069	.000
Ethn. White	-.038	.042	-.080	.000	-.123	.000	-.126	.000	-.031	.054	-.030	.076	-.092	.000
Ethn. Mixed	-.040	.143	-.089	.001	-.098	.000	-.119	.000	-.028	.220	-.044	.069	-.074	.002
Ethn. Asian	.088	.000	.098	.000	.073	.000	.079	.000	.068	.000	.055	.003	.082	.000
Ethn. Black	.222	.000	.210	.000	.215	.000	.208	.000	.212	.000	.186	.000	.213	.000
The name of predictor is indicated above	-.600	.000	-.500	.000	-.519	.000	-.490	.000	.385	.000	-.299	.000	.298	.000
Trust size	.000	.974	-.003	.779	.004	.706	-.001	.899	.004	.602	.001	.902	.012	.180

Involvement

	Satisfaction		Job Makes a Difference		Value		Interest		Job Design		Work pressure		Supervisor Support	
	Estim.	P	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p
Constant	3.636	.000	3.660	.000	3.769	.000	3.653	.000	3.501	.000	3.488	.000	3.574	.000
Gender	-.014	.018	-.012	.028	-.002	.685	.001	.846	.009	.039	-.021	.000	-.004	.420
Age (16-20)	-.019	.638	-.022	.591	-.017	.605	.053	.136	.014	.625	-.055	.125	-.062	.054
Age (21-30)	.046	.062	.034	.170	.052	.014	.093	.000	.131	.000	.088	.000	.029	.153
Age (31-40)	.059	.014	.045	.060	.073	.000	.091	.000	.146	.000	.104	.000	.053	.007
Age (41-50)	.043	.072	.021	.365	.056	.006	.069	.001	.123	.000	.083	.000	.042	.030
Age (51-65)	-.007	.761	-.029	.216	.011	.594	.016	.451	.075	.000	.029	.185	.006	.740
Management Status (1=Yes, 2=No)	.359	.000	.360	.000	.326	.000	.339	.000	.258	.000	.431	.000	.331	.000
Tenure (<1 year)	.038	.000	.058	.000	.071	.000	.052	.000	.024	.000	.002	.771	-.007	.311
Tenure (1-2 years)	.007	.414	.017	.032	.036	.000	.022	.003	.012	.042	-.006	.414	-.014	.036
Tenure (3-5 years)	-.011	.115	-.013	.076	.011	.080	-.004	.540	-.006	.299	-.017	.010	-.021	.000
Tenure (6-10 years)	-.026	.000	-.021	.001	-.006	.316	-.015	.011	-.013	.007	-.022	.000	-.025	.000
Tenure (11-15 years)	-.023	.003	-.028	.000	-.013	.052	-.024	.001	-.013	.023	-.024	.001	-.028	.000
Part-Time (<= 29 hours)	-.052	.000	-.058	.000	-.072	.000	-.044	.000	-.067	.000	-.077	.000	-.067	.000
AHP	-.116	.000	-.199	.000	-.150	.000	-.168	.000	-.126	.000	-.061	.000	-.098	.000
Central Functions &	-.240	.000	-.204	.000	-.162	.000	-.108	.000	-.185	.000	-.202	.000	-.154	.000

Admin														
Clinical, Scientific & Technical Support	-.316	.000	-.336	.000	-.220	.000	-.248	.000	-.272	.000	-.265	.000	-.242	.000
Medical/ Dental	-.288	.000	-.358	.000	-.328	.000	-.328	.000	-.223	.000	-.228	.000	-.176	.000
Nurses	-.200	.000	-.278	.000	-.221	.000	-.242	.000	-.159	.000	-.137	.000	-.170	.000
Paramedic & Ambulance Services	-.793	.000	-.835	.000	-.735	.000	-.797	.000	-.508	.000	-.765	.000	-.531	.000
Social Care Services	-.221	.000	-.266	.000	-.184	.000	-.208	.000	-.198	.000	-.200	.000	-.199	.000
London Location	-.027	.008	-.024	.028	-.023	.013	-.022	.038	-.005	.477	-.025	.012	-.029	.000
All except Mental Health Type	.113	.007	.111	.005	.064	.037	.119	.000	-.008	.754	.065	.043	.073	.008
Health Status (1=Good, 2=Poor)	-.092	.000	-.104	.000	-.057	.000	-.086	.000	-.023	.000	-.083	.000	-.067	.000
Ethn. White	.099	.000	.075	.000	.012	.480	.016	.370	.131	.000	.098	.000	.055	.001
Ethn. Mixed	.024	.389	-.004	.887	-.006	.798	-.029	.246	.080	.000	.034	.190	.028	.229
Ethn. Asian	.012	.553	.024	.231	-.003	.851	.006	.750	-.009	.552	-.006	.743	.009	.587
Ethn. Black	.017	.430	.019	.379	.034	.079	.023	.238	.030	.065	.007	.740	.028	.122
The name of predictor is indicated above	-.465	.000	-.534	.000	-.732	.000	-.603	.000	.472	.000	-.193	.000	.382	.000
Trust size	-.035	.000	-.039	.000	-.031	.000	-.038	.000	-.031	.000	-.037	.000	-.021	.000

Overall Engagement

	Satisfaction		Job Makes a Difference		Value		Interest		Job Design		Work pressure		Supervisor Support	
	Estim.	P	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p	Estim.	p
Constant	4.048	.000	4.062	.000	4.140	.000	4.055	.000	3.903	.000	3.860	.000	3.967	.000
Gender	-.037	.000	-.040	.000	-.032	.000	-.025	.000	-.022	.000	-.048	.000	-.033	.000
Age (16-20)	-.390	.000	-.371	.000	-.381	.000	-.291	.000	-.348	.000	-.405	.000	-.415	.000
Age (21-30)	-.317	.000	-.333	.000	-.338	.000	-.285	.000	-.265	.000	-.283	.000	-.353	.000
Age (31-40)	-.269	.000	-.289	.000	-.281	.000	-.250	.000	-.214	.000	-.229	.000	-.294	.000
Age (41-50)	-.229	.000	-.256	.000	-.240	.000	-.214	.000	-.179	.000	-.190	.000	-.249	.000
Age (51-65)	-.198	.000	-.224	.000	-.202	.000	-.183	.000	-.144	.000	-.164	.000	-.203	.000
Management Status (1=Yes, 2=No)	.213	.000	.203	.000	.173	.000	.173	.000	.114	.000	.278	.000	.178	.000
Tenure (<1 year)	.188	.000	.201	.000	.211	.000	.191	.000	.171	.000	.132	.000	.145	.000
Tenure (1-2 years)	.116	.000	.121	.000	.135	.000	.122	.000	.114	.000	.089	.000	.093	.000
Tenure (3-5 years)	.060	.000	.057	.000	.078	.000	.064	.000	.063	.000	.048	.000	.050	.000
Tenure (6-10 years)	.013	.008	.015	.003	.030	.000	.022	.000	.023	.000	.013	.005	.013	.003
Tenure (11-15 years)	-.002	.709	-.007	.254	.004	.432	-.005	.381	.004	.387	-.005	.365	-.007	.140
Part-Time (<= 29 hours)	-.012	.002	-.013	.001	-.021	.000	.007	.069	-.017	.000	-.031	.000	-.017	.000
AHP	-.093	.000	-.170	.000	-.118	.000	-.145	.000	-.096	.000	-.023	.002	-.075	.000
Central Functions & Admin	-.125	.000	-.096	.000	-.070	.000	-.005	.433	-.087	.000	-.109	.000	-.063	.000
Clinical, Scientific & Technical Support	-.133	.000	-.142	.000	-.038	.000	-.058	.000	-.080	.000	-.078	.000	-.056	.000

Medical/ Dental	-.158	.000	-.219	.000	-.185	.000	-.198	.000	-.092	.000	-.085	.000	-.057	.000
Nurses	-.120	.000	-.193	.000	-.137	.000	-.163	.000	-.082	.000	-.043	.000	-.094	.000
Paramedic & Ambulance Services	-.559	.000	-.581	.000	-.470	.000	-.524	.000	-.271	.000	-.483	.000	-.300	.000
Social Care Services	-.142	.000	-.181	.000	-.102	.000	-.125	.000	-.113	.000	-.115	.000	-.112	.000
London Location	.002	.890	.003	.827	.003	.793	.004	.709	.018	.045	.000	.974	-.001	.923
All except Mental Health Type	-.016	.663	-.009	.801	-.033	.302	.023	.474	-.091	.000	-.033	.254	-.023	.443
Health Status (1=Good, 2=Poor)	-.096	.000	-.108	.000	-.070	.000	-.091	.000	-.040	.000	-.084	.000	-.080	.000
Ethn. White	.007	.648	-.027	.062	-.082	.000	-.089	.000	.020	.070	.004	.800	-.044	.000
Ethn. Mixed	-.030	.159	-.066	.002	-.072	.000	-.098	.000	.003	.850	-.027	.166	-.044	.015
Ethn. Asian	.096	.000	.106	.000	.080	.000	.087	.000	.077	.000	.073	.000	.092	.000
Ethn. Black	.076	.000	.072	.000	.082	.000	.075	.000	.080	.000	.057	.000	.080	.000
The name of predictor is indicated above	-.515	.000	-.556	.000	-.621	.000	-.660	.000	.405	.000	-.226	.000	.317	.000
Trust size	-.015	.000	-.018	.000	-.010	.027	-.015	.001	-.010	.004	-.014	.000	-.001	.786

Appendix 3: Stress, Health and Well-being and Presenteeism as Outcomes of Engagement

Work-Related Stress

	Staff Advocacy		Involvement		Motivation		Overall Engagement	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.806	0.000	0.814	0.000	0.756	0.000	0.762	0.000
Age (16-20)	3.059	0.000	3.141	0.000	1.395	0.022	2.046	0.000
Age (21-30)	2.608	0.000	3.182	0.000	1.616	0.000	2.111	0.000
Age (31-40)	2.529	0.000	3.125	0.000	1.755	0.000	2.169	0.000
Age (41-50)	2.672	0.000	3.196	0.000	1.985	0.000	2.351	0.000
Age (51-65)	2.644	0.000	2.997	0.000	2.098	0.000	2.363	0.000
Management Status (1=Yes, 2=No)	1.359	0.000	1.539	0.000	1.364	0.000	1.596	0.000
Tenure (<1 year)	0.556	0.000	0.467	0.000	0.537	0.000	0.551	0.000
Tenure (1-2 years)	0.822	0.000	0.724	0.000	0.810	0.000	0.816	0.000
Tenure (3-5 years)	0.943	0.005	0.873	0.000	0.952	0.021	0.943	0.006
Tenure (6-10 years)	1.008	0.683	0.970	0.104	1.016	0.400	1.004	0.846
Tenure (11-15 years)	0.998	0.922	0.979	0.338	1.004	0.871	0.989	0.638
Part-Time (<= 29 hours)	0.647	0.000	0.629	0.000	0.657	0.000	0.629	0.000
AHP	1.032	0.303	1.101	0.002	1.212	0.000	1.076	0.019
Central Functions & Admin	0.867	0.000	0.787	0.000	0.836	0.000	0.789	0.000
Clinical, Scientific & Technical Support	0.897	0.002	0.772	0.000	0.941	0.077	0.827	0.000
Medical/Dental	0.850	0.000	0.848	0.000	1.066	0.108	0.859	0.000
Nurses	1.099	0.001	1.130	0.000	1.337	0.000	1.124	0.000
Paramedic & Ambulance Services	0.912	0.382	0.888	0.251	1.295	0.014	0.798	0.034

Social Care Services	0.920	0.28	0.920	0.264	1.084	0.288	0.925	0.316
London Location	1.078	0.003	1.107	0.000	1.069	0.006	1.089	0.000
Acute Trust	1.156	0.153	1.113	0.277	1.001	0.995	1.089	0.400
PCT	1.188	0.092	1.302	0.008	1.119	0.264	1.210	0.060
Mental Health	1.171	0.127	1.369	0.002	1.154	0.161	1.222	0.051
Health Status (1=Good, 2=Poor)	1.191	0.000	1.908	0.000	1.869	0.000	1.848	0.000
Ethn. White	0.824	0.001	0.929	0.19	0.837	0.002	0.841	0.003
Ethn. Mixed	0.992	0.923	1.083	0.323	1.006	0.942	0.993	0.929
Ethn. Asian	0.886	0.052	0.847	0.007	0.971	0.636	0.922	0.198
Ethn. Black	0.854	0.015	0.739	0.000	0.723	0.000	0.775	0.000
The Predicting engagement variable is highlighted above	0.542	0.000	0.612	0.000	0.542	0.000	0.475	0.000
Trust size	0.992	0.476	1.006	0.546	1.011	0.311	0.995	0.637
Constant	0.281	0.000	0.273	0.000	0.329	0.000	0.340	0.000

Health and Well-being

	Staff Advocacy		Involvement		Motivation		Overall Engagement	
	Estim.	P	Estim.	p	Estim.	p	Estim.	p
Constant	4.628	.000	4.696	.000	4.518	.000	4.580	.000
Gender	.056	.000	.055	.000	.076	.000	.067	.000
Age (16-20)	-.413	.000	-.424	.000	-.169	.000	-.297	.000
Age (21-30)	-.288	.000	-.346	.000	-.127	.000	-.220	.000
Age (31-40)	-.260	.000	-.321	.000	-.137	.000	-.209	.000
Age (41-50)	-.233	.000	-.287	.000	-.134	.000	-.191	.000
Age (51-65)	-.179	.000	-.218	.000	-.105	.000	-.142	.000
Management Status (1=Yes, 2=No)	-.021	.000	-.061	.000	-.027	.000	-.066	.000
Tenure (<1 year)	.035	.000	.081	.000	.026	.001	.023	.004
Tenure (1-2 years)	-.013	.069	.018	.014	-.020	.007	-.020	.006
Tenure (3-5 years)	-.013	.042	.006	.385	-.022	.001	-.018	.007
Tenure (6-10 years)	-.015	.013	-.005	.437	-.018	.002	-.015	.011
Tenure (11-15 years)	-.009	.225	-.003	.643	-.010	.142	-.006	.387
Part-Time (<= 29 hours)	.059	.000	.070	.000	.054	.000	.064	.000
AHP	-.002	.835	-.013	.177	-.038	.000	-.004	.666
Central Functions & Admin	.019	.037	.049	.000	.030	.001	.044	.000
Clinical, Scientific & Technical Support	-.040	.000	.007	.531	-.053	.000	-.017	.092

Medical/ Dental	.117	.000	.130	.000	.064	.000	.125	.000
Nurses	-.039	.000	-.040	.000	-.085	.000	-.036	.000
Paramedic & Ambulance Services	.039	.199	.068	.027	-.034	.259	.098	.001
Social Care Services	-.001	.968	-.001	.951	-.039	.088	.003	.900
London Location	.003	.726	.009	.254	-.001	.856	.003	.651
All except Mental Health Type	-.029	.330	-.044	.126	.002	.948	-.023	.428
Health Status (1=Good, 2=Poor)	-.447	.000	-.449	.000	-.434	.000	-.430	.000
Ethn. White	.110	.000	.078	.000	.114	.000	.103	.000
Ethn. Mixed	.014	.595	-.011	.666	.018	.480	.013	.591
Ethn. Asian	-.053	.006	-.044	.024	-.087	.000	-.071	.000
Ethn. Black	.071	.000	.102	.000	.109	.000	.085	.000
The name of predictor is indicated above	.156	.000	.143	.000	.197	.000	.207	.000
Trust size	.009	.002	.015	.000	.011	.000	.014	.000

Presenteeism

	Staff Advocacy		Involvement		Motivation		Overall Engagement	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
Gender	0.747	0.000	0.741	0.000	0.703	0.000	0.688	0.000
Age (16-20)	7.293	0.000	7.981	0.000	3.292	0.000	4.687	0.000
Age (21-30)	5.646	0.000	7.395	0.000	3.392	0.000	4.391	0.000
Age (31-40)	4.630	0.000	6.098	0.000	3.135	0.000	3.805	0.000
Age (41-50)	3.757	0.000	4.764	0.000	2.746	0.000	3.145	0.000
Age (51-65)	2.849	0.000	3.344	0.000	2.231	0.000	2.401	0.000
Management Status (1=Yes, 2=No)	1.089	0.000	1.379	0.000	1.099	0.000	1.326	0.000
Tenure (<1 year)	0.646	0.000	0.525	0.000	0.627	0.000	0.654	0.000
Tenure (1-2 years)	0.933	0.016	0.811	0.000	0.923	0.005	0.948	0.070
Tenure (3-5 years)	1.010	0.705	0.921	0.001	1.021	0.424	1.022	0.398
Tenure (6-10 years)	1.079	0.001	1.029	0.218	1.093	0.000	1.084	0.001
Tenure (11-15 years)	1.076	0.006	1.046	0.094	1.078	0.005	1.071	0.013
Part-Time (<= 29 hours)	0.807	0.000	0.757	0.000	0.813	0.000	0.782	0.000
AHP	0.975	0.514	1.006	0.881	1.152	0.000	1.011	0.792
Central Functions & Admin	1.051	0.191	0.894	0.003	0.998	0.968	0.942	0.125
Clinical, Scientific & Technical Support	1.473	0.000	1.187	0.000	1.551	0.000	1.368	0.000
Medical/Dental	0.841	0.001	0.787	0.000	1.088	0.092	0.838	0.001
Nurses	1.387	0.000	1.370	0.000	1.714	0.000	1.422	0.000

Paramedic & Ambulance Services	1.721	0.000	1.434	0.003	2.450	0.000	1.474	0.002
Social Care Services	1.301	0.005	1.248	0.019	1.562	0.000	1.296	0.007
London Location	1.079	0.014	1.122	0.000	1.071	0.02	1.090	0.004
Acute Trust	1.421	0.003	1.407	0.004	1.207	0.11	1.364	0.010
PCT	0.861	0.214	0.995	0.965	0.799	0.057	0.878	0.284
Mental Health	0.775	0.036	0.975	0.83	0.761	0.022	0.806	0.079
Health Status (1=Good, 2=Poor)	1.799	0.000	1.780	0.000	1.747	0.000	1.711	0.000
Ethn. White	0.975	0.706	1.117	0.106	1.001	0.985	1.010	0.889
Ethn. Mixed	1.196	0.058	1.305	0.005	1.229	0.029	1.195	0.068
Ethn. Asian	0.974	0.724	0.928	0.318	1.061	0.424	1.034	0.661
Ethn. Black	1.094	0.242	0.933	0.368	0.914	0.245	1.010	0.902
The Predicting engagement variable is highlighted above	0.530	0.000	0.499	0.000	0.532	0.000	0.424	0.000
Trust size	1.001	0.915	1.013	0.299	1.021	0.093	1.003	0.829
Constant	0.068	0.000	0.066	0.000	0.081	0.000	0.078	0.000

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