

**Evaluating the evidence on employee engagement and its  
potential benefits to NHS staff:  
a narrative synthesis of the literature**

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## **Abstract**

### *Objectives and research questions*

To review and evaluate evidence and underpinning theories of employee engagement within the NHS and the general workforce to inform policy and practice. The study was underpinned by four research questions which explored definitions and models of engagement within the academic literature; the evidence of links between engagement and staff morale and performance; the approaches and interventions that have greatest potential to create and embed high levels of engagement within the NHS, and to identify the most useful tools and resources to NHS managers in order to improve engagement.

### *Review methods*

Evidence was identified and evaluated using a narrative synthesis approach involving a structured search of relevant academic databases and grey literature. After systematic sifting of 5,771 items of academic literature for quality and relevance, data was extracted from a final dataset of 214 items, comprising 172 empirical papers, 38 theoretical articles and four meta-analyses. Three books were also used. From a large body of grey literature only 14 items were used in the analysis. Data were extracted from all items using structured data extraction forms.

### *Main findings*

There is no one agreed definition or measure of engagement. Existing approaches can be grouped under three headings: engagement as a psychological state, as a composite attitudinal and behavioural construct, or as employment relations practice. Most fell under the first category, with the Utrecht Work Engagement Scale being the most prevalent. Most theorising around engagement used the job demands-resources framework.

Of 35 studies included in the final dataset that considered engagement and morale the most consistent finding was a positive link between engagement and life satisfaction, and a negative link between engagement and burnout. Some studies examined the link between engagement and work-related attitudes and findings suggested that engagement was positively associated with organisational commitment and job satisfaction and negatively linked to turnover intentions. Of forty-two studies that looked at performance and engagement, strongest support was found for a link between engagement and individual in-

role performance and a negative link between engagement and counterproductive performance outcomes. A link between engagement and higher-level performance outcomes was also found. Of 155 studies that explored approaches and interventions that promote engagement, strongest support was found for the following factors: positive psychological states including resilience; job-related resources and job design features; positive leadership; perceived organisational support; team-level engagement; training and development. Only a small proportion of studies overall were based in healthcare contexts, making the application of evidence to wider contexts limited. Studies identified in the grey literature suggested that the focus of practitioner material was more on wider managerial issues than on psychological factors of engagement.

### *Conclusions*

Overall, the synthesis highlights the complex and confusing nature of the engagement evidence base. The quality of evidence was mixed. Most studies were cross-sectional, self-report surveys although the minority of studies that used more complex methods such as longitudinal study designs or multiple respondents were able to lend more weight to inferences of causality. The evidence from the healthcare sector was relatively sparse. Only a few studies used complex methods and just two had taken place in the UK.

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(530 words)

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## **List of Abbreviations**

ABS	Association of Business Schools Journal Ranking List
ACAS	Advisory, Conciliation and Arbitration Service
AMO	Availability Motivation and Opportunity framework
BIS	Department for Business, Innovation and Skills
CFA	Confirmatory Factor Analysis
CIMO	Context, Interventions, Mechanisms and Outcomes
CIPD	Chartered Institute of Personnel and Development
COR	Conservation of resources theory
HLM	Hierarchical linear modelling
HR	Human Resources
HRM	Human Resource Management
IES	Institute for Employment Studies
IPA	Involvement and Participation Association
ISA	Intellectual, social and affective engagement scale
ISI	Thomson Reuters Web of Knowledge journal listings
JD-R	Job demands-resources framework
LMX	Leader-member exchange
MBI	Maslach Burnout Inventory
NWW	New ways of working
OCB	Organisational citizenship behaviour
POS	Perceived organisational support
P-O Fit	Person-organisation fit

PSS	Perceived supervisor support
QWL	Quality of working life
RN	Registered Nurse
SEM	Structural equation modelling
SET	Social exchange theory
SOC	Selection, optimisation and compensation strategies
SOS	Subjective occupational success
T1, T2	Time 1, Time 2
UWES	Utrecht Work Engagement Scale

## **Plain English summary**

While there is some disagreement over exactly what ‘employee engagement’ means, it is generally accepted that people are engaged with their work when they feel positive, enthusiastic and ‘into’ their job. We set out to review all the evidence published on engagement, aiming to find out a) do people perform better at their work and/or experience higher levels of wellbeing when they are engaged, and b) what are the main factors in the workplace that drive up engagement levels? We examined all the evidence that has been published in peer-reviewed journals since 1990 and found 172 articles containing evidence that met our quality standards. We also examined a range of practitioner materials produced in more informal ways.

Overall, the evidence suggested that when people are engaged they tend to perform better and help colleagues more, to be more satisfied with their work and life in general. We identified six factors linked to this: certain psychological states (such as resilience, self-efficacy and personal resources); providing people with the resources and tools they need to do their jobs; positive leadership; feeling supported by the organisation; working in a team with other engaged people; and taking part in training or development which boost individuals’ coping strategies.

However, we found the evidence on engagement was mixed and very little that focused on the healthcare sector; thus, we still don’t know very much about how engagement works. Further research is needed to verify the findings of this review and that gives work contexts greater consideration.

(250 words)

## Scientific Summary

Employee engagement is enjoying significant popularity, notably in the UK, where the ‘Engage for Success’ movement has raised awareness of the potential for engagement to impact on individual wellbeing, corporate performance, and national productivity, and where the NHS has come under pressure to consider raising levels of engagement as a potential solution to some of the major challenges of staff morale, retention and performance. The question underpinning this evidence synthesis is: is this focus on engagement justified? Is there any evidence that engagement levels make a difference and, if so, what does the research tell us are the factors most likely to yield high levels of engagement?

## Methods

The review addressed four overarching research questions:

1. How has employee engagement been defined, modelled and operationalised within the academic literature?
2. What evidence is there that engagement is relevant for staff morale and performance?
3. What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?
4. What tools and resources would be most useful to NHS managers in order to improve engagement?

The first three questions were refined into detailed questions that could be directly addressed from the literature. We developed an inclusive search strategy that yielded a preliminary dataset comprising 712,550 items. Further refinements were undertaken to reduce the scope and scale of the search and the full search over five databases yielded a final total of 5,771 items.

The titles and abstracts of these 5,771 items were then each sifted by a minimum of two members of the research team using pre-agreed criteria for quality and relevance. Following the preliminary sift, a total of 603 items were put forward for data extraction. These full text items were evaluated against the pre-agreed inclusion criteria, yielding a final total of 214 items, comprising four meta-analyses, 172 empirical articles and a further 38

theoretical/conceptual pieces and three books. Data were extracted from these items using a data extraction form designed to enable evaluation for quality and relevance.

## **How has engagement been defined, modelled and operationalised within the academic literature?**

### ***Definitions and measures***

We extracted data from the 172 empirical papers that were included in the evidence synthesis for research questions 2 and 3 and consulted 38 literature reviews and conceptual papers as well as other background books and papers on engagement identified as relevant. We identified six categories of definitions that have been developed and used as the basis of gathering and analysing empirical data on engagement. These six categories can be grouped under three headings:

### ***Engagement as state:***

- *Personal role engagement* – according to this view, engagement is the expression of an individual's preferred self during the performance of work tasks. 12 items used this definition of engagement. This approach is based on the seminal work of William Kahn.
- *Work task or job engagement* - according to this view, engagement is a multi-dimensional state with cognitive, emotional and energetic/behavioural attributes experienced by employees in relation to their work. One measure, the Utrecht Work Engagement Scale, has been developed and validated, with multiple variants in use. The measure has been widely adopted within the literature on engagement in the context of health. 148 items used this definition and measure.
- *Self-engagement with performance* – one measure has been developed that regards engagement as the extent to which high levels of performance are salient to the individual. One paper used this measure.
- *Multidimensional engagement* – distinguishes between engagement with work as distinct from engagement with the organisation as a whole, seven papers used this definition.

### ***Engagement as composite***



- *Engagement as a composite attitudinal and behavioural construct* – drawing on the work of various consultancy firms and researchers who regard engagement as a broadly defined positive attitudinal state in relation to the organisation, this approach is what is commonly referred to as ‘employee engagement’. During the sifting/extraction process, several measures that fell under this heading were excluded for reasons of quality and validity. However, one measure met the inclusion criteria, and two papers were included that used this perspective.

### ***Engagement as practice***

- *Engagement as practice* – scholars within the human resource management (HRM) field have recently begun to focus on engagement, and there is a small emergent literature on engagement as an employment relations practice. Studies falling under this heading are to date qualitative and so no specific scale or measure has been developed, however, three studies adopting this perspective were identified and included in the analysis.

The general picture to emerge from the analysis is that there is significant divergence of view over what engagement is, or is not. The dominant view is that engagement is a multi-dimensional psychological state experienced by the individual in relation to his/her work activities, and the most widely adopted measure of this is the Utrecht Work Engagement Scale. However, some commentators have highlighted shortcomings in this measure and its application.

Other scholars have suggested that engagement can be directed not only towards one’s work but also towards one’s employing organisation. This idea has so far only been explored in a very small number of studies. The engagement ‘as composite’ view is most akin to what many practitioners understand as ‘employee engagement’ since it encompasses a range of positive attitudes towards the organisation and work setting, including satisfaction with line managers, senior managers, communication, resources and so on. Only a small minority of studies using this approach have been published in peer-reviewed journals and most efforts to operationalise engagement under this heading have failed to demonstrate its construct or discriminant validity, despite its potential interest to practitioners.

Engagement as ‘practice’ is a new and emerging area of interest and, again, one that is of potentially considerable interest to practitioners. Only qualitative studies have been undertaken so far in this area. This conceptualisation of engagement is quite far removed from the notion of engagement as a psychological state of mind, and lies more squarely within the field of interest around workplace involvement and participation.

In conclusion, the dominant perspective on engagement within the academic literature is of engagement as a multi-dimensional activated state of mind, measured by the Utrecht Work Engagement Scale. However, this is by no means the only conceptualisation of engagement, and the sheer range of different meanings attached to ‘engagement’ has hampered the development of a persuasive body of knowledge and evidence.

### ***Theories***

An analysis of the empirical papers published on engagement showed that the overriding theoretical framework used to ‘explain’ engagement as a psychological state is the job-demands resources framework (JD-R). Sixty-five papers referred to the JD-R. However, doubt has been cast over the explanatory power of the JD-R and its limitations in terms of its ability to explain and predict engagement have been highlighted.

The second most widespread theory used in the literature is social exchange theory; 26 articles referred to this. A very wide range of other theories was additionally used in empirical papers to explain the processes by which engagement works. In large part, this broad range of theorisation is linked to engagement’s contested nature. Overall, although the JD-R has emerged as the dominant theoretical perspective, as the field evolves, it is probable that other theoretical frameworks will generate new insights into engagement.

### **What evidence is there that engagement is relevant for staff morale?**

We considered health and wellbeing perceptions and work-related attitudes. A total of 35 studies relating to the general workforce and 12 in relation to health care met the quality threshold and were included. The most consistent finding was a positive association between engagement and life satisfaction; four studies examined this link and two used complex methods. Engagement was also consistently found to be negatively associated with burnout (5 studies).

Thirty-one studies examined the link between engagement and work-related attitudes; the most consistent finding to emerge from these was that engagement was positively associated with organisational commitment and job satisfaction (10 studies). Twenty studies found engagement to be negatively associated with turnover intentions.

### **What evidence is there that engagement is relevant for performance?**

We classified outcomes as individual, or higher level (e.g. team, unit, organisational) performance outcomes. Individual outcomes were considered under the following headings: in-role performance; extra-role performance (e.g. citizenship behaviour); and counterproductive performance (e.g. deviant behaviours). A total of 42 studies focused on these areas, of which just six were in a health care context. The notion that engagement is associated with performance amongst the general workforce was supported in eight instances in the general workforce and five times within health care but these were inconclusive. At the individual level, 22 studies in the general workforce and two in health care examined the link between engagement and individual task-related performance outcomes; all showed a consistent association between engagement and performance outcomes. Thus, we can conclude that there is substantial support for the association between engagement and individual performance outcomes.

Seventeen studies in the general workforce and two in health care found support for a link between engagement and extra-role performance. Three studies amongst the general workforce (but none within the health care sector) found a negative link between engagement and counterproductive behaviour.

### **What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?**

One hundred and thirteen studies examined a very wide range of interventions in the general workforce with a further 42 in the health care context. The most significant associations were found concerning the following:

1. Positive psychological states, notably self-efficacy, resilience and personal resources.
2. Job-related resources and jobs enabling individuals to experience meaningfulness, safety and availability.
3. Positive and supportive leadership approaches, including supervisory support, ethical leadership, authentic leadership, charismatic leadership, and trustworthy leaders.

4. Perceived organisational support.
5. Team-level engagement.
6. Participation in training or development interventions designed to enhance personal coping strategies, resilience, or interventions allowing individuals choice and discretion in ways of working.

### **What tools and resources would be most useful to NHS managers in order to improve engagement?**

To address this question, a parallel synthesis of the grey literature was undertaken. Although there were broad similarities between the overall themes in the academic and the grey literature concerning engagement, the review of grey material suggested that the practitioner material focused more on wider managerial issues (including performance management and training) rather than on psychological factors of engagement. Extraction of data from this material supported the production of a set of outputs for practitioners including a review of the grey literature, a paper on how engagement is measured, a conference and workshop, a webinar and 4 podcasts, along with a set of 3 guides for practitioners (HR, managers and leaders) on engagement.

### **Conclusions**

Our study revealed the complexity and fragmented nature of the engagement literature. So many different meanings have been attached to the engagement that it does not make sense to talk of engagement as one single construct. Some have bemoaned the acontextual, managerialist writing of much of the engagement literature, and noted that some interpretations of engagement, notably engagement 'as composite' risk being dismissed as a managerial fad. Others have argued that engagement has a dark side that may tip over into workaholism and work intensification. The sceptics' view that engagement adds little or nothing to our understanding of workplace attitudes over and above more established constructs such as commitment and satisfaction has not yet been fully disproved.

Overall, the quality of evidence was mixed. Most studies were cross-sectional, self-report surveys although the minority of studies that used more complex methods such as longitudinal study designs or multiple respondents did lend more weight to inferences of

causality. The evidence from the healthcare sector was, however, relatively sparse and only a few studies had used complex methods and just two had taken place in the UK.

Consensus is tentatively emerging from the academic literature that engagement is a psychological state that leads to beneficial individual and organisational outcomes and is influenced by a range of organisational factors. More research that explores alternative conceptualisations of engagement and employs more complex, contextually-sensitive methodologies, would be welcome.

### **Implications for practice**

The evidence has shown the following factors can raise engagement levels:

1. Initiatives that bolster positive feelings amongst the workforce.
2. Features of job design.
3. Positive and supportive leadership.
4. High levels of organisational support.
5. Fostering engagement at the team level.
6. Participation in training or development interventions designed to enhance personal coping strategies, resilience, or interventions allowing individuals choice and discretion in ways of working.

### **Recommendations for future research**

1. There is a general need for further longitudinal research on both the antecedents and the outcomes of engagement within the health care context specifically.
2. More research is needed that focuses on engagement ‘as practice’.
3. More multi-method, qualitative or ethnographic research on engagement within health care would be welcome.
4. Very little research within the engagement field has considered issues of diversity and equality. For instance, more research that investigates the antecedents and outcomes of engagement, as well as the experience of engagement, from the perspectives of employees from various backgrounds would be welcome.
5. Further studies that investigate the interaction of engagement at different levels, individual, work group/team and organisational, would shed light on the experience of engagement.

6. Research that evaluates the comparative salience of a range of different antecedents to engagement would be welcome; hitherto, studies have focused on a relatively limited range of antecedents and so there is a dearth of research that compares and contrasts the potential importance of a range of antecedents for engagement levels.
7. It would be useful to know more about the focus of individuals' engagement, for instance, are people engaged with their job, their work team, their organisation or their profession, and what are the implications of this.
8. All research on the antecedents of engagement with a health care context included in this review used the Utrecht Work Engagement Scale to measure engagement. Quantitative studies that use other measures and conceptualisations of engagement to test out alternative perspectives on engagement that may be relevant within a health care context would be welcome.

(2,365 words)

# Chapter 1

## Introduction

### 1.1 Context for the Evidence Synthesis

Employee engagement has been a topic of growing significance in recent years, bolstered in the UK by the work of the *Engage for Success* movement, which has asserted that there is evidence of a link between high levels of staff engagement, organisational performance, and individual wellbeing, as well as lowered rates of absenteeism and intent to quit.<sup>1, 2</sup> This association was also underlined by Dame Carol Black in her 2008 report to the UK government, '*Working for a Healthier Tomorrow*', in which she argues that there is a link between features of job design, management and leadership, and the health of the workforce.

Academics have similarly argued that a range of positive organisational outcomes are associated with high engagement levels, such as improved performance<sup>3</sup>, productivity<sup>4</sup>, customer service<sup>5</sup> and organisational citizenship behaviour<sup>6</sup>, as well as positive individual outcomes such as wellbeing<sup>7</sup>, reduced sickness absence<sup>8</sup>, and reduced intent to quit.<sup>9</sup>

Engagement has grown in significance to the extent that it has been identified by the UK's Chartered Institute of Personnel and Development (CIPD) as one of the core professional competencies for human resource management (HRM) practitioners, and is frequently cited as being one of the key challenges facing the HRM profession.

Within the NHS, engagement has come increasingly to the fore, with the establishment of a 'Staff Engagement Policy Group' at the Department of Health (DH) in 2008, the creation of a staff engagement indicator within the annual NHS Staff Survey in 2011<sup>i</sup> and the development of a range of resources on engagement by NHS Employers. Sir David Nicholson, Chief Executive of the NHS in England, has been a member of the Sponsor Group supporting the work of the current *Engage for Success* Taskforce. The recent Francis Report<sup>10</sup> indicated the potential risks of low engagement levels within the NHS and concluded that the NHS needs to foster a culture where the patient is put first, and staff are fully engaged.

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<sup>i</sup> See: <http://www.nhsstaffsurveys.com/Page/1022/Past-Results/Staff-Survey-2011-Detailed-Spreadsheets/>

However, the 2012 NHS Staff Survey results suggest that although the staff experience is very positive in some respects, there is also cause for concern. For example, only 26% said senior managers acted on staff feedback, 35% felt that communication between senior managers and staff was effective and 40% felt that their Trust valued their work, while 38% reported feeling unwell as a result of work-related stress (<http://www.nhsstaffsurveys.com>). All of these factors have been found in academic research to be linked with levels of engagement.<sup>7,9,11</sup> Furthermore, 55% would recommend their organisation as a place to work which, although an improvement on 2011 and comparable with findings elsewhere<sup>9</sup>, means that a large proportion of employees still do not feel positive enough about their employers to recommend them. Despite a growing demand for resources and advice on engagement within the NHS, there has hitherto been no systematic evidence synthesis that summarises the findings of research on engagement and shows how these may be relevant for developing and embedding engagement strategies in an NHS context. The purpose of this report is to address this overarching question and to provide a synthesis of the evidence relating to engagement, both within the workforce as a whole, and within health contexts in particular.

This task is by no means clear-cut. There is a great deal of uncertainty over what engagement means, and its theoretical underpinnings. For instance, MacLeod and Clarke<sup>1</sup> found over 50 different definitions of engagement. While preparing their *Engaging for Success* report, and academics frequently refer to the definitional complexity of the field.<sup>12-14</sup> Definitions drawn from the practitioner domain tend to focus on engagement as an active verb ‘engaging’, and highlight the notion that employee engagement is something *done to* employees to ensure they ‘buy in’ to the organisation’s overarching goals and values, often with the expectation that, if employees are engaged, then they will want to ‘give something back’ to their employer.<sup>1</sup> This conceptualisation is closely linked to the more established constructs of involvement and participation; ‘*doing* engagement’.<sup>15</sup>

However, this conceptualisation of engagement is not necessarily aligned with the development of the field within the academic literature.<sup>16-18</sup> Here, the construct of employee engagement was first introduced by Kahn<sup>19</sup> to signify the authentic expression of self in-role, involving physical, cognitive and emotional dimensions, and Kahn’s work has heavily influenced subsequent writings.<sup>3,7,9,20</sup> Engagement is thus considered within the organisational psychology field to be a multi-factorial behavioural, attitudinal and affective individual differences variable<sup>21-23</sup>, ‘*being* engaged’.<sup>15</sup> Recently, attention has turned to the topic of engagement from a critical human resource management (HRM) and organisational



sociological perspective<sup>24</sup>, raising new and as yet unanswered questions about the ontological status of engagement.

Linked to this, there is also considerable debate over the factors deemed to drive up levels of engagement, and the evidence is not so clear-cut as advice in the management literature would suggest. Academic research has suggested that a very wide range of factors at the level of the individual, the job, the line manager, and the employer may all be relevant.<sup>25</sup> These include, for instance, aspects of job design such as autonomy, meaningfulness, and person-job fit<sup>3, 19</sup> and aspects of organisational climate such as voice and value congruence.<sup>3, 9</sup> Specifically within the context of health care workers, experiences of negative affect within the context of the job demands-resources (JD-R) model have been shown in one study to impact on engagement outcomes<sup>26</sup>, while research by the Institute for Employment Studies (IES) found that the key drivers of engagement were staff perceptions of feeling valued by and involved with the organisation.<sup>11</sup>

Equally important is an understanding of the underlying process by which engagement is thought to operate, and the theoretical frameworks that may be especially relevant. A number of theories have been proposed that might 'explain' how engagement works. For example, psychological traits such as perceived self-efficacy and a proactive approach to work, together with positive affect, are argued to generate an energetic, enthusiastic and engaged state.<sup>27</sup> Job design theory has also been found to be relevant, since for instance Kahn's<sup>19</sup> theory of engagement is rooted in Hackman and Oldham's<sup>28</sup> proposal that job characteristics drive attitudes and behaviour. Bakker and Demerouti<sup>29</sup> also argue that the job demands-resources model demonstrates how job design can generate engaged states. However, there is as yet no agreed theoretical framework that may be of particular relevance in explaining engagement within the NHS context.

Bearing in mind these gaps in knowledge, the purpose of this evidence synthesis is to systematically bring together the research and evidence on engagement that is relevant in the health sector, in order to provide a thorough grounding for the development of a set of practice guides and materials that will be of direct, practical benefit to NHS managers and organisations. As Briner et al<sup>30 (p24)</sup> argue 'a synthesis of evidence from multiple studies is better than evidence from a single study... it is the collective body of evidence we need to understand'. It is therefore hoped that by assembling evidence from a wide range of studies

into engagement, a more nuanced understanding of what engagement is, and how it works, will arise.

## **1.2 Review Aim, Scope and Questions**

The aim of this report is to present the results of a systematic evidence synthesis on engagement. Specifically, there are four research questions:

1. How has employee engagement been defined, modelled and operationalised within the academic literature?
2. What evidence is there that engagement is relevant for staff morale and performance?
3. What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?
4. What tools and resources would be most useful to NHS managers in order to improve engagement?

Thus, the first aim is to examine the ways in which engagement is defined and measured within the academic literature. Second, the purpose is to examine the nature and quality of the evidence available that links engagement with morale and performance outcomes through a systematic review of the literature. Third, the aim is to examine the research findings that purport to demonstrate the antecedent factors to engagement. Based on the first three questions, the final research question concerns identifying other resources and evidence ('grey literature') that are of practical relevance to practitioners in the NHS. The results of this question are addressed through the production of a series of practitioner outputs provided in the Appendices to this report. The main part of the report provides evidence from a systematic evidence synthesis on engagement. A core aspect of the evidence synthesis is to critically evaluate the quality of evidence currently available from a variety of sources in order to ensure that the report and other outputs from the study are based on best evidence. A problem that we have faced in the preparation of this report has been the wide variety of terms used to refer to 'employee engagement'. These include work engagement, personal engagement, job engagement, task engagement, organisational engagement and employee engagement. For simplicity, we have tended to use the term 'engagement' throughout.

### **1.3 Structure of the Report**

Following this introduction, chapter 2 describes the rationale underpinning the methodology for the evidence synthesis, and details the stages of the process of piloting and refining search terms, searching for studies, sifting studies against inclusion and exclusion criteria, and extracting and synthesising data.

Chapter 3 addresses the question: ‘What is engagement?’ Engagement is a contested term that has been defined and operationalised in many different ways.<sup>14</sup> In this chapter, we provide an overview of definitions and measures used within the academic literature, and evaluate the areas of both strength and concern. We also present the major theoretical frameworks used to explain the engagement process, and report on the occurrence of both measures and theories within the selected studies. The chapter concludes with some consideration of how engagement as a construct relates to the wider field, and an evaluation of its construct and discriminant validity.

In chapter 4, we examine the results of the evidence synthesis relating to the link between engagement and morale, and in chapter 5, we examine the results relating to the association between engagement and performance outcomes. Chapter 6 focuses on the antecedents of engagement, and evaluates the strength of the available evidence concerning approaches within the workplace that can create and embed high levels of engagement.

In chapter 7, we bring together the evidence presented in the earlier chapters and synthesise the overarching themes emerging from the review of the literature. We highlight areas of strength within the extant literature, as well as areas where further development is required. We present the overall conclusions based on our evidence synthesis, and indicate the implications for policy and practice, and recommendations for future research.

## **Chapter 2**

### **Methodology**

#### **2.1 Introduction**

This chapter outlines the methodological approach to the evidence synthesis. This commences with an examination of the engagement literature from a methodological perspective and is followed by an explanation of the rationale for the use of a narrative approach to evidence synthesis. The remainder of the chapter then details the specific methods used at each stage of the synthesis, explaining how the search terms and strategy were developed and the data were produced. The chapter also explains the methods used to review the grey literature sources that ran in conjunction with the main data collection and analysis process. The grey literature was evaluated for its relevance to the evidence synthesis report, and for inclusion in the practitioner outputs arising from this project that are detailed in this chapter.

#### **2.2 The engagement literature and evidence synthesis**

##### ***2.2.1 The engagement literature***

Engagement is a relatively recent construct; its first modern iteration by Kahn<sup>19</sup> was followed by a period of seeming disinterest, but from 2003 onwards, ‘an explosion of scholarly and practitioner interest’ has taken place.<sup>31 (p57)</sup> We have therefore witnessed a very significant increase in the volume and diversity of the engagement literature in the past 10 years, leading Guest<sup>16</sup> to term engagement an ‘evolving concept’ rather than a construct in its own right with a clear theoretical underpinning. This diverse body of literature poses significant challenges for undertaking a systematic review and evidence synthesis; as Rafferty and Clarke<sup>32 (p876)</sup> note:

‘The danger with concepts like engagement is that they can become unwieldy, fuzzily-defined terms invoked as panaceas for the dilemmas of workforce management ... conceptual clarity and definitional precision around measurement of engagement and its organisational outcomes are imperative.’

However, as Bargagliotti<sup>33</sup> states, the need to understand engagement in the context of health has become strategically important for a number of reasons, in particular, the increasingly complex demographic and institutional challenges of providing healthcare and their impact on the quality of health outcomes. The potential for engagement to help address the complex challenges of health governance, management and delivery creates a strong imperative for a synthesis of available evidence.<sup>34</sup> The key methodological challenges in pursuing the research questions of this evidence synthesis therefore have been to seek to establish the nature and qualities of engagement that might distinguish it from other similar and/or related concepts, such as job satisfaction, and to understand its role within a causal model of antecedents, mediators, moderators and consequences.<sup>23, 35</sup>

There is a growing demand for resources and advice on engagement within the NHS, particularly in the absence of a rigorous approach that systematically evaluates how engagement strategies can be developed and operationalised within the NHS context. However the risk remains that advice given to NHS managers and staff may be based on studies that demonstrate persuasive yet spurious correlations and linkages, rather than on robust academic research grounded in theory. The lack of clarity and unity of approach means that although a great deal of this research has been reviewed and deemed to be methodologically and conceptually ‘valid’, there is a risk of committing a ‘Type III error’, whereby the wrong problem is being solved correctly.<sup>36</sup>

Briner and Denyer<sup>37</sup> (p336) comment that what is needed are more *systematic* approaches to reviewing the research literature, otherwise ‘there is a danger that managers searching for “quick fixes” to complex problems may turn to popular books that seldom provide a comprehensive and critical understanding of what works, in which circumstances and why’. In this regard, systematic reviews and systematic evidence syntheses are proposed as more effective ways to determine both the *quality* and *relevance* of the research evidence. By systematic, what is meant is an approach which adheres to the following principles: *organised* around specific review questions; *transparent*, such that methods are explicitly stated; *replicable* so that how the review is reported would enable others to repeat the review using the same procedures and where appropriate update the findings; and summarise and synthesise findings in an organised way.

Gough<sup>38 (p214)</sup> states:

‘Being specific about what we know and how we know it requires us to become clearer about the nature of the evaluative judgements we are making about the questions that we are asking, the evidence we select, and the manner in which we appraise and use it. This then can contribute to our theoretical and empirical understanding of quality and relevance assessment.’

### ***2.2.2 What is an evidence synthesis?***

Similar to a systematic review, an evidence synthesis enables reviewers to reach conclusions, but there are a number of different approaches that may be appropriate. What should determine the approach is the nature of the question based upon the evidential gap, the nature of the analyses and evidence which are available for review, whether quantitative, qualitative or mixed; empirical, conceptual or critical; and whether it is premised upon objectivist or interpretivist orientations. According to Rousseau et al<sup>39</sup>, methods of review fall into four categories: aggregation, integration, interpretation and explanation.

*Aggregation* is an approach to evidence review that is essentially quantitative, the purpose of which is to maximise the sample size and thus render a particular finding more valid by minimising bias. It is an approach commonly associated with randomised control trials and the pursuit of clinical evidence, but that excludes insights into the social and organisational contexts from which data are drawn and which consequently discount the contextual mechanisms that might influence results. *Integration* is an approach which similarly seeks to strengthen the validity of research findings, but here this is pursued through triangulation of quantitative and qualitative findings particularly in seeking to contextualise results. A fundamental problem of this approach relates to the fact that quantitative and qualitative data are generated from different epistemic assumptions. Moreover, there is rarely a comparable volume of quantitative and qualitative research available and the weight of evidence is often imbalanced, leading to similar acontextual results as above.

*Interpretation* is an approach to evidence review which is underpinned by a hermeneutic tradition in social research and thus is fundamentally different to aggregative and integrative approaches. Issues of validity are often overlooked for thematic viability between studies,

using mapping or narrative techniques, yet weaknesses emerge due to incomparable bodies of data. Lastly, *explanation* is an approach which ‘focuses on identifying causal mechanisms and how they operate. It seeks to discover if they have been activated in a body of research and under what conditions’.<sup>39 (p41)</sup> Again, the epistemic basis differs from the positivist and interpretivist underpinnings evident in the above, to include a critical realist approach which rejects traditional approaches of identifying causal relationships through plausible associations (‘coincidences’) between variables. Explanation commences from an examination of the construct validity of variables used in research, and challenges quality on these grounds, offering alternative explanations of the data based on a different set of underlying causal mechanisms. Although its value is seen to lie in dealing with evidence from disparate sources and methodological bases, it ultimately rests on a hermeneutic approach to knowledge generation.

To this list, Briner and Denyer<sup>37</sup> add a fifth approach of *narrative synthesis*, one which has previously been used in management sciences. Drawing on the interpretivist approach, it adheres to the same principles of organisation, transparency and replicability as all the approaches detailed above, and with *quality – relevance* as the organising matrix. *Narrative synthesis* refers to a way of embracing a wide body of disparate evidence through a range of clear review questions with the aim to “tell the story” of the findings from the included studies<sup>40 (p1)</sup> by:

... ‘describing how they fit within a theoretical framework and the size or direction of any effects found. Narrative synthesis is a flexible method that allows the reviewer to be reflexive and critical through their choice of organizing narrative.’<sup>37 (p356)</sup>

Its strength lies not simply in being able to address complex and discursive constructs, such as engagement, where other forms of synthesis are not feasible, but in providing a critical narrative which explains how (or not) an existing or ‘long established policy or practice makes a positive difference’.<sup>40 (p5)</sup> By developing a critical narrative, an evidence synthesis seeks to generate an understanding of the evidence and provide new insights that would not otherwise be apparent either by focusing on individual or small clusters of studies, or by including only certain types of (e.g. quantitative) data.

Through its emphasis on ‘evidence’, as opposed to ‘statistical significance’, an evidence synthesis thus looks to the nature and scale of the *effects* in practice but without compromising on quality (i.e. validity) or relevance (i.e. ‘germaneness to the issue at hand’).<sup>41 (p7)</sup> This highlights the importance of the social (contextual) as well as the scientific nature of evidence and emphasises the need for reflexivity in conducting evidence reviews. It is important for example not to confuse ‘evidence’ with ‘truth’ because it rests on a body of research, local information, individual experience and professional knowledge as well as conceptual frameworks that are constantly evolving and open to reinterpretation depending on current circumstances.<sup>42</sup> In its broadest sense, evidence is therefore defined as, ‘knowledge derived from a variety of sources that has been subjected to testing and has found to be credible’.<sup>42 (p83)</sup>

Therefore, to the list of principles that give shape to an evidence review we add *credibility* to denote an approach which yields results that are meaningful at both objective (reliable) and subjective (trustworthy) levels. However, evidence syntheses can be vulnerable to ‘publication bias’ due to the ways in which evidence is selected for publication.<sup>43</sup> Too narrow an approach can result in other forms of evidence, including counter-evidence, being deemed inaccessible or inadmissible, thus making the synthesis less credible. To maintain a systematic approach and address possible bias, it is important to be as inclusive as possible to ensure that others sources of evidence, including ‘grey literature’, are considered for potential relevance.<sup>44</sup> Grey literature includes materials produced in the form of conference papers/proceedings, statistical documents, working and discussion papers, unpublished studies, and websites, material that would not necessarily be found in peer-reviewed journals.

### **2.3 Evidence review methodology**

Briner<sup>44</sup> sets out the process whereby a systematic evidence review is conducted according to these core principles within the field of management. He suggests it is a process that should be moulded around the issues and review questions, but it is not one which is anticipated to proceed in a linear fashion. Systematic review is a method of choice because it can be ‘applied or modified depending on the questions being asked’.<sup>43 (p21)</sup> Nonetheless, the first principle of *organisation* means that a systematic approach must be taken in which the basis of all decisions about quality, relevance and credibility is clearly defined, alongside the



outcomes of those decisions. To achieve this, Briner<sup>44</sup> sets out five stages to the review process:

1. Planning, which includes developing the research questions (see 2.3.1)
2. Locating studies through a structured search (see 2.3.2)
3. Evaluating identified material against eligibility criteria for inclusion / exclusion as evidence (see 2.3.3)
4. Analysis and thematic coding (data extraction) (see 2.3.4)
5. Reporting (see 2.3.5)

We have set out below how these stages were applied in this project.

### ***2.3.1 Planning***

#### *(i) Developing the research questions*

The purpose of planning is to agree the overall search strategy and criteria, and to develop and break down the review questions into manageable sections. Getting the research questions right is generally regarded as the most important step in any review process, as it guides all subsequent lines of enquiry and decision-making. This was achieved through the participation of the project team in consultation with the project adviser and the Advisory Group. The four overarching research questions were refined into nine specific questions, as shown in Table 1. As Briner and Denyer<sup>37</sup> suggest, the purpose of involving the Advisory Group and other experts is to ensure that the research questions make sense, are specific in order to help inform the search strategy and search terms, and provide a robust basis for later judgements about quality and relevance. This was an iterative process which ensured that the research questions were adapted as the search strategy and search terms developed.

#### *(ii) Developing the search terms and strategy*

The initial list of possible search terms (see Table 2) emerged from a number of meetings involving the project team and wider discussions with Advisory Group members. Within the project team, this process was facilitated using the CIMO framework (see below) as advocated by Denyer and Tranfield<sup>45</sup> as a mechanism to map the issues, focus the research

questions and test their logic. Thus, the overall search strategy and terms were developed through scrutiny of the research questions with regard to:

- **Context** (the setting in which evidence has been gathered, whether health or otherwise)
- **Interventions** (what is it that is being researched/tested)
- **Mechanisms** (through which the intervention affects outcomes)
- **Outcomes** (the effects or results of the interventions)

By interrogating the research questions with this framework, it became apparent that the engagement literature spanned a number of different disciplines with parallel themes in the fields of psychology and business and management; sociology and philosophy; and economics. Discussions with the Advisory Group also lead to a widening of the search strategy to reflect these concerns and other interests. The Advisory Group contained two patient representatives and five NHS stakeholders, one of whom was a clinician and two of whom were trade union representatives. Every member of the group had an opportunity to contribute suggestions to shape both the search strategy and the practitioner outputs via inputs to the discussion at advisory group meetings. The group also commented on the review findings as the study progressed. Finally, one of the patient representatives attended the practitioner conference in February 2014, and one of the NHS stakeholder representatives presented at the same event. Discussions with its members resulted in the inclusion of terms which they felt might yield particular insight into engagement through the lens of, for example, patient safety, medical leadership, care quality, etc.

Table 2 details the 54 search terms initially generated across these three disciplinary fields through these discussions. Through subsequent meetings and discussion these terms were then refined into a shorter 'search string', having distilled the antecedents or drivers of engagement and outcomes from the list of search terms. (Refer to Appendix 1 for a complete record of all search terms and strategy).

**Table 1: Review objectives and questions**

<b>Research objectives</b>	<b>Review questions</b>	<b>Specific research questions</b>
To review and evaluate theory and practice relating to models of staff engagement	1. How has employee engagement been defined, modelled and operationalised within the academic literature?	1.1 How is employee engagement defined within the academic literature and in the health context?
		1.2 How has engagement been measured and evaluated within the academic literature?
		1.3 What theories are used to underpin models of engagement within the academic literature?
	2. What evidence is there that engagement is relevant for staff morale and performance?	2.1 What is the evidence that engagement is relevant for staff morale a) within the workforce in general b) within the context of health?
		2.2 What evidence is there that engagement is relevant for performance at the a) individual b) unit, team or group c) organisational or d) patient/client level either within the workforce in general or in the context of health?
	To produce a set of evidence-based outputs that help and guide NHS managers in fostering high levels of staff engagement	3. What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?
3.2 What evidence is there concerning approaches and interventions within an organisational setting at either a) the individual b) the unit, group or team or c) the organisational level that create and embed high levels of engagement within the health context?		
4.1 What tools and resources are currently available for NHS managers?		
4.2 What tools and resources would NHS managers find useful?		
4. What tools and resources would be most useful to NHS managers in order to improve engagement?		

Using search strings is regarded as a good way to optimise search strategies. Through further discussion with a specialist librarian at the University of Kent, it was recommended that the search string should be pre-tested on three separate databases – Business Source Complete (BSC), which includes Academic Source Complete, PsycINFO and PsycARTICLES; International Bibliography for the Social Sciences (IBSS), which includes Proquest, is more inclusive of books and is regarded as less biased towards North American sources; and Scopus, which has a greater scientific and health orientation. Two strings (A and B) were initially agreed and trialled with differing field specificity (i.e. open text, abstract, title and key words) using Boolean search terminology. These were:

A. (employee OR staff OR job OR work OR organi\* OR personal OR team)

B. AND (engagement OR participation OR involvement)

In open text fields, these two strings initially identified 712,550 separate items of literature, up to 30% of which could be explained by duplication between the three databases, but which still left an unmanageable volume of data. The results were analysed according to source (publication type and location), peer review (ISI or ABS listed), and disciplinary origin. Based on this analysis, the search string was further refined:

“employee engagement” OR “staff engagement” OR “job engagement” OR “organi\* engagement” OR “personal engagement” OR “team engagement” OR “psychological engagement” OR “work\* engagement”

This extended string of terms was viewed as more likely to capture some of the engagement literature in North America, where terms such as ‘workforce engagement’ are in use, hence the use of the wild character (\*) in ‘work\* engagement’. Due to the large number of results achieved when using the open text filter, it was agreed that field specificity for the search string should be limited to *abstracts* as these are author supplied, whereas *keywords* can sometimes be assigned by database administrators and thus may be inaccurate. It was discussed and agreed with the Advisory Group and a wider group of experts in the field that although the terms ‘participation’ and ‘involvement’ were frequently used interchangeably with engagement, they referred to different, albeit often related constructs. Results of the pilot study suggested that it would be possible to narrow the focus of the structured search by removing these as explicit terms, since their inclusion very significantly increased the number

of returned results. It was discussed and agreed with Advisory Group members who were interested in these and other terms that where terms such as ‘participation’ and ‘involvement’ had been studied in relation to engagement, along with other terms reflecting interests in patient involvement (e.g. ‘voice’), evidence about these would be picked up via the structured search in any event, thus obviating the need for their inclusion.

In order to acknowledge the importance of practitioner-led research, as well as address the risk of publication bias, the development of the search terms and strategy was shaped by the need to include ‘grey literature’ on employee engagement from the health sector and beyond. At this stage the project team, in consultation with others experts and Advisory Group members, discussed possible sources of grey literature in order to make the search strategy as inclusive as possible and to be able to address the fourth research question: ‘What tools and resources would be most useful to NHS managers in order to improve engagement?’

It was agreed it would be useful to have a list of ‘mandated sources’ of this literature deemed by the experts to be of the highest quality and relevance, including professional or membership organisations and networks (e.g. various Royal Colleges, NHS Federation, NHS Employers); research centres (e.g. Institute of Work Psychology, RSA); unions; third sector organisations (e.g. Nuffield Foundation, the King’s Fund), as well as various conferences (Healthcare Conferences UK, British Academy of Management), independent consultancies and think-tanks, along with government-led or sponsored agencies (DH, Nursing and Midwifery Council, UKCES).

The full search strategy subsequently adopted a dual approach: the first element focused on research databases in which it is possible to search tens of thousands of journal titles simultaneously; and the second focused on sources of grey literature.

**Table 2: Initial terms developed using the CIMO framework as basis for the scoping exercise**

Psychology / HRM	Sociology / Philosophy	Economics
'Employee engagement' 'Personal engagement' 'Staff engagement' 'Organisational engagement' 'Relational engagement' 'Workplace' engagement 'Team engagement' 'Job Engagement' 'Continuous engagement' 'Emotional engagement' 'Cognitive engagement' 'Behavioural engagement' 'State engagement' 'Trait engagement' 'Job involvement' 'Employee voice' 'Work engagement' Professional involvement / integration' Disengagement Professional engagement Social engagement Affective engagement Intellectual engagement Strategic narrative Integrity Vigor / vigour Dedication Absorption Physical engagement Active(ly) engage(d)ment	(Worker) Participation (Employee) Involvement 'Organisational involvement' 'Labour process (theory)' (and 'Autonomy') 'Organisational action' Enactment Employee voice / "Employee silence" Employee integration (decision making) Worker / employee Identity Employee Empowerment Industrial / workplace democracy Choice (and links to motivation) Democratic engagement [Employee] experience of work Marginalisation (Disengagement) Exploitation / Alienation Engagement with demographic attributes Control / Resistance Resistance / "misbehaviour" Trust	Stakeholder engagement Authentic engagement Integration (economic, social) Intrinsic reward

### ***2.3.2 Locating studies through a structured search***

The second stage of the study involved three phases: (i) the development of a review protocol; (ii) scoping study and (iii) undertaking the structured search of the literature.

#### *(i) Developing the review protocol*

The project protocol includes a description and rationale for the review questions, the proposed methods, and details of how studies will be located, recorded and synthesised, as well as outlining the eligibility criteria.<sup>44, 46, 47</sup> It is the formal plan for the project in which the reviewers' intentions for exploring the topic and the methods are clearly explained (Campbell Collaboration; sourced on 29/11/13 from: <http://www.campbellcollaboration.org/>). It sets out what methods will be used at every stage of a review, linking the research questions to the synthesis of extracted data. In so doing, it reduces researcher bias by minimising subjective judgements and making all processes and criteria used in the review both explicit and accessible.<sup>48</sup> Briner and Denyer<sup>37 (p348)</sup> state:

“A protocol ensures that the review is systematic, transparent and replicable - the key features of a systematic review. Having a protocol also means the review method can be challenged, criticized, and revised or improved in future reviews.”

The timing for the production of the protocol is open for some debate, but good practice indicates that a final protocol should emerge as the outcome of the planning stage of a review.<sup>43</sup> While protocols are commonly associated with clinical trials and quantitative research, they are increasingly seen as a critical aspect of narrative reviews which engage with discursive bodies of literature generated through different methodological approaches. Particularly in relation to narrative reviews, a protocol should be used as a ‘compass’ rather than an ‘anchor’<sup>49 (p190)</sup>, so while the intent and the methods of the review should be made clear at the end of the planning stage and before the structured searches begin, it should also allow for changes due to unanticipated circumstances. Being bound to an original statement of intent when problems arise is counterproductive (Campbell Collaboration, *ibid*). However, this should not prepare the ground for ‘post hoc’ decision-making. For this project, a draft protocol was prepared as part of the proposal documentation and was then amended as a

result of the pre-test search exercise, with the agreement with the project sponsor, once the likely effect of literature volume on timescales and resources was realised.

*(ii) Scoping study*

*Academic literature*

A scoping study is essentially a way of re-problematising research objectives with the goal of mapping the underpinning assumptions and concepts, as well as exploring the available sources and types of evidence relevant to an issue. It is a way of ensuring that the right questions are being asked before the full search is undertaken<sup>50</sup> and that they can be answered using the identified strategy. Here, this took the form of a formal pilot of the refined search terms and strategy using the three databases and fields as described. This yielded 5,295 results, as shown in Table 3.

The overall total (5,295) included: 3,058 items published in academic journals; 1,136 articles in magazines; 633 articles in trade publications; 172 dissertations, and 116 books. From the outset of the project, the intention had been to restrict the evidence review to include research and literature published in the English language and after 1990, as this is the date when Kahn's<sup>19</sup> seminal paper on engagement was published. These initial scoping searches pre-pilot trials revealed that apart from Kahn's<sup>19</sup> paper, very little was published on engagement until 2003, after which the 'explosion' in interest seems to have occurred. These results were fed back to the Advisory Group and other expert advisers, who made a number of suggestions to improve the search strategy for the full structured search. For example, in order to minimise publication bias and be as inclusive as possible<sup>37</sup>, it was suggested that our search strategy should be expanded to include two further databases: Nexis, which gives access to practitioner outputs including media/trade reports, and Zetoc, an extensive research database based on the British Library's table of contents.



**Table 3: Results of pilot (scoping) search (academic literature)**

<b>Database</b>			
	<b>Business Source Complete</b>	<b>IBSS</b>	<b>Scopus</b>
<b>Total</b>	3,951	132	1,212
<b>Main source types</b>			
	Academic journals (1,863)	Academic journals (129)	Academic journals (1,066)
	Magazines (1,136)	Books (3)	Conference proceedings (110)
	Trade publications (620)		Books (23)
	Dissertations (172)		Trade publications (13)
	Books (113)		
	Other (47)		

*Grey literature*

In order to identify evidence-based grey literature on the topic of employee engagement likely to be of relevance to the evidence synthesis and/or the production of practitioner materials, an initial scoping exercise was completed to locate primary sources from which these items might be obtained. Using team members' expertise in the field of engagement, combined with their familiarity with the NHS and reference aids, (such as listings of health-related organisations in Binley's Directory of Management), the project team produced an initial list of 121 grey literature sources that they believed warranted a preliminary search (see Appendix 2). A useful by-product of the scoping exercise was the identification of additional sources of grey literature through secondary references to reports or resources provided by other organisations in the area of employee engagement. These included materials identified during the main academic search but which did not meet the quality threshold for inclusion there. In total a further 15 potential sources of grey literature were identified. This helped to address publication bias and brought the total number of grey literature sources to 136.

It was also decided that any individual item which was still considered to have relevance for the grey literature search would be referred to the grey literature search team for review.

Based on the academic search strategy, an initial list of six broad search terms was devised by those members of the project team leading the grey literature extraction. These were: ‘employee engagement’, ‘staff engagement’, ‘employee involvement’, ‘employee participation’, ‘social partnership forum’ and ‘employee voice’. The aim of this broad list of search terms was to gather material which could then be assessed for both rigour and relevance to the NHS. A record was kept of the search results for each source along with reviewers’ comments on the overall relevance and rigour of the source and materials.

**Table 4: Assessing relevance and rigour of grey literature sources**

		<b>Rigour</b>		
		<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>Relevance</b>	<b>High</b>	Include	Include	Exclude
	<b>Medium</b>	Include	Include	Exclude
	<b>Low</b>	Exclude	Exclude	Exclude

Relevance was assessed initially in terms of the occurrence of search terms in the title, abstract or main body of the text, but mainly in terms of utility to NHS practitioners. Rigour was assessed in terms of whether supporting evidence was derived from primary research conducted by the author(s), organisation(s) and/or affiliate(s) involved in the production of these materials. Material of low rigour and/or low relevance was excluded (see Table 4). Of the 136 sources of listed grey literature, a substantial proportion (n=53) returned no materials of relevance to the present evidence review. However, the scoping exercise still returned a substantial quantity of materials from the remaining sources (see Table 5), and the term ‘staff engagement’ alone returned 52,840 results.

Of the 136 potential sources of grey literature, 38 were deemed to be of high quality on the basis of the criteria described above. These are listed in Appendix 2.

**Table 5: Number of returned results of grey literature by search term**

<b>Search term</b>	<b>No. of returned results</b>	<b>%</b>
'employee engagement'	27,604	15.2
'employee involvement'	34,640	19.1
'employee participation'	17,571	9.7
'employee voice'	13,500	7.5
'social partnership forum'	34,869	19.3
'staff engagement'	52,840	29.2
Total	181,024	100.0

*(iii) The structured search*

*Academic literature*

The full search of the academic literature was conducted using the revised search string on five databases in October 2013: Business Source Complete (including Academic Search Complete, PsycARTICLES and PsycINFO), International Bibliography for the Social Sciences (IBSS), Scopus, Nexis and Zetoc. As these databases differ in functionality, it was necessary to adjust some of the terms according to the field formats of the databases. In total, the search produced 7,932 items of literature (see Table 6) which were imported into Refworks, a licensed reference management system with the capacity to hold and manage these items and their full references. Using Refworks' internal management function it was possible to reduce this number to 5,746 items for inclusion in the next 'sifting' stage of the review by cleaning the results. Although the scale of duplication was troublesome throughout this project, the inclusion of multiple databases did ensure a more inclusive approach and provided a degree of triangulation in the later sift and data extraction stages.

**Table 6: Results of structured search in five databases**

<b>Database</b>	<b>Results</b>
Business Source Complete	4,391
IBSS	226
Scopus	1,666
Nexis	676
Zetoc	973
<b>Total</b>	<b>7,932</b>
<b>After removing duplicates</b>	<b>5,746</b>
<b>After citation / additional searches</b>	<b>5,771</b>

Briner and Denyer<sup>37</sup> observe that a structured search alone is unlikely to generate every item of relevant literature. In this project, our structured search was supplemented by a number of additional approaches, including citation tracking of particular authors, scanning reference lists and footnotes for additional materials not identified by the databases, using new publication alerts, as well as taking advice from a body of experts in the field. This led to a number of additional terms and searches being added to the formal search including, for example, an additional search using the term ‘medical engagement’. In total, this identified 25 additional items, bringing the final number of items identified in the structured search to 5,771. This does not include three books from which multiple chapters were included in the ‘sift’ stage of the synthesis.

### *Grey literature*

The large volume of results returned by the scoping search of grey literature, partially a result of the limited functionality of search mechanisms within the grey literature sources, (i.e. compared to the academic databases), meant that the grey literature search strategy had to be refined and refocused to ensure greater relevance. Having reduced the number of sources of grey literature to 38, it was agreed that relevance could be achieved through more specific searches for materials using internal website search engines where available, rather than manual key word searches, etc. In line with the academic search strategy, the team also agreed that the terms ‘involvement’, ‘participation’, ‘voice’ and ‘partnership’ were yielding

too many results that were not directly relevant to engagement at all (e.g. they addressed issues of ‘empowerment’). In those instances where terms such as ‘participation’, ‘involvement’ or ‘voice’ were relevant, these were being included using the two key terms, ‘employee engagement’ and ‘staff engagement’. In the structured search of grey literature sources these terms were used both within inverted commas (i.e. “staff engagement”) to ensure specificity and without inverted commas to avoid over-exclusiveness through this more refined and targeted search strategy.

Of the 38 identified sources of grey literature only 34 produced results in the structured search; these are reported in Table 7. Despite refinements, the nature of these sources and their limited search functionality meant that there were still high levels of duplication of materials across and within websites as well as a high volume of material that was neither relevant to nor of sufficient quality for inclusion in the evidence review (e.g. press releases, role descriptions and conference details).

**Table 7: Number of items of grey literature returned for each source and search term**

<b>Sources</b>	<b>Terms</b>			
	Employee Engagement	"Employee Engagement"	Staff Engagement	"Staff Engagement"
Acas	418	208	328	28
BlessingWhite	178	139	156	16
CBI	209	209	344	344
CIPD	864	469	314	17
Corporate Leadership Council <sup>ii</sup>				
Department for Business, Innovation and Skills (BIS)	50	50	50	50
Engage for Success	153	0	0	0
Gallup Business/Management Journal	40	30	13	1
Government Social Research Service (GSR)	23	9	34	0
Harvard Business Review	262	262	262	262
Hay Group	764	736	35	1
Hewitt Associates (Now Aon Hewitt)	403	297	179	10
Health Service Journal (HSJ)	5,321	47	16,777	200
IES	797	500	570	23
International Labour Organisation (ILO)	2,469	40	2,589	7
Involvement and Participation Association	186	96	191	191
Ipsos Mori	42	33	54	9
Kenexa	137	21	42	0
McKinsey	567	84	567	11
Mercer	110	41	11	1
NHS Employers	126	48	512	256
NHS Institute	24	2	2,890	76
NICE	113	1	564	2
Nursing Times	1,934	6	9,081	84
Optimise Ltd.	3			
People Management	2,201	699	1,720	0
Policy Studies Institute (PSI)	0	0	6	0
Roffey Park	15	0	4	0
Society for Human Resource Management (SHRM)	4,150	997	1,690	7
The Boston Consulting Group	367	115	253	8
The King's Fund	10	10	201	7
The Work Foundation	92	60	50	10
Towers Watson	288	288	46	46
UK Commission for Employment & Skills (UKCES)	281	91	368	27
<b>Grand Total</b>	<b>22,597</b>	<b>5,588</b>	<b>39,901</b>	<b>1,687</b>

<sup>ii</sup> This is blank due to difficulties accessing the information on the site. These were resolved for the full search.

### ***2.3.3 Evaluating material against eligibility criteria for inclusion /exclusion***

The quality of any evidence review depends almost entirely on the quality of included studies.<sup>51</sup> Before any data can be extracted from the studies, it is therefore crucial to assess each one using clear and explicit inclusion and exclusion criteria in order to evaluate the *relevance* and *quality* of each contribution.<sup>44, 47</sup> This process should be free from bias and as replicable and systematic as possible.<sup>43</sup> Korhonen et al<sup>51</sup> (p1030) state that this evaluation should be carried out as transparently as possible as this is ‘a key requirement for the reliability of the synthesis and transferability of the results, as well as for the identification of theoretical possibilities’. We critically evaluated all the studies in two phases; (i) sifting the abstracts of all identified material against a series of inclusion criteria, and (ii) extracting data from included material as the basis of the synthesis.

#### *(i) Sifting the results*

##### *Academic literature*

All the identified titles, abstracts and referencing information from the structured search were downloaded onto Refworks. Patterson et al<sup>43</sup> recommend that each item be ‘sifted’ by two members of the research team independently and evaluated against a pro forma which sets out clearly the *quality* and *relevance* thresholds for inclusion. Using a checklist of agreed criteria in this way helps to address the potential impact of reviewer bias. Where there is some dispute or doubt over inclusion, the item should be referred to a third reviewer. The agreed inclusion/exclusion criteria and categories for the sifting process are shown in Table 8.

Given the volume of literature to be sifted as well as the dispersed nature of the project team, it was important to develop a systematic and coordinated way of sifting the material. Thus, a bespoke database was developed using Excel Professional Plus 2010 into which all items of literature were imported and assigned a unique reference number. Each member of the team was then randomly assigned an equal share of the 5,771 items identified in the structured search as either 1<sup>st</sup> or 2<sup>nd</sup> reviewer for assessment against the stated criteria.

**Table 8: Exclusion criteria for sifting**

1	Include
2	Exclude - dated pre 1990
3	Exclude - Not in English language
4	Exclude - Empirical but study design does <i>not</i> include employees
5	Exclude - Opinion piece only / No evidence
6	Exclude - Item not related to research questions
7	Exclude - Other (specify)

The database included a series of user-friendly worksheet-based interfaces, the first of which allowed project team members to call up each individual item from the 5,771 results (title, author, source, abstract and referencing information) using the allocated reference numbers. A second enabled the reviewer to evaluate *relevance* and *quality* according to the agreed criteria. Given that the item abstracts (or in a minority of cases, titles only) were the initial basis for assessment, the criteria as shown in Table 8 were weighted more towards *relevance* (e.g. ‘post 1990’, ‘in English language’, ‘empirical study but does not include employees’, ‘item does not relate to research questions’, and ‘opinion piece only / no data’), with the view that *quality* would be better evaluated at the second stage once full items were obtained. Items were included to the next stage where they appeared to be of direct relevance to the research questions, and appeared to include either empirical evidence from employees or a theoretical contribution to the field.

A third interface of the bespoke database was designed to systematically record the outcome of the sifting process by logging the following information: item reference number, reviewer’s name, fields within each record that had been checked, type of engagement discussed, whether peer-reviewed or not, specific relevance to the research questions and, if excluded, the exact reason why. From these records, it was possible to identify disputed items easily and reallocate them to a third reviewer; (sample screenshots from these interfaces are illustrated in Appendix 3).

In order to develop inter-rater reliability and further minimise the potential impact of reviewer bias, prior to starting the sift process the project team undertook a number of pilot ‘sifts’ followed by tele-meetings to identify areas and causes of uncertainty, and to build critical reflection and consensus into the evaluation process.<sup>40</sup> A kappa rating was calculated



from the results of pilot sifts using all six reviewers from the team, and only when a score of .75 was achieved, (generally interpreted as ‘substantial agreement’<sup>52 (p361)</sup>) was it agreed to proceed with the sift.

However, as the project team sifted the results of the structured search it was clear that while a great many of the results met the *relevance* criterion, they would not be included at the data extraction stage due to the *quality* criterion. As with the grey literature material, the search identified lots of materials that simply did not contain any substantive evidence or duplicates. Thus, after consulting with the project adviser, it was agreed that only items from peer-reviewed academic sources should be put forward to the next stage. The project protocol was amended to reflect this change. Of the original 5,771 items identified in the full search, 5,178 were excluded on grounds of relevance at this stage (i.e. non-peer reviewed, duplication, or not in English language). This left a total of 603 items to be potentially considered for data extraction. These 603 items are included in the references section of this report.

**Table 9: Review of potentially included materials prior to data extraction**

<b>Basis for exclusion</b>		<b>Total (%)</b>
Lacking empirical data	E.g. opinion piece / normative	35 (6%)
Quality	Poor quality of item (e.g. improper scales; missing values or values not reported; measures not stated; sample issues; data not analysed)	95 (16%)
	Measuring engagement using one dimension only of UWES	7 (1%)
	Measuring engagement using two dimensions only of UWES	46 (7.5%)
	Not peer reviewed	6 (1%)
Relevance	Study measures individual / demographic factors only as antecedents	31 (5%)
	Not focused on concept of engagement, employees, or on work context	124 (20%)
Other	Duplicated item	14 (2.5%)
	Validation study only (of existing scale / not testing variables)	6 (1%)
	Item unobtainable via usual sources	25 (4%)
<b>Total excluded</b>		<b>389 (64.5%)</b>
<b>Total included for full data extraction</b>		<b>214 (35.5%)</b>

Each of these 603 items was then reviewed in greater depth by two members of the project team, of which 389 were excluded on grounds of *quality* (e.g. rigour), *relevance* (e.g. conflation of engagement with other concepts such as job satisfaction), or *other* reasons (see Table 9). This left a total of 214 items to be included for full data extraction.

## Grey literature

To assess the quality and identify materials suitable for data extraction from the grey literature identified in the structured search, a series of ‘sift’ questions were applied to each of the materials. These ‘sift’ questions were devised within the project team with particular reference to the more explicitly practical emphasis within research question 4 and the production of practitioner outputs. These were:

- Is the material relevant or useful to an NHS practitioner (in the context of staff engagement)?
- Does the material contain evidence?
- Does the material include a described methodology?
- Is the research original to this source?
- If the material forms part of a series, is this the most recent?

By applying these quality criteria to the results of the structured search of grey literature revealed, only 6 grey literature sources were deemed to be of sufficient quality for inclusion in the data extraction, including one referred from the academic literature search (see Table 10). It enabled a greater focus on a small number of high-quality materials from these sources in the production of practitioner outputs.

**Table 10: Number of items for data extraction from grey literature sources**

<b>Source</b>	<b>Number of suitable items</b>
CIPD	5
IES	3
Kenexa	3
The King’s Fund	1
GSR (Government Social Research Service)	1
Referred from main literature search	1
- <i>Strategic HR Review</i>	
<b>Total number of items</b>	<b>14</b>

(ii) *Data extraction*

*Academic literature*

The second stage involved obtaining complete versions of the 214 included items in order to evaluate and extract data from them. To facilitate analysis, a data extraction form (see Appendix 4) was devised to record the evaluation of items against a range of *quality* criteria including: methodology (robustness of design and analysis); relevance to healthcare contexts; and relevance to the research questions (see Appendix 5). This approach was agreed with the Advisory Group.

**Table 11: Number of studies in the academic literature relevant to each research question**

	<b>RQ1</b>	<b>RQ2 Morale</b>		<b>RQ2 Performance</b>		<b>RQ3 Antecedents</b>	
	Models & theories	General	Health	General	Health	General	Health
No. of relevant studies**	38*	35	12	36	6	113	42
		47		42		155	

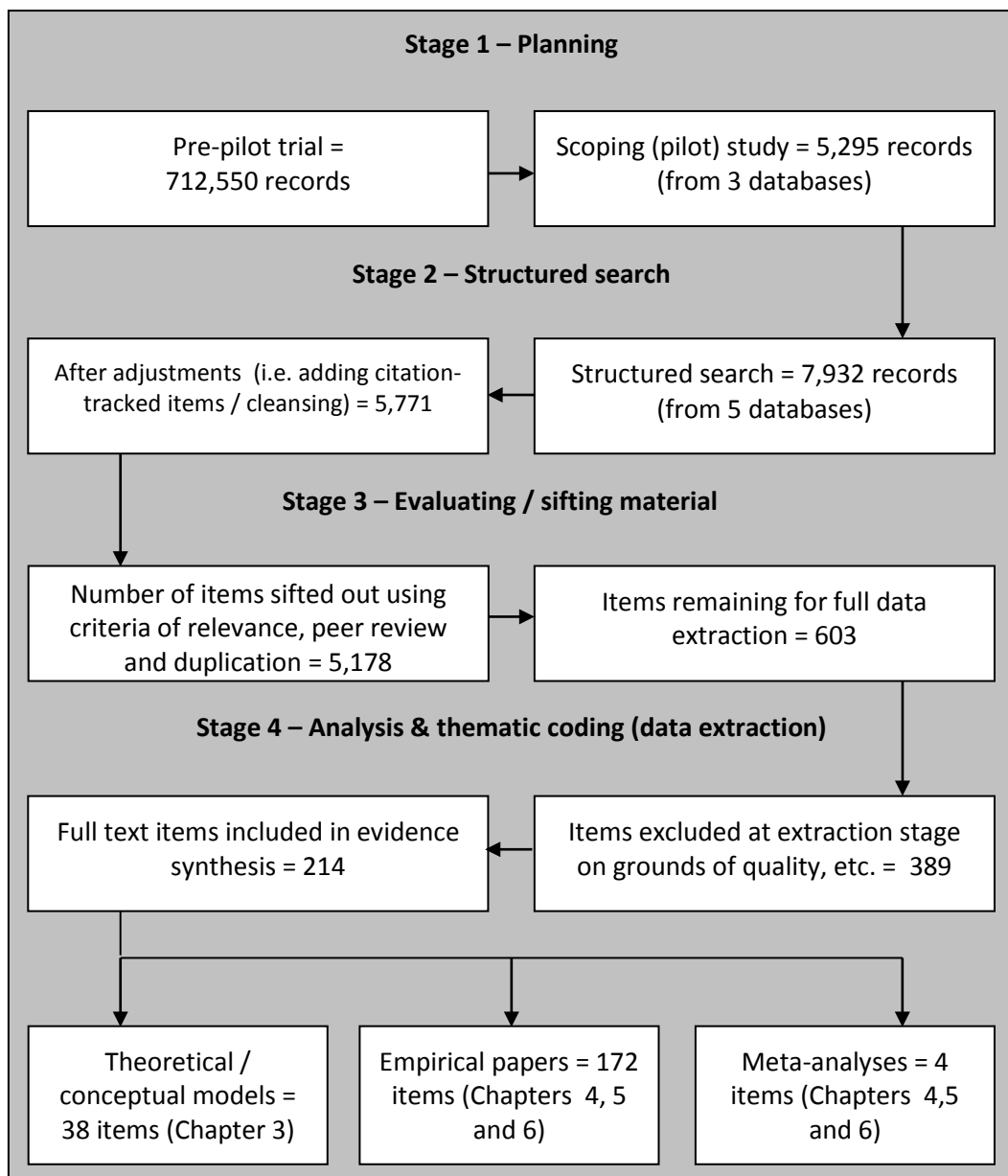
Because items were relevant to more than one research question, these do not add up to 172

\* These 38 items did not contain empirical data and were relevant to RQ1 only. However the underpinning models and theories of the 172 empirical studies were also considered in addressing RQ1

\*\* Meta-analyses were not included in the data extraction tables

Of the 214 items included for full extraction in the synthesis, five were qualitative studies and four were meta-analyses. These were then organised according to their specific relevance to the research questions (see Table 11). Throughout this process, additional studies were being added to the search results and sifted as a result of the citation and reference tracking strategy, along with others identified by ‘alert’ services from journals and databases using keywords. A total of 67 out of the 172 (39 per cent) empirical papers within this evidence review were included in at least one of the four meta-analyses while nearly half of these (n=32) had been included in all four meta-analyses. However to avoid distorted effect, none of these meta-analyses were included in the data extraction tables detailed in Chapters 4, 5 and 6.

Originally, it had been proposed that each full item would be evaluated by two researchers and coded in order to identify its primary contribution to knowledge. Due to the volume of included studies, it was decided that each item would be reviewed in full initially by one researcher who completed the data extraction form. However in practice the vast majority of items, about 75%, were evaluated twice anyway as the report authors reassessed the items included for each of their respective chapters. To describe stages 1 to 4 of the search and data extraction process, a Prisma-style flowchart (see Figure 1), where ‘Prisma’ stands for *preferred reporting items for systematic reviews and meta-analyses*<sup>53</sup>, was prepared according to the format proposed by Liberati et al.<sup>53</sup> The flowchart summarises the process of evidence synthesis from the planning to the data extraction stages of the project.



**Figure 1: PRISMA-style flow of information through Stages 1 – 4 of the evidence synthesis**

*Grey literature*

The 14 materials identified in Table 10 were taken forward for data extraction for use in the production of the practitioner materials arising from this project (see Appendices 8-19). The date range of materials from which data were extracted ranged from 2004 to 2013. They included two single-organisation case studies, while the other papers discuss data from more than one organisation. Studies were based in the UK, USA or mixed country settings, and four were based either uniquely or partially in a healthcare setting. A copy of the data

extraction form is provided at Appendix 6. Although none of the practitioner ('grey') literature was able to satisfy the peer-reviewed criterion for inclusion in the main evidence review, a review of good quality practitioner materials was conducted in order to inform the practitioner outputs and address research question 4. This material was therefore separated from the main evidence review and is the subject of a separate 'Review of Practitioner Material' (see Appendix 8).

#### ***2.3.4 Analysis, thematic coding and synthesis***

##### *Academic literature*

The purpose of this stage of the review was to examine the evidence and identify underlying themes in order to relate the findings from the various studies together to develop new insights into engagement within the workforce in general, and within the context of health care. Three members of the research team each took responsibility for one of the data analysis chapters of the report, which corresponded to the first three overarching research questions. In preparing their chapters the three team members iterated between the data extraction forms and the original full text items to ensure the accurate capture of information.

Hannes and Lockwood<sup>54</sup> (p1633) recommend adopting a pragmatic approach to synthesising evidence using a process that 'is guided by the lines of action' that can inform decision making at clinical, policy or research levels, based on the argument of utility and the 'philosophy of pragmatism'. While there is no generally accepted approach to narrative synthesis, the approach adopted to synthesising our data largely mirrors that suggested by Popay et al<sup>40</sup> who recommended that a narrative synthesis should seek to explore (and interrogate) the relationships in the extracted data within *and* between studies, noting that these relationships are likely to emerge between *characteristics* of individual studies and between *findings* of different studies. It is at this stage that the synthesis should begin to account for the heterogeneity of the data (including types of intervention; context; sample; qualitative, quantitative, and mixed methods approaches). The narrative should thus provide insights into what outcomes are attributable to particular interventions, or how conceptual frameworks can explain observed variations. The approach taken by the research team to extracting data for specific research questions and their corresponding chapters is shown in Table 12.

**Table 12: Approaches to data extraction and analysis for each research question**

<b>Research question</b>	<b>Specific approach to data extraction</b>
RQ1	<ul style="list-style-type: none"><li>• Extraction of information relating to the definition, measurement and theorisation of engagement from all the studies included in the evidence synthesis for research questions two and three. A total of 172 papers.</li><li>• Review of relevant information from literature reviews and conceptual papers focused on defining engagement that were identified in the second stage of the data extraction process but that either did not contain empirical data or contained empirical data that did not meet the quality threshold and so were excluded from the data extraction for research questions two or three (a total of 38 papers).</li><li>• Consultation of three recent academic books focusing on engagement.<sup>14, 55, 56</sup> These books were identified within the research team as being the only academic books with an exclusive focus on engagement.</li><li>• Consultation of further conceptual articles focusing on defining engagement that were known amongst the research team or that were identified through a snowballing approach.</li></ul>
RQ2:	<ul style="list-style-type: none"><li>• Extraction of data from original empirical papers that met the quality and relevance thresholds. A total of 89 studies. See Tables 15-20.</li><li>• Summary overview of relevant meta-analyses</li></ul>
RQ3:	<ul style="list-style-type: none"><li>• Extraction of data from original empirical papers that met the quality and relevance thresholds. A total of 155 studies. See Tables 21-26.</li><li>• Summary overview of relevant meta-analyses</li></ul>

The project team worked collaboratively throughout these processes to identify and develop emerging themes in the data. Discussions were held to identify similarities and differences between study findings, and explore conceptual and methodological issues. The approach involved initial coding and grouping of data into clusters using descriptive rather than analytic labels in the first instance, to avoid closing themes down prematurely. The approach showed that while the academic literature does tend to weigh towards the idea of engagement as a psychological state, there are other emerging ‘narratives’ in the data as well, including, for example the idea of engagement as managerial practice. Through team discussions these initial labels were developed and refined as more data were coded to reflect critical assessment and comparison between and within studies, and then between and among

clusters of studies as these expanded. This critical approach process ensured that the inclusion criteria of quality, relevance and credibility were constantly revisited and consistently applied throughout.

### *Grey literature*

The purpose of the grey literature review was to try to achieve inclusivity of any relevant materials to this evidence synthesis to enhance rigour and overcome bias and, specifically to address research question 4, to consider what materials and tools from this wider resource might be of relevance to practitioners in the healthcare context. In the end, only 6 sources of relevant, quality evidence were identified from which 14 items describing various tools and resources were obtained. . Analysis of these materials identified a number of important themes linked to engagement, including; meaningfulness, senior manager effectiveness, perception of line manager, appraisals, employee voice, etc. Although there were broad similarities between the overall themes in the academic and the grey literature concerning engagement, the review of grey material (Appendix 8) suggests that the practitioner material focuses more on wider managerial issues (including performance management and training) rather than on psychological factors of engagement.

### **2.3.5 Reporting**

The aim of this project is to summarise the evidence base on employee engagement in the form of an evidence synthesis and to make this evidence base more accessible within the NHS by disseminating findings about effective interventions, tools and resources. The dissemination strategy for the research has two strands: first, in the form of this report which documents the overall approach and findings of the project and, second, in the form of a series of practitioner outputs of direct relevance to NHS managers. The aim has been to ensure that these practitioner outputs are based upon and reflect the findings of a systematic, replicable and credible synthesis of the data. The practitioner outputs are set out in the Appendices as follows:

- Appendix 8: ‘Staff engagement in the NHS. A Review of Practitioner Studies of Engagement’



- Appendix 9: ‘Measuring employee engagement and interpreting survey results’ (IES research paper)
- Appendix 10: Practitioner output 1: ‘Guide to Engagement for HR’
- Appendix 11: Practitioner output 2: ‘Guide to Engagement for Line Managers’
- Appendix 12: Practitioner output 3: ‘Guide to Engagement for Senior Leaders’
- Appendix 13: Input to NHS Employers’ HRD summit outlining NIHR-funded research project into staff engagement (November 2013)
- Appendix 14: ‘Staff Engagement in the NHS’, NHS Employers’ Workshop, London, Outline and Attendance (January 2014)
- Appendix 15: Presentations from NHS Employers’ Workshop (January 2014)
- Appendix 16: ‘Staff Engagement in the NHS’ Conference, University of Sussex, Conference Outline (February 2014)
- Appendix 17: Presentations from NHS Employers’ Conference, University of Sussex (February 2014)
- Appendix 18: Webinar: Screenshot taken from NHS Employers’ Website, ‘New research on the benefits and impact of staff engagement in the NHS’ with hyperlink (April 2014)
- Appendix 19: Podcasts: Screenshot taken from NHS Employers’ Website showing 4 podcasts with hyperlinks (August 2014)

## **2.4 Summary**

In this chapter, we have described the methodological approach underpinning this evidence synthesis. Following the recommendations of Briner<sup>44</sup>, we adopted a narrative approach in five stages (planning, locating studies, evaluating material, analysis and coding, reporting).

In collaboration with the project Advisory Group, we refined the project protocol, detailed research questions and search terms, and we conducted a series of pilot searches in order to

help refine and focus our search strategy. The full search of academic literature was conducted using five databases and a wide range of grey sources. A total of 5,771 studies were included in the preliminary sifting exercise whereby the abstract and/or title for each item was reviewed by two or in some cases three members of the research team. The application of quality and relevance criteria along with the removal of non-peer reviewed items led to the inclusion of 172 empirical articles, four meta-analyses and 38 theoretical papers in the final data extraction exercise. Items that were published in the English language after 1990, and that met the appropriate quality and relevance thresholds for the type of study were included in the evidence synthesis. Items identified from 6 sources through searching the grey literature are included in the practitioner-oriented materials arising from this project.

In the next chapter, we examine the results of the evidence synthesis in relation to research question 1: what is engagement?

## Chapter 3

### What is Engagement?

#### 3.1 Introduction

In this chapter, we address the first research question, namely:

*How has employee engagement been defined, modelled and operationalised within the academic literature?*

This overarching question can be broken down into the following three sub-questions:

- (i) *How is employee engagement defined within the academic literature?*
- (ii) *How has engagement been measured and modelled within the academic literature?*
- (iii) *What theories have been used to underpin models of engagement within the academic literature?*

In order to address these, we undertook the following analysis:

1. Extraction of information relating to the definition, measurement and theorisation of engagement from all the studies included in the evidence synthesis for research questions two and three (see chapter 2). A total of 172 papers.
2. Review of relevant information from a number of literature reviews and conceptual papers focused on defining engagement that were identified in the second stage of the data extraction process but that either did not contain empirical data or contained empirical data that did not meet the quality threshold and so were excluded from the data extraction for research questions two or three (a total of 38 papers).
3. Consultation of three recent academic books focusing on engagement.<sup>14, 55, 56</sup> These books were identified within the research team as being the only academic books with an exclusive focus on engagement.

4. Consultation of further conceptual articles focusing on defining engagement that were known amongst the research team or that were identified through a snowballing approach.
5. Consultation of a number of conceptual articles or literature reviews that critiqued or questioned the engagement construct.

The chapter is organised as follows. First, we present an overview of the broad history and development of engagement, and outline the definitions and measures of engagement used within the literature. Next, the findings relating to question one, the extraction of definitions and measures used in the empirical papers that formed the substance of our data extraction are presented. This delineates the principal approaches that have been used within the empirical literature. Next, we outline the theoretical frameworks that have been used to explain the processes of engagement, before presenting an analysis of the critiques that have been proposed of the engagement construct. We conclude by highlighting the principal areas of agreement and disagreement with regard to engagement at a theoretical level, a topic that is explored further in chapter 7, in light of the evidence presented in chapters 4 to 6.

### **3.2 The origins and definitions of employee engagement**

Interest in engagement first arose as part of the wider development of the positive psychology movement that has burgeoned in recent decades as a counterbalance to the predominant focus on negative psychological states. As Youssef-Morgan and Bockorny<sup>57</sup> (p36) note, the earlier emphasis on factors such as stress, burnout and poor performance offered limited opportunity to understand strengths, optimal functioning and fulfilment at work.

William Kahn is widely acknowledged as being the first academic to research and write about engagement, which he referred to as ‘personal engagement’. In his seminal article, Kahn<sup>19</sup> (p702) claimed that personal engagement arises when ‘people bring in or leave out their personal selves during work-role performances’. Thus, personally engaged workers are those who express themselves authentically at work in three ways: cognitively, emotionally and physically. This authentic expression of self-in-role is contrasted with disengagement, whereby the individual ‘uncouples’ their true self from their work role, and suppresses their involvement. Since Kahn’s original research, interest in engagement has mushroomed,

leading to the publication of significant numbers of publications, especially in the past 10 years.<sup>58</sup>

Kahn's original notion that engagement is the investment of the self into work roles has been developed further into the concept of 'work engagement', or the 'relationship of the employee with his or her work'.<sup>58 (p15)</sup>

However, along with this burgeoning interest has been considerable confusion and uncertainty about what engagement means, leading Christian et al<sup>25 (p89, 90)</sup> to conclude: 'engagement research has been plagued by inconsistent construct definitions and operationalizations'. A range of different terms has been used, including work engagement, job engagement, role engagement, organisational engagement, and self-engagement, with associated variations in the measures and theoretical underpinnings used.<sup>59</sup> Some have gone so far as to argue that engagement may be no more than old wine in new bottles.<sup>16, 17, 60, 61</sup>

There has been uncertainty over whether engagement is a relatively stable personality trait or whether it is a state that is susceptible to fluctuation over time, as well as whether it is a one, two or three dimensional construct. However, the emerging consensus is that engagement is a psychological state, as summarised by Christian et al<sup>25 (p90)</sup> '[engagement is] a relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work'. Parker and Griffin<sup>27</sup> extend this by arguing that engagement is an active rather than a passive psychological state, and therefore is associated with energetic states of mind. There is additionally broad agreement that engagement is not a one-dimensional construct but rather comprises several facets.<sup>62</sup>

Below, we explore the most widely used definitions and conceptualisations of engagement found through our data extraction process. Drawing on and extending previous typologies such as that of Shuck<sup>59</sup> and Simpson<sup>34</sup>, we categorise the definitions and operationalizations of engagement within the literature under six headings, and review each in turn (see Table 13):

- Personal role engagement – including the work of Kahn<sup>19</sup> and researchers who have sought to operationalise his theoretical framework.

- Work task or job engagement – including the work of the Utrecht Group<sup>63</sup> who have focused specifically on the notion of engagement with work tasks.
- Multidimensional engagement – drawing on the work of Saks<sup>64</sup> who distinguishes between engagement with work and engagement with the organisation as a whole.
- Engagement as a composite attitudinal and behavioural construct – drawing on the work of various consultancy firms and researchers who regard engagement as a broadly defined positive attitudinal state, this approach is what is commonly referred to as ‘employee engagement’.
- Engagement as practice – scholars within the human resource management (HRM) field have recently begun to focus on engagement, and there is a small emergent literature on engagement as an employment relations practice.<sup>14, 15</sup>
- Self-engagement with performance – one measure has been developed that regards engagement as the extent to which high levels of performance are salient to the individual.

While some meta-analyses of engagement such as that of Christian et al<sup>25</sup> restrict themselves to a narrow view of engagement purely in terms of an individual’s engagement with their work tasks, we seek here to be inclusive in terms of encompassing the range of various definitions within the literature, while remaining rigorous in terms of the application of a quality threshold.

Several measures that have been published in peer-reviewed journals were excluded on grounds of quality. Most significantly, following Christian et al<sup>25</sup> we excluded several papers that drew on the Gallup Q12 engagement measure, (e.g. Jones and Harter<sup>65</sup>). This was because of concerns that the Q12 is a composite, catch-all measure that lacks construct and discriminant validity.<sup>18, 34, 58</sup> Little and Little in their critique of the measure<sup>66</sup> (p112) note: ‘merely attaching a name to a collection of survey items does not make it a construct’, While Guest<sup>16</sup> argues that the consultancy perspective on engagement is akin to a management fad.

We also excluded scales developed to capture engagement specifically within the context of health, such as that of Mark et al.<sup>67</sup> This scale included nursing expertise, commitment to care and tenure aggregated into one overarching engagement construct. Again, this measure lacked validity. The Shirom-Melamed vigour scale that has also been used to measure

engagement<sup>68</sup> was excluded on the grounds that the scale more accurately captures the single notion of 'vigour' rather than engagement.

**Table 13: Definitions and measures of engagement used in the selected studies**

Reference	Definition	Measure	Number of occurrences
<b>Personal Role Engagement</b>			
Kahn (1990) <sup>19</sup>	The authentic expression of one's preferred self at work	n/a qualitative study	1
May et al (2004) <sup>20</sup>	<p>'Engagement at work was conceptualized by Kahn<sup>19</sup> (p12) as the "harnessing of organisational members' selves to their work roles; in engagement people employ and express themselves physically, cognitively and emotionally during role performances"'</p> <p>The scale was also adapted by Shuck<sup>69</sup> and Reio and Sanders-Reio<sup>70</sup> - see below</p>	<p>Three sub-scales of one higher-order factor:</p> <p><b>Cognitive engagement:</b>            Performing my job is so absorbing I forget about everything else            I often think about other things when performing my job            I am rarely distracted when performing my job            Time passes quickly when I perform my job</p> <p><b>Emotional engagement:</b>            I really put my heart into my job            I get excited when I perform well on my job            I often feel emotionally detached from my job            My own feelings are affected by how well I perform my job</p> <p><b>Physical engagement:</b>            I exert a lot of energy performing my job            I stay until the job is done            I avoid working overtime whenever possible            I take work home to do            I avoid working too hard</p>	4
Reio and Sanders-Reio (2011) <sup>70</sup>	'Engagement is being psychologically present when performing an organizational role. Engaged employees are more likely to have a positive orientation toward the organization, feel an emotional connection to it, and be productive'. <sup>19</sup> (p464)	<p>Shuck's<sup>69</sup> 16-item Workplace Engagement Scale, based on a modified version of May et al's<sup>20</sup> 3 scale s of meaningfulness, safety and availability, including;</p> <p><b>Modified Meaningfulness Scale:</b>            The work I do on this job is very important to me.            My job activities are personally meaningful to me.            The work I do on this job is worthwhile.            My job activities are significant to me.            The work I do on this job is meaningful to me.</p>	1



Reference	Definition	Measure	Number of occurrences
Rich et al (2010) <sup>3</sup>	<p>'Kahn noted that engagement is observed through the behavioural investment of personal physical, cognitive, and emotional energy into work roles.<sup>71</sup> Put simply, engagement involves investing the "hands, head and heart"<sup>71</sup> (p619)</p>	<p>I feel that the work I do on this job is valuable.</p> <p><b>Modified Safety Scale</b></p> <p>I can be myself at work.</p> <p>At work I can bring up problems and tough issues without fear of being teased or made fun of.</p> <p>I feel physically safe at work.</p> <p>At work, I know is expected of me everyday.</p> <p>Each day my work demands are consistent.</p> <p><b>Modified Availability Scale</b></p> <p>At work, I have the support I need to complete my job.</p> <p>At work, I have the resources I need to complete my job.</p> <p>I am mentally and emotionally absorbed in my job when I am working.</p> <p>I have the skills and training I need to complete my work at the level that is expected of me.</p> <p>If I do not have the resources to complete my work, I am confident my organization would help me get them.</p>	3
		<p>Three sub-scales of one higher-order factor:</p> <p><b>Physical engagement:</b></p> <p>I work with intensity on my job</p> <p>I exert my full effort to my job</p> <p>I devote a lot of energy to my job</p> <p>I try my hardest to perform well on my job</p> <p>I strive as hard as I can to complete my job</p> <p>I exert a lot of energy on my job</p> <p><b>Emotional engagement:</b></p> <p>I am enthusiastic in my job</p> <p>I feel energetic at my job</p> <p>I am interested in my job</p> <p>I am proud of my job</p> <p>I feel positive about my job</p>	

Reference	Definition	Measure	Number of occurrences
		<p>I am excited about my job</p> <p><b>Cognitive engagement:</b></p> <p>At work, my mind is focused on my job</p> <p>At work, I pay a lot of attention to my job</p> <p>At work, I focus a great deal of attention on my job</p> <p>At work, I am absorbed by my job</p> <p>At work, I concentrate on my job</p> <p>At work, I devote a lot of attention to my job</p>	
<b>Soane et al (2012)</b> <sup>72</sup>	‘Kahn <sup>19 (p531)</sup> presented engagement as a construct with three facets (physical, cognitive and emotional) that are activated simultaneously to create an engaged state’.	<p>ISA Engagement scale (Intellectual, Social Affective)</p> <p>Three facets of one higher-order engagement factor:</p> <p><b>Intellectual engagement:</b></p> <p>I focus hard on my work</p> <p>I concentrate on my work</p> <p>I pay a lot of attention to my work</p> <p><b>Social engagement:</b></p> <p>I share the same work values as my colleagues</p> <p>I share the same work goals as my colleagues</p> <p>I share the same work attitudes as my colleagues</p> <p><b>Affective engagement:</b></p> <p>I feel positive about my work</p> <p>I feel energetic in my work</p> <p>I am enthusiastic in my work</p>	3
<b>Work Engagement</b>			
<b>Schaufeli et al (2002)</b> <sup>63</sup>	‘A positive, fulfilling, work related state of mind that is characterized by vigor, dedication and absorption’. <sup>63 (p74)</sup>	<p>Utrecht Work Engagement Scale (UWES) 17-item version (there is also a shortened 9-item version and other versions comprising 15 or 16 items validated for use in other languages or adapted from other scales)</p> <p>Three facets that can operate independently or as part of one overall engagement factor:</p>	<p>17 item version: 42</p> <p>16 item version: 3</p> <p>15 item version: 3</p> <p>9 item version: 90</p> <p>8 item version: 1</p> <p>7 item version: 3</p>

Reference	Definition	Measure	Number of occurrences
		<p><b>Vigour</b></p> <p>When I get up in the morning, I feel like going to work</p> <p>At my work, I feel bursting with energy</p> <p>At my work, I always persevere, even when things do not go well</p> <p>I can continue working for very long periods at a time</p> <p>At my job, I am very resilient, mentally</p> <p>At my job, I feel strong and vigorous</p> <p><b>Dedication</b></p> <p>To me, my job is challenging</p> <p>My job inspires me</p> <p>I am enthusiastic about my job</p> <p>I am proud of the work that I do</p> <p>I find the work I do full of meaning and purpose</p> <p><b>Absorption</b></p> <p>When I am working, I forget everything else around me</p> <p>Time flies when I am working</p> <p>I get carried away when I am working</p> <p>It is difficult to detach myself from my job</p> <p>I am immersed in my work</p> <p>I feel happy when I am working intensely</p>	<p>6 item version: 4</p> <p>5 item version: 1</p> <p>Qualitative study: 1</p> <p>TOTAL: 148</p>
<b>Multidimensional Engagement</b>			
Saks (2006) <sup>64</sup>	<p>‘At the core of the model are two types of employee engagement: job and organisation engagements. This follows from the conceptualisation of engagement as role related ... that is, it reflects the extent to which an individual is psychologically present in a particular organisational role. The two most dominant roles for most organisational members are their work role and their role as a member of an organisation’.</p> <p><sup>64</sup> (p603, 604)</p>	<p><b>Job engagement:</b></p> <p>I really ‘throw’ myself into my job</p> <p>Sometimes I am so into my job that I lose track of time</p> <p>This job is all consuming, I am totally into it</p> <p>My mind often wanders and I think of other things when doing my job (r – i.e. reversed coding)</p> <p>I am highly engaged in this job</p> <p><b>Organisation engagement:</b></p> <p>Being a member of this organisation is very captivating</p> <p>One of the most exciting things for me is getting involved with</p>	<p>Both scales: 3</p> <p>Job scale only: 2</p> <p>Organisation scale only: 1</p> <p>Total = 6</p>

Reference	Definition	Measure	Number of occurrences
		<p>things happening in this organisation</p> <p>I am really not into the 'goings on' in this organisation (r)</p> <p>Being a member of this organisation makes me come 'alive'</p> <p>Being a member of this organisation is exhilarating for me</p> <p>I am highly engaged in this organisation</p>	
<b>Selmer et al (2013)</b> <sup>73</sup>	'Engagement can be defined as a positive, fulfilling yet pervasive and persistent cognitive state of mind'. <sup>73 (p97)</sup> Engagement was examined at the work group level.	<p>Three facets combined into one overall 14-item scale:</p> <p><b>Behavioural engagement:</b> a five-item scale adapted after Mor-Barak, Cherin and Berkman's<sup>74</sup> measure of work group involvement.</p> <p><b>Cognitive engagement:</b> a six-item scale adapted after a scale on group success by Martins et al<sup>75</sup>, sample item: "Everything this department does turnout well".</p> <p><b>Emotional engagement:</b> a three-item scale measuring satisfaction adapted after Martins et al<sup>75</sup>, sample item: "I am very satisfied with the way I am treated by my colleagues".</p>	1
<b>Engagement as a Composite</b>			
<b>Swanberg et al (2011)</b> <sup>76</sup>	'Work engagement is a positive work-related psychological "state of fulfilment" that is characterized by vigor, dedication and absorption'. <sup>76 (p614)</sup>	<p>Three facets combined into one overall eight-item measure:</p> <p><b>Cognitive:</b> sample item 'It would take a lot to get me to leave CitiSales'; 'I would like to be working for CitiSales one year from now', and 'Compared with other companies I know about, I think CitiSales is a great place to work;'</p> <p><b>Emotional:</b> 'I really care about the future of CitiSales,' 'I feel like I am an important part of CitiSales' success'</p> <p><b>Behavioural:</b> 'I would highly recommend CitiSales to a friend seeking employment', and 'I am always willing to give extra effort to help CitiSales succeed.'</p>	2
<b>Engagement as Employment Relations Practice</b>			

Reference	Definition	Measure	Number of occurrences
<b>Arrowsmith and Parker (2013)</b> <sup>77</sup>	Unitarist HR perspectives with an emphasis on acknowledgement and representation of employee interests	Qualitative study of HRM practices	1
<b>Jenkins and Delbridge (2013)</b> <sup>78</sup>	‘Soft’ engagement: a focus on promoting positive workplace conditions and relationships between managers and employees. ‘Hard’ engagement: a focus on increasing employee productivity through engagement	Qualitative study of employee engagement strategies	1
<b>Reissner and Pagan (2013)</b> <sup>79</sup>	Employee engagement with the organisation, in relationship with employee engagement and communication strategies.	Qualitative study of communication strategies	1
<b>Self-engagement with Performance</b>			
<b>Britt et al (2005)</b> <sup>80</sup>	‘The construct of self-engagement was derived from the Triangle Model of Responsibility ... and is defined as individuals feeling a sense of responsibility for and commitment to a performance domain so that performance “matters” to the individual’. <sup>80 (p1476)</sup>	A four-item scale capturing the extent of responsibility and commitment the individual feels for his or her job performance and how much job performance matters:  <b>Responsibility:</b> I feel responsible for my job performance I am committed to my job <b>Importance:</b> How well I do in my job matters a great deal to me How I do in my job influences how I feel	1

The included measures are reviewed below.

### ***3.2.1 Personal role engagement***

William Kahn<sup>19</sup> (p692) stated that: ‘people occupy roles at work; they are the occupants of the houses that roles provide’ and showed through an ethnographic study that individuals ‘constantly bring in and leave out various depths of their selves during the course of their work days’. Thus, Kahn viewed engagement as the individual’s cognitive, emotional and physical expression of the authentic and preferred self at work. In his ethnographic observational study, Kahn found that those who were engaged in their work were energetic, cognitively vigilant, and empathically connected with others. In contrast, those who were disengaged withdrew and defended their preferred self and their role performances were passive and incomplete.<sup>19</sup> (p701) Levels of personal engagement were found to vary across time and according to the strength of three conditions: experienced meaningfulness of work; psychological safety, or lack of fear of negative consequences of the employment of self; and psychological availability, or having the personal resources needed to personally engage. Kahn later wrote:

‘Engagement is both very delicate and fragile, and quite resilient... People have a desire to engage. They have an instinctive drive to express who they are, and who they wish to be, and given a chance at work, they will do so.’<sup>81</sup> (p30)

Kahn’s research was qualitative and so did not provide a quantitative scale by which engagement could be measured. Several researchers have since sought to operationalise engagement according to Kahn’s definition. May et al<sup>20</sup> developed a 13-item scale to capture cognitive, emotional and physical engagement (referred to as employees’ engagement in their paper - see Table 13). A total of four papers using this measure met the quality threshold.

Rich et al<sup>3</sup> used modified versions of three pre-existing scales to measure personal engagement (referred to as ‘job engagement’ in their article): Brown and Leigh’s<sup>82</sup> ‘work intensity’ measure to capture physical engagement; Russell and Barrett’s<sup>83</sup> ‘core affect’ scale to measure emotional engagement; and Rothbard’s<sup>84</sup> engagement measure capturing attention and absorption for cognitive engagement. Their study showed that the scale had discriminant validity. Three papers using this scale were included in the data extraction.

Soane et al's<sup>72</sup> ISA scale operationalised Kahn's engagement through measures of intellectual, social and affective aspects of engagement (referred to as 'work engagement' in their article). The ISA scale was shown to have internal reliability and construct validity. A further three papers using this measure were included. Finally, Reio and Sanders-Reio<sup>70</sup> used Shuck's<sup>69, 85</sup> 16-item workplace scale, which in turn is a modified version of May et al's<sup>20</sup> scale.

### **3.2.2 *Work task or job engagement***

The second, and dominant, stream of research within the engagement literature refers to 'work engagement' rather than 'personal engagement'. According to this line of reasoning, engagement is viewed as a positive state of mind directed towards work tasks. Whereas the 'personal role engagement' state reviewed in section 3.2.1 refers to the expression of the authentic self, here, engagement is viewed as a positive, activated state of mind achieved in relation to the job.

This strand of research was originally founded in the notion that engagement was the opposite of burnout (the 'burnout-antithesis' approach.<sup>59</sup> Burnout has been described as 'a (negative) psychological syndrome in response to chronic interpersonal stressors on the job'.<sup>86 (p399)</sup> that comprises exhaustion, cynicism and reduced professional self-efficacy. Engagement, on the other hand, was defined as 'intense involvement and satisfaction (with work)',<sup>87 (p65)</sup> and was measured by reverse scoring burnout questionnaire scales, such as the Maslach Burnout Inventory (MBI). In a meta-analysis comparing the UWES with the MBI, Cole et al<sup>88</sup> conclude that engagement as measured by the UWES and burnout as measured by the MBI are strongly reverse-correlated. However, their analysis also shows that engagement accounts for a small to moderate amount of variance in job satisfaction and organisational commitment over and above that accounted for by burnout. Other research has suggested that engagement, rather than being at the opposite end of a continuum with burnout, is in fact a distinct construct in its own right and has cast doubt on whether engagement can be measured by reverse-scoring burnout scales.<sup>63, 89, 90</sup> Given the level of uncertainty about this issue, we have excluded from our evidence synthesis studies that measure engagement by reverse-scoring the MBI.

Building on this, a group of scholars based at the University of Utrecht suggested that although engagement was generally negatively related to burnout, it was in fact a distinct construct that should be defined and measured separately. Thus, Schaufeli et al<sup>63 (p74)</sup> defined engagement as: ‘a positive, fulfilling, work-related state of mind’ and proposed that an engaged employee has a strong sense of vigour towards, dedication to, and absorption in work activities. This refined conceptualisation has similarities to Kahn’s<sup>19</sup> in that engagement is concerned with a psychological experience, While at work, that is highly positive and self-fulfilling. Moreover they also support Kahn’s<sup>19</sup> view that engagement is a psychological state that leads to positive personal and organisational behaviours.

The Utrecht Group’s Work Engagement Scale (UWES)<sup>63</sup>, has become the most widely used measure of engagement in the academic world. It has been proposed as both a longer 17-item scale and a short 9-item version<sup>91</sup>, and has been validated in other versions for use in several languages. It has also been validated for use in measuring fluctuating levels of engagement through the working day<sup>92</sup>, and for use either as a higher-order, one-factor model or as three separate factors.<sup>93</sup> Seppala et al’s<sup>91</sup> analysis suggests that the 9-item Finnish version of the scale has better construct validity and stability than the 17-item version.

A total of 148 papers using various versions of the UWES were included in the data extraction plus one qualitative paper<sup>94</sup>; 42 of these used the full 17-item scale and 90 used the 9-item version. The remainder used between 5-16 items; some of these were validated versions of the scale in other languages, while others were shortened versions of the scales that had acceptable psychometric properties. A number of papers that used just one or two of the three scales were excluded from our analysis on the grounds that the measure of engagement used did not correspond with the underpinning theorisation of the construct (see Table 9).



### **3.2.3 *Multidimensional engagement***

Saks<sup>64</sup> (p602) defined engagement as: ‘a distinct and unique construct consisting of cognitive, emotional and behavioural components that are associated with individual role performance’, distinguishing between job engagement on the one hand and organisational engagement on the other. Shuck<sup>59</sup> refers to this as the multidimensional approach to engagement. This introduces the notion that engagement can be directed towards a range of different loci, not just towards the job itself. A total of six papers using this measure were included in the data extraction; three used both job and organisation engagement scales, two used the job scale only and one the organisation scale only.

Selmer et al<sup>73</sup> argued that engagement could be examined at the work group level and proposed a measure of work group engagement. One paper was included that used this measure.

### **3.2.4 *Engagement as a composite attitudinal and behavioural construct***

The fourth approach views engagement as a composite attitudinal and behavioural construct, combining a range of perspectives into one measure. We included one measure under this heading, although as discussed above, we excluded a number of measures for quality reasons. Swanberg et al<sup>76</sup> adopted the Utrecht definition of engagement but operationalised this through measures of cognitive and emotional engagement as well as behavioural engagement (see Table 13), thereby extending the notion of engagement beyond the strict boundaries of the construct proposed by the Utrecht Group. This measure demonstrated appropriate psychometric properties and therefore two papers using the measure were included.

### **3.2.5 *Engagement as employment relations practice***

Recently, scholars within the HRM field have begun to consider engagement as a management practice. Here, engagement is viewed in the sense of ‘doing engagement’ rather than ‘being engaged.’<sup>14</sup> This is a small and emergent field of research that has to date comprised case study based approaches. For instance, Jenkins and Delbridge<sup>78</sup> argue that engagement approaches, or strategies for managing employee engagement, can take ‘soft’, developmental or ‘hard’, performance-focused approaches. Arrowsmith and Parker<sup>77</sup>

highlight the tensions and ambiguities apparent within a longitudinal case study on engagement initiatives within one firm, and showed the variety of ‘engagement schemas’ held by organisational actors, arguing that engagement is not a static-value-free construct. Contributions within this stream address longstanding debates within the HRM field concerning unitarist and pluralist perspectives on the employment relationship or theories of organisational communication.<sup>79</sup> A total of three studies adopting this perspective met the quality threshold and were included in the data extraction.

### ***3.2.6 Self-engagement with performance***

Finally, one measure was included that was based on the notion of ‘self-engagement’, defined as the individual’s sense of responsibility for and commitment towards performance.<sup>80</sup> One study using this measure met the quality threshold.

### **3.3 The discriminant validity of engagement**

A fundamental question is whether or not engagement can be considered a distinct construct in its own right, or whether the overlaps between engagement and other, similar constructs are so great that it adds little or nothing.<sup>17</sup> The notion that engagement might be little more than an assemblage of other constructs has been referred to as the ‘jungle fallacy.’<sup>25 (p97)</sup> Several studies have addressed this point, but the findings generally suggest that at least some of the conceptualisations of engagement can be classed as a distinct construct.

Christian et al<sup>25</sup> examined whether engagement as defined by the Utrecht Group demonstrates discriminant validity as compared with more established constructs such as job satisfaction, job involvement and organisational commitment. They found evidence to support the notion that engagement is different from these other constructs and showed that engagement has incremental validity over other job attitudes in predicting performance. However, they also concluded that there is sufficient overlap of around  $r = .50$  between engagement and these other constructs to conclude that they share ‘conceptual space’ (p. 120). Hallberg and Schaufeli<sup>95</sup> similarly found that engagement measured by the UWES has discriminant validity compared with job involvement and organisational commitment.

However, although Viljevac et al<sup>96</sup> found that both the UWES and the scale proposed by May et al<sup>20</sup> showed discriminant validity compared with affective commitment, and that the UWES

showed some evidence of differentiation compared with job involvement and intent to stay, they also found that neither measure showed discriminant validity compared with job satisfaction. Partial convergent relationships were found between the UWES and the May et al<sup>20</sup> scale suggesting that they are similar but not overlapping constructs. They conclude: ‘our results suggest that neither measure should be considered an adequate measure of work engagement’.<sup>20 (p3706)</sup> Wefald et al<sup>97</sup> could not confirm the three-factor structure of the UWES, and found that the measure further was not able to predict a range of outcomes when satisfaction and affective commitment were controlled.

With regard to the UWES and the Britt<sup>98</sup> scales, Wefald et al<sup>97 (p.87)</sup> conclude: ‘these findings potentially suggest that the way engagement is typically measured may be inherently flawed, and that engagement, as measured by both Schaufeli and Britt, may be redundant with the more established constructs of job satisfaction and affective organisational commitment’. These findings suggest that some degree of caution should be exercised in interpreting the findings of quantitative engagement studies. More research is needed that explores the construct, discriminant and predictive validity of the engagement scales currently in use.

No research to date has examined the evidence emerging from the body of qualitative studies of engagement in the organisational sociology/industrial relations field, in which engagement is defined in a very different way as compared with the psychology literature, engagement ‘as practice’. This emergent field holds some promise as an antidote to what Godard<sup>99 (p1)</sup> has termed the ‘psychologisation of employment relations’.

Taken together, these findings suggest that further research is required to demonstrate engagement’s properties as a distinct psychological state that can explain more of the variance in other attitudes and behaviours as compared with other states, and to explain and synthesise the wide range of definitions of engagement that have arisen.

### **3.4 Definitions and measures of engagement: conclusions**

As Schaufeli<sup>58 (p19)</sup> notes: ‘probably the most important issue in defining engagement is ‘where to draw the line’?’ As we have seen, the variety of ways in which engagement has been defined suggests that the construct has been subject to ‘fixing, shrinking, stretching and bending’<sup>15 (p2657)</sup>, creating a bewildering array of definitions and meanings, and ways of

measuring and evaluating levels of engagement. Although Macey and Schneider<sup>23</sup> suggest that engagement is a synthesis of trait engagement (including personality traits such as conscientiousness), state engagement (including satisfaction and involvement) and behavioural engagement (including proactivity and role crafting), the emerging consensus appears to be that engagement should be considered as a relatively enduring psychological state experienced by an individual in relation to their work activities, that is impacted by various antecedent factors and leads to a range of outcomes. The most widely used definitions of engagement, those of the Utrecht group<sup>63</sup> and Kahn<sup>19</sup> share a number of commonalities, in that both regard engagement as multi-faceted, and as comprising three dimensions – an affective, a cognitive and an energetic dimension.

A number of studies have been conducted to examine the construct validity and discriminant validity of engagement in the wake of accusations that engagement has conceptual overlaps with constructs such as commitment, involvement and satisfaction. Evaluating these has not been a primary focus of this investigation, however, meta-analysis conducted by Christian et al<sup>25</sup> as well as primary research<sup>3, 95</sup>, suggest the cautious conclusion that engagement is sufficiently different from these other attitudes to be considered as an attitude in its own right. However, more research is needed to address the concerns that have been raised and that examines the emerging view of engagement as employment relations practice.

### **3.5 Theoretical frameworks: introduction**

Engagement scholars have used a wide range of theoretical frameworks to ‘explain’ engagement, either in the sense of explaining how engagement fits within wider positive psychological paradigms, or in order to explain the relationship between engagement, its antecedents and its outcomes. To identify what theories have been used to underpin models of engagement within the academic literature, we undertook an analysis of the principal theoretical frameworks used in empirical studies of engagement to ‘explain’ the engagement process. This involved reading the papers to extract the principal explicit or implicit theory/ies underpinning the analysis presented. The findings are presented in Table 14.

**Table 14: Theories of engagement used in the selected studies**

<b>Theoretical Framework</b>	<b>Example Reference</b>	<b>Number of occurrences</b>
Job demands-resources model	Schaufeli et al (2002) <sup>63</sup>	65
Social exchange theory	Alfes et al (2013) <sup>100, 101</sup>	26
Unspecified	Extremera et al (2012) <sup>102</sup>	21
Conservation of resources theory	Bakker et al (2007) <sup>103</sup>	14
Broaden-and-build theory	Bakker and Bal (2010) <sup>104</sup>	8
Kahn's / Personal engagement theory	Kahn (1990) <sup>19</sup>	7
Self-determination theory	Gillet et al (2013) <sup>106</sup>	5
Job design / characteristics theory	Hornung et al (2010) <sup>107</sup>	4
Transformational leadership	Tims et al (2011) <sup>108</sup>	4
Work engagement theory	Otken and Erben (2010) <sup>109</sup>	4
Authentic leadership	Bamford et al (2013) <sup>110</sup>	3
Attachment theory	Lin (2010) <sup>113</sup>	2
Demand-control-support theory	Taipale et al (2011) <sup>114</sup>	2
Effort-reward imbalance model	Feldt et al (2013) <sup>115</sup>	2
Human capital theory	Gracia et al (2013) <sup>112</sup>	2
Self-efficacy theory	Høigaard et al (2012) <sup>116</sup>	2
Social cognitive/learning theory	Heuven et al (2006) <sup>111</sup>	2
Ability-motivation-opportunity framework	Arrowsmith and Parker (2013) <sup>77</sup>	1
Affective events theory	Ouweneel et al (2012) <sup>141</sup>	1
Affective shift model	Bledlow et al (2011) <sup>124</sup>	1
Attribution theory	Cheng et al (2013) <sup>140</sup>	1
Charismatic leadership theory	Babcock-Roberson and Strickland (2010) <sup>125</sup>	1
Cognitive stress theory	Andreassen et al (2007) <sup>129</sup>	1
Contingent leadership theory	Song et al (2012) <sup>136</sup>	1
Critical HRM theory	Jenkins and Delbridge (2013) <sup>78</sup>	1
Crossover theory	Bakker and Xanthopoulou (2009) <sup>134</sup>	1

Crossover/emotional contagion theory	Bakker et al (2006) <sup>118</sup>	1
Emotional dissonance-emotional labour model	Bechtoldt et al (2011) <sup>123</sup>	1
Ethical leadership theory	Den Hartog and Belshak (2012) <sup>135</sup>	1
Expectancy theory	Anaza and Rutherford (2012) <sup>126</sup>	1
Group engagement model	He et al (2013) <sup>133</sup>	1
Idiosyncratic deals	Hornung et al (2010) <sup>107</sup>	1
Job embeddedness theory	Karatepe and Ngeche (2012) <sup>122</sup>	1
Justice theory	Gillet et al (2013) <sup>105</sup>	1
Knowledge conversion theory	Song et al (2012) <sup>136</sup>	1
Leader consideration framework	Hornung et al (2011) <sup>130</sup>	1
Leader integrity theory	Moorman et al (2013) <sup>131</sup>	1
Mismatch proposition of wellbeing	Dylag et al (2013) <sup>128</sup>	1
Organisational support theory	Ratnasingam et al (2012) <sup>132</sup>	1
Person-situation framework	He et al (2013) <sup>133</sup>	1
Positive emotions theory	Gorgievski et al (2010) <sup>139</sup>	1
Psychological empowerment theory	Stander and Rothmann (2010) <sup>120</sup>	1
Relative deprivation theory	Mauno et al (2005) <sup>121</sup>	1
Resources-experiences-demands model	Del Libano et al (2012) <sup>127</sup>	1
Role spillover theory	Fiksenbaum et al (2010) <sup>137, 138</sup>	1
Salutogenic-model of coping	Bakibinga et al (2012) <sup>94</sup>	1
Self-categorisation theory	Otken and Erben (2010) <sup>109</sup>	1
Social identity theory	Anaza and Rutherford (2012) <sup>119</sup>	1
Structural empowerment theory	Spence Laschinger (2010) <sup>117</sup>	1

However, these findings should be interpreted with some caution; in some cases, the theories were not made explicit in the paper. We have coded 21 papers as ‘unspecified’ where no theory was mentioned and it was not clear on reading the paper what the author’s intention was. In other cases where no theory was mentioned, we have inferred based on available information within the paper what the author’s intention was. In many instances, authors referred to a range of different theories; for most of these, we have reported on the main

theoretical frameworks only, but in some cases it was not clear that there was one overriding theory, and so we have included several theories for one item. The results presented in Table 14 should therefore be regarded as indicative of general trends within the literature.

### ***3.5.1 Theoretical frameworks: findings***

As Table 14 indicates, 65 studies have used the job demands-resources (JD-R) framework. This is true of most of the papers that have used the Utrecht Work Engagement Scale. The JD-R framework distinguishes between resources on the one hand, in the form of either job-related resources or personal resources, and demands on the other. According to this model, resources energise employees and foster engagement which, in turn, yields positive outcomes such as high levels of performance.<sup>58 p(26)</sup> Job demands, on the other hand, require employees to expend additional effort which over time can cause exhaustion and lead to negative outcomes. Job resources comprise physical, social and organisational job features that can reduce job demands, help individuals achieve work goals, or aid with personal growth. These are regarded as playing a motivational role since they help fulfil human needs for autonomy, competence or relatedness. They also help foster the willingness to dedicate effort towards the accomplishment of work. Personal resources such as self-efficacy, self-esteem or optimism can also be relevant for high levels of engagement. Thus, the JD-R ‘explains’ engagement on the basis that where employees have high levels of job-related and/or personal resources, then they are more likely to be engaged with their work.

The second most widely used framework was social exchange theory (SET), used in 26 studies. According to SET, relationships between employees and employers are based on norms of reciprocity. Where employees feel that they are being treated well and valued by their employer, then they are more likely to respond by exerting effort on behalf of the employer in the form of raised levels of engagement.<sup>100</sup>

Conservation of resources theory (COR), used in 14 studies, is based on the premise that individuals seek to acquire and preserve valued resources, which can be personal, energetic, social or material resources. Resource gain spirals occur when individuals are able to build on resources they already have, and resource loss spirals arise for those without access to strong resource pools. According to this view, the provision of resources may be particularly salient in raising engagement levels amongst those who are experiencing high levels of demand.<sup>103</sup>

Broaden-and-build theory was used in eight studies. Fredrickson<sup>142</sup> argued that engagement is more likely to occur when individuals experience positive rather than negative emotions, since these create the space for a broader range of thought-action repertoire. Activated positive affect is important for stimulating action.<sup>27</sup> Hence, those drawing on broaden-and-build theory argue that individuals who experience positive emotions are able to draw on a wider range of behavioural responses and hence are more likely to be engaged.

Seven referred explicitly to Kahn's<sup>19</sup> engagement theory, also referred to as the 'needs satisfying' approach<sup>59</sup>, which is based on the premise that engagement is influenced by three antecedent psychological conditions: experienced meaningfulness of work (or feeling that one experiences a return for the effort expended in working); experienced psychological safety (or feeling able to demonstrate engagement without fear of negative consequences); and experienced availability (or having sufficient personal resources to experience engagement). Kahn<sup>19</sup> argues that these three conditions are influenced by the nature of the job, the social environment, and personal resources and energy. This perspective draws on job characteristics theory<sup>28</sup> and shows that some aspects of work design such as autonomy, feedback and task significance will generate the psychological conditions necessary for engagement.

All the remaining theories or frameworks referred to in the studies were used in five papers or fewer.

### ***3.5.2 Summary of theoretical frameworks***

The predominant theoretical framework used in the engagement literature is the job demands-resources framework. It is important to note that, in line with the principal conceptualisation of engagement as a work-related state of mind, most of the theories used to explain the engagement process are derived from the psychology field. The instances of theories and models from work sociology or industrial relations such as critical HRM theory<sup>78</sup> are very few. Consequently, most of the theorisation around engagement adopts a within-person perspective that does not take account of the broader social or organisational context<sup>143</sup>, individual differences<sup>14</sup>, or considers the contested nature of engagement as a potential tool for managerial control.<sup>15</sup>



### **3.6 Engagement definitions, models and theories: synthesis**

The roots of engagement within the academic literature can be traced back to the work of William Kahn.<sup>19</sup> Although Kahn saw engagement as the expression of the preferred self in relation to work roles, and some subsequent researchers have sought to operationalise Kahn's framework, the academic field has come to be dominated by the work of the Utrecht Group who have argued that engagement is a positive, activated state of mind experienced by individuals in relation to their work, and has three facets: vigour, dedication and absorption. The Utrecht Work Engagement Scale has been used as the means to evaluate engagement levels in 83% of the studies of engagement deemed to have met the quality threshold for inclusion. The job demands-resources framework was mentioned as a major theoretical framework in 39% of the empirical papers included. The majority of studies using the UWES are based on the JD-R.

Some other scales have been developed based on a conceptualisation of engagement as something that employees can experience in relation to their employer overall, or towards their work group, however, these studies are in the minority.

More recently, studies are starting to take place that consider engagement as a strategy for people management<sup>78</sup> or form of communication.<sup>79</sup> This perspective is more aligned with the practitioner perspective where engagement tends to be viewed either as an employment relations strategy or as a composite attitudinal and behavioural construct.<sup>16, 144</sup> However, no quantitative measures that met the quality threshold were identified and so this body of work comprises qualitative studies.

The evidence from prior studies concerning the validity and reliability of the engagement construct has been equivocal, although there is some preliminary evidence that engagement has both construct and discriminant validity. This issue is explored further in subsequent chapters, particularly chapter 7.

### **3.7 Summary**

In this chapter, we have reviewed how engagement has been defined within the academic literature, discussed the main measures used to evaluate engagement and examined the main theories used to explain the engagement process. Our analysis showed the predominance of the Utrecht Work Engagement Scale as the means of evaluating engagement levels, and the job demands-resources analytical framework. In the next chapter, we present the results of our data extraction in relation to the association between engagement and morale.

## Chapter 4

### Engagement and Morale

#### 4.1 Introduction

The focus of this chapter is on Research Question 2.1:

*What evidence is there that engagement is relevant for staff morale?*

In order to address this we have developed two sub-questions:

*2.1a What is the evidence that engagement is relevant for staff morale within the workforce in general?*

*2.1b What is the evidence that engagement is relevant for staff morale within the context of health?*

The purpose of addressing this question is to evaluate the evidence concerning the link between engagement and morale outcomes. In particular, this chapter aims to identify which morale outcomes have been demonstrated empirically to be most significantly affected by, or at least associated with, high levels of engagement within the general workforce and within the health context specifically. To address these questions, we undertook the data extraction process described in detail in chapter 2.

First, we review the general background and context for the research questions (section 4.2). We then present the evidence we have assembled from our data extraction exercise in relation to the general workforce (section 4.3), followed by an analysis of the health context (section 4.4). We have included in this latter section any study that includes a sample of health care workers, even if part of a wider sample involving a range of occupations. Finally, we bring together these findings to suggest which morale outcomes are most likely to be associated with high levels of engagement (section 4.5)

## 4.2 Background to morale outcomes relevant to engagement

A main concern within the prior research has been to identify which morale outcomes are associated with high levels of engagement. We have interpreted ‘morale’ in a wide sense and these morale outcome factors can be grouped under two headings:

1. **Wellbeing and health perceptions:** includes measures of life satisfaction<sup>145</sup>, general and psychological health (e.g. GHQ-12<sup>146</sup>; BDI<sup>147</sup>), stress/burnout (e.g. MBI<sup>148</sup>), and various other aspects such as affect<sup>149</sup>, work ability<sup>150</sup>, and recovery.<sup>151</sup>
2. **Work-related attitudes:** includes measures of organisational commitment<sup>152, 153</sup>, job or career satisfaction<sup>154, 155</sup>, occupational or career success<sup>156</sup>, and turnover intentions.<sup>157, 158</sup>

In total, thirty five studies examined the relationship between engagement and morale outcomes within the general workforce, and twelve studies examined the relationship between engagement and morale outcomes within the health context. Table 15 shows the breakdown of studies that satisfied the inclusion criteria firstly across the two main categories, and secondly across the subcategories. It should also be noted that many studies examined more than one outcome (although not usually more than two or three), and a minority included outcome variables from both wellbeing/health perception and work-related attitude categories. Therefore the numbers in the subcategories do not ‘add’ up to the numbers in the overall categories.

Furthermore, many studies examined the link between engagement and morale outcomes as part of a larger hypothesised model. These models tended to include a number of antecedents theorised to be related to engagement (see chapter 6), engagement as a mediator (and for some, other mediators such as burnout), and potential morale and/or performance outcomes (see also chapter 5). The focus for this chapter is on the specific relationship between engagement and morale outcomes; therefore no particular details regarding any larger hypothesised model tested have been included here.

Almost all included studies have examined engagement as a psychological state experienced in relation to work in general terms (see section 3.2), and have used quantitative, survey-

based method to examine how engagement relates to self-reported morale indicators. Therefore, most studies reviewed in this chapter reflect a specific and narrow research focus. Moreover, the vast majority of the studies utilised a cross-sectional, between-persons design and so causality is difficult to demonstrate.

**Table 15: Number of studies satisfying inclusion criteria for morale outcomes**

<b>Morale Outcome</b>	<b>General</b>	<b>Health</b>	<b>Total</b>
<b>Wellbeing &amp; Health Perceptions</b>	<b>16</b>	<b>5</b>	<b>21</b>
- Life Satisfaction	4	1	5
- General & Psychological Health	6	3	9
- Stress/Burnout	9	1	10
- Other Aspects	4	1	5
<b>Work-related Attitudes</b>	<b>24</b>	<b>7</b>	<b>31</b>
- Organisational Commitment	7	2	9
- Job/Career Satisfaction	12	3	15
- Turnover Intentions	17	7	24

### 4.3 The workforce in general

The data on morale outcomes in relation to the workforce in general are reported in Table 16.

#### 4.3.1 Study considerations

##### *Geographical considerations*

Ten out of the thirty five studies were conducted in Europe (representing Netherlands, Germany, Spain, Italy, Finland, Sweden, Norway and Poland), seven in USA or Canada, four in Africa (including South Africa and Cameroon), four in Asia (China, Japan and Malaysia), four in the UK, three in India and two in Australia or New Zealand. One was ‘international’ as it sampled teachers from Australia, Indonesia, China, Oman and Canada<sup>159</sup> (see Appendix 7).

##### *Measurement and analysis considerations*

Twenty seven of the studies used the UWES measure of engagement. Sixteen of these applied the 9-item version, seven applied the 17-item version and four applied an alternative – Ratnasingam et al<sup>132</sup> applied a 7-item version, Extremera et al<sup>102</sup> applied a 15-item version and Vera et al<sup>160</sup> applied a 16-item version. Simbula<sup>161</sup> applied the 9-item UWES to measure general engagement and a shortened 5-item version to measure daily engagement.

Other measures used were Britt's<sup>98</sup> engagement measure, May et al's<sup>20</sup> psychological engagement measure, Rich et al's<sup>3</sup> job engagement measure, Saks's<sup>64</sup> measure of job and/or organisation engagement, and Soane et al's<sup>72</sup> ISA engagement measure. Jenkins and Delbridge<sup>78</sup>, who conducted a qualitative study, did not explicitly measure engagement via a self-report scale. See chapter 3 for further details.

Fifteen of the studies used multiple regressions to test the relationships between engagement and morale, and a further nine used structural equation modelling. Five used correlations, three used multilevel/hierarchical linear modelling, one used latent path analysis, one used usability analysis, and one used comparative qualitative analysis.

Only seven conducted an alternative to the between-persons cross-sectional design. Three conducted repeated-measures designs in the form of a quantitative diary. Simbula<sup>161</sup> used a one measurement occasion per day for five consecutive working days design and Sonnentag et al<sup>162</sup> used a two measurement occasion per day (i.e. beginning and end of day) for five consecutive working days design. Sonnentag et al<sup>163</sup> used a two measurement occasion per week (i.e. beginning and end of week) for four consecutive working weeks design. Two conducted time-lagged studies (i.e. independent variables measured at time 1 and dependent variables measured at time 2). Karatepe and Ngeche<sup>122</sup> used a one month time lag and supervisor reports, and Halbesleben and Wheeler<sup>164</sup> used a two month time lag. Two utilised a longitudinal design: Yalabik et al<sup>165</sup> used a cross-lagged design where the time interval between time 1 and time 2 was one year; Shimazu et al<sup>166</sup> used a seven month time interval between time 1 and time 2 and calculated the change in variables between these time points.

Lastly, twenty three of the studies examined engagement and morale outcomes within the scope of a larger theoretical model that linked antecedents of engagement (chapter 6) and outcomes of engagement (chapters 4 and 5) through the psychological state of engagement. Although this chapter focuses on the specific relationships between engagement and morale

outcomes, it should be noted that engagement is often positioned (and found empirically) to mediate (often partially) the relationship between work/organisational factors (see chapter 6) and morale/performance outcomes.

#### *Sample considerations*

Nine of the studies sampled a range of occupations and organisations. The majority (75%) of the studies focused on a specific occupational group and/or organisational setting. Of these, nine sampled employees from education and public service sectors (e.g. teachers/university staff, police officers, firefighters), six sampled employees from hospitality and service sectors (e.g. restaurants, hotels, retail shops, call centres), six sampled employees from professional services sectors (e.g. ICT, financial, consultancy) and five sampled employees from manufacturing, production and construction industries.

#### *Theoretical considerations*

Twenty six of the studies applied a specific theory as the main theoretical rationale. Of these, eleven of the studies applied the job demands-resources model<sup>167, 168</sup> (note one uses a variant called the resources-experiences-demands model), seven applied social exchange theory<sup>169</sup> or a related theory (e.g. procedural justice/organisational support), two applied Kahn's<sup>19</sup> engagement theory, and one applied Fredrickson's<sup>142</sup> broaden-build theory. Five applied an alternative theory (such as self-determination or self-efficacy).

Nine of the studies did not use a specific theoretical rationale and instead either applied a general rationale based on work engagement/burnout literature or did not explicitly state an underlying theoretical basis for their hypotheses.

### **4.3.2 The relationship between engagement and wellbeing/health perceptions**

#### *Life satisfaction:*

Three studies examined the relationship between engagement (as a holistic factor) and life satisfaction as an outcome. Steele et al<sup>170</sup> and Shimazu and Schaufeli<sup>171</sup> found that engagement was positively associated with life satisfaction; Shimazu et al<sup>166</sup> found using a time-lagged design that engagement was associated with increased life satisfaction during a seven month period. Extremera et al<sup>102</sup> examined the relationship between each of the work

engagement dimensions and life satisfaction, and found that only dedication (not vigour or absorption) was significantly (positively) associated with life satisfaction.

*General and psychological health:*

Six studies examined the relationship between engagement and general/psychological health as an outcome. Shimazu and Schaufeli<sup>171</sup> found that engagement was negatively associated with ill health, and Shimazu et al<sup>166</sup> found using a time-lagged design that engagement was associated with reductions in self-report ill health during a seven month period. Hallberg and Schaufeli<sup>95</sup> found that engagement was negatively correlated with depressive symptoms, somatic complaints and sleep disturbances. Buys and Rothmann<sup>172</sup> conducted regressions, controlling for emotional exhaustion, and found that engagement was positively associated with social functioning, but the relationships between engagement and somatic functioning and between engagement and depressive symptoms were non-significant as these were best predicted by emotional exhaustion. Hopkins and Gardiner<sup>173</sup> found that engagement was negatively associated with psychological distress. Simbula<sup>161</sup> examined the relationship between engagement and (poor) mental health at both the ‘general’ and the ‘day’ level. ‘General’ engagement was positively correlated with ‘general’ mental health, and day-level engagement was positively associated with day-level mental health.

*Stress/burnout:*

Four studies examined the relationship between engagement (as a holistic factor) and stress/burnout as outcomes. Both Buys and Rothmann<sup>172</sup> and Hallberg and Schaufeli<sup>95</sup> found that engagement was negatively correlated with two dimensions of burnout (i.e. emotional exhaustion and cynicism – only dimensions assessed). Both Sardeshmukh et al<sup>174</sup> and Simbula<sup>161</sup> found that engagement was negatively correlated with emotional exhaustion (the only dimension assessed).

Five studies examined the relationship between the dimensions of work engagement and dimensions of burnout. These studies show mixed results. Dylag et al<sup>128</sup> found that each of the three dimensions of work engagement (i.e. vigour, dedication and absorption) were negatively correlated with emotional exhaustion and cynicism and positively related with professional self-efficacy. Extremera et al<sup>102</sup> found that each of the three dimensions of work engagement (i.e. vigour, dedication and absorption) were negatively associated with emotional exhaustion and depersonalization, and positively associated with personal



accomplishment. Vera et al<sup>160</sup> found that vigour and dedication were negatively correlated with all four dimensions of burnout (exhaustion, cynicism, depersonalisation, lack of professional self-efficacy), whereas absorption was only significantly (negatively) associated with cynicism and lack of professional self-efficacy. Høigaard et al<sup>116</sup> found that when personal efficacy was controlled for (although this was non-significant predictor of emotional exhaustion), only absorption (not vigour or dedication) was significantly (and positively) associated with emotional exhaustion. Høigaard et al's<sup>116</sup> finding that absorption is positively associated with emotional exhaustion is at odds with the common hypothesis that engagement should be negatively related with burnout. Halbesleben's<sup>175</sup> meta-analysis of 53 studies found that the three dimensions of engagement (i.e. vigour, dedication and absorption) were negatively associated with three dimensions of burnout (i.e. exhaustion, depersonalisation, reduced efficacy).

*Other aspects:*

Airila et al<sup>176</sup> found that engagement was positively associated with three sub-dimensions of work ability (current work ability generally, in relation to job demands, psychological resources), but not significantly associated with the other three sub-dimensions of work ability (diseases, sick leaves, own prognosis of work ability). Sonnentag et al<sup>163</sup> found that 'general' engagement was positively associated with positive affect on Friday afternoon and negatively associated with negative affect on Friday afternoon. In addition, for persons with a high level of general engagement, psychological detachment from work during off-job time was positively related to positive affect on Friday afternoon whereas for persons with a low level of engagement, psychological detachment from work during off-job time was not significantly related to positive affect on Friday afternoon. Sonnentag et al<sup>162</sup> found that engagement at the beginning of the day positively predicted subsequent recovery level at the end of the workday after controlling for morning recovery level. In addition, the relationship between engagement and recovery at the end of the workday was stronger when situational constraints were low rather than high.

Lastly, Jenkins and Delbridge<sup>78</sup> conducted a comparative qualitative study within two UK-based organisations. They found that engagement may not be universally 'good' for morale as it depends on the way in which management view engagement and its purpose as well as benefits. They suggest that if engagement is pursued for purely instrumental purposes (such as for performance or competitive advantage) then it may be detrimental to morale whereas if

engagement pursued as a legitimate outcome in its own right then engagement may promote morale.

### **4.3.3 The relationship between engagement and work-related attitudes**

#### *Job satisfaction:*

Six studies examined the relationship between engagement (as a holistic factor) and job satisfaction as an outcome.<sup>64, 127, 132, 159, 170, 177</sup> All of these studies found that engagement was positively associated with job satisfaction. However, Yalabik et al<sup>165</sup> conducted a cross-lagged longitudinal design and found that job satisfaction may act as an antecedent rather than outcome because engagement mediated the relationship between job satisfaction and turnover intentions. It should be noted that some studies of engagement (see chapter 6) position job satisfaction as an antecedent rather than outcome of engagement. Therefore it is unclear whether job satisfaction should be considered an antecedent or an outcome, although Yalabik et al's<sup>165</sup> longitudinal study suggests it should be considered an antecedent.

Simbula<sup>161</sup> examined the relationship between engagement and job satisfaction at both the 'general' and the 'day' level. They found that 'general' engagement was positively correlated with 'general' job satisfaction, and that day-level engagement was positively associated with day-level job satisfaction. Vincent-Hoper et al<sup>178</sup> used subjective occupational success (SOS) as an outcome (i.e. career satisfaction, social and career success) rather than job satisfaction found that engagement was positively associated with SOS.

In addition, three studies examined the relationship between the dimensions of work engagement and job satisfaction. These studies showed mixed results. Vera et al<sup>160</sup> found that all three dimensions (vigour, dedication and absorption) were correlated with job satisfaction. Wefald et al<sup>97</sup> found that vigour and dedication, but not absorption, were significantly (and positively) associated with job satisfaction whereas Høigaard et al<sup>116</sup> found that only dedication was significantly (and positively) associated with job satisfaction after self-efficacy was controlled for. These inconsistencies highlight the issue of analysing the dimensions rather than the composite whole of engagement.

#### *Organisational commitment:*

Six studies examined the relationship between engagement (as a holistic factor) and organisational commitment as an outcome.<sup>64, 127, 172, 177, 179, 180</sup> All found that engagement was positively associated with organisational commitment. Wefald et al<sup>97</sup> examined which dimensions and measures of engagement were most associated with organisational commitment. They found that vigour and dedication (but not absorption) of the UWES and the physical strength dimension of Shirom's<sup>68</sup> vigour construct were significantly (positively) associated with organisational commitment. Britt's<sup>181</sup> measure of engagement was not significantly associated with organisational commitment.

#### *Turnover intentions:*

Fourteen studies examined the relationship between engagement (as a holistic factor) and turnover intentions as an outcome.<sup>64, 72, 95, 100, 122, 159, 164, 165, 170, 180, 182-185</sup> All found that engagement was negatively associated with turnover intentions. Of these, four are particularly noteworthy. Juhdi et al<sup>184</sup> examined organisational engagement<sup>64</sup> rather than job or work engagement, and Yalabik et al<sup>165</sup> utilised a cross-lagged longitudinal design. Both Halbesleben and Wheeler<sup>164</sup> and Karatepe and Ngeche<sup>122</sup> used a time-lagged study and found that the relationship between engagement and turnover intentions may be influenced by job embeddedness – ‘the combined forces that keep a person from leaving his or her job.’<sup>186 (p159)</sup> For Halbesleben and Wheeler<sup>164</sup> engagement was negatively correlated with turnover intentions, yet when both engagement and job embeddedness were included in a usefulness analysis, engagement did not explain any unique variance in turnover intentions whereas job embeddedness did. However they did not conduct any further analysis to examine whether job embeddedness may mediate the relationship between engagement and turnover intentions. Karatepe and Ngeche<sup>122</sup> did conduct a mediation analysis and found that the relationship between engagement and turnover intentions was partially mediated by job embeddedness.

In addition, three studies examined the relationship between dimensions of engagement and turnover intentions as an outcome. These show mixed results. Mendes and Stander<sup>187</sup> found that dedication, but not vigour and absorption, was significantly (negatively) associated with turnover intentions whereas Høigaard et al<sup>116</sup> found that, when personal efficacy was controlled for, absorption, but not vigour and dedication, was significantly (positively) associated with turnover intentions. Høigaard et al's<sup>116</sup> finding that absorption is positively associated with turnover intentions is at odds with the common hypothesis that engagement should be negatively related with turnover intentions. Wefald et al<sup>97</sup> found that, when job

satisfaction and organisational commitment were controlled for, neither the UWES nor Britt's<sup>181</sup> measure of engagement explained any additional variance in turnover intentions. They conclude that the relationship between engagement and turnover intentions is likely to be mediated by organisational commitment and/or job satisfaction. Relating this to the findings of Karatepe and Ngeche<sup>122</sup>, it seems that the relationship between engagement and turnover intentions may be mediated by work-related attitudes.

**Table 16: Engagement and morale in the general workforce**

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Agarwal et al (2012) <sup>182</sup> India	979 Indian managerial employees working in six service sector organisations in India (low/ middle level management)	9-item UWES	Self-report survey SEM	Turnover intentions	Engagement neg. associated with intention to quit	SET
Airila et al (2012) <sup>176</sup> Finland	403 Finnish Firefighters	9-item UWES	Self-report survey Regression	Work ability (6 sub-dimensions: current work ability generally/ in relation to job demands, psychological resources, diseases, sick leaves, own prognosis)	Engagement + associated with three sub-dimensions of work ability (current work ability generally, in relation to job demands, psychological resources), but not significantly associated with the other three sub-dimensions of work ability (diseases, sick leaves, own prognosis of work ability).	Unspecified
Alfes et al (2013) <sup>100</sup> UK	297 employees from a large service sector organisation within the UK	12-item scale adapted from Rich et al's <sup>3</sup> 18-item job engagement measure	Self-report survey Regression	Turnover intentions	Engagement neg. associated with turnover intentions	JD-R , SET

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Bhatnagar (2012) <sup>183</sup> India	291 managers from the Indian R& D industrial sectors of pharmaceutical, engineering, IT, electronics and aeronautics	17-item UWES	Self-report survey SEM	Turnover intentions	Engagement neg. associated with turnover intentions	JD-R
Biswas and Bhatnagar (2013) <sup>177</sup> India	246 full-time employees in six organisations in north- central India	Saks's <sup>64</sup> 11- item job & organisation engagement scales combined	Self-report survey SEM	Organisational commitment and job satisfaction	Engagement + associated with both organisational commitment and with job satisfaction	SET
Brunetto et al (2012) <sup>179</sup> Australia	193 police officers. Majority male and with low tenure	9-item UWES	Self-report survey Latent Path Model	Organisational commitment	Engagement + associated with organisational commitment and neg. associated with turnover intentions	Kahn's <sup>19</sup> engagement theory
Buys and Rothmann (2010) <sup>172</sup> South Africa	115 reformed church ministers	May et al's <sup>20</sup> 12-item engagement scale	Self-report survey Regression/ Correlations	Organisational commitment, social functioning, burnout consisting of cynicism and exhaustion; somatic functioning and depression	Engagement + associated with organisational commitment as well as with social functioning even when cynicism and exhaustion were included. Non-significant relationships with somatic functioning and depression as these were best predicted by exhaustion and/or cynicism. Engagement – correlated with cynicism and exhaustion.	JD-R
Del Libano et al (2012) <sup>127</sup> Spain	386 Administrative staff from a Spanish University	9-item UWES	Self-report survey SEM	Organisational commitment and job satisfaction	Engagement + associated with job satisfaction and organisational commitment	Resources- Experiences- Demands model <sup>188</sup>

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Dylag et al (2013) <sup>128</sup> Poland	480 white-collar workers employed in Polish public/private organisations of various sectors. Majority female	9-item UWES (analysed each dimension separately)	Self-report survey Correlations	Burnout consisting of emotional exhaustion, cynicism and professional self-efficacy	Vigour, dedication and absorption each were neg. related with emotional exhaustion and cynicism and + related with professional self-efficacy	(Mis)match proposition of wellbeing
Extremera et al (2012) <sup>102</sup> Spain	409 multi-occupational employees (in second of two studies)	15-items taken from UWES-17 (analysed each dimension separately)	Self-report survey Regression / Correlations	Burnout, life satisfaction and perceived stress	Correlations: Vigour, dedication and absorption each were neg. associated with emotional exhaustion and depersonalization, and + associated with personal accomplishment. Regressions: Dedication + associated with life satisfaction and neg. associated with perceived stress. Absorption not significantly associated with life satisfaction, but + associated with perceived stress (small effect size). Vigour not significantly associated with life satisfaction nor with perceived stress	Unspecified
Halbesleben and Wheeler (2008) <sup>164</sup> USA	573 working adults from a variety of occupations/organisations	17-item UWES measured at T1	Self-report survey Time-lag of 2 months between IVs and DVs measurement. Usefulness analysis	Job embeddedness: 23 items – Mitchell et al. <sup>189</sup>  Turnover intentions  Controlled for job satisfaction and organisational commitment	Although engagement was neg. correlated with turnover intentions, the usefulness analysis found that job embeddedness explained a significant amount of unique variance in turnover intentions whereas engagement did not. Job satisfaction and organisational commitment were controlled for, yet neither explained any unique variance in turnover intentions (although both were neg. correlated with turnover intentions)	JD-R

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Hallberg and Schaufeli (2006) <sup>95</sup> Sweden	186 workers in Swedish IT company – 175 working in IT; 11 working in personnel	9-item UWES	Self-report survey Correlations	Burnout consisting of emotional exhaustion and cynicism. Depressive symptoms, somatic complaints and sleep disturbances. Turnover intentions	Engagement neg. correlated with the two dimensions of burnout (emotional exhaustion and cynicism), depressive symptoms, somatic complaints, sleep disturbances, and turnover intentions	JD-R
Høigaard et al (2012) <sup>116</sup> Norway	191 teachers in Norway with less than 6 years' experience	17-item UWES	Self-report survey Regression	Emotional exhaustion, turnover intentions and job satisfaction	When the personal efficacy was controlled for (although this was non-significant predictor of all three outcomes), only dedication (not vigour or absorption) was + associated with job satisfaction, and only absorption (not vigour or dedication) was + associated with emotional exhaustion and + associated with turnover intentions	Self-efficacy theory
Hopkins and Gardiner (2012) <sup>173</sup> Zealand	96 legal staff and partners working in a New large New Zealand law firm	9-item UWES	Self-report survey Regression	Psychological distress	Engagement neg. associated with psychological distress	JD-R
Hu and Schaufeli (2011) <sup>180</sup> China	585 production workers in 3 manufacturing companies in China	9-item UWES	Self-report survey SEM	Organisational commitment and turnover intentions	Engagement + associated with organisational commitment and neg. associated with turnover intentions	JD-R



Author/date/ Location	Study population	Measure of engagement	Methods	Outcome measures	Results/significance	Dominant theoretical framework
Jenkins and Delbridge (2013) <sup>78</sup> UK	Two case studies: (i) 66 employees from a family-owned, multi-client call centre company in Wales. (ii) 17 employees from a US-owned multinational company which provided a range of services for the global energy market. Research focused on UK HQ in Scotland	No specific measure of engagement	Comparative case study of two workplaces; mostly relied on in-depth semi-structured interviews with employees and a selection of managers.	No explicit outcome measure	Implicates that engagement is not universally 'good' for morale as it depends on the way in which management view engagement and its purpose/benefits. Suggests if engagement is pursued for purely instrumental purpose (i.e. for performance/competitive advantage) then it may be detrimental to morale whereas if pursued as a legitimate outcome in its own right then may promote morale.	Critical HRM theory
Juhdi et al (2013) <sup>184</sup> Malaysia	457 employees in various organisations	Saks <sup>164</sup> 6-item organisation engagement scale	Self-report survey Regression	Turnover intentions	Organisation engagement neg. associated with turnover intentions	Unspecified
Karatepe and Ngeche (2012) <sup>122</sup> Cameroon	212 full-time hotel workers in Cameroon and their supervisors (Majority under age of 37 and degree-educated)	9-item UWES	Self-report survey. Time-lag of 1 month between IVs and DVs measurement. Performance data from supervisors. Regression	Job embeddedness (6 items - Crossley et al. <sup>190</sup> ) – measured at time 1. Note this is very similar to original concept of org commitment by Allen and Meyer <sup>152</sup> and later developed by Meyer and Allen. <sup>191</sup> Turnover intentions – measured at time 2	Engagement + associated with job embeddedness and neg. associated with turnover intentions. Job embeddedness partially mediates the relationship between work engagement theory and turnover intentions	Job embeddedness theory

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Klassen et al (2012) <sup>159</sup> International	N=853: split between Australia Canada, China, Indonesia & Oman. Majority female. All practising teachers. Convenience sampling stratified for socio-economic status of pupils	9-item UWES	Self-report survey Correlations	Job satisfaction and turnover intentions	Engagement + associated with job satisfaction and neg. associated with turnover intention. Magnitude of the relationships similar across settings.	Self- determination theory
Mendes and Stander (2011) <sup>187</sup> South Africa	179 employees working in a single chemical company; mainly non- management; 60% male; 47.5% in modal age range 25-35 years; 52% African	17-item UWES	Self-report survey Regression	Turnover intentions	Dedication, but not vigour or absorption were significantly (+) associated with intention to leave.	Human capital theory
Ratnasingam et al (2012) <sup>132</sup> USA	143 employees who were users of either the organisation's on-site childcare program (n = 41) or external childcare programs (n = 102) at a large public university in the Southern US (mainly female and married)	7 items taken from UWES- 9	Self-report survey Regression	Job satisfaction	Engagement + associated with job satisfaction	Organisational support theory

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Saks (2006) <sup>64</sup> Canada	102 workers in a variety of organisations	Specially developed scales for job engagement (5 items) and organisation engagement (6 items)	Self-report survey Regression	Job satisfaction, organisational commitment and turnover intentions	Both job and organisation engagement + associated with job satisfaction and with organisational commitment, and neg. associated with turnover intentions.	SET
Sardeshmukh et al (2012) <sup>174</sup> USA	417 employees from large supply chain company who had one year minimum of telecommuting experience; 71% male	6-item scale adapted from Britt. <sup>98</sup>	Self-report survey Correlations	Exhaustion	Engagement was neg. associated with exhaustion	JD-R
Shimazu and Schaufeli (2009) <sup>171</sup> Japan	776 employees in construction machinery company in western Japan	9-item UWES	Self-report survey SEM	Ill health and life satisfaction	Engagement neg. associated with ill health and + associated with life satisfaction	Unspecified
Shimazu et al (2012) <sup>166</sup> Japan	1967 Japanese employees from various occupations randomly contacted as part of bigger project	9-item UWES	Self-report survey. Longitudinal; 7-month interval between T1 and T2. SEM	Changes in ill health and changes in life satisfaction	Engagement neg. associated with changes in ill health and + associated with changes in life satisfaction	Unspecified

Author/date/ Location	Study population	Measure of engagement	Methods	Outcome measures	Results/significance	Dominant theoretical framework
Simbula (2010) <sup>161</sup>	Italy 61 public sector school teachers. Majority female.	9-item Italian version of UWES used to measure general engagement (survey); 5 adapted items from the UWES-9 used to measure daily engagement (diary)	Self-report survey followed by diary completed for five consecutive workdays Correlations and MLM/HLM	General emotional exhaustion and day level emotional exhaustion. General poor mental health and day level poor mental health. General job satisfaction and day level job satisfaction	Correlations: General engagement neg. associated with general exhaustion and with general poor mental health. General engagement was + associated with general job satisfaction. MLM/HLM: Day level engagement was + associated with day level job satisfaction and neg. associated with day level poor mental health	JD-R
Soane et al (2012) <sup>72</sup> UK	759 employees from a UK-based retail organisation (2 <sup>nd</sup> study in article). Slight majority female	9-item ISA Engagement Scale	Self-report survey Regression	Turnover intentions	Engagement neg. associated with turnover intentions	Kahn's <sup>19</sup> engagement theory
Sonnentag et al (2008) <sup>163</sup> Germany	159 employees from 5 German organisations from various sectors working in different roles (managers, economists, technicians, engineers, journalists, computer scientists and admin); majority female	9-item UWES measured as single factor	Self-report survey followed by weekly diary on Monday morning and Friday afternoon for four working weeks. MLM/HLM	Positive affect and negative affect	General work engagement was + associated with positive affect on Friday afternoon and neg. associated with negative affect on Friday afternoon. Significant moderation effect of general engagement on the detachment from work – positive affect relationship. For persons with a high level of general work engagement, psychological detachment from work during off-job time was positively related to positive affect on Friday afternoon whereas for persons with a low level of work engagement, psychological detachment from work during off-job time was not significantly related to positive affect on Friday afternoon. No moderation effect of general engagement on the detachment from work – negative affect relationship	Unspecified

Author/date/ Location	Study population	Measure of engagement	Methods	Outcome measures	Results/significance	Dominant theoretical framework
Sonnentag et al (2012) <sup>162</sup> Germany	111 employees in a variety of industries (services, production, administration, banking, insurance)	9-item UWES adapted to day-level assessment	A diary study over 5 consecutive days with 2 measurement occasions per day (beginning and end of workday). MLM/HLM	Day-specific recovery level at the end of the workday and situational constraint as moderator	Engagement at the beginning of the day + predicted subsequent recovery level at the end of the workday after controlling for morning recovery level. Moderating effect of situational constraint, but not job demands. The relationship between engagement and recovery at the end of the workday stronger when situational constraints were low rather than high	JD-R
Steele et al (2012) <sup>170</sup> USA	724 workers in 33 restaurants, part of a casual dining franchise. Workers were mostly women and mostly worked part-time	17-item UWES	Self-report survey Regression	Turnover intentions job satisfaction, and life satisfaction	Engagement + associated with job and life satisfaction, and neg. associated with turnover intentions	Broaden and Build theory <sup>192</sup> (Fredrickson, 1998)
Van Schalkwyk et al (2010) <sup>185</sup> South Africa	168 employees in a petrochemical laboratory. Majority male	17-item UWES	Self-report survey Regression	Turnover intentions	Engagement neg. associated with turnover intentions	Unspecified
Vera et al (2010) <sup>160</sup> Spain	170 university faculty members; 60% male; 43% with 5 years tenure, remainder with more	16-items taken from UWES-17	Self-report survey Correlations	Burnout and job satisfaction	Vigour and dedication neg. associated with all 4 dimensions of burnout (exhaustion, cynicism, depersonalisation, lack of professional self-efficacy), whereas absorption is only neg. associated with cynicism and lack of professional self- efficacy. All 3 dimensions of engagement + associated with job satisfaction	Unspecified

<b>Author/date/ Location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Vincent-Hoper et al (2012) <sup>178</sup> Germany	1,132 largely from engineering and professional occupations. Majority had long tenure with organisation	9-item UWES	Self-report survey SEM	Subjective occupational success measured in terms of career satisfaction, social success and career success	Engagement + associated with all 3 measures of subjective occupational success. Females demonstrated stronger associations between work engagement and career satisfaction than males	Transformational leadership theory
Wefald et al (2012) <sup>97</sup> USA	382 employees and managers at a financial services company	9-item UWES; Britt et al <sup>181</sup> 4 -item engagement measure	Self-report survey Regression	Turnover intentions, job satisfaction and organisational commitment	Vigour and dedication (UWES-9) but not Britt's <sup>181</sup> measure were significantly (neg.) associated intentions to leave. However vigour and dedication were found not to be significantly associated with turnover intentions when job satisfaction and organisational commitment were controlled for. Vigour and dedication (UWES-9) were significantly (positively) associated with job satisfaction and with organisational commitment. The relative weights analysis showed that the three sub-scales of the Schaufeli scale had the highest relative weights in predicting turnover intentions. Overall, the findings suggest that the relationship between engagement (specifically using the UWES-9) and turnover intentions is likely to be mediated by job satisfaction and/or organisational commitment	Unspecified
Yalabik et al (2013) <sup>165</sup> UK	167 clerical workers in a UK-based bank	9-item UWES	Self-report survey. Cross-lagged design - time lag of 1 year. SEM	Job satisfaction and turnover intentions	Job satisfaction + associated with engagement. Engagement neg. associated with turnover intentions. Engagement partially mediated the relationship between job satisfaction and intent to quit	SET, COR

## **4.4 The health context**

The data relating to morale outcomes in the health context are reported in Table 17.

### ***4.4.1 Study considerations***

#### *Geographical considerations*

Three out of the twelve reported on data from samples in Europe (representing Finland, Belgium, and Germany), two from samples in Australia, two from samples in Canada, two from samples in China, one from Scotland and one from Ireland. Note that one<sup>193</sup> took samples from mixed sites - USA and Australia (see Appendix 7).

#### *Measurement and Analysis Considerations*

The UWES was used in all of the studies, with the 9-item applied in the majority of cases. Two-thirds used structural equation modelling to test the relationships between engagement and morale. The remaining used multiple regressions, except Van Bogaert et al<sup>194</sup> who used multilevel/hierarchical linear modelling as the individual was nested within the clinical unit. Only one was longitudinal in design.<sup>195</sup> This used a three-wave design with a three-year interval between T1 and T2, and a four-year interval between T2 and T3. Lastly around three quarters of the studies tested the relationship between engagement and morale indicators within a larger theoretical model that linked antecedents and outcomes via the psychological state of engagement.

#### *Sample considerations*

Sample sizes ranged from just over 100 to just over 1,000 individuals. Just under half of the studies reported bias towards females, and just under half reported some bias towards age due to the population targeted, e.g. early career health professionals. Just over half of the studies sampled employees from a particular occupational group within the health sector. Three of these sampled only nurses, the remaining four sampled one occupational group representing surgeons, midwives or dentists/dental nurses.

#### *Theoretical considerations*

Two thirds applied the job demands-resources model<sup>167, 168</sup> as the main theoretical rationale, one applied conservation of resources theory<sup>196, 197</sup> and one applied social exchange theory.<sup>169</sup> The remaining two did not specify a particular theory.

#### ***4.4.2 The relationship between engagement and wellbeing/health perceptions***

##### *Life satisfaction:*

One study examined the relationship between engagement and life satisfaction as an outcome. Hakanen and Schaufeli<sup>195</sup> found that engagement positively predicted life satisfaction from T1 to T2 (three year interval) and from T2 to T3 (four year interval) in a sample of dentists.

##### *General and psychological health:*

Three studies examined the relationship between engagement and general/psychological health as an outcome. Freney and Fellenz<sup>198</sup> found that engagement was positively associated with general health in a sample of midwives. Hakanen and Schaufeli<sup>195</sup> found that engagement negatively predicted depressive symptoms from T1 to T2 (three year interval) and from T2 to T3 (four year interval) in a sample of dentists. Poulsen et al<sup>199</sup> found that engagement was positively associated with subjective wellbeing in a sample of cancer workers.

##### *Stress/burnout:*

One study examined the relationship between engagement and stress/burnout as outcomes. Fong and Ng<sup>200</sup> found that engagement was negatively associated with both stress and burnout in a sample from Chinese elderly care settings. However the association was weak for the former relationship.

##### *Other aspects:*

Mache et al<sup>201</sup> found that engagement was positively associated with work ability (i.e. ‘the sum of factors enabling an employed person in a certain situation to manage his/her working demands successfully’ p. 317).

#### ***4.4.3 The relationship between engagement and work-related attitudes***

##### *Job satisfaction:*

Two studies examined the relationship between engagement and job satisfaction as an outcome. Both Spence Laschinger<sup>202</sup> and Van Bogaert et al<sup>194</sup> found that engagement was positively associated with job satisfaction. The former study also found a positive association between engagement and career satisfaction.

##### *Organisational commitment:*



Three studies examined the relationship between engagement and organisational commitment as an outcome.<sup>193, 203, 204</sup> All found a positive association between engagement and organisational commitment.

*Turnover intentions:*

Seven studies examined the relationship between engagement and turnover intentions as an outcome.<sup>193, 194, 202- 206</sup> All found that engagement was negatively associated with turnover intentions (note – van Bogaert et al<sup>194</sup> used a positive valence scale representing intention to stay). Spence Laschinger<sup>202</sup> also found a positive association between engagement and career turnover intentions. Both Albrecht and Andreetta<sup>203</sup> and Brunetto et al<sup>193</sup> also included organisational commitment as a mediator within this relationship and found that organisational commitment partially mediated the engagement-turnover intentions relationship. Relating this to Wefald et al's<sup>97</sup> conclusions (see section 4.3.3), the relationship between engagement and turnover intentions may likely be mediated by organisational commitment.

**Table 17: Engagement and morale in the health context**

Author/date/ location	Study population	Measure of engagement	Methods	Outcome measures	Results	Dominant theoretical framework
Albrecht and Andreetta (2011) <sup>203</sup> Australia	139 employees from a community health service in Australia. Majority young; 70% female.	UWES-9	Self-report survey SEM	Turnover intentions and organisational commitment	Engagement + associated with organisational commitment and neg. associated with turnover intentions. Organisational commitment partially mediated relationship between engagement and turnover intentions.	Unspecified
Brunetto et al (2013) <sup>193</sup> USA and Australia	510 randomly chosen nurses from Australian hospitals and 718 nurses from US hospitals	UWES-9	Self-report survey SEM	Turnover intentions and organisational commitment	Engagement was not directly associated with turnover intentions for Australian nurses but was neg. associated with turnover intentions for USA nurses. For Australian nurses engagement was indirectly related to turnover intentions via organisational commitment. The significant relations between engagement and organisational commitment and between organisational commitment and turnover intentions were found in the USA sample suggesting partial mediation.	SET
Fong and Ng (2012) <sup>200</sup> China	992 elderly care workers in China; 21.3% professional staff and 78.7% support staff . Majority female.	UWES-9	Self-report survey SEM	Stress and burnout	Engagement neg. associated with burnout and with stress. However relationship with stress was weak.	JD-R
Forbes et al (2013) <sup>205</sup> Scotland	231 pre-registered dental nurses in Scotland. Majority female.	UWES-9	Self-report survey SEM	Turnover intentions	Engagement had neg. association with intention to leave	JD-R
Freaney and Fellenz (2013) <sup>198</sup> Ireland	158 midwives working in two large Irish maternity hospitals. 98% female.	UWES-9	Self-report survey SEM	General health	Engagement + associated with general health	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Hakanen and Schaufeli (2012) <sup>195</sup> Finland	1964 dentists practising in Finland and part of Finnish Dental Association	UWES-17	Self-report survey Longitudinal: 3 yr gap between T1- T2; 4 yr gap between T2 -T3. SEM	Life satisfaction and depressive symptoms	Engagement had significant cross-lagged effects on both life satisfaction (+) and depressive symptoms (neg.). More specifically, engagement predicted life satisfaction (+) from T1 to T2 and from T2 to T3, and predicted depressive symptoms (neg.) from T1 to T2 and from T2 to T3	COR
Hu et al (2011) <sup>204</sup> China	625 blue collar workers from three manufacturing companies in China and 761 health professionals from four Chinese hospitals	UWES-9	Self-report survey SEM	Organisational commitment and turnover intentions	Engagement + associated with organisational commitment and neg. associated with turnover intentions	JD-R
Mache et al (2013) <sup>201</sup> Germany	123 surgeons (mainly female and early career) across 10 surgery hospital departments in three regions of Germany between 2009-2011	UWES-17	Self-report survey Regression	Work ability	Engagement + associated with work ability	JD-R
Poulsen et al (2012) <sup>199</sup> Australia	544 cancer workers across 5 care settings, including nurses (37%); radiation therapists (22%); allied health and admin (23%) and medical staff (8.5%). Majority female.	UWES-9	Self-report survey Regression	Subjective well- being	Engagement + associated with subjective wellbeing	Unspecified
Spence Laschinger (2012) <sup>202</sup> Canada	342 registered nurses randomly selected from College of Nurses Registry. 40% did not choose nursing as 1st career choice	UWES-9	Self-report survey Regression	Job and career satisfaction, job and career turnover intention.	Engagement + associated with job satisfaction and career satisfaction, and neg. associated with both job and career turnover intentions.	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement</b>	<b>Methods</b>	<b>Outcome measures</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Spence Laschinger et al (2012) <sup>206</sup> Canada	420 newly graduated nurses working in acute care hospitals in Ontario, Canada. Majority young and female	UWES-9	Self-report survey SEM	Turnover intentions	Engagement neg. associated with turnover intentions	JD-R
Van Bogaert et al (2013) <sup>194</sup> Belgium (Dutch- speaking)	357 staff members from 32 clinical units in two psychiatric hospitals in Belgium	UWES-9	Self-report survey. MLM/HLM - individual nested within clinical unit	Job satisfaction and turnover intentions (used positive form of intention to stay in profession)	Engagement + associated with job satisfaction and + associated with intention to stay in the profession	JD-R

## 4.5 Conclusions

A total of 47 studies had examined the relationship between engagement and at least one morale outcome (35 related to the general workforce: 12 to the health context).

Of these, 21 tested the associations between engagement and at least one wellbeing/health indicator. The most robust finding identified was the positive association between engagement (as a holistic factor) and life satisfaction (four out of four studies). Of these studies, two were longitudinal: one in the health context<sup>195</sup> and one in the general workforce.<sup>166</sup> Having longitudinal evidence was a key element for identifying ‘robust’ findings.

The other consistent finding identified was that engagement (as a holistic factor) was negatively correlated with burnout measures (five out of five studies). However, these studies relied solely on correlations and cross-sectional designs, and many only measured burnout with one or two dimensions (i.e. emotional exhaustion and/or cynicism). There is still debate regarding whether burnout and engagement are independent or overlapping constructs. The meta-analysis by Cole et al<sup>88</sup> (p1574) suggests that ‘employee engagement, as gauged by the UWES, overlaps to such an extent with job burnout, as gauged by the MBI, that it effectively taps an existing construct under a new label’.

Other wellbeing/health perceptions, such as depressive symptoms, were consistently related to engagement, as a holistic factor (eight out of nine studies), yet this covered a range of different aspects of wellbeing/health where many were only examined by one study, such as psychological distress, and did control for burnout. Although the meta-analysis by Halbesleben<sup>175</sup> found that engagement is positively associated with health outcomes (yet little detail is given as to which these are), the meta-analysis by Cole et al<sup>88</sup> indicates that engagement may not explain any unique variance in health complaints above that of burnout. Indeed, the study by Buys and Rothmann<sup>172</sup> also supports this finding. Taken together, it could be suggested that engagement may be specifically related to positive wellbeing/health experiences rather than negative wellbeing/health experiences.

Out of the 46 studies, 31 tested the associations between engagement and at least one work-related attitude. The most robust finding identified was the positive association between engagement (as a holistic factor) and organisational commitment (nine out of nine studies). However, all, but one, utilised a cross-sectional design and so causality cannot be established. Despite this, the findings are supported by two meta-analyses: Halbesleben<sup>175</sup> found that

engagement was positively associated with organisational commitment and Cole et al<sup>88</sup> found that the dimensions of engagement accounted for a small to moderate amount of unique variance (beyond that of the burnout dimensions) in organisational commitment.

Engagement (as a holistic factor) was consistently found to be positively associated with job satisfaction when job satisfaction was deemed the outcome (nine out of nine studies). However, all of these studies were cross-sectional. Nevertheless, this association is supported by Cole et al's<sup>88</sup> meta-analysis which found that the dimensions of engagement (as measured by the UWES) accounted for a small to moderate amount of unique variance (beyond that of the burnout dimensions) in job satisfaction. Yet in the only longitudinal study, Yalabik et al<sup>165</sup> found that job satisfaction may, in fact, be an antecedent rather than outcome of engagement. Therefore further longitudinal research is needed to confirm this finding.

Although there is consistent evidence to show that engagement (as a holistic factor) is negatively associated with turnover intentions (22 out of 22 studies), which is supported by the meta-analytic findings of Halbesleben<sup>175</sup>, four of these studies also found that this relationship may be mediated by other work-related attitudes, specifically organisational commitment and job embeddedness.<sup>97, 122, 193, 203</sup> However, nineteen studies utilised cross-sectional and only three utilised time-lagged designs and so causality cannot be fully established.

A particular issue arose during the course of this evidence review. It was found that when engagement was examined not as a holistic factor, but as three sub-factors (i.e. representing vigour, dedication and absorption dimensions of work engagement), findings became less consistent and more complex. However, dedication seems to be consistent in its (significant) association with morale indicators (nine out of ten studies). This is supported by Cole et al's<sup>88</sup> meta-analysis which found that dedication was the most significantly related to job satisfaction and organisational commitment. The issue of examining individual dimensions is particularly important as engagement has been widely conceptualised and defined as a holistic, yet multidimensional construct. The finding that sub-dimensions of engagement are more inconsistently related to morale outcomes than a composite single-factor of engagement is important as it indicates that the latter is more appropriate than the former when examining the relationship between engagement and morale outcomes.

In summary, although the findings are far from conclusive, four consistent links between engagement and specific morale outcomes were identified. The first, and most conclusive, is that high levels of engagement are related, and may lead, to higher levels of life satisfaction;

as demonstrated by consistent findings across three cross-sectional and two longitudinal studies. The second is that high levels of engagement are associated with low levels of burnout; as demonstrated by consistent findings across five cross-sectional studies. However concern is still warranted over whether the two are completely independent and linked in a causal rather than inter-correlated way. The third and fourth are that high levels of engagement are associated with high levels of organisational commitment, and weak intentions to leave the organisation; as demonstrated by consistent findings across nine and 22 studies respectively of which four were longitudinal. A tentative proposition is that the relationship between engagement and turnover intentions is mediated by organisational commitment and/or by job embeddedness; as demonstrated by three cross-sectional studies and one that was time-lagged. Another tentative proposition is that, although engagement and job satisfaction are positively related, job satisfaction may act as an antecedent rather than outcome of engagement; as demonstrated by Yalabik et al's<sup>165</sup> longitudinal study.

In the next chapter, we consider the evidence relating to the association between engagement and performance outcomes.

## Chapter 5

### Engagement and Performance

#### 5.1 Introduction

The focus of this chapter is on Research Question 2.2:

*What evidence is there that engagement is relevant for performance?*

In order to answer this question we have developed two sub-questions:

*2.2a What evidence is there that engagement is relevant for performance within the workforce in general?*

*2.2b What evidence is there that engagement is relevant for performance within the context of health?*

The purpose of addressing this question is to find evidence that sheds light on the link between engagement and performance outcomes at the individual, work group and organisational levels. In particular, this chapter aims to explore the empirical evidence concerning the association between employees' levels of engagement and performance levels within the general workforce and within the health context specifically. To address these questions, we undertook the data extraction process described in detail in chapter 2.

First, we review the general background and context for the research questions (section 5.2). We then present the evidence we have assembled from our data extraction exercise in relation to the general workforce (section 5.3), followed by an analysis of the health context (section 5.4). We have included in this latter section any study that includes a sample of health care workers, even if part of a wider sample involving a range of occupations. Finally, we bring together these findings to identify the performance outcomes that most likely result from high levels of engagement (section 5.5).

#### 5.2 Background to performance outcomes associated with engagement

One central question in engagement research relates to the extent to which employees' levels of engagement are related to higher performance outcomes. We have categorised performance outcomes into individual versus higher level (team, organisation) outcomes. Individual performance can be further grouped into three headings:



**1. In-role performance** is related to behaviours that are generally specified by the job description and contribute to the organisation's technical core.<sup>207</sup> We have included constructs such as in-role performance, quality of care and service quality.

**2. Extra-role performance** is related to behaviours that support task performance by enhancing and maintaining the social and psychological environment.<sup>207</sup> We have included constructs such as citizenship behaviour, adaptability and innovative work behaviour.

**3. Counterproductive performance** (or deviance behaviours) is related to behaviours that harm the organisation and are an indication of an employee's withdrawal behaviour.<sup>208</sup>

In total, 42 studies examined the performance outcomes of engagement. Of those studies, six studies were carried out in a health care context. Table 18 shows a breakdown of performance outcomes that were examined in these studies. It is important to note that many studies examined more than one outcome (although not usually more than two or three), and that the total number of outcomes measured across all studies therefore exceeds the number of studies included in this review.

**Table 18: Overview of performance outcomes included in review studies**

<b>Performance Outcome</b>	<b>General Workforce</b>	<b>Health Context</b>	<b>Total</b>
<b>Higher-Level Performance Outcomes</b>			
Service-oriented performance outcomes	3	-	3
Customer Loyalty	1	-	1
Organisational knowledge creation	1	-	1
Innovation	1	-	1
Team Performance/Aggregated Performance	2	-	2
Quality of Care of the Team/Unit	-	5	5
<b>Individual-Level Performance Outcomes</b>			
<b>In-role Performance</b>			
- Task Performance	19	-	19
- Quality of Care	-	1	1
- Service-oriented performance outcomes	3	-	3
- Work Effectiveness	-	1	1
<b>Extra-role Performance</b>			
- Citizenship Behaviour	9	-	9
- Innovation, Creativity and Initiative	6	1	7
- Adaptability	1	-	1
- Knowledge Sharing	1	-	1
- Voice Behaviour	-	1	1
<b>Counterproductive Performance</b>	3	-	3
<b>Other</b>	2	-	2
<b>Totals</b>	<b>52</b>	<b>9</b>	<b>61</b>

It is noteworthy that the majority of studies included in this section examined the relationship between engagement and performance outcomes as part of a larger model. In general, these models explored how antecedents are related to engagement (see chapter 6) and how engagement is related to other outcomes aside from performance (see chapter 4). The models also explored mediating, moderating and reciprocal relationships between engagement and its correlates. We have included some information about these, more complex relationships, in this chapter, when they were relevant in explaining the mechanism through which engagement is related to performance outcomes.

## **5.3 The workforce in general**

### **5.3.1 Study Considerations**

The data relating to the performance outcomes for the workforce in general are reported in Table 19.

#### *Geographical Considerations*

The majority of studies were conducted in Europe, with most studies conducted in the Netherlands and the UK. Other European countries included Spain, Greece, Ireland and Romania. Nine studies were carried out in Asian countries (including India, China, Japan, Pakistan, Taiwan and South Korea), seven studies were conducted in the USA and Canada and one study in Cameroon. One study did not specify the country in which data collection took place while another drew its sample from a European country (see Appendix 7).

#### *Measurement and Analysis Considerations*

More than four fifths of studies (30 out of 36) used a variant of the UWES measure of engagement. Eighteen of these studies used the 9-item version, nine used the 17-item version. The other studies used an amended version of the UWES measure with six items<sup>134</sup>, eight items<sup>209</sup> and 16 items.<sup>210</sup> Xanthopoulou et al<sup>211</sup> differentiated between general and state engagement, measured with nine and 12 items respectively. Gracia et al<sup>112</sup> and Torrente et al<sup>212</sup> used an aggregated measure of engagement. The majority of studies using an amended version of the UWES measure did not include a theoretical or empirical explanation for the reasons for changing the item numbers in the measure. Other measures used were Rich et al's<sup>3</sup> measure of job engagement, May et al's<sup>20</sup> measure of psychological engagement, and Soane et al's<sup>72</sup> ISA engagement measure.

All studies were based on a quantitative data approach, mainly using questionnaire surveys. The vast majority of studies employed a cross-sectional research design, which means that engagement and the performance outcomes were measured at the same point of time. This data collection approach gives an indication of the association between variables, but does not enable researchers to draw conclusions about the causal relationships between the variables under study.

Only 12 out of 36 studies collected data at more than one time point. Four studies carried out a repeated-measures design in the form of a quantitative diary. Bakker and Bal<sup>104</sup> used one measurement occasion per week for five consecutive weeks, Bakker and Xanthopoulou<sup>134</sup> and

Xanthopoulou et al<sup>213</sup> used one measurement occasion per day for five consecutive days, and Xanthopoulou et al<sup>211</sup> used one measurement point before and two measurement points after flights over three consecutive return trips. Six studies were based on a time-lagged design, where independent and dependent variables were measured at different time points. Carter et al<sup>214</sup> surveyed employees before and after a forum theatre training intervention. Chen et al<sup>215</sup> had four measurement points, each 24 hours apart. Halbesleben and Wheeler<sup>164</sup> and Karatepe and Ngeche<sup>122</sup> adopted two measurement points, two months and one month apart, respectively, as well as supervisor performance data. Leung et al<sup>216</sup> used three measurement points with a time lag of three months between the first two time points. Vogelgesang et al<sup>217</sup> adopted three measurement points, three weeks and six weeks apart. Two studies used a longitudinal design, where the same questionnaire was measured twice. Shimazu et al<sup>166</sup> used a seven month time lag, and Yalabik et al<sup>165</sup> used a time lag of one year.

The majority of studies (21 out of 36) used structural equation modelling to test their hypothesised relationships, seven studies used Hierarchical Linear Modelling (individuals nested in groups, or time points) and eight studies used multiple regression analysis.

#### *Sample considerations*

Nineteen (out of 36) studies sampled a range of organisations and occupations. Of these studies, ten focused on a specific sector such as services<sup>100, 182, 210</sup>, research & development<sup>183</sup>, hospitality<sup>5, 112, 122, 170, 216</sup>, and retail.<sup>218</sup>

The other half of the studies (17 out of 36) selected their sample from a specific organisation or occupation. Seven studies sampled employees from education and public service sectors (e.g. teachers/university staff, researchers, military, firefighters), five sampled employees from hospitality and service sectors (e.g. restaurants, airline industry, retail), three sampled employees from professional services sectors (e.g. ICT, financial, consultancy) and two sampled employees from manufacturing, production and construction industries.

#### *Theoretical considerations*

Nearly all studies based their approach on a specific theory. These included the job demands-resources model (Demerouti et al<sup>168</sup>; 7 studies), conservation of resources theory (Hobfoll<sup>196</sup>; four studies), social exchange theory (Blau<sup>169</sup>; three studies), Kahn's<sup>19</sup> personal engagement theory (three studies), and Fredrickson's<sup>142</sup> broaden-build theory (two studies). Five applied an alternative theory (such as job design or cross-over theory). Nine studies used a

combination of the above mentioned theory as a foundation for their theoretical rationale. Three studies did not explicitly state the underlying theory for their hypotheses development.

### ***5.3.2 The relationship between engagement and higher level performance outcomes***

The relationship between engagement and higher level performance outcomes was explored eight times. Gracia et al<sup>112</sup> demonstrated that collective engagement was positively related to a unit's relational service competence, which in turn was positively related to a units' service quality, and mediated the relationship between collective engagement and service quality. Using aggregate data, Salanova et al<sup>5</sup> showed that work unit engagement was positively related to service climate, which in turn predicted customer-rated employee performance and further customer loyalty. Moreover, the study demonstrated that engagement fully mediated the relationship between organisational resources and service climate, and that service climate fully mediated the relationship between organisational resources and engagement on the one hand and employee performance and customer loyalty on the other hand. Torrente et al's<sup>212</sup> showed that team-level engagement was positively related to team performance, as rated by supervisors, and mediated the relationship between team social resources and team performance.

Bhatnagar<sup>183</sup> demonstrated that engagement was positively related to employees' perceptions of the innovation of their organisation and mediated the relationship between empowerment and innovation. Song et al's<sup>136</sup> study revealed that engagement was positively related to organisational knowledge creation and partially mediated the relationship between transformational leadership and organisational knowledge creation. Menguc et al<sup>218</sup> showed that engagement was positively related to a store's service performance and mediated the relationship between supervisor feedback and service employee performance.

### ***5.3.3 The relationship between engagement and individual level performance outcomes***

#### *In-role performance*

The majority of individual-level studies focused on employees' in-role performance as an outcome variable. In total, the relationship between engagement and task performance was analysed in 19 studies amongst the general workforce. Out of these studies, eleven demonstrated a positive relationship between engagement and performance using performance data reported by the employees themselves. This is problematic as relying solely on self-report data can introduce measurement error due to common method variance. Hence,

statistical results might be a function of using the same source for gathering data, rather than an account of the true relationship between the variables under study.

Seven of these studies analysed the relationship between engagement and task performance using third-party performance rating. Of these, three studies used actual performance data derived from company records. Vogelgesang et al<sup>217</sup> demonstrated that employees' engagement was positively related to the institution's performance ratings.

Similarly, Yalabik et al<sup>165</sup> showed that engagement was positively related to job performance, measured by performance appraisal ratings, and mediated the relationship between job satisfaction and job performance. Finally, Xanthopoulou et al's<sup>213</sup> study revealed that day-level engagement was positively related to the money earned within a particular shift for employees working in a fast food company.

Three of these studies were based on supervisory ratings of performance. Karatepe and Ngeche<sup>122</sup> demonstrated that engagement was positively associated with job performance and that job embeddedness mediated the relationship between engagement and performance. Similarly, Rich et al's<sup>3</sup> study provided evidence of a positive association between engagement and performance. Their study showed that engagement mediated the relationship between value congruence, perceived organisational support, core self-evaluations and task performance.

Finally, Shantz et al<sup>219</sup> demonstrated that engagement was positively related to task performance and mediated the relationship between job characteristics and task performance. One study used a different third party rating to evaluate employees' task performance. Specifically, Bakker et al<sup>220</sup> demonstrated that engagement was positively related to employees' task performance, as rated by their colleagues, and mediated the relationship between job crafting behaviours and performance. Finally, one study<sup>164</sup> used employee, co-worker and supervisor ratings of performance to demonstrate that engagement shared a unique variance with each of the three performance ratings.

In customer-facing jobs, service orientation can be considered an integral part of employees' in-role performance. In our evidence review, three additional studies explored the relationship between engagement and service-oriented performance outcomes. Leung et al<sup>216</sup> showed that engagement was positively related to customer service performance, as rated by employees' supervisor, and mediated the relationship between ostracism and service performance. Yeh<sup>221</sup> tested a moderated mediation model using data from an airline company. The study showed

that engagement was positively related to service performance, as rated by cabin service directors. Further, engagement mediated the relationship between relational psychological contracts and service performance, while cue information moderated the relationship between engagement and service performance. Steele et al's<sup>170</sup> study used self-ratings of customer service orientation and found a positive association between engagement and customer service orientation.

In summary, the studies included in our evidence review provide substantial support of a positive association between engagement and employees' in-role performance, and therefore reflect results of a recent meta-analysis by Christian et al.<sup>25</sup> Using findings from 16 studies, the authors of the meta-analysis equally demonstrate a positive relationship between engagement and task performance.

#### *Extra-role performance*

Nineteen studies explored the relationship between engagement and extra-role performance. Of these studies, nine focused on organisational citizenship behaviour as an outcome variable. Eight studies used employee self-ratings of their citizenship behaviours, and demonstrated a positive association between engagement and the extent to which employees engage in citizenship behaviours. One study asked supervisors to rate their employees' citizenship behaviour. Specifically, using data from 245 firefighters and their supervisors, Rich et al<sup>3</sup> showed that engagement was positively associated with employees' organisational citizenship behaviour and mediated the relationship between value congruence, perceived organisational support, core self-evaluations and citizenship behaviour.

Six of the studies explored whether engagement was related to some aspect of innovative behaviour. Agarwal et al<sup>182</sup> demonstrated a positive association between engagement and innovative work behaviour, where engagement mediated the relationship between LMX and innovative work behaviour. Alfes et al's<sup>101</sup> study revealed that engagement was positively related to innovative work behaviour and mediated the relationship between line manager behaviour and HRM practices on one side and innovative work behaviour on the other side.

Similarly, Chughtai and Buckley<sup>222</sup> demonstrated that engagement was positively related to employees' innovative work behaviour, and that learning goal orientation partially mediated the relationship between engagement and innovative work behaviour. Gorgievski et al<sup>139</sup> showed that engagement was positively related to employees' level of innovativeness. Den Hartog and Belschak<sup>135</sup> provided support for a positive association between engagement and

personal initiative as rated by supervisors, where engagement fully mediated the relationship between ethical leadership and personal initiative. In a sample of 84 school principals and their respective teachers, Bakker and Xanthopoulou<sup>223</sup> showed that principals' engagement was positively related to their creativity, as rated by their teachers. Further, engagement fully mediated the relationship between job resources and creativity, and between personal resources and creativity. Apart from Bakker and Xanthopoulou's<sup>223</sup> study, all studies relied on employees' self-report of their innovative behaviour.

Finally, one study analysed adaptive service offering and one study explored knowledge sharing behaviours as outcome variables. Barnes and Collier's<sup>210</sup> study revealed a positive association between engagement and adaptive service in high and low contact service employees. Chen et al's<sup>224</sup> study found a positive association between engagement and knowledge sharing behaviours.

In summary, there is considerable evidence to suggest the engagement is related to employees' extra-role behaviour. However, with few exceptions the studies are based on self-report, cross-sectional data. As indicated above, this limits the conclusions that can be drawn with regards to the causal links between the two variables. Nevertheless, the review results are aligned with meta-analytical findings by Christian et al.<sup>25</sup> Based on eleven studies, the authors demonstrate that engagement has a positive association with employees' contextual (or extra-role) performance.

#### *Counterproductive performance*

Three studies explored the extent to which engagement was associated with counterproductive performance outcomes. Den Hartog and Belschak<sup>135</sup> found a negative association between engagement and counterproductive work behaviour. Moreover, engagement fully mediated the relationship between ethical leadership and counter-productive behaviour. Similarly, Sulea et al<sup>225</sup> revealed that engagement was negatively associated with counter-productive work behaviour. In their study, engagement partially mediated the relationship between interpersonal conflict and counter-productive work behaviour, as well as between conscientiousness and counterproductive work behaviour. Finally, Shantz et al<sup>219</sup> demonstrated a negative association between engagement and deviant behaviours, where engagement mediated the relationship between job characteristics and deviance.

#### *Other*



Two additional studies explored the relationship between engagement and performance using a proxy measure of performance, namely learning goal orientation. Chughtai and Buckley<sup>222, 226</sup> demonstrated that engagement was positively related to learning goal orientation, where engagement partially mediated the relationship between trust and learning goal orientation<sup>226</sup> and learning goal orientation partially mediated the relationship between engagement, innovative work behaviour and in-role performance.<sup>222</sup>

**Table 19: Engagement and performance in the general workforce**

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Agarwal et al (2012) <sup>182</sup> India	979 Indian managerial employees working in six service sector organisations	9 item UWES	Self-report survey  SEM	Innovative Work Behaviour	+ association between engagement and innovative work behaviour  Engagement mediated the relationship between LMX and innovative work behaviour	SET
Alfes et al (2013a) <sup>100</sup> UK	297 employees from a large service sector organisation	12 item scale adapted from Rich et al <sup>3</sup>	Self-report survey  Hierarchical regression, moderated mediation	organisational citizenship behaviour towards organisation	+ association between engagement and organisational citizenship behaviour  Engagement mediated the relationship between perceived HRM practices and OCB	JD-R SET
Alfes et al (2013b) <sup>101</sup> UK	1,796 employees in two service sector organisations  Study 1: N=924 Study 2: N=872	ISA scale	Self-report survey  SEM	Self-reported task performance; self-reported innovative work behaviour	+association between engagement and task performance  +association between engagement and innovative work behaviour  Engagement mediated the link between line manager behaviour, HRM practices, and task performance/ innovative work behaviour.	SET

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Babcock-Roberson and Strickland (2010) <sup>125</sup> USA	91 Undergraduate students enrolled in psychology courses at a large Western university who were in employment and had been for 6 months  (Most students were between 18 and 25 years old)	17-item UWES	Self-report survey  Regression analysis	Organisational Citizenship Behaviour	+ association between engagement and organisational citizenship behaviour  Engagement mediated the relationship between charismatic leadership and OCB	Charismatic leadership theory
Bakker and Bal (2010) <sup>104</sup> Netherlands	54 Dutch teachers	9 item UWES	Weekly self- report questionnaires (5 weeks)  HLM	Individual job performance	+ association between engagement and weekly job performance + association between engagement and lagged job resources Engagement mediates the relationship between autonomy and weekly job performance Engagement partially mediated the relationship between opportunities for development and weekly job performance	JD-R, broaden-and- build theory, COR
Bakker et al (2012) <sup>227</sup> Netherlands	95 dyads of colleagues (employees, n=190) in various industries	9 item version of UWES scale from Schaufeli et al. <sup>228</sup>	Self-report questionnaires  SEM	Colleague-rated in-role performance	+ association between engagement and performance  Engagement mediated the link between job crafting behaviours and performance	JD-R

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Bakker and Xanthopoulou (2013) <sup>223</sup> Netherlands	84 female school principals and 190 teachers	9 item version of UWES scale from Schaufeli et al. <sup>228</sup>	Self-report surveys SEM	Creativity	+ association between engagement and principal's creativity  Engagement fully mediates between job resources and creativity  Engagement fully mediates the relationship between personal resources and creativity	JD-R
Bakker and Xanthopoulou (2009) <sup>134</sup> Netherlands	62 dyads of colleagues in various organisations (N = 124)	6 item UWES, 2 items for each facet	General questionnaire and daily survey over 5 days for both partners in the dyad  HLM	Daily Work Performance	+ association between colleagues' daily engagement arises only on days when colleagues communicated more frequently than usual + association between partner's engagement and his or her self-reported performance -association between actor's vigour and partner's performance, when communication was low, however, counteracted when mediated by partner's vigour	Cross-over theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Barnes and Collier (2013) <sup>210</sup> USA	N = 705 in two studies.  Study 1: sample from high customer contact services; N=401; 61% female.  Study 2: sample from low customer contact services; N=304; 63% female.	16-item UWES	Self-report survey  SEM	Adaptability	+association between engagement and adaptability in both samples.  Evidence of partial mediation of engagement in the relationship between service climate, job satisfaction and affective commitment on one side and adaptability on the other side.	Broaden-and build theory
Bhatnagar (2012) <sup>183</sup> India	291 managers from R&D sectors	17-item UWES	Self-report survey  SEM	(Organisational Level)  Innovation (i.e. individual's perceptions about the innovation of their organisation)	+ association between engagement and innovation.  Engagement mediated relationship between empowerment and innovation.	JD-R
Carter et al (2010) <sup>214</sup> Australasia	53 employees in financial services firm	9-item UWES	Survey pre and post intervention; intervention was forum theatre training  Significance of difference tests	Forum theatre training intervention aimed at boosting self-efficacy. Control group and pilot group.  Outcome: Number of appointments made with customers	The number of appointments made by the pilot group increased sharply compared to the control group.	Self-efficacy theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Chen et al (2011) <sup>215</sup> China	139 software engineers and managers	13-item scale from May et al <sup>20</sup>	Self-report survey completed in four waves, each 24 hours apart.  SEM	Knowledge sharing behaviours	+ association between work engagement and knowledge sharing	Kahn's <sup>19</sup> (1990) engagement theory
Chughtai and Buckley (2011) <sup>222</sup> Ireland	168 research scientists in science research units	9-item UWES	Self-report survey  SEM	Learning goal orientation  In-role job performance  Innovative work behaviour	+ association between engagement and learning goal orientation, in-role job performance and innovative work behaviour  Learning goal orientation partially mediated the link between engagement, IWB and in-role job performance	SET; broaden-and- build theory
Chughtai and Buckley (2009) <sup>226</sup> Pakistan	130 high school teachers	17-item UWES	Self-report survey  Hierarchical regression	Learning goal orientation  In-role job performance  Organisational Citizenship Behaviour	+ association between engagement and in-role performance, OCB and learning goal orientation  Engagement fully mediated the relationship between trust and in-role performance, and partially mediated the relationship between trust and OCB/learning goal orientation.	Unspecified

Author/date/location	Study population	Measure of engagement used	Methods	Outcome measures and level (individual/unit/organisation)	Results/significance	Dominant theoretical framework
Den Hartog and Belschak (2012) <sup>135</sup> Netherlands	Matched leader/subordinate dyads in two studies: Study 1: N=167; Study 2 N=200	9-item UWES	Self-report surveys completed by both members of the dyad.  Factor analysis; moderated mediation analysis	Personal initiative  Counter-productive behaviour	+association between engagement and personal initiative.  -association between engagement and counter-productive behaviour.  Engagement fully mediated the relationship between ethical leadership and personal initiative and counter-productive behaviour	JD-R; ethical leadership theory; social learning theory
Gorgievski et al (2010) <sup>139</sup> Netherlands	Total participants = 2,164 in two groups: (i) Convenience sample of 262 self-employed individuals, (ii) 1,900 salaried employees	9-item UWES	Self-report questionnaire survey  SEM	Task performance  Contextual performance  Innovativeness	+association between engagement and task performance and innovativeness for both groups.  +association between engagement and contextual performance for employees only	Positive emotions
Gracia et al (2013) <sup>112</sup> Spain	107 tourist establishments incorporating 615 service workers and 2,165 customers	17-item UWES aggregated to the unit level	Self-report survey of employees and customers  SEM	<b>(Unit Level)</b> Unit Service quality, as rated by customers	+association between collective work engagement and relational service competence  Relational service competence fully mediated the relationship between collective work engagement and unit service quality	Human capital theory, JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Halbesleben and Wheeler (2008) <sup>164</sup> USA	573 working adults from a variety of organisations.	17-item UWES measured at T1	Two self-report surveys, two months apart  Supervisor and co-worker questionnaire at time 2  Regression analysis	Job performance, evaluated by respondent, co-worker and supervisor.	+ association between engagement and self, supervisor and co-worker rated performance, beyond job embeddedness	COR
Karatepe and Ngeche (2012) <sup>122</sup> Cameroon	212 full-time hotel workers in Cameroon and their supervisors (mainly under 37 years and degree-educated)	9-item UWES	Two self-report surveys, one month apart  Job performance rated by supervisor  Multiple regression	Supervisory-rated job performance	+association between engagement and job performance.  Job embeddedness partially mediated the relationship between engagement and job performance	Job embeddedness theory, SET



<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Leung et al (2011) <sup>216</sup> China	Staff at 19 hotels in three waves. Time 1 comprised 420 subordinate questionnaires and 19 HR managers. Time 2 comprised 344 subordinate questionnaires. Time 3 comprised 110 supervisors. Overall the sample comprised 19 HR managers and 304 supervisor-subordinate dyads	9-item UWES	Survey in three waves, and involving employees, supervisors and HR managers  HLM	Customer service performance, rated by supervisor  <b>(Unit level)</b> Customer evaluation of service employee performance	+ association between engagement and service performance.  The relationship between ostracism and service performance was mediated by engagement.	COR
Menguc et al (2013) <sup>218</sup> Canada	482 employees from 66 retail stores from the same company, and 488 customer responses; measure of store size from company records	17-item UWES	Self-report employee survey and customer surveys matched to each store  HLM	<b>(Unit level)</b> Customer evaluation of service employee performance	+ association between engagement and performance  Engagement mediated the relationship between supervisor feedback and service employee performance	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Rich et al (2010) <sup>3</sup> USA	245 fire fighters (mainly male population)	18-item scale to measure physical, emotional and cognitive engagement drawing on Brown and Leigh's <sup>82</sup> 'work intensity' scale, Russell and Barrett's <sup>83</sup> core affect scale and Rothbard's <sup>84</sup> absorption scale	Self-report survey involving 245 fire fighters and supervisor performance evaluations  SEM	Task performance, OCB, both integrated by supervisors	+ association between engagement and task performance + association between engagement and OCB  Engagement mediated the relationship between value congruence, perceived organisational support, core- self evaluations and task performance, OCB	Kahn's <sup>19</sup> (1990) engagement theory
Salanova et al (2005) <sup>5</sup> Unstated	114 units comprising 58 hotel receptions and 56 restaurants. In each work unit, a sample of 3 employees and 10 customers participated in the study. The employee sample consisted of 342 contact employees. The customer sample consisted of 1,140 clients from the 114 units	17-item UWES	Self-report survey to staff and customers, responses aggregated to unit of analysis  SEM	<b>(Unit Level)</b> Service climate Employee performance Customer loyalty	+association between engagement and service climate  Engagement fully mediated the relationship between organisational resources and service climate  Service climate fully mediated the relationship between organisational resources and engagement on the one hand and employee performance and customer loyalty on the other hand	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Shantz et al (2013) <sup>219</sup> UK	283 employees in a consultancy and construction firm	9-item UWES	Self-report survey and supervisory performance ratings  SEM	Individual task performance, rated by supervisor, organisational citizenship behaviour, deviant behaviour	+ association between engagement and task performance and OCB  -association between and engagement and deviant behaviour  Engagement mediated the relationship between task variety, task significance, autonomy and feedback from job on task performance, OCB and deviance	Hackman and Oldham's job design theory <sup>229</sup> (1980)
Shimazu et al (2012) <sup>166</sup> Japan	1,967 Japanese employees from various occupations randomly contacted as part of bigger project	9-item UWES	Self-report survey at two time-points, 7 months apart  SEM	Changes in job performance	+association between engagement and changes in job performance (.17)	Unspecified
Shimazu and Schaufeli (2009) <sup>171</sup> Japan	776 employees in construction machinery company	9-item UWES	Self-report survey  SEM	Job performance	+association between engagement and job performance	Unspecified
Soane et al (2012) <sup>72</sup> UK	759 employees from a UK-based retail organisation (2 <sup>nd</sup> study in article). Slight majority female	9-item ISA Engagement Scales	Self-report survey  Regression analysis	Task Performance, organisational citizenship behaviour	+association between engagement and task performance and OCB	Kahn's <sup>19</sup> engagement theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Song et al (2012) <sup>136</sup> South Korea	432 employees in 6 different for-profit organisations	9-item UWES	Self-report survey SEM	<b>(Organisational Level)</b>  Organisational knowledge creation	+association between engagement and organisational knowledge creation  Engagement partially mediated the relationship between transformational leadership and organisational knowledge creation	SET, contingent leadership theory, knowledge conversion theory
Steele et al (2012) <sup>170</sup> USA	724 workers in 33 restaurants, part of a casual dining franchises. Workers were mostly women and mostly worked part-time)	17-item UWES	Self-report survey  Regression analysis (relative weights)	Job performance  Customer service orientation	+association between engagement and job performance  +association between engagement and customer service orientation	Broaden and Build

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Sulea et al (2012) <sup>225</sup> Romania	258 employees from three organisations	9-item UWES	Self-report survey  SEM	Counterproductive work behaviour, organisational citizenship behaviour	+association between engagement and OCB  -association between engagement and CWB  Engagement partially mediated the relationship between POS and OCB.  Engagement partially mediated the relationship between interpersonal conflict at work and CWB.  Engagement partially mediated the relationship between conscientiousness and OCB/CWB	JD-R
Torrente et al (2012) <sup>212</sup> Spain	533 employees nested within 62 teams from 13 organisations	9-item UWES (aggregated to team level)	Self-report survey and supervisory performance ratings  SEM	<b>(Unit level)</b>  Team performance, as rated by supervisors	+association between team work engagement and team work performance  Team work engagement mediated the relationship between team social resources and team performance	JD-R

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Vogelgesang et al (2013) <sup>217</sup> USA	Military cadets at a US military academy. 78% male. Time 1, 537 respondents, time 2, 3 weeks after Time 1, 453 respondents time 3, 6 weeks after Time 2, third party ratings of individual performance from the tactical officers	May et al engagement scale <sup>20</sup> (2004)	Self-report survey and objective performance data  SEM	Military grade performance	+association between engagement and performance evaluations in the correlations and in the cross-level model	Authentic leadership theory
Xanthopoulou et al (2009) <sup>213</sup> Greece	42 employees working in three branches of a fast-food company, (71% male)	9-item UWES	Self-report survey and diary booklet over 5 consecutive workdays  Financial performance from supervisors  HLM	Day-level financial returns	+association between day-level engagement and day-level financial returns	JD-R COR
Xanthopoulou et al (2008) <sup>211</sup> A European country	44 flight attendants from a European airline company	General work engagement: 9-item UWES  State work engagement: 12 items from 17-item UWES	General questionnaire and diary survey (three trips, 3 measurement points per trip)  HLM	Self-report in-role and extra-role performance	+association between engagement and in-role performance  +association between engagement and extra-role performance	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/unit/organisation)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Yalabik et al (2013) <sup>165</sup> UK	167 clerical workers in a UK-based bank	9-item UWES	2-wave self- report survey  Personnel records for performance appraisal  SEM	Job performance derived from performance appraisals	+association between engagement and job performance.  Engagement mediated the relationship between job satisfaction, affective commitment and job performance	SET, COR
Yeh (2012) <sup>221</sup> Taiwan	223 employees from airline company, 88% female	17-item UWES	Self-report survey and evaluation of service performance of flight attendants by service directors.  HLM	Service performance	+association between engagement and service performance.  Engagement mediated the relationship between relational psychological contracts and service performance.  Cue information ability significantly moderated the relationship between engagement and service performance	COR

## **5.4 The health context**

The data relating to performance outcomes in the health context are reported in Table 20.

### **5.4.1 Study Considerations**

#### *Geographical Considerations*

Three of the six studies were conducted in Europe (Belgium, Finland, and Ireland), two were conducted in Canada and one was carried out in Israel (see Appendix 7).

#### *Measurement and analysis considerations*

All studies use a variant of the UWES measure of engagement. Four studies use the 9-item version, one used the 17-item version. One study<sup>230</sup> used an adapted 16-item version without explaining the rationale for the removal of one item.

All studies were based on a quantitative data approach, mainly using questionnaire surveys. One study used a combination of data collection methods, including structured observations and survey data. Apart from one study, all other studies were based on cross-sectional data. This means that engagement and the performance outcomes were measured at the same point of time, which limits the conclusions that can be drawn with regards to the causal order of the relationships under study. Hakanen et al<sup>231</sup> used a longitudinal design, where the same questionnaire was measured twice, with a three-year lag between both measurement points.

Four studies used Structural Equation Modelling to test their hypothesised relationships and 2 studies used Hierarchical Linear Modelling (individuals nested in groups).

#### *Sample considerations*

The sample size in the studies ranged from 158 participants to 2,555 participants. Although all samples were drawn from the health care environment, the studies focused on different occupations. Three studies focused on nurses, one on midwives, one on dentists, and one on staff members. The majority of studies are based on female-dominated samples, which is a reflection of the demographics in the health care context in most countries.

#### *Theoretical considerations*

Nearly all studies based their approach on a specific theory. These included the job demands-resources model (Demerouti et al<sup>168</sup>; four studies), conservation of resources theory (Hobfoll<sup>196</sup>; one study), Bakker and Schaufeli's<sup>4</sup> work engagement theory (one study),



empowerment theory (one study), and authentic leadership theory (one study). Two studies used a combination of the above mentioned theories as a foundation for their theoretical rationale. One study did not explicitly state the underlying theory for the hypotheses development.

#### ***5.4.2 The relationship between engagement and higher level performance outcomes***

The relationship between engagement and higher level performance outcomes in health care was explored in five studies, all focusing on quality of care as an outcome variable. Van Bogaert et al<sup>194</sup> showed that, after controlling for other factors, unit-level dedication and absorption (but not vigour) were positively related to nurse-reported quality of care by the interdisciplinary team. They did not find evidence of a relationship between any of the three engagement facets and nurse-reported quality of care at the unit or and shift levels, respectively. In contrast, Wong et al's<sup>232</sup> study showed that engagement was positively associated with nurses' perception of unit care quality. Moreover, personal identification, trust in the manager and work engagement mediated the relationship between authentic leadership and unit care quality. Similarly, Freeney and Fellenz<sup>198</sup> demonstrated that engagement was positively related to quality of care, using a combined measure of unit and shift level care quality. Further, engagement partially mediated the relationship between supervisor support and quality of care.

#### ***5.4.3 The relationship between engagement and individual level performance outcomes***

##### *In-role performance*

Two studies explored the relationship between engagement and in-role performance in the health care sector. One study focused on individual-level quality of care, and one study focused on work effectiveness. In a sample of 158 nurses, Abdelhadi and Drach-Zahavy<sup>230</sup> demonstrated that engagement was positively related to nurses' patient centred care, as measured by structured observations, and mediated the relationship between service climate and patient centred care. Spence Laschinger et al's<sup>233</sup> study revealed a positive association between engagement and perceived work effectiveness, where engagement played a mediating role in the relationship between empowerment and perceived work effectiveness.

##### *Extra-role performance*

Two studies explored the relationship between engagement and extra-role performance outcomes. They focused on voice behaviour and personal initiative, respectively. Hakanen et

al<sup>231</sup> showed that engagement, measured at time 1, had a positive cross-lagged effect on personal initiative at time 2. They also demonstrated that personal initiative at time 1 had a reversed positive effect on engagement at time 2, so that so that both variables reciprocally and positively predicted each other over time. Wong et al's<sup>232</sup> study revealed that engagement was positively related to nurses' voice behaviour.

**Table 20: Engagement and performance in the health context**

Author/date/ location	Study population	Measure of engagement used	Methods	Outcome measures and level (individual/org)	Results/significance	Dominant theoretical framework
Abdelhadi and Drach- Zahavy (2012) <sup>230</sup> Israel	158 nurses in 40 retirement home wards	16-item version of UWES adapted from Salanova et al. <sup>5</sup>	Mixed methods: Structured observations, cross-sectional survey, administrative data  HLM	Patient-centred care	+ association between work engagement and patient centred care  work engagement mediates relationship between service climate and patient centred care	JD-R
Freaney and Fellenz (2013) <sup>198</sup> Ireland	158 midwives from two large maternity hospitals, 98% female	9-item UWES	Self-report survey  SEM	Quality of care at the unit and shift	+association between engagement and quality of care  Engagement partially mediated the relationship between supervisor support and quality of care	JD-R
Hakanen et al (2008) <sup>231</sup> Finland	2,555 dentists	17-item UWES	Two wave, three-year panel design, self-report survey sent twice with a three year interval  SEM	Personal initiative	+ association between work engagement at T1 and personal initiative at T2	COR, JD-R
Spence Laschinger et al (2009) <sup>233</sup> Canada	Study 1: new graduate nurses (n = 185); Study 2: representative sample of acute care nurses (n = 294)	9-item UWES	Secondary analysis of Self-report surveys  SEM	Perceived work effectiveness	+ association between engagement and perceived work effectiveness for both groups of nurses	Empowerment theory and work engagement theory drawing on the Utrecht framework
Van Bogaert et al (2013) <sup>194</sup> Belgium (Dutch speaking)	357 staff members from 32 clinical units in two psychiatric hospitals in Belgium	9-item UWES	Self-report survey  HLM	Quality of care at the unit Quality of care at the last shift Quality of care of the interdisciplinary team	+ association between dedication, absorption and quality of care by the interdisciplinary team	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Outcome measures and level (individual/org)</b>	<b>Results/significance</b>	<b>Dominant theoretical framework</b>
Wong et al (2010) <sup>232</sup> Canada	280 nurses working in acute care 93.5% female	9-item UWES	Self-report survey  SEM	Voice behaviour  Unit care quality	+ association between work engagement and voice behaviour  + association between work engagement and unit care quality  Personal identification, trust in the manager and work engagement mediated the relationship between authentic leadership and care quality.	Authentic leadership

## 5.5 Conclusions

Overall, 42 studies examined the relationship between engagement and at least one performance outcome. The majority of the studies (36) were carried out in the general workforce, while six studies were carried out in a health care context.

Whether higher levels of engagement within the workforce were positively related to higher-level (organisation, unit, team) performance outcomes was analysed thirteen times. These studies provide some but inconclusive support for a positive association between engagement and performance. The majority of the studies relied on employee perceptions of organisational performance variables, rather than using objective performance data such as financial outcomes or employee turnover data, and only few studies used third-party data, such as customer ratings, as a measure of performance.

At the individual level, the relationship between engagement and in-role performance was the focus in the majority of studies. These studies unanimously provided support of a positive relationship between both variables. Eleven studies used third person rating or objective performance indicators to assess employees' performance. This lends weight to the argument that employees who are engaged with their jobs perform better on the tasks that are assigned to them.

A substantial number of studies also analysed the relationship between engagement and extra-role as well as counterproductive performance outcomes. Whilst these studies support the notion that engagement is positively related to extra-role performance and negatively related to counterproductive performance, it is important to note that the majority of studies used a cross-sectional, self-report design. Hence, common methods bias might have influenced the results in these studies. The evidence on the relationship between engagement and extra-role and counterproductive performance is therefore less convincing compared to the evidence on the link between engagement and in-role performance.

Overall, the studies suggest that engagement has positive performance outcomes. This is supported in the meta-analysis by Halbesleben.<sup>175</sup> Based on seven studies and a total sample size of 6,131, Halbesleben found that engagement, and specifically the vigour component was positively related to an overall composite of performance. However, as the number of studies included in this meta-analysis was relatively low, future studies need to validate the relationships analysed in the present chapter, using longitudinal research design and third-

party ratings of performance, specifically, to measure extra-role and counterproductive performance. In the next chapter, we consider the evidence relating to the antecedents of engagement.

## Chapter 6

### Antecedents of Engagement

#### 6.1 Introduction

The focus of this chapter is on Research Question 3:

*What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?*

In order to address this, we have developed two sub-questions:

*3.1 What evidence is there concerning approaches and interventions within an organisational setting at either a) the individual b) the team or c) the organisational level that create and embed high levels of engagement within the general workforce?*

*3.2 What evidence is there concerning approaches and interventions within an organisational setting at either a) the individual b) the team or c) the organisational level that create and embed high levels of engagement within the health context?*

The purpose of addressing this question is to find evidence that sheds light on the approaches and interventions that have been demonstrated empirically to have the most significant effect on, or at least association with, high levels of engagement within the general workforce and within the health context specifically.

We undertook the data extraction process described in detail in chapter 2. We have specifically excluded from this analysis of antecedents the following factors:

- Demographic variables such as age or gender, except where these are relevant to understanding and interpreting study findings. This is because demographic factors alone do not constitute an approach or intervention.
- Personality variables such as conscientiousness, neuroticism and extraversion, except where these are relevant to understanding and interpreting study findings. This is again because personality variables do not constitute an approach or intervention.

This is not to say that either demographic and personality factors may not be salient for engagement in different contexts and circumstances, but rather that these factors lie beyond the scope of this review.

First, we provide an overview of the general background and context for the research questions. We then present the evidence we have assembled from our data extraction exercise in relation to the general workforce, followed by an analysis of the health context. We bring together these findings to suggest which interventions or approaches are supported by the strongest evidence.

## **6.2 Background to approaches and interventions to foster engagement**

A fundamental concern within the body of research on engagement has been to identify the factors associated with or antecedents of high levels of engagement. It should be noted that the bulk of the literature on employee engagement does not focus on the evaluation of specific approaches or interventions, but rather on the psychological antecedents of engagement. This is due to the fact that the research is based within the organisational psychology literature which does not have a history or tradition of evaluating organisational interventions. Instead, the focus is very much on psychological factors at the level of the individual. Several of those studies that did focus on organisational interventions did not pass the quality threshold for inclusion. It is disappointing that so much of this literature does not enable an evaluation of specific interventions, which would have been of most interest and relevance to practitioners and, as the field develops further into industrial sociology and organisational behaviour, it is probable that there will be a significant development of studies that examine this aspect in more detail.

Despite this, there are a number of themes that have emerged from the engagement literature that point towards promising approaches to enhancing engagement. These factors can be grouped under five headings:

- Individual psychological states such as experienced psychological safety or availability. These are included in our report since such states can be influenced by organisational factors



- Experienced job design related factors such as task significance, variety, meaningfulness and autonomy, job demands and job resources
- Perceived leadership and management factors such as leadership style, authentic leadership, perceived supervisor support
- Individual perceptions of organisational-level factors such as perceived organisational support, organisational mission, climate or culture and perceptions of colleagues and team
- Organisational interventions or activities such as specific training and development courses or communication activities.

It should be noted that many studies examined a range of antecedents rather than just one and so may be referred to under several headings.

Almost all included studies have examined engagement as a psychological state experienced in relation to work in general terms, and have used quantitative, survey-based methods to examine how engagement relates to other attitudes held by employees. Therefore, most studies reviewed in this chapter do not examine engagement in association with an actual organisational intervention or activity (although a small number do, and these are described below). It is therefore necessary to infer what interventions might support or encourage the development of high levels of experienced engagement amongst employees through examining these attitudinal associations. A very small number of studies that met the quality threshold have been published recently that have examined engagement in the sense of ‘doing engagement’ as a way of managing the employment relationship (see chapter 3), and these are similarly outlined below.

In section 6.3 we review the evidence relating to the association between antecedents and engagement for the workforce in general, and in section 6.4 we review the evidence from studies specifically related to health. We have included in this latter section any study that includes a sample of health care workers, even if part of a wider study involving a range of occupations.

### 6.3 Antecedents: the workforce in general

A total of 113 studies met the inclusion criteria. These are reported in Table 21. It should be noted that some studies are relevant in more than one category.

**Table 21: Studies of the general workforce meeting the inclusion criteria by category**

<b>Category</b>	<b>Occurrences</b>
Job design	43
Psychological states	41
Perceptions of organisation/team	41
Leadership and management	28
Experience of specific interventions	7

Fifty-six of the 113 studies were based in Europe, of which 8 were based in the UK; 16 were conducted in USA/Canada, seven in Australia/New Zealand/Australasia, 21 in Asia, six in South Africa and one in Cameroon, (see Appendix 7). The preponderance of studies emanating from the Netherlands reflects the concentration of studies conducted by the Utrecht Group.

**Table 22: General studies of antecedents using complex methods**

<b>Format</b>	<b>Occurrences</b>
Diary study	10
Time-lagged study/study at different time points	9
Study involving dyads e.g. employee/supervisor, employee/customer	8
Pre-post intervention study	2
Diary/time-lagged study plus data from other informants	4

As explained in chapter 3, the vast majority of studies used variants of the UWES. Only four studies were qualitative and drew on interviews. The majority of studies used self-report

surveys at one time point (71), and hence drawing conclusions over causality from these is problematic.

However, 33 studies that examined antecedents involved more complex methods, e.g. either diary studies, time-lagged surveys, or data from multiple informants, as listed in Table 22. There was a significant variation in the size of the sample used in the studies, and in the sectors surveyed. However, most studies reported on data from the service sector, and the majority included data from one or two organisations only. Table 23 summarises the data from this analysis.

**Table 23: Antecedents of engagement in the general context**

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Agarwal et al (2012) <sup>182</sup> India	979 managerial employees in six service sector organisations	9-item UWES	Self-report survey SEM	Leader-member exchange	n/a	+ association between LMX and engagement	SET
Agarwal and Bhargava (2013) <sup>234</sup> India	1,302 managers from 8 private sector companies in different sectors; 70% male	9-item UWES	Self-report survey Regression analysis	Psychological contract breach	tenure	+ association between psychological contract breach and low levels of engagement. Tenure did not moderate the relationship	SET
Alfes et al (2013) <sup>100</sup> UK	297 employees from a large service sector organisation in the UK	12-item scale adapted from Rich et al. <sup>3</sup>	Self-report survey Hierarchical regression	Perceived HRM practices	n/a	+ association between HRM practices and engagement	JD-R SET
Alfes et al (2013) <sup>101</sup> UK	1,796 employees in two service sector organisations	ISA scale	Self-report survey SEM	Perceived line manager behaviour, perceived HRM practices	n/a	+ association between perceived HRM practices and engagement + association between perceived line manager behaviour and engagement. Perceived line manager behaviour and perceived HRM practices were positively correlated, and jointly affected engagement.	SET

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Alok and Israel (2012) <sup>235</sup> India	117 working professionals, 70% male	9-item UWES	Self-report survey Linear regression	Authentic leadership	Organisation-based preventative and promotive psychological ownership	+ association between authentic leadership and engagement. + association between promotive psychological ownership and engagement. No association between preventative psychological ownership and engagement. Promotive psychological ownership fully mediated the association between authentic leadership and engagement.	SET

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Anaza and Rutherford (2012) <sup>119</sup> USA	297 employees from a co-operative extension system, 74% female	Saks' 5-item job engagement scale	Self-report survey SEM	Organisational identification Employee-customer identification	Customer orientation	No association between organisational identification and engagement + association between customer orientation and engagement Impact of organisational identification and employee-customer identification on engagement was mediated by customer orientation.	Social identity theory
Anaza and Rutherford (2012) <sup>126</sup> USA	272 front line employees from a co-operative extension system	Saks' 5-item job engagement scale	Self-report survey SEM	Internal marketing Job satisfaction Employee patronage	n/a	+ association between job satisfaction and employee patronage and engagement + association between internal marketing and engagement, mediated by job satisfaction and employee patronage	Expectancy theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Andreassen et al (2007) <sup>129</sup> Norway	235 bank employees	17-item UWES	Self-report survey Multiple regressions	Stress, burnout, health complaints, enjoyment of work	n/a	- association between stress, burnout, health complaints and engagement + association between drive and absorption. + association between years worked and enjoyment of work and engagement.	Cognitive activation theory of stress
Arrowsmith and Parker (2013) <sup>77</sup> New Zealand	Case study of a HR change initiative at the NZ Post between 2009-11 involving 12 informants	n/a	Face-to-face interviews Secondary documentation analysis Interview coding and triangulation	HR's role and relationship with other organisational stakeholders	n/a	Implementation of engagement initiatives requires political astuteness and commitment of HR professionals. Requirement for a business case for engagement focused on performance. Engagement requires focus on voice, work design and management agency.	AMO model
Babcock- Roberson and Strickland (2010) <sup>125</sup> USA	91 psychology students in employment for at least six months, most aged between 18-25.	17-item UWES	Self-report survey Regression analysis	Charismatic leadership	n/a	+ association between charismatic leadership and engagement	Charismatic leadership theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bakker and Bal (2010) <sup>104</sup> Netherlands	54 Dutch teachers	9-item UWES	Weekly self-report questionnaires HLM	Autonomy, social support, performance feedback, supervisory coaching and learning opportunities	n/a	+ association between autonomy, supervisory exchange (coaching and feedback) and opportunities for development with weekly work engagement	JD-R, broaden-and- build theory, COR
Bakker et al (2007) <sup>103</sup> Finland	805 Finnish teachers	17-item UWES	Self-report survey SEM	Pupil misbehaviour	Job resources including job control, supervisor support, climate, innovativeness, information, appreciation.	- association between pupil misbehaviour and engagement, moderated by supervisor support, organisational climate, innovativeness and appreciation. Information had a moderator effect on the relationship between pupil misbehaviour and vigour and absorption (the interaction terms also work with pupil misbehaviour as the moderator)	JD-R COR
Bakker et al (2012) <sup>227</sup> Netherlands	95 dyads of colleagues (employees, n=190) in various industries; 65% female	9-item UWES	Online questionnaires SEM	Proactive personality Job crafting	Sequential mediation: proactive personality > job crafting > engagement	+ association between proactive personality, job crafting and engagement	JD-R



<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bakker et al (2006) <sup>118</sup> Netherlands	2,229 constabulary officers in 85 teams	17-item UWES	Self-report surveys Multilevel analyses	Team level engagement	n/a	+ association between team level engagement and all three individual level engagement facets	Emotional contagion theory, cross-over theory
Bakker and Xanthopoulou (2013) <sup>223</sup> Netherlands	84 female school principals and 190 teachers	9-item UWES	Self-report surveys completed by both groups of respondents SEM	Job resources (autonomy, social support, performance feedback, professional development) Personal resources (self-efficacy, resilience)	Sequential mediation: job resources > personal resources > engagement	+ association between job and personal resources and engagement. Personal resources partially mediated the relationship between job resources and engagement.	JD-R
Bakker and Xanthopoulou (2009) <sup>134</sup> Netherlands	62 dyads of colleagues in various organisations (N = 124)	6-item UWES	General questionnaire and daily survey over 5 days for both partners in the dyad Multilevel analysis	Colleague's level of engagement	Frequency of communication	+ association between colleagues' daily work engagement arises only on days when colleagues communicate more frequently than usual.	Cross-over theory
Bal et al (2013) <sup>209</sup> Netherlands	240 employees for a Dutch division of a risk management firm	8-item UWES	Survey at two time points SEM	Employer contract fulfilment	Organisational tenure	No association between employer contract fulfilment and engagement. Tenure moderated the relationship between employer contract fulfilment and engagement.	SET

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Balducci et al (2011) <sup>26</sup> Italy	818 public sector employees	9-item UWES	Self-report survey SEM	Job resources (autonomy, promotion prospects, social support)	Positive affect	+ association between job resources and engagement and between positive affect and engagement. Positive affect partially mediated the link between job resources and engagement.	JD-R Broaden-and-build theory
Barnes and Collier (2013) <sup>210</sup> USA	Total 705 in two studies. Study 1: sample from high customer contact services; N=401; 61% female. Study 2: sample from low customer contact services; N=304; 63% female.	16-item UWES	Self-report survey SEM	Service climate, job satisfaction and affective commitment	n/a	+ association between service climate, job satisfaction and affective commitment and engagement	Broaden-and build theory
Bell and Barkhuizen (2011) <sup>236</sup> South Africa	234 employees of a property management company, mostly female	17-item UWES	Self-report survey correlations	Barriers to change: project related, people- related, organisation- related and environment- related barriers (where a high score indicates positive attitudes)	n/a	+ association between barriers to change and engagement.	JD-R
Bhatnagar (2012) <sup>183</sup> India	291 managers from R&D sectors	17-item UWES	Self-report survey SEM	Psychological empowerment	n/a	+ association between empowerment and engagement.	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Biggs et al (2013) <sup>237</sup> Australia	1011 employees of Australian state police service	9-item UWES	Self-report survey at three time points SEM	Social support, job control, strategic alignment	n/a	+ association between work alignment and engagement. Reciprocal relationships between strategic alignment, job control and engagement.	JD-R
Biswas and Bhatnagar (2013) <sup>177</sup> India	246 full-time employees in six organisations	Saks's (2006) <sup>64</sup> 11-item job & organisation engagement scales combined	Self-report survey SEM	Perceived organisational support, person- organisation fit	n/a	+ association between POS and P-O fit and engagement	SET
Biswas et al (2013) <sup>238</sup> India	238 managers and executives from service and manufacturing firms; 74% male	11-item Saks' scale	Self-report survey SEM	Distributive justice, procedural justice	Perceived organisational support, psychological contract	+ association between POS and psychological contract and engagement. POS fully mediated the relationship between distributive justice and engagement; POS and psychological contract fully mediated the association between procedural justice and engagement.	SET

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bledlow et al (2011) <sup>124</sup> Unstated German speaking country	55 software developers and computer scientists; 89% male	5-item UWES	General questionnaire plus twice daily measurement of mood and engagement over two weeks, 706 daily surveys. HLM	Positive and negative affectivity; positive and negative mood; positive and negative work events	n/a	+ association between positive mood in the morning and engagement in the afternoon. Increase in positive mood explained incremental variance in engagement. Those low in affectivity showed negative relationship between negative mood and engagement. Positive and negative events were no longer significant if positive and negative mood were controlled. The relationship between negative events and work engagement was fully mediated by negative mood.	Affective shift theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Brauchli et al (2013) <sup>239</sup> Switzerland	1033 employees in various organisations	9-item UWES	Online survey in three waves SEM	Changing demands and changing resources, stable demands and stable resources including social support, job control, task significance, appreciation, interpersonal justice. Demands, including interruptions, time pressure, uncertainty at work, qualitative overload	Changing resources	54-66% of variance in engagement is explained by stable component of job resources. + association between changing components of job resources and demands and engagement.	JD-R
Brummelhuis et al (2012) <sup>240</sup> Netherlands	110 employees of a large telecoms firm	9-item UWES	Online survey followed up with diary questionnaire by e-mail over five consecutive days Multi-level analysis	New ways of working (NWW) (e.g. choosing where and when to work)	Quality of communication	+ association between NWW and engagement. Effective and efficient communication fully mediated the relationship between NWW and engagement.	Work engagement theory

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Buy and Rothmann (2010) <sup>172</sup> South Africa	115 reformed church ministers	May et al's <sup>20</sup> 12-item engagement scale	Self-report survey Multiple regression	Job demands (pace and amount of work; emotional demands) and job resources (growth opportunities, instrumental support, church congregational support, autonomy, social support, job significance)	n/a	When just job resources were included, growth opportunities, social support and job significance + related to engagement. Instrumental support, congregational support and autonomy not significantly linked to engagement. When job demands were added, the regression was not significant.	JD-R
Carter et al (2010) <sup>214</sup> Australasia	53 employees in financial services firm	9-item UWES	Survey pre and post intervention. Significance of difference tests	Forum theatre training intervention aimed at boosting self-efficacy. Control group and pilot group.	n/a	Engagement scores for both groups decreased due to announcement of a merger. Decrease for pilot group was significantly lower, suggesting the rate of decline was buffered by the intervention. Vigour was a secondary buffering factor. Self-efficacy of the pilot group increased relative to the control group.	Self-efficacy theory

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Chen et al (2011) <sup>224</sup> China	139 software engineers and managers	13-item scale from May et al. <sup>20</sup>	Self-report survey completed in four waves, each 24 hours apart. SEM	Task conflict and relationship conflict	Experienced meaningfulness, safety and availability	+ association of experienced meaningfulness, safety, and availability with work engagement. + association between task conflict and work engagement through experienced availability and safety but not meaningfulness. - association of relationship conflict on engagement through experienced meaningfulness, safety and availability. + association between meaningfulness, safety and availability on knowledge sharing through engagement.	Kahn's <sup>19</sup> engagement theory

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Cheng et al (2013) <sup>140</sup> Taiwan	206 supervisor- subordinate pairs from a variety of firms	17-item UWES	Self-report survey completed by pairs Regression	LMX	Voice as mediator; supervisor- attributed motives as moderator	+ association between LMX and engagement. + association between voice and engagement mediated by LMX. Interaction between voice and supervisor- attributed motives influenced LMX, supporting moderation.	SET; attribution theory
Chughtai and Buckley (2011) <sup>222</sup> Ireland	168 research scientists in science research units	9-item UWES	Self-report survey SEM	Trust in supervisor and trust propensity	n/a	+ association between trust in supervisor and engagement + association between trust propensity and engagement.	SET; broaden-and- build theory
Chughtai and Buckley (2009) <sup>226</sup> Pakistan	130 high school teachers	17-item UWES	Self-report survey Hierarchical regression	Trust in the principal	n/a	+ association between trust and engagement.	unspecified
De Braine and Roodt (2011) <sup>241</sup> South Africa	2,429 workers in an ICT sector firm	17-item UWES	Self-report survey Regressions	Job demands (job insecurity, overload, work-family conflict). Job resources (advancement, growth opportunities, organisational support, perceived external prestige, task identity, team climate, work- based identity)	n/a	+ association between job resources and engagement. Weak positive association between job demands and engagement..	JD-R



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Del Libano et al (2012) <sup>127</sup> Spain	386 administrative staff from a Spanish university	9-item UWES	Self-report survey SEM	Self-efficacy	n/a	+ association between self-efficacy and engagement.	Resources- experiences- demands model
Den Hartog and Belschak (2012) <sup>135</sup> Netherlands	Matched leader/subordinate dyads in two studies: Study 1: N=167; Study 2 N=200.	9-item UWES	Self-report surveys completed by both members of the dyad. Factor analysis; moderated mediation analysis	Ethical leadership behaviour, Machiavellian leadership	n/a	+ association between ethical leadership and follower work engagement. Association between ethical leadership and follower engagement was moderated by leader Machiavellianism. The relationship between ethical leadership behaviour and engagement was stronger for leaders low on Machiavellianism, the relationship between ethical leadership and employee work engagement was weaker for leaders high on Machiavellianism.	JD-R; ethical leadership theory; social learning theory

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Dylag et al (2013) <sup>128</sup> Poland	480 white collar workers in public and private sector organisations	9-item UWES	Self-report survey Correlations	Work values: Collective interest (social justice, equality) Individual interest (self- respect, meaning in life) Mixed interest (obedience, capability). Discrepancy between values important to the individual and those believed to be important to the organisation	n/a	- association between value discrepancy and engagement. Greater the extent to which all values perceived as important to the organisation, the higher the level of engagement.	Mismatch proposition of wellbeing
Feldt et al (2013) <sup>115</sup> Finland	298 managers, 84% male	9-item UWES	Self-report survey in three waves over four years Latent profile analysis	Effort reward imbalance; over-commitment.	n/a	Interaction between high levels of effort and over-commitment were not associated with engagement.	Effort-reward imbalance model
Fiksenbaum et al (2010) <sup>137</sup> China and Turkey	309 male and female hotel managers	17-item UWES	Self-report survey Hierarchical regression	Work intensity	n/a	+ association between work intensity and all three engagement facets.	Unspecified
Fiksenbaum (2013) <sup>242</sup> Location unspecified (Canada implied)	112 employees in various fields (including customer service, accounting and finance, admin, IT, marketing and sales); majority female	17-item UWES	Self-report survey SEM	Work-family culture (i.e. availability of work- family benefits, managerial support, career consequences, organisational time demands)	Work-family interface (work- family conflict, family-work conflict)	- association between work family interface and engagement. The association between the availability of family-friendly programmes and engagement was marginally mediated by work family culture.	COR, spillover role theory

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Gan and Gan (2013) <sup>243</sup> China	160 ICT workers from an IT organisation; majority male	17-item UWES	Three-wave self- report survey at two monthly intervals SEM	Personality: neuroticism, extraversion, conscientiousness	Job demands (role ambiguity, communication obstacles, organisational change, family- work conflict) Job resources (supervisory support, colleague support, feedback)	No association between job demands and engagement. + association between job resources and the three dimensions of engagement. + association between extraversion and conscientiousness and engagement directly and indirectly via job resources. Association between extraversion and dedication in wave 2 fully mediated by job resources. Conscientiousness directly and + associated with dedication. + association between vigour wave 1, dedication wave 2 and absorption wave 3	JD-R

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Ghadi et al (2013) <sup>244</sup> Australia	530 employees working full-time from various organisations	17-item UWES	Self-report survey SEM	Transformational leadership	Meaning in work	+ association between transformational leadership and meaning in work and engagement. Meaning in work partially mediated the relationship between transformational leadership and engagement.	SET; transformational leadership theory
Gillet et al (2013) <sup>106</sup> France	Study 1: 235 policemen (62 female)	9-item UWES	Self-report survey SEM	Global motivation, perceived organisational support	Contextual motivation	+ association between global motivation and POS and contextual motivation. + association between contextual motivation and all three dimensions of engagement. + association between POS and all three dimensions of engagement.	Self-determination theory

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Gillet et al (2013) <sup>106</sup> France	Study 2: 147 policemen (of whom 32 female)	9-item UWES	Self-report survey at three time points during a training session lasting 3-5 days (start, middle, end) SEM	Contextual motivation, perceived supervisor support,	Situational motivation	+ association between contextual motivation and perceived supervisor support and situational motivation. + association between situational motivation and changes in the three dimensions of engagement.	Self-determination theory
Glasø et al (2011) <sup>245</sup> Norway	1,023 bus drivers from one large public transport firm, 87% male	9-item UWES	Self-report survey Multiple mediation analysis	Exposure to harassment and bullying	n/a	- association between exposure to harassment and bullying and engagement.	unspecified
Gracia et al (2013) <sup>112</sup> Spain	107 tourist establishments: 615 service workers and 2,165 customers	17-item UWES aggregated to the unit level	Self-report survey of employees and customers SEM	Organisational facilitators (training, autonomy and technical support)	n/a	+ association between organisational facilitators and collective work engagement at the unit level.	Human capital theory, JD-R
Hall et al (2010) <sup>246</sup> Australia	Study 2: 398 workers in multiple occupations	9-item UWES	Computer-assisted phone interviewing Correlations	Psychosocial safety climate (senior management support for stress prevention, management priority to psychological health and safety, organisational communication, participation and involvement)	n/a	+ association between psychological safety climate and engagement.	JD-R

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Hallberg and Schaufeli (2006) <sup>95</sup> Sweden	186 workers in Swedish IT company – 175 working in IT; 11 working in personnel	9-item UWES	Self-report survey Factor analysis	Autonomy, feedback, role overload, role conflict	n/a	+ association between autonomy and feedback and engagement - association between role conflict and engagement No association between role overload and engagement.	JD-R
He et al (2013) <sup>133</sup> UK	222 employees in a financial services organisation	Adapted version of the scale developed by Rich et al. <sup>3</sup>	Self-report survey SEM	Moral identity centrality, procedural justice	Organisational identification	OID fully mediated the effects of procedural justice on engagement + association between moral identity centrality and engagement When procedural justice was high, the effect of MI centrality on engagement was non-significant While when procedural justice was low, the effect of MI centrality on employee engagement was positive and significant.	Group engagement model, person- situation framework
Heuvel et al (2009) <sup>247</sup> Netherlands	238 employees in a variety of both public and private organisations	9-item UWES	Self-report survey Regressions	Meaning-making	n/a	Meaning-making was unrelated to engagement.	Unspecified

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Heuven et al (2006) <sup>111</sup> Netherlands	154 cabin attendants, 74% female	9-item UWES	Self-report survey Hierarchical regression	Emotional demands	Mediator: emotional dissonance Moderator: Emotion work- related self- efficacy	Emotional dissonance mediated the relationship between dealing with emotionally charged interactions and engagement. Emotional dissonance only undermined work engagement for low (vs. high) efficacious employees Emotionally charged interactions - associated with engagement, but unwritten rules of emotional display not significantly associated with engagement.	Social cognitive theory
Hopkins and Gardiner (2012) <sup>173</sup> New Zealand	96 legal staff and partners working in a large law firm.	9-item UWES	Self-report survey regression	Job resources (social support, job control, +ve challenge, work-role fit)	n/a	+ association between positive challenge, work-role fit, social support and job control with work engagement .	JD-R
Hu and Schaufeli (2011) <sup>180</sup> China	585 workers of three family-style factories	9-item UWES	Self-report survey SEM	Current remuneration	n/a	+ association between current remuneration and engagement .	JD-R

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Huhtala et al (2011) <sup>248</sup> Finland	902 technical and commercial managers from members of two national labour unions, 70% male	9-item UWES.	Self-report survey SEM	Corporate Ethical Virtues	Ethical strain	+ association between ethical organisational culture and engagement. Ethical strain partially mediated the association.	Unspecified
Hyvänen et al (2010) <sup>249</sup> Finland	747 members of two Finnish national labour unions (who reported that they were currently in employment). All respondents were under the age of 36; 85% male	9-item UWES	Self-report survey HLM	Effort-reward imbalance (effort, reward, effort-imbalance, over-commitment)	Personal work goals (competence, progression, wellbeing, job change, job security, organisational, financial)	Reward and effort-reward imbalance ratio had a direct and indirect effect (via goal categories) on engagement. Effort was found to have an indirect effect through goal categories on engagement. Goal categories moderated the association between reward and engagement.	SET



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Idris and Dollard (2011) <sup>250</sup> Malaysia	269 employees in the public and private sector (drawn from larger sample of employees but self-employed and those in 'informal sector' excluded)	9-item UWES	Self-report survey, distributed to households SEM	Psychosocial safety climate, (management commitment, organisational communication, management priority and organisational participation)	Job demands (emotional demands and role conflict) Job resources (supervisor support and co-worker support). Anger and depression	+ association between psychological safety climate, high job resources, and engagement. Anger mediated the association between demands and engagement. Depression mediated the association between demands and engagement. Anger and depression were associated with reduced engagement.	JD-R SET
Inoue et al (2013) <sup>251</sup> Japan	1095 employees from 5 branches of a manufacturing company, 61% female.	9-item UWES	Two stage prospective study (1 year interval); self-report questionnaire Hierarchical multiple regression	Job demands (psychological demands) and resources (decision latitude, supervisor support, co-worker support). Effort-reward imbalance (extrinsic effort, extrinsic reward)	n/a	+ association between decision latitude, co-worker support, and extrinsic reward with engagement at follow-up. After adjusting for demands, co-worker support was no longer significant. After adjusting for engagement at baseline, the associations were attenuated while the association of decision latitude remained significant. Supervisor support was not significantly.	JD-R

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						<p>associated with work engagement at follow-up.</p> <p>+ association between psychological demands and engagement at follow-up. After adjusting for work engagement at baseline this association was attenuated but remained significant. Extrinsic effort was not significantly associated with work engagement at follow-up. After adjusting for work engagement at baseline the positive association became significant.</p>	
James et al (2011) <sup>252</sup> USA	6,047 employees from 352 retail stores in three regions, 74% female	8-item scale developed to measure cognitive, emotional and behavioural engagement	Self-report survey Linear regression	Job quality factors (supervisor support and recognition, schedule satisfaction, career development and promotion and job clarity)	n/a	+ association between supervisor support and recognition, schedule satisfaction, and job clarity with engagement.	SET

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Jenkins and Delbridge (2013) <sup>78</sup> UK	Two case studies: (i) 66 employees from a family-owned, multi-client call centre company in Wales. (ii) 17 employees from a US-owned multinational company which provided a range of services for the global energy market. Research focused on UK HQ in Scotland	No specific measure of engagement	Comparative case study of two workplaces; drawing on in-depth semi-structured interviews with employees and a selection of managers. Comparative qualitative analysis	The degree to which management adopt a harder vs. softer approach is influenced by the wider contextual contingencies of the organisation for example the labour market, competitive, and structural context	n/a	Identified the approaches that management and organisations can take to implement EE strategy and initiatives can be seen on a 'hard' – 'soft' continuum whereby harder approaches represent a focus on EE as a way to increase employee productivity and softer approaches as a way to increase employee morale and motivation	Critical HRM theory; personal engagement theory
Juhdi et al (2013) <sup>184</sup> Malaysia	457 employees in various organisations	Saks <sup>164</sup> (2006) 6-item organisation engagement scale	Self-report survey Correlations and hierarchical regressions	HR practices: Performance appraisal, career management, selection, compensation	n/a	+ association between HR practices and engagement, with career management the strongest predictor	Unspecified

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Kahn (1990) <sup>19</sup> USA	Two studies; Study 1: 16 counsellors in summer camp; Study 2: 16 registered architects	Personal engagement and self-expression	Qualitative study; participant observation, interviews, documentary analysis Ethnography, grounded theory	Psychological conditions of meaningfulness, safety and availability	n/a	Engagement arises when people express their preferred self at work, connecting with others, exerting physical, cognitive and emotional energies. The psychological conditions of meaningfulness, safety and availability are required for engagement. These arise through job design and person-role fit	Theory of attachment <sup>253</sup> ; job design theory
Karatepe (2012) <sup>254</sup> Cameroon	212 full-time hotel workers	9-item UWES	Time-lagged survey. Time 2 = 1 month after time 1 SEM	Co-worker support, supervisory support	n/a	+ association between co-worker support and supervisory support and engagement. Supervisory support has slightly stronger relationship	JD-R
Kinnunen et al (2008) <sup>255</sup> Finland	1,301 managers selected from 5 Finnish trade unions; 71% male	17-item UWES	Self-report survey Multiple regressions	Effort-reward imbalance (ERI)	Over commitment (OVC), perceived organisational support	+ association between POS and all three dimensions of engagement. No association between ERI ratio and any engagement dimensions in the regression, but negatively correlated	ERI model, SET

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						<p>with vigour and dedication. Over commitment only associated with absorption. ERI-OVC interaction + associated with dedication and absorption (under conditions of high ERI those managers that were highly overcommitted reported lower levels of dedication than those who were low in OVC. Under conditions of low ERI, managers high in OVC had higher levels of dedication, compared to their counterparts with low OVC. Highly overcommitted managers reported more absorption than their counterparts with less OVC, but the difference in the level of absorption was lower in the situation of high ERI. Managers perceiving a high level of POS reported generally more absorption than</p>	

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						their counterparts perceiving less POS, but the difference in the level of absorption was lower under conditions of high OVC. Low POS had a strengthening role in the OVC–absorption relationship.	
Kinnunen et al (2011) <sup>256</sup> Finland	527 employees of 5 organisations from different sectors	9-item UWES	Self-report survey SEM	Job demands, job resources	Recovery experiences (psychological detachment, relaxation, mastery and control)	Psychological detachment fully mediated the effects of job demands on fatigue at work. Mastery partially mediated the effects of job resources on work engagement.	JD-R, COR

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Kühnel and Sonnentag (2011) <sup>257</sup> Germany	131 teachers from German schools. 69% female	6-item UWES; Time 1, 3 and 4 directed at week level, for time 2 directed at day level	Longitudinal self- report survey. Time 1: end of the last working day before vacation . Time 2: end of the first working day after vacation ; Time 3 end of the last working day of the second working week after vacation; Time 4: end of the last working day of the fourth working week after vacation. Multiple regression	Job demands – consisting of time pressure and pupil misconduct; Relaxation experiences, and negative affect (measured at Time 3 and Time 4).	n/a	+ effect of vacation on work engagement, fading over time. Time pressure and pupil misconduct not related to fade-out of engagement at Time 3 and 4. Relaxation experiences related to fade-out of engagement, but failed to explain a significant amount of additional variance in work engagement at Time 4	JD-R, COR

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Kühnel et al (2012) <sup>258</sup> Germany	148 employees working for companies across a diverse range of industries, 62% female	9-item UWES	Diary study: general self-report survey plus surveys over 5 working days at beginning and end of day and noon. Multi-level analyses	Job resources: psychological climate, job control, being recovered in the morning	Job Demands: time pressure	+ association between day-specific state of being recovered and day-specific engagement + association between day specific job control and psychological climate and engagement. Interaction between day-specific job control and day- specific time pressure predicted engagement. On days with high job control, time pressure was positively related to engagement. When job-control was low, time pressure tended to be negatively related to engagement.	JD-R



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Leroy et al (2013) <sup>259</sup> Belgium	N=68 (experimental) and N=14 (control); employees working in 6 distinct organisations.	17-item UWES	Data collected at 3 points using a questionnaire over 1 year period. Time 1 (T1) before the training; Time 2 (T2) 2 months after the training; Time 3 (T3) 4 months after the training. Involvement in training voluntary. Control group drawn from waiting list for training. SEM	Mindfulness training	Authentic functioning	+ association between mindfulness training and engagement. Authentic functioning mediated the association.	SDT
Leung et al (2011) <sup>216</sup> China	Staff at 19 hotels in China in three waves. Time 1 comprised 420 subordinate questionnaires and 19 HR managers. Time 2 comprised 344 subordinate questionnaires. Time 3 comprised 110 supervisors. Overall the sample comprised 19 HR managers and 304 supervisor- subordinate dyads	9-item UWES	Survey in three waves, and involving employees, supervisors and HR managers. HLM	Workplace ostracism	Neuroticism	Neuroticism moderated the relationship between ostracism and engagement.	COR

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Lin (2010) <sup>113</sup> Taiwan	428 employees from 20 large firms	An adaptation of the 9-item UWES, comprising 6 items capturing all three facets	Self-report survey SEM	Organisational trust, perceived economic citizenship from the aspect of employees' benefits, perceived legal citizenship from the aspect of law, perceived ethical citizenship from the aspect of ethical business practices, discretionary citizenship from the aspect of social welfare and philanthropy	n/a	+ association between perceived corporate citizenship and work engagement directly and indirectly via the mediation of organisational trust. Organisational trust was a partial mediator between work engagement and its antecedents. The relationship between perceived ethical citizenship and engagement was insignificant.	Attachment theory
May et al (2004) <sup>20</sup> USA	213 employees and managers across all departments in the administration division of large insurance firm (87% female)	13-item cognitive, emotional, physical engagement scale based on Kahn <sup>19</sup>	Self-report survey SEM	Job enrichment, work-role fit, co-worker relations, supportive supervisor relations, co-worker norm adherence, resources, public self-consciousness	Meaningfulness, safety and availability.	+ association between meaningfulness, safety and availability and engagement, with meaningfulness being the strongest. + association between job enrichment and work role fit and meaningfulness. + association between rewarding co-worker and supportive supervisor and psychological safety. - association between adherence to co-worker norms and	Kahn's <sup>19</sup> engagement theory

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						<p>self-consciousness and psychological safety. + association between resources available and psychological availability, - association between participation in outside activities and availability. The relations of job enrichment and work role fit with engagement were fully mediated by the psychological condition of meaningfulness. The association between adherence to co-worker norms and engagement was partially mediated by psychological safety.</p>	

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Mendes and Stander (2011) <sup>187</sup> South Africa	179 employees working in a single chemical company; mainly non-management; 60% male; 47.5% in modal age range 25-35 years; 52% African	17-item UWES	Self-report survey Hierarchical multiple regressions	Leader empowering behaviour	Role clarity, psychological empowerment	+ association between role clarity and engagement. + association between leader empowering behaviour , role clarity and psychological empowerment and the three categories of work engagement. Role clarity acted as moderator between leader empowering behaviour, psychological empowerment and engagement. + association between meaning sub-scale and vigour, dedication and absorption.	Human capital theory

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Menguc et al (2013) <sup>218</sup> Canada	482 employees from 66 retail stores from the same company, and 488 customer responses; measure of store size from company records	17-item UWES	Self-report employee survey and customer surveys matched to each store HLM	Perceived autonomy, supervisor support, supervisor feedback	n/a	Supervisory support was not strongly associated with engagement. + association between supervisory feedback and engagement. At high levels of perceived autonomy, supervisory support was related positively and significantly to work engagement, whereas at low levels of perceived autonomy, supervisory support was not related to work engagement. At low levels of perceived autonomy, feedback was related positively and significantly to engagement whereas at high levels of perceived autonomy, feedback was not significantly related to engagement	JD-R

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Moorman et al (2013) <sup>131</sup> USA	205 working professionals in a mid-Western city	9-item UWES	Self-report survey SEM	Moral behaviour and behavioural integrity	Trust in supervisor	Trust mediated the relationship between moral behaviour and integrity and engagement, as well as job satisfaction and perceived leader effectiveness	Leader integrity theory
Nigah et al (2012) <sup>260</sup> UK	78 graduate newcomers who had started work within the preceding 12 months, and each of whom had been allocated a buddy on joining the company (mainly females)	9-item UWES	Self-report survey Regressions	Newcomer satisfaction with a buddying relationship	Psychological capital	+ association between satisfaction with buddying and engagement. + association between psychological capital and engagement. Psychological capital fully mediated the association between newcomer satisfaction with buddying and engagement	JD-R
Otken and Erben (2010) <sup>109</sup> Turkey	212 employees in private sector firms in Istanbul	17-item UWES	Self-report survey Hierarchical regression	Organisational identification	Supervisor support	+ association between organisational identification and three facets of engagement. Supervisor support moderated the relationship between organisational identification and engagement	Self-categorisation theory, social exchange theory, work engagement theory

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Ouweneel et al (2012) <sup>261</sup> Netherlands	200 employees of a university	9-item UWES	Self-report survey at two time points, six months apart SEM	Positive emotions, Personal job resources, Job resources	n/a	Only personal resources (T1) are related to engagement (T2). Work engagement T1 is also related to positive emotions T2	JD-R broaden and build theory
Ouweneel et al (2012) <sup>141</sup> Netherlands	59 employees of a University (mainly female)	9-item UWES to measure baseline vigour, dedication and absorption and adapted versions to measure daily variations	Self-report survey; survey completed twice a day for five days, after waking up and after work. HLM, mediation tests.	Baseline positive emotions; baseline work-related hope; daily positive emotions; daily hope.	n/a	+ association between positive emotions and engagement mediated by hope	Broaden-and-build theory Affective events theory
Petrou et al (2012) <sup>262</sup> Netherlands	95 employees from several organisations, majority female	9-item UWES	Diary booklet consisting of five identical questionnaires, one for each day. HLM	Job crafting facets (seeking challenges, seeking resources, reducing demands)	n/a	+ association between day-level seeking challenges (but not resources) and day- level work engagement, whereas day-level reducing demands was negatively associated with day-level work engagement	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Ratnasingam et al (2012) <sup>132</sup> USA	143 employees who were users of either the organisation's on-site childcare programme ( <i>n</i> =41) or external childcare programmes ( <i>n</i> = 102) at a large public university in the Southern US (mainly female and married)	7 items taken from UWES	Self-report survey Hierarchical linear regressions	Family supportive organisation perceptions; childcare satisfaction, type of childcare use	n/a	+ association between family supportive organisation perceptions and engagement. + association between childcare satisfaction and engagement. Employees using on- site childcare were less engaged in and satisfied with their jobs when they perceived their employer to be unsupportive towards their family life and were dissatisfied with their childcare provider	Organisational support theory



<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Rees et al (2013) <sup>263</sup> UK	2 UK service sector organisations; 1,157 in Organisation A (71% male); 1,153 in Organisation B (77% male)	9-item ISA	Self-report survey Multiple regressions	Employee voice	Trust in senior management Employee-line manager relationship	When controlling for gender (women more engaged than men) and managerial responsibilities (managers had higher levels of engagement than non-managers), Employee voice + associated with engagement. Trust in senior management and employee-line manager relationship + related to engagement. Trust in senior management and employee-line manager relationship both partially mediated the relationship between employee voice and engagement	SET

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Reio and Sanders-Reio (2011) <sup>70</sup> USA	272 employees in a computer services company	Shuck's <sup>69</sup> 16-item Workplace Engagement Scale.	Self-report survey Hierarchical regression	Workplace incivility: supervisor incivility and co-worker incivility	n/a	Both types of incivility were significantly and negatively associated with availability and safety engagement, but neither type was associated with meaningfulness engagement	Kahn's <sup>19</sup> engagement theory
Reissner and Pagan (2013) <sup>79</sup> UK	Case study of organisation: Individual interviews N=25; group interviews N = 18 in 3 groups (senior & middle managers / middle managers / frontline employees)	Organisational engagement	Case study (theoretical sampling) involving: Documentary analysis Qualitative unstructured interviews Group interviews Grounded theory, constant comparison	Range of different 'engagement' (involvement) techniques with either directive or discursive purposes, including: whole organisation events, round table discussions, communications forum, team meetings, newsletter and floor walking	Importance of communication in developing 'reciprocity' as a key component of organisational engagement following change process. Factors which impact on this include: enduring connection to previous organisation in change scenario; involuntary identification with new organisation (i.e. lack of consultation in change process); different value base and culture of new organisation	Within the context of service delivery though 'partnership' arrangements, research links nature and quality of 'organisational communication activities' as generative of engagement, emphasising value of directive and discursive exchanges between managers and frontline staff which changes 'lived experience' of working for the company, e.g. reciprocity (commitment to organisational goals and having a say). In contrast to earlier	SET

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					compared to old one.	service delivery model (i.e. public sector), employees report feelings of greater control and being better informed with greater commitment to organisational goals	
Rich et al (2010) <sup>3</sup> USA	245 fire fighters (mainly male population)	18-item scale to measure physical, emotional and cognitive engagement drawing on Brown and Leigh's <sup>82</sup> 'work intensity' scale, Russell and Barrett's <sup>83</sup> core affect scale and Rothbard's <sup>84</sup> absorption scale	Self-report survey involving 245 fire fighters and supervisor performance evaluations. SEM	Value congruence, perceived organisational support, core self- evaluation	n/a	+ association between value congruence, perceived organisational support, and core self- evaluations and engagement	Kahn's <sup>19</sup> engagement theory

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Saks (2006) <sup>64</sup> Canada	102 workers in a variety of organisations	Specially developed scales for job engagement (5 items) and organisation engagement (6 items)	Self-report survey Multiple regressions	Job characteristics (autonomy, task identity, skill variety, task significance, feedback from others, and feedback from the job). POS. PSS. Rewards and recognition. Procedural and distributive justice.	n/a	+ association between POS and both forms of engagement. POS only significant predictor of both. + association between job characteristics and job engagement + association between procedural justice and organisation engagement	SET
Salanova et al (2005) <sup>5</sup> Unstated	114 units comprising 58 hotel receptions and 56 restaurants. In each work unit, a sample of 3 employees and 10 customers participated in the study. The employee sample consisted of 342 contact employees. The customer sample consisted of 1,140 clients from the 114 units	17-item UWES	Self-report survey plus customer survey SEM	Organisational resources: training, autonomy and technology	Service climate	The service climate (fully) mediated the relationship between organisational resources and engagement (reported by employees). + association between engagement and all three dimensions of the organisational resources scale, and with service climate.	JD-R

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Sarangi and Srivastava (2012) <sup>264</sup> India	247 executives from the Indian banking sector	17-item UWES	Self-report survey Regressions	Organisational culture, organisational communication	n/a	+ association between organisational culture and all three dimensions of engagement + association between organisational communication and all three dimensions of engagement	Unspecified
Sardeshmukh et al (2012) <sup>174</sup> USA	417 employees from large supply chain company; 71% male	6-item scale adapted from Britt <sup>98</sup>	Self-report survey SEM	Teleworking, job demand (workload)	Job demands - Time pressure, role ambiguity, role conflict. Job resources: autonomy, feedback and social support	- association between telework and engagement. Association was partially mediated by job demands and job resources	JD-R
Sawang (2012) <sup>265</sup> Australia	307 IT or technical managers from various organisations; 70% male	9-item UWES	Self-report survey Hierarchical multiple regression	Job demands. Social support (supervisor/colleagues)	n/a	+ association between job demands and social support and engagement. Job demands had a curvilinear (U shaped) relationship with engagement. Social support in terms of manager moderated the curvilinear relationship between demands and engagement but not colleague support	JD-R

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Selmer et al (2013) <sup>73</sup> Denmark	489 academic staff members of natural science departments in three large universities	Behavioural engagement measured using 5-items from Mor-Barak, Cherin and Berkman <sup>74</sup> ; Cognitive engagement assessed using 6-items from Martins et al <sup>75</sup> ; Emotional engagement assessed using 3-items from Martins et al <sup>75</sup>	Self-report surveys Hierarchical Multiple Regression Analyses	Group trust; group relational conflict; group task conflict; dept size	n/a	+ association between size of department and cognitive engagement. - association between group relational conflict and all three forms of engagement. - association between group task conflict and cognitive engagement + association between group trust and all three forms of engagement	Unspecified
Shantz et al (2013) <sup>219</sup> UK	283 employees in a consultancy and construction firm	9-item UWES	Self-report survey and supervisory performance ratings SEM	Job design: autonomy, task significance, task identity, feedback from the job and task variety.	n/a	+ association between all five job design variables and engagement. However the structural model showed that task identity was not associated with engagement	Hackman and Oldham's job design theory <sup>229</sup>

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Simbula (2010) <sup>161</sup> Italy	61 public sector school teachers. Majority female.	9-item Italian version of UWES used to measure general engagement (survey); 5 adapted items from the UWES- 9 used to measure daily engagement (diary)	Self-report survey followed by diary completed for five consecutive workdays HLM. Day-level data were nested within person-level data	Day-level work/family, day-level co-workers' support	n/a	+ association between day level co-worker support and engagement	JD-R
Song et al (2012) <sup>136</sup> South Korea	432 employees in 6 different for-profit organisations	9-item UWES	Self-report survey SEM	Transformational leadership and knowledge creation	n/a	+ association between transformational leadership and engagement. + association between knowledge creation and engagement	SET, contingent leadership theory, knowledge conversion theory
Sonnentag et al (2012) <sup>162</sup> Germany	111 employees in a variety of industries (services, production, administration, banking, insurance)	9-item UWES adapted to day- level assessment	A diary study over 1 workweek with 2 measurement occasions per day per person HLM	Recovery level in the morning	Moderators Job demands, situational constraints	+ association between recovery level in the morning and engagement (although not in the full model) Moderating effect of situational constraints, but not job demands	JD-R

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Stander and Rothmann (2010) <sup>120</sup> South Africa	442 employees in a manufacturing organisation and government	17-item UWES	Self-report survey SEM	Psychological Empowerment (meaning, competence, self-determination, and impact)	Job insecurity	+ association between psychological empowerment and engagement. No practical statistical association between either job insecurity type and engagement. Affective job insecurity moderated the effect of psychological empowerment on employee engagement	Spreitzer's <sup>266</sup> psychological empowerment theory
Sulea et al (2012) <sup>225</sup> Romania	258 employees from three organisations	9-item UWES	Self-report survey SEM	Conscientiousness, interpersonal conflicts, perceived organisational support	n/a	+ association between conscientiousness and POS and engagement. - association between interpersonal conflicts and engagement	JD-R



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Sulea et al (2012) <sup>267</sup> Romania	223 employees from various organisations (mainly female population)	9-item UWES	Self-report survey Hierarchical regressions	Abusive supervision Conscientiousness	n/a	- association between abusive supervision and incivility and three dimensions of engagement + association between conscientiousness and all three aspects of engagement. The association was weaker when high levels of abusive supervision and incivility were reported	JD-R

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Swanberg et al (2011) <sup>76</sup> USA	1,343 retail workers , 89% female	8-item scale developed by a consultancy measuring cognitive, emotional and behavioural aspects of work engagement <sup>252</sup>	Self-report survey Three-stage mediation	Schedule control; schedule flexibility; schedule satisfaction and supervisor support	n/a	+ association between perceived supervisor support and engagement. + association between schedule satisfaction and engagement. + association between control over work hours and schedule flexibility and engagement. Schedule satisfaction and perceived supervisor support mediated the association between schedule control and flexibility and engagement	Job characteristics theory
Tanner et al (2010) <sup>268</sup> Switzerland	592 employees from two federal police departments (N <sub>1</sub> = 419; N <sub>2</sub> = 173), 85% male)	9-item UWES	Self-report survey SEM	Ethical leadership behaviour	n/a	+ association between ethical leadership behaviour and engagement	Unspecified

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Tims et al (2011) <sup>108</sup> Netherlands	42 participants in two companies, mainly female	9-item UWES	Self-report survey on five consecutive days, diary study. Multi-level analyses	Day-level transformational leadership	Day-level self- efficacy Day-level optimism	+ association between day level transformational leadership style and followers' day-level work engagement Day-level optimism fully mediated the relationship between transformational leadership and work engagement of the employee at the day- level. No mediating relationship found for self-efficacy. + association between trait work engagement on daily level of work engagement	Transformational leadership theory

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Tims et al (2013) <sup>269</sup> Netherlands	288 employees working for a chemical plant	9-item UWES	Three wave self- reported survey SEM	Job crafting (structural job resources, social job resources, challenging job demands, hindering job demands)	Changes in 1) structural job resources, 2) social job resources, 3) challenging job demands, 4) hindering job demands	Employees who crafted their job resources in the first month of the study showed an increase in their structural and social resources over the course of the study (2 months). The increase in structural and social job resources was positively related to engagement direct effects of crafting challenging demands on increases in well-being	JD-R
Torrente et al (2012) <sup>212</sup> Spain	533 employees nested within 62 teams from 13 organisations	9-item UWES aggregated to team level	Self-report survey aggregated to team level SEM	Team social resources (supportive team climate, teamwork, coordination)	n/a	+ association between team social resources and engagement.	JD-R

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Tsuno et al (2009) <sup>270</sup> Japan	247 workers in a manufacturing firm, mainly male	9-item UWES	Self-report survey Correlations	Intra-group differences/conflict, inter-group conflict, work site social support	n/a	Intergroup conflict was associated with lower work engagement, but only before adjusting for worksite social support. In females, intergroup conflict was associated with both greater psychological distress and greater work engagement. No significant relationship between intra-group conflict and work engagement for either males or females	JD-R
Van Schalkwyk et al (2010) <sup>185</sup> South Africa	168 employees in a petrochemical laboratory. Majority male.	17-item UWES	Self-report survey Regressions	Leadership empowerment behaviour	n/a	+ association between leadership empowerment behaviour and engagement	Unspecified
Vera et al (2010) <sup>160</sup> Spain	170 university faculty members; 60% male; average age 39 years; 63% with PhDs; 43% with 5 years tenure, remainder with more	16-items taken from UWES-17	Self-report survey Factor analysis and correlations	Work pattern (focus on research, teaching, management)	n/a	Highest engagement amongst those focusing on research. Management showed lowest engagement	Unspecified

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Vincent-Hoper et al (2012) <sup>178</sup> Germany	1,132 largely from engineering and professional occupations. Majority had long tenure with organisation	9-item UWES	Self-report survey SEM	Transformational leadership	n/a	+ association between transformational leadership and engagement	Transformational leadership theory
Vogelgesang et al (2013) <sup>217</sup> USA	Military cadets at a US military academy. 78% male. Time 1, 537 respondents, time 2, 3 weeks after Time 1, 453 respondents time 3, 6 weeks after Time 2, third party ratings of individual performance from the tactical officers	May et al <sup>20</sup> engagement scale	Time-lagged survey and objective performance data SEM	Communication transparency	Leader perceived behavioural integrity	+ association between communication transparency and leader behavioural integrity. In turn, Time 1 leader communication transparency was related to follower engagement at Time 2, but follower engagement showed even stronger relationships with leader behavioural integrity. The effects of group-level leader communication transparency on individual follower engagement were fully mediated by leader behavioural integrity	Authentic leadership theory

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Wang and Hsieh (2013) <sup>271</sup> Taiwan	386 employees from 37 large firms	17-item UWES	Self-report survey. Hierarchical multiple regression	Authentic leadership	Trust	+ association between authentic leadership and trust and engagement. Trust partially mediated the relationship between authentic leadership and engagement	Social exchange theory
Xanthopoulou et al (2009) <sup>272</sup> Netherlands	163 employees of an electrical engineering and electronics company	9- item UWES	Self-report survey at T1 and at T2 18 months later. SEM	Job resources (autonomy, social support, supervisory coaching, performance feedback, opportunities for professional development) Personal resources (self- efficacy, Organisational- Based Self-Esteem, optimism)	Reciprocal relationships	+ association between T1 job resources and T1 personal resources on T2 work engagement. + association between T1 work engagement and T2 job resources and T2 personal resources Additionally, T1 job resources associated with T2 personal resources and vice versa	COR JD-R Broaden and build
Xanthopoulou et al (2009) <sup>213</sup> Greece	42 employees working in three branches of a fast- food company, (71% male)	9-item UWES	Self-report survey and diary booklet over 5 consecutive workdays Financial performance from supervisors Multi-level analysis	Job resources (autonomy, coaching, and team climate)	Personal resources (self-efficacy, self- esteem, and optimism)	+ association between day-level self-efficacy, day-level OBSE, and day-level optimism and engagement All three day-level personal resources fully mediated the relationship between day-level autonomy	JD-R COR

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						and day-level work engagement. Day-level self-efficacy fully mediated the relationship of day-level coaching with day-level work engagement, and day-level self-efficacy and day-level optimism partially mediated the relationship between day-level coaching with work engagement. The previous day's coaching had a lagged effect on next days' engagement, through the full mediation of next day's optimism	
Xanthopoulou et al (2007) <sup>273</sup> Netherlands	714 employees of six divisions of an electrical engineering and electronics company; 83% male	9-item UWES scale	Self-report survey SEM	Job resources (autonomy, social support, supervisory coaching, and opportunities for professional development) Personal resources (Organisational-Based Self-Esteem, optimism, Self-efficacy)	Both as mediators as well	Personal resources partially mediated the relationship between job resources and engagement Job resources partially mediate the relationship between personal resources and work engagement	JD-R COR



<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Xanthopoulou et al (2013) <sup>274</sup> Netherlands	163 employees in electronics company	9-item UWES	Self-report survey–two time points. Participants were approached twice over the period of 1.5 years Hierarchical moderated regressions	Emotional demands Emotion-rule dissonance Self-efficacy Emotion-rule dissonance	Moderators - Self-efficacy - optimism Mediators: - Emotional demands - Emotion-rule dissonance	Self-efficacy buffered the relationship between emotional demands and work engagement. Emotion demands boosted the effect of self-efficacy on work engagement Self-efficacy buffered the relationship between emotion-rule dissonance and work engagement Dissonance boosted the effect of self-efficacy on engagement	JD-R COR
Xanthopoulou et al (2008) <sup>211</sup> A European country	44 flight attendants from a European airline company	General work engagement: 9-item UWES  State work engagement: 12 items from 17-item UWES	General questionnaire and diary survey (three trips, 3 measurement points per trip) HLM	Colleague support	Self-efficacy	Colleague support had unique positive effects on self-efficacy and work engagement Self-efficacy did not mediate between colleague support and engagement	JD-R

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Yeh (2012) <sup>221</sup> Taiwan	223 employees from airline company 88% female	17-item UWES	Self-report survey and evaluation of service performance of flight attendants by service directors. HLM	Psychological contract	n/a	- association between transactional psychological contracts and work engagement. + association between relational psychological contracts and engagement	COR

### 6.3.1 *Individual psychological states*

Forty-two studies made reference to psychological states and their association with engagement. The group of attributes that received most attention was *self-efficacy, resilience, and personal resources*, in other words, the positive perceptions that individuals hold of their personal strength and belief in their own ability, which featured in ten studies.<sup>108, 111, 127, 211, 213, 223, 261, 272-274</sup> These studies show a positive association between these factors and engagement. For instance, Ouweneel et al<sup>261</sup> surveyed individuals at two time points and found that personal resources at time 1 were associated with engagement at time 2. A large number of these studies used complex methods such as diary studies, time-lagged surveys or supervisor/employee dyads, which lends additional weight to the findings.

Several also considered these psychological states as a mediator. Here, the results were mixed. The two-wave study by Xanthopoulou et al<sup>272</sup> further reveals the potential complexity of the link between personal resources and engagement; While time 1 job and personal resources were associated with time 2 engagement, time 1 engagement was associated with time 2 job and personal resources, and personal and job resources were additionally related to one another over time. They argue that their findings are illustrative of the cyclical nature of well-being and resources suggested by conservation of resources theory.

The second most widely studied personal attribute is the group of variables around *positive affect, positive mood, and optimism and conversely negative mood and affect*. Five studies have examined these factors.<sup>26, 108, 141, 250, 275</sup> Generally, the studies have shown an association between positive mood/affect and engagement, for instance, Idris and Dollard<sup>250</sup> found that anger and depression were associated with low levels of engagement. However, Bledlow et al<sup>275</sup> drew on a diary study and proposed on the basis of the affective shift model that negative affect is positively related to engagement if negative is followed by positive affect. Mediation studies showed that the relationship between negative events and engagement was fully mediated by negative mood<sup>275</sup>; anger and depression mediated the link between job demands and engagement<sup>250</sup>; day-level optimism mediated the link between transformational leadership and engagement.<sup>108</sup>

Three cross-sectional self-report studies have concluded that *psychological empowerment* is associated with engagement.<sup>120, 183, 187</sup> Stander and Rothmann<sup>120</sup> found that affective job insecurity moderated the link between psychological empowerment and engagement.

Three studies<sup>19, 20, 224</sup> have found evidence linking experienced *meaningfulness, safety and availability* and engagement; these include William Kahn's seminal<sup>19</sup> ethnographic study, and a four-wave survey.<sup>276</sup> May et al<sup>20</sup> found that the association between job enrichment and engagement was fully mediated by experienced meaningfulness. One study<sup>187</sup> found a link between meaning and engagement. Two further studies have looked at *meaning making or meaning in work*; Heuvel et al<sup>247</sup> found that meaning-making was unrelated to engagement and Ghadi et al<sup>244</sup> found that meaning in work was correlated with engagement and that meaning in work partially mediated the link between transformational leadership and engagement.

*Job satisfaction* has been considered in two studies<sup>126, 210</sup> as an antecedent of engagement (see also chapter 4 for a discussion of job satisfaction as a correlate or outcome of engagement). Anaza and Rutherford<sup>126</sup> found that job satisfaction mediated the association between internal marketing and engagement.

Three studies (two of which involved complex methods) examined the association between *recovery/relaxation experiences* and engagement and found some limited evidence of a link. These showed that these experiences could also act as a mediator.<sup>162, 256, 257</sup> Two studies found that there was a link between the personality trait *conscientiousness* and engagement, although note that we did not undertake a systematic synthesis in relation to personality.<sup>243, 267</sup> The study by Gan and Gan<sup>243</sup> found that the link was weaker where higher levels of abusive supervision were reported.

Single studies have found links between the following factors and engagement: *promotive psychological ownership*<sup>235</sup>; *enjoyment of work*<sup>129</sup>; *proactive personality*<sup>227</sup>; *situational motivation*<sup>106</sup>; *moral identity centrality*<sup>133</sup>; *extraversion*<sup>243</sup>; *affective commitment*<sup>210</sup>; *authentic functioning*<sup>259</sup>; *core self-evaluation*.<sup>3</sup> No link was found in one study between *preventive psychological ownership* and engagement.<sup>235</sup> A negative association was found between *stress, burnout and health complaints* and engagement<sup>129</sup>– (see also chapter 4).

These psychological factors were also examined as mediators/moderators of the association between other variables and engagement. Leung et al<sup>216</sup> in a three-wave survey found *neuroticism* strengthened the impact of workplace *ostracism* on engagement levels; and Alok and Israel<sup>235</sup> found that *promotive psychological ownership* mediated the association between *authentic leadership* and engagement.

### 6.3.2 Experienced job design related factors

Forty-three studies examined the association between aspects of job design and engagement. Fourteen focused on the link between *job resources* and engagement within the context of the job demands-resources framework.<sup>26, 64, 103, 172, 173, 213, 223, 239, 241, 243, 250, 251, 261, 272, 273</sup> A wide range of resources were examined, including supervisory support, colleague support, feedback and autonomy. Some of these were also examined as separate items in other studies. All studies showed some degree of positive direct or mediated association between job resources and engagement with the exception of Ouweneel et al<sup>261</sup> which showed no significant association. Seven of these studies, including that of Ouweneel, used complex methods such as diary studies, time-lagged surveys or dyad surveys.

Six studies examined the association between *job demands* and engagement.<sup>241, 243, 251, 257, 265, 277</sup> The results of these studies were inconclusive. Some found a positive association between demands and engagement<sup>241</sup>; others found no association (e.g. Gan and Gan<sup>243</sup>, in a three-wave self-report survey) and one found a curvilinear relationship.<sup>265</sup> Inoue et al's<sup>251</sup> two stage study found a positive link between demands at time 1 and engagement at time 2, but after adjusting for baseline engagement this association was reduced.

Five articles focused specifically on *autonomy* and its direct or indirect association with engagement.<sup>95, 104, 172, 218, 272</sup> Most found a positive association between autonomy and engagement, while Buys and Rothmann<sup>172</sup> found no significant link. Bakker and Bal's<sup>104</sup> study and that of Xanthopoulou et al<sup>272</sup> involved repeated measurement over time.

Two papers examined *feedback*.<sup>95, 218</sup> Both found a positive link to engagement. Biggs et al<sup>237</sup>, Kühnel et al<sup>258</sup> and Swanberg et al<sup>76</sup> found a positive association between *job control*

and engagement. Shantz et al<sup>219</sup> found a positive link between features of *job design* and engagement.

Three studies explored the link between *job crafting* and engagement; all found a positive link between job crafting and engagement in mediated models.<sup>220, 262, 269</sup> All of these involved complex methods.

There were small numbers of studies examining other aspects of job design in relation to engagement. Positive associations were found between the following and engagement: *opportunities for development*<sup>104</sup>; *job enrichment*<sup>20</sup>; *work role fit*<sup>19, 20</sup>; *role clarity*<sup>187</sup>; *job quality*<sup>278</sup>; *work intensity*<sup>137, 138</sup>; *schedule satisfaction*.<sup>76</sup>

Mediated or moderated relationships between aspects of job design and engagement were also found in relation to several variables. Xanthopoulou et al<sup>274</sup> found that *work-related emotional demands* impacted negatively on engagement, and that self-efficacy buffered the relationship. Hyvönen et al<sup>249</sup> found that the *reward-effort imbalance ratio* was directly and indirectly associated with engagement via individuals' personal goal categories, however, Kinnunen et al<sup>255</sup> and Feldt et al<sup>115</sup> found that there was no association between effort-reward imbalance and engagement. Heuven et al<sup>111</sup> studied the impact of *emotionally-charged situations* on engagement and found that emotional dissonance mediated the link, and only undermined engagement for those low in self-efficacy. Chen et al<sup>224</sup> found a positive link between *task conflict* and engagement mediated by experienced availability and safety. Sonnentag et al<sup>162</sup> showed that *situational constraints* moderated the link between individuals' recovery level in the morning and engagement, While job demands did not.

Hallberg and Schaufeli<sup>95</sup> found a negative link between *role conflict* and engagement but no link between role overload and engagement.

Several studies examined forms of work; Sardeshmukh et al<sup>174</sup> found a negative link between *teleworking* and engagement, partially mediated by job demands and resources While Brummelhuis et al<sup>240</sup> found a positive link between *new ways of working* and engagement with the link fully mediated by efficient and effective communication. In a study of academics, Vera et al<sup>160</sup> showed that academics whose work mainly comprised research

experienced the highest levels of engagement whereas those whose work focused on management were least engaged.

### 6.3.3 *Perceived leadership and management*

Twenty eight studies examined aspects of leadership or management behaviour and their association with engagement. Studies that reported on the link between supervisory support as an aspect of job resources are reported in section 6.3.2. Seven studies examined *supervisory support* as an independent factor. Six of these found a positive link (<sup>20, 76, 109</sup> Karatepe<sup>254</sup> a time-lagged survey; Fiksenbaum<sup>242</sup>; Gillet et al<sup>106</sup>, a survey at three time points) while Menguc et al<sup>218</sup> in a study involving both employees and customers found no association.

In two studies<sup>140, 182</sup> (Cheng et al<sup>140</sup> conducted a self-report survey in four waves) a positive link between *leader-member exchange* and engagement was found While Alfes et al<sup>101</sup> similarly found a positive link between *perceived line manager behaviour* and engagement. A positive link between *transformational leadership* and engagement was found in four studies.<sup>108, 136, 178, 244</sup> Four cross-sectional studies found a link between *trust in manager/leader and engagement*.<sup>131, 222, 226, 263</sup> Here, Rees et al<sup>263</sup> found trust in senior managers partially mediated the link between voice and engagement and Moorman et al<sup>131</sup> showed that trust mediated the association between moral behaviour and integrity and engagement. Two studies found that *leader empowering behaviour* and engagement were linked.<sup>185, 187</sup>

Positive links were also found between *authentic leadership* and engagement<sup>235</sup> While Wang and Hsieh<sup>271</sup> showed that this association was partially mediated by trust. Other aspects of leadership found to be positively associated with engagement were: *charismatic leadership*<sup>125</sup> and *supervisory coaching*.<sup>104</sup> Den Hartog and Belschak<sup>135</sup> studied the link between *ethical leadership behaviour* and engagement in a dyad survey of leaders and subordinates, and found that the link was stronger for leaders low in Machiavellianism.

Two cross-sectional self-report studies examined negative aspects of leadership: Reio and Sanders-Reio<sup>70</sup> found a negative link between *supervisor incivility* and two aspects of

engagement and Sulea et al<sup>267</sup> found that perceptions of *abusive supervision* and engagement were negatively associated.

#### 6.3.4 *Individual perceptions of organisational and team factors*

Forty one studies fell into this category covering a wide range of areas at the organisational and unit/team levels.

At the organisational level, five cross-sectional studies<sup>64, 177, 225, 238, 255</sup>, and one using complex methods<sup>106</sup> found that *perceived organisational support* was associated with engagement, with some of these studies also showing mediated relationships.

Mixed results were found with regard to the *psychological contract*; Argawal and Bhargava<sup>234</sup> found contract breach to be associated with low levels of engagement, Bal et al's<sup>209</sup> survey at two time points found no association, while Yeh's<sup>221</sup> self-report survey and performance evaluations found a positive link between relational contracts and engagement but a negative link between transactional contracts and engagement.

Three cross-sectional studies found that *organisational identification* was associated with engagement.<sup>109, 119, 133</sup> Three cross-sectional studies found a positive link between *perceptions of HRM practices* and engagement.<sup>100, 101, 184</sup> Two cross-sectional studies found a positive link between psychosocial safety climate and engagement.<sup>246, 250</sup>

Single studies have found positive links between engagement and the following factors: *service climate*<sup>210</sup>; positive perceptions of *barriers to change*<sup>236</sup>; *strategic alignment* with organisational priorities<sup>237</sup>; *identification with customers*<sup>119</sup>; *organisational facilitators* including training and technical support<sup>112</sup>; *person-organisation fit*<sup>177</sup>; *value congruence*<sup>3</sup> (self-report surveys and supervisor evaluations); *procedural justice*<sup>64</sup>; *quality of communication*<sup>240</sup> (survey over five days); *congruence of values*<sup>128</sup>; *remuneration*<sup>180</sup>; *corporate ethical virtues*<sup>248</sup>; *organisational trust*<sup>279</sup>; *voice*<sup>263</sup>; *organisational culture and communication*<sup>264</sup>; *family friendly programmes* and work-family culture<sup>242</sup>; *family supportive perceptions* and childcare satisfaction.<sup>132</sup>

At the team/unit level, *team engagement* levels were found to be positively associated with individual engagement<sup>118</sup> while it was also found that *colleagues' engagement* levels were



associated with individual engagement on days when there was frequent communication.<sup>134</sup> *Co-worker or colleague support* was linked with engagement in two complex studies<sup>211, 254</sup> and *group trust* in a self-report survey.<sup>73</sup> Torrente et al<sup>212</sup> found that *team social resources* were linked with individual engagement.

Several studies also examined negative organisational or interpersonal factors and their association with engagement. Exposure to *bullying and harassment*<sup>245</sup>; *workplace ostracism*<sup>216</sup> (three-wave multi-informant survey); *co-worker incivility*<sup>70</sup>; *interpersonal conflicts*<sup>267</sup>; *group relational/task conflict*<sup>73</sup>; and *intergroup conflict*<sup>270</sup> were all found to lower engagement levels.

### **6.3.5 Organisational interventions or activities**

Seven studies reported on individual responses to organisational interventions. Brummelhuis et al<sup>240</sup> undertook a diary study into new ways of working (i.e. choosing where and when to work). An association was found between NWW and engagement, with communication mediating the relationship. Carter et al<sup>214</sup> surveyed employees before and after a forum theatre training intervention and found that although engagement levels dropped amongst both those participating and a control group due to the announcement of a merger, the degree of decline appeared to have been buffered by the intervention.

Leroy et al<sup>259</sup> collected data at three time points in relation to a training intervention aimed at enhancing mindfulness and found a positive link between the training and engagement levels, mediated by authentic functioning. Nigah et al<sup>260</sup> studied newcomer satisfaction with a buddying programme in a cross-sectional survey and found that satisfaction with the buddying programme was linked with engagement both directly and mediated by psychological capital. Ratnasingam et al<sup>132</sup> examined employee responses to organisational childcare facilities in a self-report survey and found a link between satisfaction with childcare, perceptions of family supportive organisational cultures, and engagement.

From the perspective of engagement as an organisational approach, Jenkins and Delbridge's<sup>78</sup> case study analysis showed that engagement interventions could be classified as 'hard' or 'soft' depending on whether the focus was on increasing productivity or enhancing morale and motivation. Reissner and Pagan<sup>79</sup> presented case study research on engagement as a

partnership approach and found that organisational communication activities that emphasised the value of discursive exchanges between managers and staff led to employees feeling more control and commitment and to being better informed.

#### **6.4 Antecedents: the health context**

In this section, we report on the findings relating to antecedents of engagement within studies in the health context. A total of 42 studies met the inclusion criteria (see Table 24); most focused exclusively on health while others reported on samples involving health care workers and those in other occupational groups.

**Table 24: Studies meeting the inclusion criteria by category for health context**

<b>Category</b>	<b>Occurrences</b>
Job design	22
Perceptions of organisation/team	12
Psychological states	11
Leadership and management	8
Experience of specific interventions	2

Most studies used self-report surveys, however, a minority also used complex methods as shown in Table 25.

**Table 25: Health studies of antecedents using complex methods**

<b>Format</b>	<b>Occurrences</b>
Time-lagged study/study at different time points	5
Study involving dyads e.g. employee/supervisor, employee/customer	2
Pre-post intervention study	2
Mixed methods	1
Diary study	1
Diary/time-lagged study plus data from other informants	0

Twenty three studies took place in Europe, two of which were in the UK and four were conducted in multiple European countries, seven in USA/Canada, four in Australia, four in Asia, one in South Africa, one in Uganda, one in multiple continents and one in Israel, (see Appendix 7). *All* the studies in this category used variants of the UWES to measure engagement.

Table 26 reports the data relating to antecedents of engagement within a health context.

**Table 26: Antecedents of engagement in the health context**

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Abdelhadi and Drach-Zahavy (2012) <sup>230</sup> Israel	158 nurses in 40 retirement home wards	16-item version of UWES adapted from Salanova et al <sup>5</sup>	Mixed methods: Structured observations Cross-sectional survey Administrative data HLM	Service climate	n/a	+ association between service climate and engagement	JD-R
Adriaenssens et al (2011) <sup>280</sup> Belgium	254 emergency nurses who had patient contact based in 40 wards and 699 general nurses	9-item UWES	Self-report survey Hierarchical regression analysis	Quality of work comprising 14 subscales: job characteristics: (work/time demands, physical demands, decision authority, skill discretion, social support from supervisor and colleagues), organisational characteristics: (rewards, personnel resources, material resources, work procedures, nurse/doctor collaboration and internal communication)	n/a	+ association between job characteristics and personal characteristics with engagement. Strength of relationship between job characteristics and engagement was strongest	Job demand control support model
Albrecht and Andreetta (2011) <sup>203</sup> Australia	139 employees of community health service; 70% female	9-item UWES	Self-report survey SEM	Empowering leadership	empowerment	+ association between empowering leadership and engagement. Empowerment mediated the association	unspecified

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bakibinga et al (2012) <sup>94</sup> Uganda	15 nurses / midwives in two districts of Uganda. All female	Qualitative assessment of engagement levels based on UWES	19 interviews Content analysis	Self-care/ self-tuning including introspection, sensitivity and reflection	n/a	Self-tuning is a coping process that is thoughtfully managed in order to cope with stress and maintain engagement	Salutogenic model of coping
Bal and Kooij (2011) <sup>281</sup> Netherlands	465 employees from a Dutch healthcare organisation; 73% female	7-item UWES	Self-report survey SEM	Work centrality	Transactional or relational psychological contracts	Psychological contracts mediated the association between work centrality and engagement. -ve association between transactional contract and engagement	SET
Bal et al (2013) <sup>282</sup> Netherlands	1,058 employees from a Dutch healthcare organisation; 77% female; 74% part-time workers	7-item UWES	Self-report survey Multilevel HLM	Developmental and accommodative HRM practices. Selection, Optimisation and Compensation (SOC) model	Relational or transactional psychological contracts	+ association between developmental HRM and engagement. Relationship fully mediated by psychological contract. - association between accommodative HRM and engagement for those low in SOC strategies	SET
Bamford et al (2013) <sup>110</sup> Canada	280 nurses in acute care hospitals	9-item UWES	Self-report survey Hierarchical multiple regressions	Authentic leadership	Areas of work life: workload, control, rewards, community, fairness and values	+ association between AWL and engagement. AWL mediated the link between authentic leadership and engagement.	Authentic leadership theory.

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bechtoldt et al (2011) <sup>123</sup> Netherlands and Germany (nurses) Germany (police officers)	N = 85, including 42 police officers (56% female) and 43 nurses based in hospices (88% female)	17-item UWES	Self-report survey at time 1 and time 2, four weeks later. 61 participants completed the second survey SEM	Emotional labour: deep vs. surface acting	Emotion recognition	Emotion recognition moderated the association between surface acting and engagement; those with low emotion recognition scored lower engagement after 4 weeks the more intensely they engaged in surface acting. Emotion recognition moderated the relationship between deep acting and engagement. Workers with low emotion recognition reported lower engagement after 4 weeks the more intensely they engaged in deep acting. Deep acting may relate to lower engagement; when workers' ability to recognise emotions is low. Surface acting does not relate to lower engagement, when workers' ability to recognise emotions is high	Emotional dissonance emotional labour model and the social interaction model of emotional labour

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Bishop (2013) <sup>283</sup> USA	17 nurses	17-item UWES	Intervention study. Participants completed the UWES pre and post-intervention. 16 participants attended a focus group held 60 days after the intervention. Qualitative: thematic analysis of focus group transcripts. Quantitative: t tests	Structured 3-day offsite programme retreat focused on the true meaning of caring using an appreciative enquiry approach focused on caring relationships with oneself, patient, families and work colleagues.	n/a	Significant increase in overall mean engagement score pre-post intervention and for each of the facets. Qualitative analyses showed that nurses had reflected on their practice in six areas: caring for oneself; reawakening the spirit of nursing; views on caring for patients and families; views of work and colleagues; concerns for the future; leaders taking time to care	Work engagement theory.
Brunetto et al (2013) <sup>193</sup> USA and Australia	510 randomly chosen nurses from Australian hospitals and 718 nurses from US hospitals	9-item UWES	Self-report survey SEM	LMX, satisfaction with teamwork, perceived organisational support	n/a	+ association between teamwork and POS and engagement, with POS exerting stronger relationship. LMX weakly + associated with engagement for Australian sample but non-significant for US sample	SET
Cogin and Fish (2009) <sup>284</sup> Australia	538 nurses in eight hospitals; nearly half were student nurses with minimum of 6-months training	17-item UWES	Self-report survey T tests	Frequency of exposure to sexual harassment	Gender as a moderator	- association between each dimension of sexual harassment (gender harassment; unwanted sexual attention; sexual coercion) and engagement.	Unspecified
Fong and Ng (2012) <sup>200</sup> China	992 workers in elderly care settings in China, 84% female	9-item UWES	Self-report survey SEM	Holistic care climate	n/a	+ association between holistic care climate and engagement	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Forbes et al (2013) <sup>205</sup> Scotland	231 pre- registered dental nurses in 10 educational locations. All female	9-item UWES	Self-report survey SEM	Job resource beliefs	n/a	+ moderate association between job resource beliefs and engagement	JD-R
Freenev and Fellenz (2013) <sup>198</sup> Ireland	158 midwives from two large maternity hospitals, 98% female	9-item UWES	Self-report survey SEM	Organisational support, supervisor support, social support	n/a	+ association between organisational support, supervisor support, social support, and engagement	JD-R
Gillet et al (2013) <sup>105</sup> France	343 nurses (325 female) from 47 units in hospitals; 95% female	9-item UWES	Self-report survey. Ratings by respondents of their supervisors. SEM	Transformational leadership	Organisational justice (interactional justice and distributive justice) Quality of working life	+ association between QWL and engagement. Distributive and interactional justice fully mediated the association between transformational leadership and QWL	Transformational leadership theory; justice theory



<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Gorter and Freeman (2011) <sup>285</sup> Northern Ireland	71 dentists (37% female) and 64 dental care practitioners (all women)	15-item UWES	Self-report survey Multiple regression	Work demands (time pressures, risks of mistakes and dissatisfied patients, financial worries, staff problems, being undervalued) Job resources (joy of manual-technical work and its effects, professional independency and social benefits, treatment of results, doing well towards patients)	n/a	+ association between joy of manual-technical work and vigour and absorption + association between treatment of results, dedication and absorption + association between doing well towards patients and vigour No significant association between professional independency and social benefits and engagement. No significant association between all demands and engagement	JD-R
Gorter et al (2012) <sup>286</sup> Netherlands	111 oral and maxillofacial surgeons (98% male)	17-item UWES	Self-report survey Regression analysis	Dentist environment work demands (rules and regulations, practice demands and organisation, staff problems, demand for perfection, difficult patients, comparison with other professionals, lack of variation) Dentist environment job resources (delivering successful and valued work, technical aspects, social contacts, autonomy, co-operation, variety, making patients healthy and happy, material and non-material rewards)	n/a	Vigour was best predicted by 'delivering successful and valued work' and 'variety in Work', dedication was best predicted by 'variety in work', 'social contacts' and 'making patients healthy and happy'. Absorption, was best predicted by 'variety in work' and 'making patients healthy and happy'	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Gorter et al (2008) <sup>287</sup> Netherlands	561 dentists, 76% male (included a booster group for gender)	17-item UWES	Self-report survey Multiple linear regression	Dentists' experienced job resources (idealism/pride, immediate results, patient results, craftsmanship, professional contacts, entrepreneurship, patient care, material benefits)	n/a	+ association between all subscales and the full scale with the UWES subscales	JD-R
Hakanen et al (2005) <sup>288</sup> Finland	3,255 dentists, 71% female	17-item UWES	Self-report survey Hierarchical regression	Job demands (qualitative workload, physical environment, emotional dissonance, negative impact of dental law reforms) Job resources (job control, innovativeness, variability of skill, peer contacts, positive patient outcomes)	n/a	- association between job demands and engagement. Association weakest for dentists with many vs. few resources. Resources were especially salient under conditions of high demands + association between job resources and engagement. Job resources were more strongly associated with engagement than job demands	JD-R
Hakanen et al (2008) <sup>289</sup> Finland	2,555 dentists	17-item UWES	Two wave, three- year panel design, self-report survey sent twice with a three year interval SEM	Job resources (pride in the profession, direct/long-term results, craftsmanship)	n/a	+ association between job resources at T1 and engagement at T2. + association between engagement at T1 and job resources at T2. Both of equal strength	COR, JD-R

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Hornung et al (2011) <sup>130</sup> Germany	Medical doctors in southern Germany; 1 <sup>st</sup> wave: N=159; 46.5% female; 2 <sup>nd</sup> Wave: N=142; 48.6% female	17-item UWES	2-wave study (1-yr gap); self-report surveys SEM	Leader consideration Idiosyncratic deals (development and flexibility) Work-family conflict	n/a	+ association between development idiosyncratic deals and engagement. No association between flexibility idiosyncratic deals and engagement. + association between leader consideration and engagement. Development deals mediated the relationship between leader consideration and engagement	Leader consideration framework
Hornung et al (2010) <sup>107</sup> Germany	292 physicians from two studies based in two similar hospitals; 68% female	9-item UWES	Self-report survey SEM	Task idiosyncratic deals	Work characteristics (complexity, control and hindrance)	+ association between complexity and control and engagement - association between hindrance and engagement. Task idiosyncratic deals had indirect effect on engagement mediated through all three work characteristics	Job design theories, idiosyncratic deals
Hu et al (2011) <sup>204</sup> China	625 blue collar workers from three manufacturing companies and 761 health professionals from four hospitals	9-item UWES	Self-report survey SEM	Job demands (workload, emotional demands, physical effort, interpersonal conflict) Job resources (job control, colleague support, supervisory coaching, learning opportunities, task clarity)		+ association between job resources and work engagement - association between job demands and engagement Synergistic effects: high job demands and low job resources were associated with more burnout and lower work engagement	JD-R

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Martinussen et al (2011) <sup>290</sup> Norway	244 physiotherapists, (mainly female)	17-item UWES	Self-report survey Regressions	Two aspects of Type A behaviour, job demands (number of hours worked per week, work conflicts and work-family pressures), perceptions of work conflict, work- family pressures. Job resources (organisational support, autonomy and social support from supervisors and co-workers)	n/a	+ association between job demands and engagement; job resources added significantly to the prediction of two of engagement dimensions (vigour and dedication). + association between high levels of achievement strivings and low levels of impatience-irritability (Type A behaviour) were associated with increased levels of engagement.	JD-R
Mauno et al (2007) <sup>291</sup> Finland	409 employees in a healthcare organisation (735 at time 1), 87% women	17-item UWES measured at time 1 and 2	Longitudinal survey at times 1 and 2, at a two-year interval Hierarchical regressions	Occupational group Job demands: job insecurity, time demands, work-to-family conflict. Job control: control over timing, method. Organisation based self- esteem. Management quality	n/a	Engagement only varied by occupational group in relation to dedication: doctors (i.e., physicians) and researchers reported higher dedication to their work than office and IT personnel, and cleaning, catering and laundry staff Healthcare workers showed relatively high levels of engagement Dedication was reported more frequently than absorption with vigour being intermediate (true at both time points) Job resources, especially OBSE and job control, were the strongest lagged predictors of all three dimensions of engagement, better predicting vigour and dedication than absorption Job demands had relatively less	JD-R

Author/date/ location	Study population	Measure of engagement used	Methods	Main approach, intervention or factor	Mediating or moderating factors	Results	Dominant theoretical framework
						<p>predictive power for engagement. High time demands at T1 = stronger absorption at work at T2. A similar effect was found for dedication at work (but correlation coefficient of this relationship did not reach statistical significance). High work-to-family conflict at T1 decreased vigour at work at T2. Perceived threat of job loss (job insecurity) at T1 had a lagged relationship with decreased dedication at work at T2; this effect became significant only in Model 2 in which the baseline level of dedication (at T1) was controlled for. The lagged effects became non-significant when baseline engagement was taken into account. Engagement remained relatively stable. Time demands predicted high absorption, work-to-family conflict low vigour, and job insecurity low dedication later. After controlling for the baseline level of work engagement the relationships between job resources and demands and later work engagement disappeared. Only the relationships between job insecurity and job control and dedication at work remained after controlling for baseline dedication.</p>	

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Mauno et al (2005) <sup>121</sup> Finland	727 workers in various job types in one hospital district. Nursing staff comprised 64% of the sample.	17-item UWES	Self-report survey Multiple regressions	Fixed-term employment contract	Perceived job insecurity, Job attitudes: job satisfaction	- association between perceived job insecurity and engagement. + association between satisfaction and engagement Those on fixed term contracts were more highly engaged than those on permanent contracts. Under conditions of a high level of job insecurity those who had a permanent job reported a lower level of work engagement than those with a fixed-term job, whereas under conditions of low job insecurity, the type of job contract did not matter	Relative deprivation theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Opie et al (2011) <sup>292</sup> Australia	349 nurses working in very remote location and 277 nurses working in three major hospitals (mainly females)	9-item UWES	Self-report survey Correlations	Job Resources: Supervision and Social Support Possibilities for Development, Job Control and Opportunity for Professional Development	n/a	Nurses working very remotely demonstrated higher levels of work engagement + association between possibilities for development, and opportunity for professional development and engagement For nurses working remotely, + association between all job resources and engagement; engagement was most strongly correlated with job control & possibilities for development Nurses in hospitals: all job resources were significantly positively correlated with work engagement. Possibilities for development was the resource most strongly associated with work engagement	JD-R Model
Othman and Nasurdin (2012) <sup>293</sup> Malaysia	402 nurses working in 3 hospitals in Malaysia; 98.5% female	9-item UWES	Self-report survey Regressions	Social support	Supervisor and co-worker support	+ association between supervisor support and engagement but lower for co-worker support	SET

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Rickard et al (2012) <sup>294</sup> Australia	Nurses and midwives at two major hospitals; N = 484 in two waves, comprising: Hospital 1 wave 1: n = 103; wave 2: n = 173; Hospital 2 wave 1: n = 75; wave 2: n = 133	9-item UWES	Pre-and post-intervention questionnaire at an interval of two years, and archival data. T tests	A nurses' workload intervention at organisational level including a nursing workload tool, assessment of nursing workloads, staff increases, personal development, and a recruitment campaign	n/a	Although there was a significant reduction in psychological distress, and a significant increase in job satisfaction, there was no significant increase in engagement between wave 1 and wave 2	JD-R
Simpson (2010) <sup>295</sup> USA	149 nurses and nursing staff working in long-term care facilities, mostly female	9-item UWES	Self-report survey correlations	Core nurse resources	n/a	+ association between Core Nurse Resource Scale and engagement	JD-R Model



<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Sonnentag et al (2010) <sup>92</sup> Germany and Switzerland	309 workers in non-profit organisations offering services to people with special needs. 68% female	9-item UWES assessed at T2	Self-report survey completed at time 1 and time 2, 12 months later Hierarchical regression	Job demands: at Time 1	Psychological detachment from work during non-work time at Time 1	Low negative affectivity and work engagement at Time 1 + associated with work engagement. Job demands additionally contributed to the prediction of work engagement at Time 2. Persons with high demands at Time 1 reported decreased work engagement at Time 2. Psychological detachment did not contribute to the prediction of work engagement. At high levels of psychological detachment job demands were not related to work engagement. At low levels of psychological detachment, job demands were related to a decrease in work engagement	JD-R
Spence Laschinger et al (2009) <sup>233</sup> Canada	Study 1: new graduate nurses (n = 185); Study 2: representative sample of acute care nurses (n = 294)	9-item UWES	Self-report surveys SEM	Structural empowerment: Access to information, support, resources, formal and informal power	n/a	+ association between structural empowerment and work engagement	Empowerment theory and work engagement theory drawing on the Utrecht framework.

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Spence Laschinger (2010) <sup>117</sup> Canada	322 registered nurses working full or part-time in acute care hospitals in Ontario	9-item UWES	Self-report survey SEM	Structural empowerment: six components of structural empowerment: opportunity, information, support, resources, formal power and informal power.	The Areas of Worklife (AWS)	+ association between structural empowerment and all six areas of worklife + direct association between control, rewards, fairness and value congruence and engagement. Four of the six areas of worklife mediated the influence of empowerment on engagement (control, rewards, fairness and values). Neither workload nor community influenced engagement Value congruence had the strongest influence on work engagement	Structural empowerment theory
Spence Laschinger et al (2012) <sup>206</sup> Canada	420 newly graduated nurses working in acute care hospitals (mainly female population)	9-item UWES	Self-report survey SEM	Job resources (supportive practice environment and control). Personal resources (psychological capital)	n/a	+ association between job resources (supportive practice environment and control) and engagement + association between personal resources and engagement	JD-R Model

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Taipale et al (2011) <sup>114</sup> Finland, Sweden, the UK, Netherlands, Germany, Portugal, Hungary and Bulgaria	7,869 service sector workers in 32 organisations in eight countries (categorised according to 5 distinct “policy regimes”). The sample includes people working in hospitals. Mostly female	6-item UWES	Self-report survey Hierarchical multiple regression	Work demand pressure, work autonomy, social support	n/a	In the UK, engagement levels in hospitals were higher than in the other three sectors. Demands decreased work engagement, but the impact was less than that of autonomy or social support. A weak connection was found between demands and engagement Autonomy was the strongest predictor of engagement. + association between social support and engagement The interaction of demands on the one hand and support/autonomy on the other was weak	Karasek demand-control-support theory <sup>296</sup>
Te Brake et al (2007) <sup>297</sup> Netherlands	497 Dutch general dental practitioners (75% male)	15-item UWES	Self-report survey SEM	Burnout	n/a	- association between engagement and burnout	Unspecified
Van Beek et al (2012) <sup>298</sup> China	544 nurses (99% female) and 216 physicians (61% female) in four hospitals	9-item UWES	Self-report survey SEM	Job demands (work overload, mental demands, emotional demands) Job resources (job control, social support colleagues, social support supervisor) Motivation (external regulation, introjected regulation, identified regulation, intrinsic motivation)	n/a	In both samples + association between identified regulation, intrinsic motivation and introjected regulation and engagement. + association between job resources and engagement	Self-determination theory

<b>Author/date/ location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Van Bogaert et al (2013) <sup>194</sup> Belgium (Dutch speaking)	357 staff from 32 clinical units in two psychiatric hospitals	9-item UWES	Self-report survey HLM	Nurse practice environment features: nurse-physician relations, unit-level nurse management and hospital management – organisational support	n/a	+ associations between all three nurse practice environment dimensions and all three work engagement dimensions	JD-R
Van den Broeck et al (2011) <sup>299</sup> Netherlands	4,009 employees, from the TNO Work Situation Survey (including 14% healthcare)	9-item UWES	Self-report survey Multiple regressions	Job demands (workload and emotional demands). Job resources (autonomy and learning opportunities). Emotional exhaustion	Intrinsic and extrinsic work value orientation	+ association between both job resources and engagement. + association between intrinsic and extrinsic work values and engagement - association between emotional demands and engagement. No association between workload and engagement The boosting impact of workload on the positive association between autonomy and work engagement was stronger among employees who highly favoured intrinsic work values, than among employees attaching little importance to intrinsic work values, workload attenuated the relationship between learning opportunities and work engagement., this effect was stronger among highly intrinsically oriented employees, than for their lowly oriented counterparts.	JD-R

<b>Author/date/location</b>	<b>Study population</b>	<b>Measure of engagement used</b>	<b>Methods</b>	<b>Main approach, intervention or factor</b>	<b>Mediating or moderating factors</b>	<b>Results</b>	<b>Dominant theoretical framework</b>
Van der Colff and Rothmann (2009) <sup>300</sup> South Africa	818 registered nurses in public and private hospitals, mainly female	17-item UWES	Self-report survey Multiple regressions	Nurse stress, coping orientation, orientation to life	n/a	- moderate negative association between emotional exhaustion and engagement - moderate negative association between depersonalisation and engagement + moderate positive association between personal accomplishment and engagement Overall, low levels of occupational stress because of job demands, a strong sense of coherence, and approach-coping strategies predicted 24% of the variance in engagement	JD-R
Weigl et al (2010) <sup>301</sup> Germany	416 hospital physicians (mainly male population)	9-item UWES	Self-report surveys, 1 year lag between T1 and T2, 1.5 years between T2 and T3 SEM	Job control, work relationships, active coping	n/a	+ association between Job Control T1, Work Relationships T1, Active Coping T1 positively and Engagement T2 + association between Job Control T2, Active Coping T2 and Engagement T3	COR
Wong et al (2010) <sup>232</sup> Canada	280 nurses working in acute care; 93.5% female	9-item UWES	Self-report survey Structural equation modelling	Authentic leadership	Personal identification; social identification; trust in manager	Authentic leadership had an indirect effect on work engagement + association between trust and engagement + association between social identification and engagement	Authentic leadership theory

#### **6.4.1 Individual psychological states**

Eleven studies investigated the relevance of individual psychological states within wider models of engagement in the health context. Bakibinga et al<sup>94</sup> found in a qualitative study of 15 nurses and midwives that *self-care and self-tuning* could be used as a coping mechanism to maintain engagement levels. In a self-report survey in a health care organisation, Bal and Kooij<sup>281</sup> found that *psychological contracts* mediated the link between work centrality and engagement. Bechtoldt et al<sup>123</sup> in a two-wave survey of police officers and nurses found that *emotion recognition* moderated the link between surface acting *emotional labour* and engagement and between deep acting emotional labour and engagement. Van Beek et al<sup>298</sup> in a self-report survey of nurses and physicians found that aspects of *motivation* were linked with engagement.

A study of physiotherapists<sup>290</sup> found that *type A behaviour* including high levels of achievement striving and low levels of impatience-irritability were associated with higher levels of engagement. Sonnentag et al<sup>92</sup> in a two-wave survey of workers in a non-profit organisation offering services to people with special needs found that *low negative affectivity* and low levels of engagement at time 1 were associated with work engagement at time 2 but that levels of *psychological detachment* did not contribute to the prediction of engagement. Spence Laschinger et al<sup>206</sup> in a survey of newly graduated nurses found that *personal resources* were linked with engagement. Te Brake et al<sup>297</sup> in a survey of dental practitioners found a negative link between engagement and *burnout* and Van der Colff and Rothmann<sup>300</sup> showed in a study of nurses that there was a moderate negative association between *emotional exhaustion, depersonalisation* and engagement and a moderate positive link between *personal accomplishment* and engagement. Finally, Mauno et al<sup>121</sup> in a longitudinal study within one hospital found that both *job satisfaction* was positively, and *job insecurity* negatively, associated with engagement.

#### **6.4.2 Experienced job design related factors**

Twenty two studies investigated job design related factors. A positive link was found between *job resources* and engagement in twelve investigations (Hakanen et al<sup>289</sup> two-wave panel study; Mauno et al<sup>121</sup> two-wave longitudinal study).<sup>204-206, 280, 288, 286, 292, 295, 298, 299</sup> Nine studies looked at *job demands*<sup>114, 204, 285, 286, 288, 290, 299</sup> (Mauno et al<sup>291</sup> two-wave longitudinal study; Sonnentag et al<sup>92</sup> two-wave self-report survey). The evidence from these studies was

equivocal; some found a negative link between demands and engagement<sup>204</sup> but others found no association<sup>285</sup> or a positive association.<sup>290</sup>

Single studies have been conducted on other aspects of job design: Bamford et al<sup>110</sup> found a positive link between *areas of work life* and engagement; Gorter and Freeman<sup>285</sup> found that perceptions of *doing the job well* for patients, *the joy of working*, and *results* were linked with engagement for dentists; Hornung et al<sup>107</sup> found that *task idiosyncratic deals* were indirectly linked with engagement through complexity, control and hindrance; Taipale et al<sup>114</sup> found *autonomy* and engagement to be linked and Weigl et al's<sup>301</sup> time-lagged survey found *job control*, *working relationships* and *active coping* were linked with engagement. In two cross-sectional studies<sup>117, 233</sup> *structural empowerment* was linked with engagement.

### **6.4.3 Perceived leadership and management**

Eight studies examined aspects of leadership and management. Two found an indirect association between *authentic leadership* and engagement<sup>110, 232</sup>; both of these studies used a self-report survey. Two further self-report studies<sup>198, 293</sup> found a direct link between *supervisory support* and engagement – (note also that supervisory support is frequently an aspect of job resources and hence was also reported in several studies examined in section 6.4.2). Single studies found links between *empowering leadership*<sup>203</sup>, *transformational leadership*<sup>105</sup> (employee-supervisor dyad survey), and *leader consideration*<sup>130</sup> (two-wave study) with engagement. In one cross-sectional study<sup>193</sup> a weak positive association was found between *leader-member exchange* and engagement for part of the study sample.

#### **6.4.4 Individual perceptions of organisational and team factors**

Twelve studies met the inclusion criteria covering a range of aspects. Abdelhadi and Drach-Zahavy<sup>230</sup> in a mixed methods study found a positive association between *service climate* and engagement. Bal and Kooij<sup>281</sup> found that transactional *psychological contracts* were negatively associated and relational contracts positively linked with engagement and that psychological contracts mediate the association between work centrality and engagement in a self-report survey. In a further study, Bal et al<sup>282</sup> showed that psychological contracts fully mediated the link between developmental *HRM practices* and engagement, and that there was a negative link between accommodative HRM and engagement for some workers. In two self-report surveys, Spence Laschinger<sup>117</sup> and Spence Laschinger et al<sup>233</sup> found a positive link between *structural empowerment* and engagement. Individual studies found the following were positively linked with engagement: *nurse practice environment*<sup>194</sup>; *satisfaction with team work and perceived organisational support*<sup>193</sup>; *social support*<sup>198</sup>; *co-worker support*<sup>293</sup>; *work relationships*<sup>301</sup> (time-lagged study); and *holistic care climate*.<sup>200</sup> Cagin and Fish<sup>284</sup> found that the experience of *sexual harassment* was negatively linked with engagement in a cross-sectional study.

#### **6.4.5 Organisational interventions or activities**

Two studies reported on individual responses to organisational interventions. Bishop<sup>283</sup> found that participation in an offsite programme focused on the true meaning of caring raised engagement levels amongst 17 nurses. Rickard et al<sup>294</sup> found that engagement levels did not significantly change amongst a large group of hospital nurses and midwives following a workload intervention exercise.

### **6.5 Conclusions**

A total of 113 studies within the general workforce and 44 studies within the context of health that focused on the antecedents of engagement met the inclusion criteria. The majority of these studies used self-report cross-sectional surveys, and these studies can demonstrate correlation or association but not necessarily a causal relationship. A very small number of studies used qualitative or ethnographic methods. Thirty three studies within the general workforce and eleven in health used more complex methods such as diary studies, time-lagged surveys, pre/post intervention analysis or mixed methods. These studies are better able to demonstrate causal relationships between the variables. Studies were included from all



continents but most research had taken place in Europe, the USA and Canada (64%). Only two studies had taken place in the health care sector in the UK neither of which were conducted in England (see Appendix 7).

The majority of studies in the general workforce and all those within the health care sector used the Utrecht Work Engagement Scale and in consequence the majority of studies examined engagement as a psychological state of mind rather than as an intervention or management approach. Only four studies in total, two from the general workforce and two from the health care sector reported on the findings of an intervention aimed at enhancing engagement and only two studies examined engagement as a management style.

Antecedents were grouped under five headings: individual psychological states, experienced job design factors, perceived leadership and management factors, individual perceptions of organisational factors and organisational interventions. While many studies examined the interaction of a complex range of different variables, job design factors had received most attention (64 studies), followed by psychological states (52 studies), perception of the organisation/team (53 studies), leadership and management (36 studies), and specific interventions (nine studies). Within health, features of job design had been studied to a much greater extent than variables in other categories.

A very wide range of variables had been studied under each heading, with many factors having been examined in just one study. A number of factors were used in different studies as both an antecedent and a mediator or moderator. Given that findings were also often mixed or contradictory, coupled with the cross-sectional nature of many of the studies; it is difficult to discern any clear-cut emerging evidence in support of any one or set of specific antecedents or interventions that support engagement.

With regard to individual psychological states, the weight of evidence appears to suggest that positive states such as positive affect, optimism, personal resources, self-efficacy and resilience are more likely to be associated with high levels of engagement than are negative states such as pessimism, anger or negative affect; several studies in this area used complex methods such as diary studies, time-lagged surveys or dyad surveys. However, the affective shift model<sup>275</sup> proposes that the dynamic interplay between positive and negative states may have a role to play within wider models of engagement. Within the health care sector, the

eleven studies under this heading mainly used cross-sectional, self-report approaches, although Sonnentag et al's<sup>92</sup> two-wave study showed a link between low levels of negative affectivity and engagement, and Mauno et al<sup>121</sup> in a longitudinal study in a hospital showed that job satisfaction and also paradoxically job insecurity were associated with high levels of engagement.

A large number of studies have investigated the role of job design factors such as job resources in relation to engagement both within the wider workforce and in the context of health specifically. Generally, the emerging consensus within the general literature and within health care is that job resources can promote engagement, while job demands may be neutral, negative or positive in relation to engagement levels. Three studies using complex methods found an association between job crafting and engagement (see section 6.3.2.). However, researchers have included a very wide range of factors within models of both resources and demands, and have measured these in different ways, and as antecedent, mediating and moderating variables, so that evidence that resources promote engagement should be seen as tentative. Nevertheless, these findings corroborate those of the meta-analysis conducted by Crawford et al<sup>302</sup>, which included the results of 55 largely cross-sectional surveys and found that job resources and demands predicted engagement, with resources being somewhat more predictive than demands; job resources and challenge-type demands were positively related to engagement, while hindrance demands were negatively related; together these three aspects explained 19% of the variance in engagement levels. Similarly, the meta-analysis conducted by Halbesleben<sup>175</sup> involving 53 studies found a positive association between job resources and engagement and a negative association between demands and engagement.

Studies of leadership and management have broadly concluded that positive experiences of leader and manager behaviour promote engagement while negative experiences such as abusive supervision and supervisor incivility deplete engagement levels. There was most evidence of the impact of supervisory support on engagement within both the general workforce and within health care. Studies using complex methods within health found an association between empowering leadership and transformational leadership and engagement.<sup>105, 130</sup>

Similarly, studies of perceptions of the organisation/team have coalesced around the notion that positive experiences such as value congruence, identification, perceived organisational and co-worker support all promote engagement, While negative experiences such as inter group conflict or co-worker incivility lower engagement levels. Many studies under this heading used cross-sectional methods. Within health, very few studies under this heading used complex methods, although the findings of cross-sectional surveys generally also showed that supportive environments fostered engagement. Some interesting findings are starting to emerge with studies of the general workforce concerning the spill-over effects of engagement as associations were found in one study<sup>118</sup> that team engagement and individual engagement levels are correlated, and that colleagues' engagement was associated with individual engagement.<sup>134</sup>

The limited number of studies that have evaluated the effects of a specific intervention or approach have yielded mixed results although there does appear to be positive evidence from some of these<sup>214, 259</sup>, notably from studies that involved surveys at multiple time points. Two studies have been conducted within the health care sector; while Bishop<sup>283</sup> found that participation in an offsite programme focused on the true meaning of caring boosted engagement amongst 17 nurses, Rickard et al<sup>294</sup> did not find a significant change in engagement levels amongst a large group of nurses and midwives following participation in a workload exercise. Overall, the number of studies conducted to date is too small and the overall conclusions too mixed, to reach any definitive conclusions about the salience of workplace interventions for raising engagement levels.

## **Chapter 7**

### **Conclusions**

#### **7.1 Introduction**

In this report, we have presented the findings of an evidence synthesis focusing on three aspects of employee engagement: what is engagement; what antecedents are associated with high levels of engagement; what are the performance and personal outcomes associated with engagement. We have examined evidence concerning all three factors in relation to the workforce in general, and in the specific context of health care.

This report is timely; engagement is enjoying significant levels of popularity as a concept, notably in the UK, where the ‘Engage for Success’ movement has raised awareness of the potential for engagement to impact on individual wellbeing, corporate performance, and national productivity, and where the NHS has come under pressure to consider raising levels of engagement as a potential solution to some of the major challenges of staff morale, retention and performance. The question underpinning this report is: is this focus on engagement justified? Is there, in fact, any evidence that engagement levels make a difference and, if so, what does the research tell us are the factors most likely to yield high levels of engagement?

In this final chapter, we first summarise the methodology used in our study, and then outline the main findings arising in relation to each of our research questions. We then bring these together into an overarching synthesis, set within the context of some broader and more fundamentally challenging questions about the nature and meaning of engagement.

#### **7.2 Methods for the evidence synthesis**

We founded the approach to our evidence synthesis on the recommendations of Briner and Denyer<sup>37</sup> for the conduct of systematic reviews using a narrative approach, and adhered to the principles of quality, relevance, transparency, replicability and credibility. We aimed to produce a critical narrative around the evidence in order to generate new insights into

engagement, drawing on evidence obtained systematically from a review of relevant literature.

We started with four overarching research questions:

1. How has employee engagement been defined, modelled and operationalised within the academic literature?
2. What evidence is there that engagement is relevant for staff morale and performance?
3. What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?
4. What tools and resources would be most useful to NHS managers in order to improve engagement?

Research Question 4 was addressed outwith the scope of this evidence synthesis report, but based on the background research outlined in chapter 2 and on the results of the evidence synthesis. In addition to this report, and to address question 4, the project has yielded a set of outputs for practitioners including a conference, a workshop, a webinar, four podcasts, a set of practitioner guides, a report on the practitioner literature and a research paper on measuring engagement. These documents, or links to appropriate websites, are attached as appendices to this report.

The other three questions were further refined into detailed and specific questions that could be directly addressed from the literature, as outlined in section 2.3.1. The searching and sifting process yielded a final total of 214 items comprising four meta-analyses, 172 empirical articles and a further 38 theoretical/conceptual pieces. Data were extracted from these 214 items with the addition of three books using a data extraction form designed by the project team (see Appendix 4) and approved by the Advisory Group to enable evaluation for quality and relevance.

By following the recommendations of Briner and Denyer<sup>37</sup> for the conduct of evidence syntheses, we found far more items of potential evidence relating to engagement than we had envisaged at the outset, even by restricting publications to the English language and to the period post-1990. This vast body of work reflects the burgeoning interest in engagement that

has emerged particularly in the past 10 years on the part of both academics and practitioners. It reflects the wide range of meanings attached to engagement; as a ‘fashionable’ label<sup>16</sup>, it is one that has been used in many writings about all manner of aspects of the employment relationship (e.g. ‘involvement’), the experience of work, and leadership and management styles/approaches (e.g. ‘medical engagement’). It also highlights the extent to which some terms have become conflated. Disentangling what is distinctive and significant about engagement has been a major task of this evidence synthesis.

Following the data extraction stage, each research question was addressed in a separate chapter of this report. Evidence obtained from each item was tabulated under the appropriate headings, with summary results presented together with an overall synthesis of the findings for each research question. Research Question 1 was addressed in chapter 3; research question 2 was addressed in chapters 4 and 5; research question 3 was addressed in chapter 6. In parallel with the main data search and extraction exercise, the grey literature was systematically searched to generate material aligned with the main search and relevant to the practitioner outputs.

### **7.3 Synthesis of findings for research question 1: how has engagement been defined, modelled and operationalised within the academic literature?**

#### ***7.3.1 Defining engagement***

In order to address this question, we extracted data from the 172 papers that were included in the evidence synthesis for research questions 2 and 3 with the aim of establishing which models/frameworks were used within empirical studies. We further consulted 38 literature reviews and conceptual papers that were identified through the data extraction process, as well as other background books and papers on engagement identified as relevant.

This process revealed a complexity and confusion within the academic literature concerning the definition, meaning, modelling and operationalisation of engagement. This conceptual uncertainty is perhaps to be expected given that the notion of engagement is relatively recent, often being traced back to as recently as 1990, when William Kahn’s<sup>19</sup> seminal paper was published in the *Academy of Management Journal*. Here, he wrote about individuals’

‘personal engagement’ with their work, or the expression of their preferred selves under conditions of meaningfulness, safety and availability.

Since then, through our analysis of the literature, we identified six categories of definitions that have been developed and used as the basis of gathering and analysing empirical data on engagement. These six categories can be grouped under three headings: engagement as state; engagement as composite; and engagement as practice.

### *Engagement as state*

- *Personal role engagement* – according to this view, engagement is the expression of an individual’s preferred self during the performance of work tasks. This perspective originated in the work of Kahn<sup>19</sup>, and includes researchers who have sought to operationalise his theoretical framework. Kahn’s original research was qualitative and ethnographic and, building on this, four quantitative scales have been developed and used to measure engagement.<sup>3, 20, 70, 72</sup> Thirteen items used this definition of engagement.
- *Work task or job engagement* – including the work of the Utrecht Group<sup>63</sup> who have focused specifically on the notion of engagement with work tasks. According to this view, engagement is a multi-dimensional state with cognitive, emotional and energetic/behavioural attributes experienced by employees in relation to their work. One measure, the Utrecht Work Engagement Scale, has been developed and validated, with multiple variants in use. The measure has been widely adopted within the literature on engagement in the context of health; Simpson<sup>34</sup> has recommended that the Utrecht conceptualisation of engagement is the most relevant to the nursing context. As the dominant perspective on engagement, 148 items used this definition and measure.
- *Self-engagement with performance* – one measure has been developed that regards engagement as the extent to which high levels of performance are salient to the individual.<sup>80</sup> One paper used this measure.
- *Multidimensional engagement* – drawing on the work of Saks<sup>64</sup> who distinguishes between engagement with work as distinct from engagement with the organisation as a whole, seven papers used this definition.

### ***Engagement as composite***

- *Engagement as a composite attitudinal and behavioural construct* – drawing on the work of various consultancy firms and researchers who regard engagement as a broadly defined positive attitudinal state in relation to the organisation, this approach is what is commonly referred to as ‘employee engagement’. During the sifting/extraction process, several measures that fell under this heading were excluded for reasons of quality and validity. Most particularly, we excluded articles that drew on the Gallup Q12 measure of engagement due to concerns raised within the literature that this measure lacks construct and discriminant validity.<sup>16, 66</sup> However, one measure met the inclusion criteria, that of Swanberg et al<sup>76</sup>, and two papers used this perspective.

### ***Engagement as practice***

- *Engagement as practice* – scholars within the human resource management (HRM) field have recently begun to focus on engagement, and there is a small emergent literature on engagement as an employment relations practice.<sup>78</sup> Studies falling under this heading are to date qualitative and so no specific scale or measure has been developed, however, three studies adopting this perspective were identified and included in the analysis.

Overall, nine validated, quantitative scales used in empirical papers designed to measure engagement levels met the standards of quality and relevance and were included in the extraction process<sup>3, 20, 63, 64, 69, 70, 72, 73, 76, 181</sup> along with other perspectives that adopted a more qualitative/ethnographic approach.

### ***7.3.2 Synthesising the evidence on definitions of engagement***

The general picture to emerge from the analysis is that there is significant divergence of view over what engagement is, or is not. The dominant view is that engagement is a multi-dimensional psychological state experienced by the individual in relation to their work



activities, and the most widely adopted measure of this is the Utrecht Work Engagement Scale which evaluates work-related vigour, dedication and absorption. In fact, this was the only measure of engagement used in the papers that met the quality and relevance thresholds in the healthcare sector.

Although a large number of studies have demonstrated the validity and reliability of the UWES over a wide range of settings, occupational groups and national contexts<sup>58</sup>, some doubt nevertheless remains about the measure. Some have argued that there is no evidence of discriminant validity of the UWES compared with job satisfaction<sup>96</sup>, and others have suggested that the three-factor structure of the measure is not robust.<sup>97</sup> Goliath-Yarde and Roodt<sup>303</sup> have argued that cultural differences may be salient in understanding and interpreting the UWES, and Wefald et al<sup>97 (p87)</sup> go so far as to state that ‘the way engagement is typically measured may be inherently flawed ...’. While the majority of studies using the UWES have tended to combine the three facets into one higher-order construct, there is also evidence of studies that have examined engagement at the facet level and found less consistent and more complex results (see chapter 4). In a meta-analysis, Cole et al<sup>88</sup> found that of the three facets (vigour, dedication and absorption) within the UWES, dedication was the factor most closely related to job satisfaction and commitment. In some cases, the originators of the definition and measure have themselves argued that absorption can be omitted from the measure of engagement. For instance, Salanova and Schaufeli<sup>304 (p118)</sup> observed: ‘mounting evidence suggests that absorption, which is akin to the concept of flow ... should be considered a consequence of work engagement, rather than one of its components ... In contrast, vigour and dedication are considered the core dimensions of engagement.’ These findings suggest that some uncertainties remain over the construct validity and application of the most widely used measure of engagement.

Associated with this, there has been a debate over whether engagement is a trait, a state, or a state with trait-like properties.<sup>58</sup> Recent diary studies<sup>162, 258, 262</sup> that have examined the fluctuations of engagement levels through the working day suggest that engagement is a state that is susceptible to variation depending on environmental factors. It has additionally been proposed that engagement may be directed towards individual work tasks or be conceived as a collective, team-level experience.<sup>5, 89</sup> Insufficient studies have been conducted to date to draw any definitive conclusions on this point.

While most studies of engagement are predicated on the assumption that individuals experience the state of engagement in relation to their work, it has also been proposed that engagement can be directed towards one's employing organisation.<sup>64</sup> This idea has so far only been explored in a very small number of studies, but it suggests intriguing possibilities about the status of the engagement construct which may be of particular interest to practitioners. It also perhaps parallels developments within the literature on commitment, which similarly suggests that individuals can experience commitment in relation to a range of aspects of working life (for example, commitment to one's work group, line manager, organisation, or profession).

However, 'engagement as state' is just one of three potential variants in the way engagement has been conceptualised. We also found that engagement 'as composite' has been used in a number of studies. Here, most scales have been developed by survey houses and consultancy firms and many were excluded on quality grounds. This is the perspective that is perhaps most akin to what many practitioners understand as 'employee engagement' since it encompasses a range of positive attitudes towards the organisation and work setting, including satisfaction with line managers, senior managers, communication, resources and so on. It remains the case, though, that only a small minority of studies using this approach have been published in peer-reviewed journals and most efforts to operationalise engagement under this heading have failed to demonstrate its construct or discriminant validity.<sup>16</sup>

The final perspective, 'engagement as practice' is a new and emerging area of interest<sup>14, 15</sup> and, again, one that is of potentially considerable interest to practitioners. Only qualitative studies have been undertaken so far in this area. This conceptualisation of engagement is quite far removed from the notion of engagement as a psychological state of mind, and lies more squarely within the field of interest around involvement and participation. This nascent field has so far yielded a very small number of qualitative studies, yet offers rich potential for future development, bringing together the concerns of practitioners with the longstanding traditions of industrial relations scholars.<sup>305</sup>

In conclusion, the dominant perspective on engagement within the academic literature is of engagement as a multi-dimensional activated state of mind, measured by the Utrecht Work Engagement Scale. However, this is by no means the only conceptualisation of engagement,

and the sheer range of different meanings attached to ‘engagement’ has hampered the development of a persuasive body of knowledge and evidence.

### *7.3.3 Synthesising the theory of engagement*

Allied with the concern for explaining what engagement is and how its presence or absence can be evaluated, is the need for a theoretical explanation of how engagement ‘works’. Clearly, this depends to a large degree on how engagement is conceptualised. Nevertheless, an analysis of the empirical papers published on engagement showed that the overriding theoretical framework used to ‘explain’ engagement as a psychological state is the job-demands resources framework (JD-R). This perspective is based on the view that resources (both personal resources and job-related resources) serve to energise people, and foster high levels of engagement as part of a motivational resource-gain process, but that job demands spark a health impairment process that inhibits engagement.<sup>58</sup> 65 papers referred to the JD-R.

The second most widespread theory used in the literature is social exchange theory<sup>100, 101</sup> which is based on norms of reciprocity, such that it is argued employees with positive perceptions of how their employer views them would be more likely to respond by investing personal effort into their work in the form of engagement. Twenty six articles referred to social exchange theory. A very wide range of other theories was additionally used in empirical papers to explain the processes by which engagement works. In part, this broad range of theorisation is linked to engagement’s contested nature.

Although the JD-R is the cornerstone of theorising on engagement, doubt has been cast over its status as a theory. For instance, Bargagliotti<sup>33</sup> argues that the JD-R is a transactional model that cannot explain behaviour and motivation in complex or adverse situations such as medical emergencies. She states that the JD-R model ‘relegates the dedication of nurses, a distinguishing characteristic of the profession, to being a transactional commodity that occurs because someone else dispenses resources’.<sup>33 (p1416)</sup> Further, as we shall see in section 7.6, the evidence that resources boost engagement and demands deplete engagement is by no means clear-cut. Studies have shown that demands can reduce or increase engagement, or have a neutral effect.<sup>241, 243, 251, 265</sup>

The JD-R is a linear model that assumes individuals respond in rational ways to a limited range of aspects within their work setting and are driven purely to optimise their situation, but fails to take account of heterogeneous, micro and macro level contextual factors, interpersonal interactions, and emotional or irrational responses. It also fails to address issues of power and politics within the workplace, and the question of who controls the resources and demands experienced by workers. There is also no consideration within this model of diversity factors; as Banihani et al<sup>306</sup> write, engagement may well be a gendered construct, with access to the antecedents of engagement potentially more readily available to men rather than women, and with the display of engagement-related behaviours potentially more integral to the expression of masculinity than femininity within the workplace. Consideration of these factors is beginning to emerge within the writing on engagement ‘as practice’, embedded within industrial relations and industrial sociological perspectives.<sup>24, 78</sup> However, engagement ‘as practice’ is far removed conceptually and empirically from engagement ‘as state’, and a reconciliation of the divergent viewpoints and perspectives of these two strands of research is some way off.

In sum, theorising on engagement reflects its roots within positive psychology. Theories developed to ‘explain’ engagement have largely been set at the level of the individual, with a reliance on frameworks such as the job demands-resources framework and social exchange theory used to show how engagement becomes a good bestowed by the individual in response to perceived and experienced benefits from the immediate environment.

However, when Kahn<sup>19</sup> first proposed the concept of personal engagement, he described a dynamic interplay between the individual’s expression of their preferred self, the role they were asked to perform, interactions within the immediate work setting and wider, contextual factors. This more holistic model of personal engagement appears to capture something that is unique and different about engagement as a construct as compared with other attitudes, such as satisfaction or commitment, and places it within a broader contextual setting. Arguably, the introduction of additional theoretical insights from organisational sociological perspectives that further reflect considerations of power and politics would further enrich our understanding of engagement and go some way towards addressing what Godard<sup>99 (p1)</sup> refers to as the dangers and limitations inherent in the current trend towards the ‘psychologisation of employment relations’.

#### 7.4 Synthesis of findings for research question 2.1: what evidence is there that engagement is relevant for staff morale?

It has been widely argued that engagement is associated with higher levels of individual morale. But what evidence is there that this is in fact the case? We considered this question under two headings:

- (i) **Wellbeing and health perceptions:** including measures of life satisfaction<sup>145</sup> general and psychological health<sup>146, 147</sup> (e.g. GHQ-12, BDI), stress/burnout<sup>148</sup> (e.g. MBI), and various other aspects such as affect<sup>149</sup>, work ability<sup>150</sup>, and recovery.<sup>151</sup>
- (ii) **Work-related attitudes:** including measures of organisational commitment<sup>152, 153</sup>, job or career satisfaction<sup>154, 155</sup>, occupational or career success<sup>156</sup>, and turnover intentions.<sup>157, 158</sup>

We further considered this question in relation to both the general workforce and health care specifically. A total of 35 studies relating to the general workforce and 12 in relation to health care met the quality threshold and were included in the evidence synthesis. Several of these studies addressed more than one outcome criterion and a number also examined the association between various antecedents and engagement. Most studies were cross-sectional and so imputing causality should be treated with caution. From the studies focusing on wellbeing and health perceptions, the most consistent finding was a positive association between engagement and life satisfaction; five studies examined this link and two used complex methods. Engagement was also consistently found to be negatively associated with burnout (10 studies) although these studies were cross-sectional.

Thirty-one studies examined the link between engagement and work-related attitudes; the most consistent finding to emerge from these (nine studies) was that engagement was positively associated with organisational commitment, however, almost all these studies were cross-sectional. In a further 15 studies, engagement was found to be positively linked with job satisfaction (where this was treated as an outcome measure) although only one of these studies was longitudinal<sup>165</sup> and this study further suggested that job satisfaction may act as an antecedent rather than an outcome of engagement (see also section 7.6). Twenty-four studies found engagement to be negatively associated with turnover intentions and four of these

studies showed this association to be a mediated relationship (e.g. by commitment). Most studies were cross-sectional although some used complex methods. Within the context of health, one two-year study by Mache et al<sup>201</sup> involving surgeons found a positive association between engagement and work-related ability. It was noted that in those studies where engagement was broken down into different facets, rather than treated as a higher-order factor, the associations became more complex and tenuous.

If just those studies that took place within a healthcare context are considered, all 12 included studies took place outside the UK, and only the UWES was used to evaluate engagement levels. Only one of the 12 studies was longitudinal<sup>195</sup>, and this study found a positive association between engagement and life satisfaction and a negative association between engagement and depressive symptoms for dentists in Finland over three and four-year intervals. The other studies found associations between engagement and positive psychological outcomes such as psychological and general health and wellbeing, and between engagement and job satisfaction, career satisfaction and commitment. Negative links between engagement and intent to quit were found in seven cross-sectional studies. Generally, it is difficult to draw definitive conclusions in relation to the link between engagement and morale related outcomes for healthcare professionals on the basis of this body of evidence. Nevertheless, the weight of evidence tends to support the notion that engagement is linked with positive outcomes for healthcare workers, and the evidence is strongest in relation to the link between engagement, life satisfaction, and absence of depressive symptoms. Since this study involved just dentists and took place in Finland, it is uncertain whether the results would be replicated in different healthcare contexts or in the UK.

## **7.5 Synthesis of findings for research question 2.2: what evidence is there that engagement is relevant for performance?**

In order to answer this question we developed two sub-questions:

- 2.2a What evidence is there that engagement is relevant for performance within the workforce in general?
- 2.2b What evidence is there that engagement is relevant for performance within the context of health?

We classified outcomes as individual, or higher level (e.g. team, unit, organisational). Individual outcomes were considered under the following headings: in-role performance; extra-role performance (e.g. citizenship behaviour); and counterproductive performance (e.g. deviant behaviours). A total of 42 studies focused on these areas, of which just 6 were in a health care context. Again, many studies examined more than one outcome variable, and many also examined wider models of engagement that included antecedents.

The relationship between engagement and higher-level performance at the unit, team or organisational level was explored eight times. These showed support for the notion that engagement is associated with performance; however, most studies used individual perceptions of performance outcomes rather than objective performance data, and only a small number of studies used third-party data such as customer ratings. Five studies took place within a health care context and examined quality of care at the team/unit level. The results of these studies were inconclusive.

At the individual level, 22 studies examined the link between engagement and individual task-related performance outcomes within the general workforce; of these, 12 used self-reported performance data which can be subject to error. Ten studies used third-party performance ratings, such as co-workers, supervisors or customers. These studies using multiple informants, and often also other complex methods such as longitudinal analysis or diary studies; all showed a consistent association between engagement and performance outcomes either directly or as part of a mediated relationship. Thus, we can conclude that there is substantial support for the association between engagement and individual task performance outcomes. Within the health care context, two studies examined the link between engagement and individual performance and both showed a positive link.

Seventeen studies examined the link between engagement and extra-role performance within the general workforce. All these studies found a link between engagement and various aspects of extra-role performance including citizenship behaviour, innovative work behaviour, personal initiative, knowledge sharing, and creativity. However, the majority of these studies were based on cross-sectional self-report data. Two studies examined the link within the health care context and both similarly found a positive link; notably, one study by Hakanen et al<sup>231</sup> conducted over three years and involving 2,555 dentists found a positive link between engagement at time 1 and personal initiative at time 2. Three studies amongst the

general workforce (but none within the health care sector) found a negative link between engagement and counterproductive behaviour.

Overall, the strongest support was found for the link between engagement and individual in-role performance as all studies showed a positive association between the two. Support was also found for a negative link between engagement and counterproductive performance outcomes albeit most studies relied on cross-sectional, self-report data. A link between engagement and higher-level performance outcomes was also found, but most studies relied on subjective performance evaluations.

Only six studies took place within the healthcare context, and none of these were conducted in the UK. All of them used the UWES and all were cross-sectional, self-report questionnaire surveys except for one study which used a longitudinal design<sup>231</sup> and one that used a combination of methods: structured observations and survey data.<sup>230</sup> The inference of causality from most of the studies is therefore problematic. The most persuasive study, that of Abdelhadi and Drach-Zahavy<sup>230</sup> in Israel, showed that amongst a sample of 158 nurses, engagement was positively associated with nurses' patient centred care measured by structured observations, and that engagement mediated the relationship between service climate and patient centred care. Hakanen et al's<sup>231</sup> longitudinal study of 2,555 Finnish dentists showed that engagement and the use of personal initiative were positively and reciprocally related at two time points.

## **7.6 Synthesis of findings for research question 3: what approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?**

Our third research question concerned the link between approaches and interventions and engagement within the general workforce and within the health care context. We excluded demographic variables and personality variables from this analysis as neither constitute an approach or intervention, although we did consider these when they were relevant for understanding a wider model.

Our analysis showed that the antecedent factors fell under five broad headings:



- Individual psychological states, such as experienced psychological safety or availability. Forty-one studies within the general workforce and 11 studies within the health care context fell under this heading. A very wide range of psychological states was investigated. A number of these studies used complex methods such as diaries, time-lagged surveys or supervisor/employee dyads, lending weight to the overall finding that the states of self-efficacy, resilience and personal resources generally are positively associated with engagement. These psychological states were examined in terms of their direct association with engagement and as part of wider mediated/moderated models. There was also evidence that positive affect, psychological empowerment, experienced meaningfulness, safety and availability, job satisfaction, recovery/relaxation experiences and in fact a wide range of other psychological states may be relevant for engagement. Broadly, these indicated that positive states are more likely to be linked with engagement than are negative states, and that relaxation and recovery are likely to raise engagement levels. However, one study using the affective shift model<sup>275</sup> suggested that it is in fact the interplay between negative and positive affect that is relevant for engagement.
- Experienced job design related factors, such as task significance, variety, meaningfulness, autonomy, job demands and job resources. Forty-three studies within the general workforce and 22 within the health care sector came under this heading. A large number of studies, including those using complex methods, have found evidence that a range of job resources are associated positively with engagement. However, mixed results were obtained with regard to job demands; it may be that challenge demands raise engagement levels and hindrance demands lower engagement, but further research is needed to assert this with confidence.
- Perceived leadership and management factors, such as leadership style, authentic leadership, perceived supervisor support. Twenty-eight studies within the general workforce and 8 within health care were included. Generally, studies falling under this heading found a positive link between what might be regarded as positive or enabling approaches to leadership, such as supervisory support, ethical leadership, authentic leadership, charismatic leadership, and trust in leaders, and follower engagement. This included several studies using complex methods such as diary studies or involving

multiple respondents. Conversely, two cross-sectional studies found negative associations between more negative aspects of leadership, such as uncivil or abusive supervision and engagement.

- Individual perceptions of organisational and team-level factors, such as perceived organisational support, organisational mission, climate or culture and perceptions of colleagues and team. Forty-one studies within the general workforce and 12 within health care were included. A number of studies including one using complex methods found a link between perceived organisational support and engagement, although the findings relating to the link between the psychological contract and engagement were inconclusive. Researchers have studied a very wide array of variables under this heading with many being the focus of just one single study, thus drawing firm conclusions from these is difficult. Several studies found links between team-level and individual-level engagement, several using complex methods. It would seem that there is provisional evidence that the engagement levels of teams and individuals within them are associated. Further support is lent to this conclusion by the small number of studies that have examined negative aspects of the organisational environment, such as bullying and harassment, co-worker incivility and interpersonal conflict, which have all found the experience of these to be negatively linked to engagement.
- Organisational interventions or activities, such as specific training and development courses or communication activities. Seven studies within the general workforce and two within health care were included. A very small number of studies have been published in peer-reviewed journals that focus on evaluating interventions which, arguably, is the aspect of engagement that is of most interest to practitioners. Given the scarcity of studies, their individualistic nature, methodological limitations, and the range of interventions studied, it is difficult to draw any robust conclusions from this body of work. However, some studies using complex methods have yielded some potentially interesting findings. One study by Bishop<sup>283</sup> found that participation in an offsite programme focused on the true meaning of caring raised engagement levels amongst 17 nurses and another study amongst the general workforce also found that mindfulness training raised engagement levels.<sup>259</sup> Brummelhuis et al<sup>240</sup> found that new ways of working (choosing where and when to work) appeared to raise engagement levels, and Carter et al<sup>214</sup> found

that participation in a forum theatre training intervention buffered the drop in engagement levels following the announcement of a merger.

With regard to healthcare specifically, we found 42 studies met the inclusion criteria; two of these took place in the UK and all used the UWES to measure engagement. Several of these used complex methods such as diary studies, longitudinal surveys or mixed methods. Considering the findings that might be of most help and relevance to healthcare practitioners, a number of complex studies which considered the association between job design factors and engagement are of potential interest.<sup>92, 291</sup> These suggest that designing jobs in such a way that healthcare workers who perceive their employer to be providing them with the resources they need to do their work are more likely to be engaged. Weigl et al's<sup>301</sup> time-lagged survey of 416 hospital physicians in Germany also found a link between job control, working relationships and active coping with engagement. Most of the eight studies looking at aspects of leadership and management were cross-sectional. However, Gillet et al's<sup>105</sup> study involving nurse-supervisor dyads in France, found a link between transformational leadership and follower engagement and Hornung et al's<sup>130</sup> two-wave study of 142 doctors in Germany found that leader consideration towards employees led to higher engagement levels.

A small number of studies used complex methods to examine individual perceptions of aspects of organisational and team-level factors and engagement. Notable amongst these is the study by Abdelhadi and Drach-Zahavy<sup>230</sup> whose mixed methods study of 158 nurses in Israel found a link between service climate and engagement and that by Weigl et al<sup>301</sup> whose time-lagged survey showed that work relationships were linked with engagement.

Disappointingly, only two studies in the healthcare context examined specific interventions. Although Bishop's<sup>283</sup> study found that participation in an off-site programme focused on the true meaning of caring raised engagement levels amongst 17 nurses in the USA, Rickard et al<sup>294</sup> did not find that nurses' and midwives' engagement levels in Australia were influenced by participation in a workload intervention exercise.

In conclusion, studies of antecedent factors have lent most support to the potential relevance of the following factors for raising engagement levels amongst individuals, although the limitations with regard to healthcare workers outlined above should be borne in mind:

1. Positive psychological states, notably self-efficacy, resilience and personal resources.
2. Job-related resources and jobs enabling individuals to experience meaningfulness, safety and availability.
3. Positive and supportive leadership approaches, including supervisory support, ethical leadership, authentic leadership, charismatic leadership, and trustworthy leaders.
4. Perceived organisational support.
5. Team-level engagement.
6. Participation in training or development interventions designed to enhance personal coping strategies, resilience, or interventions allowing individuals choice and discretion in ways of working.

#### **7.7 Summary of findings for research question 4: what tools and resources would be most useful to NHS managers in order to improve engagement**

The purpose of the grey literature review was to try to achieve inclusivity of any relevant materials to this evidence synthesis to enhance rigour and overcome bias and, specifically to address research question 4, to consider what materials and tools from this wider resource might of relevance to practitioners in the healthcare context. Disappointingly, very little evidence from the review of grey literature was helpful in answering this research question. From six sources of practitioner materials we identified 14 items which covered a range of elements associated with engagement drawn from a number of countries, sectors and organisation sizes. Due to the nature of the study methods, none of them were able to establish causal links between the particular interventions, attitudes or behaviours being analysed and subsequent improvements in engagement. The findings were instead correlations or associations.

In contrast to the most common approach in the academic literature, where the concept of engagement is perceived as a positive psychological state, the review of these practitioner materials suggested the majority of definitions used in practice consider engagement as a general positive attitude towards the *organisation*, rather than an experience related to work activities or the job-role. In analysing the materials, seven key approaches emerged suggesting how engagement can be improved. These were:

- **Senior Leadership**

Practitioner studies showed an association between positive perceptions or trust in leaders and increased engagement, although one study found that higher levels of employee engagement were associated with lower ratings of senior manager effectiveness.

- **Role of the Line Manager**

The role and behaviour of the line manager was one of the key factors associated with employee engagement. Types of behaviours shown to be correlated with engagement were clear and respectful communication, recognising and involving team members, and being supportive and approachable.

- **Appraisal, performance management and training**

Good quality appraisals, having performance development plans and being able to undertake training and development opportunities were shown to be linked with higher levels of engagement. One important caveat was that a poor appraisal may be linked to lower levels of engagement than having no appraisal at all.

- **Meaningfulness**

In one study, meaningfulness, defined as '*the extent to which employees find meaning in their work...where people can see the impact of their work on other people or society in general*',<sup>168 (p23)</sup> was shown to be a relevant factor associated with high levels of engagement.

- **Employee voice**

This refers to the opportunities employees have to input into decisions affecting their work and to be properly consulted. It was identified as a strong driver of engagement in a number of practitioner studies.

- **Team working**

Being part of a well-structured team that has shared and clear objectives was associated with increased levels of engagement. Other related factors such as perceived organisational support and co-worker quality were also found to be associated with high levels of engagement.

- **Work-life balance**

There was evidence that people on flexible contracts, those satisfied with their work-life balance, and those feeling that their work-life balance was supported by their employer demonstrated higher levels of engagement.

These approaches are explored in much greater depth in a series of practitioner outputs provided in the Appendices to this report.

## **7.8 Overall synthesis of findings**

In this synthesis, in order to address our research questions, we have examined the antecedents of engagement separately from the outcomes, and we have further broken down and analysed separately the findings relating to each potential outcome and antecedent. However, it should be noted that the majority of the studies reviewed in this report have in fact examined a range of antecedents and outcomes, and that in many instances both antecedents and outcomes have been examined within the same study. Engagement itself has been treated as an antecedent, mediator, moderator or outcome, depending on the focus of the study. It is beyond the scope of this rapid review to examine these holistic models in any detail, given their range and complexity. Nevertheless, it should be borne in mind when considering the overall findings presented in this report that a main focus within the literature has been on examining engagement as embedded within a broad network of factors.

In summary, we have found that engagement first appeared in the academic literature as a discrete construct in 1990. Over the past 10 years in particular, there has been a significant increase in interest in engagement, with the publication of a very rapidly growing volume of research findings. Uncertainties and disagreements over the meaning, nature and measurement of engagement have led to a splintering of the literature and the proliferation of different understandings and interpretations. Engagement has been viewed as a state, as a composite, and as practice. Despite this, the academic field has come to be dominated by the work of the Utrecht Group and their associates worldwide, with ‘state engagement’ seen as a higher-order construct comprising vigour, dedication and absorption within the job demands-resources framework.

Some evidence emerged from our review of the literature to suggest that engagement is associated with beneficial outcomes for the individual, notably life satisfaction,

organisational commitment and job satisfaction, while being negatively associated with turnover intentions and burnout. There was also some consistent evidence from a range of studies using different methodologies that engagement is associated with higher levels of performance at the individual level, and with extra-role performance. The literature on antecedents of engagement was diffuse; however, evidence emerged which showed positive psychological states, job-related resources, positive leadership, perceived organisational support, team-level engagement and some interventions designed to foster engagement were associated with higher levels of individual engagement.

## **7.9 Implications for practice**

The findings of this review have a number of implications for practice, notably within a health care context. These implications should, though, be considered alongside a number of caveats. First, many studies are cross-sectional and self-report, and therefore it is difficult to be sure of the direction of causality, or to determine whether common method bias is a factor. Second, due to publishing norms within the social sciences, replication studies are almost non-existent; consequently, many relationships between antecedents, engagement, and outcomes are examined in single studies, and so a cumulative body of evidence has not been assembled to support or refute particular propositions. Third, the majority of research within the engagement field has focused on engagement as a psychological state and has not examined issues of most interest and relevance to practitioners, such as the impact of initiatives aimed at raising engagement levels. Fourth, the amount of variance in engagement levels that has been found in research studies is in the majority of cases very small, even when the variance is statistically significant. Whether these differences in fact make a practical difference in an organisational setting is often unclear. Finally, the variety of ways in which engagement has been defined and measured means that there is a lack of comparability across the body of research on engagement that makes generalisation difficult.

Bearing these points in mind, this synthesis nevertheless sheds light on some aspects of engagement that are of relevance to practitioners. Specifically, the synthesis has found evidence that high levels of engagement are beneficial for both individuals and organisations, and therefore it is desirable for organisations to consider finding ways of raising levels of staff engagement.

The evidence synthesis suggests that six factors may be especially salient for raised engagement levels:

1. The positive psychological states of self-efficacy, resilience, and perceived personal resources have been found to be linked with high levels of engagement. Organisations that find ways to foster these states amongst the workforce may help to bolster engagement levels. States such as these can be fostered through a range of initiatives including personal development and training that strengthen employees' self-belief, or through mentoring or coaching on the job.
2. Job design features including the provision of job-related resources and the design of jobs allowing individuals to experience the psychological states of meaningfulness, safety and availability through their work. It has been suggested that employees are more likely to experience these latter three states when they work in jobs that enable them to express their authentic selves. This can be achieved through ensuring that there is a good 'fit' between the individual's role preferences and their job. Line and senior managers can articulate the meaning and significance of the work that is being undertaken, and provide employees with the physical and intangible resources needed to perform the job successfully.
3. Positive and supportive leadership and line management. Studies have found a link between various types of leadership including authentic, transformational, empowering, charismatic and trustworthy leadership behaviours and engagement, and between supervisory support and engagement. These findings suggest that leadership behaviours have an important role to play in the experience of engagement on the part of followers, and that organisations that invest in leadership and supervisory/management training and development may enjoy higher levels of engagement amongst the workforce.
4. Studies have found that where employees perceive high levels of organisational support, they are more likely to be engaged. Thus, organisations that demonstrate a genuine concern for their staff, provide staff with support to perform their jobs and support at a personal and individual level, may enjoy higher levels of engagement.



5. Some studies have shown that there may be a link between the level of engagement enjoyed at team level and that of the individual employee. This is an emergent area of interest, but nonetheless there is some evidence that engagement spills over between teams and individuals. Therefore it would appear important for organisations to consider and seek to manage not only the engagement levels of individual workers but also those of teams and work units.
6. Participation in training or development interventions designed to enhance personal coping strategies, resilience, or interventions allowing individuals choice and discretion in ways of working. Although this is another new and emergent area of research, there is some evidence from intervention studies that participation in programmes or initiatives aimed at fostering high levels of personal engagement or that enable individuals to feel involved and empowered in aspects of their working arrangements that affect them may help raise engagement levels.

### **7.10 Recommendations for future research**

Despite the growing volume of research on engagement, our evidence synthesis has highlighted an urgent need for further research on a range of topics. Out of 5,771 items identified in our search, only 172 empirical studies met the quality threshold, suggesting that a great deal of what has been written about engagement is at best incomplete or under-theorised.

1. There is a general need for further longitudinal research on both the antecedents and the outcomes of engagement within the health care context specifically. Only a small proportion of the studies that were included in the evidence synthesis were based in this sector, and, in particular, only six studies have focused on the performance outcomes of engagement within a health care context. Only two studies had been conducted within the UK focusing on the antecedents of engagement. There is little evidence drawn from longitudinal studies to date.
2. More research is needed that focuses on engagement ‘as practice’ and, in particular, there is a need for more longitudinal studies that examine the impact of initiatives aimed at enhancing engagement levels within the context of health care. It would be

useful to gain further insights into what interventions have the most impact and under what conditions.

3. Most of the high quality evidence that is available lies outside of the health care context. The highly specific and professionalised nature of the health care context, along with its external performance demands, means that some of the frameworks and findings identified in the wider literature may be more - or less - significant. More robust research is needed which applies and contextualises the more generic frameworks around employee engagement to the health care context.
4. Further research could usefully examine the link between engagement and patient safety and the quality of care. It was disappointing to note the dearth of high quality research in this area.
5. More multi-method, qualitative or ethnographic research on engagement within health care would be welcome, allowing a greater sensitivity to the relevance of context.
6. Very little research within the engagement field has considered issues of diversity and equality. For instance, more research that investigates the antecedents and outcomes of engagement, as well as the experience of engagement, from the perspectives of employees from various backgrounds would be welcome.
7. Further studies that investigate the interaction of engagement at different levels, individual, work group/team and organisational, would shed light on the experience of engagement.
8. Research that evaluates the comparative salience of a range of different antecedents to engagement would be welcome; hitherto, studies have focused on a relatively limited range of antecedents and so there is a dearth of research that compares and contrasts the potential importance of a range of antecedents for engagement levels.
9. It would be useful to know more about the focus of individuals' engagement, for instance, are people engaged with their job, their work team, their organisation or their profession, and what are the implications of this.

10. All research on the antecedents of engagement with a health care context included in this review used the Utrecht Work Engagement Scale to measure engagement. Quantitative studies that use other measures and conceptualisations of engagement to test out alternative perspectives on engagement that may be relevant within a health care context would be welcome.

## 7.11 Conclusions

In this synthesis, we have reported on the evidence accumulated in relation to the meaning, antecedents and consequences of engagement as published in the English language since 1990. In conclusion, despite the enormous amount that has been written, there is in fact still very little about engagement that can be asserted with any degree of certainty; we do not really know what engagement means, how to measure it, what its outcomes are, or what drives up levels of engagement.

The literature is fractured, with so many different meanings attached to the engagement that it does not make sense to talk of engagement as one single construct. Schaufeli<sup>58</sup> captures some of the tensions within the literature on engagement when he notes that the prevailing academic definition of engagement as a psychological state are very narrow, but that by extending these to incorporate behaviours, the distinctiveness of engagement becomes lost. Jenkins and Delbridge<sup>78</sup> bemoan the acontextual writing of much of the engagement literature, and Guest<sup>16</sup> notes that engagement as a composite construct risks being dismissed as a management fad. While Keenoy<sup>24</sup> argues that the notion of engagement is inherently managerialist, others have commented on engagement's potential 'dark sides'; Bakker et al<sup>307</sup> suggest that engagement may tip over into workaholism, and Schaufeli and Salanova<sup>89</sup> note that high levels of engagement risk leading to burnout when the balance of give and take between employer and employee is disturbed. The sceptics' view that engagement adds little or nothing to our understanding of workplace attitudes over and above more established constructs such as commitment and satisfaction, has not yet been fully disproved.<sup>17, 25</sup>

What can be said now is that there is a body of evidence which lends some support to the view that high levels of engagement are beneficial for individuals and employers, and that aspects of what might be considered good management and leadership practice may serve to

raise engagement levels. However, even in studies where statistically significant relationships have been found between a range of antecedents, a range of outcomes, and engagement, the degree of substantive difference that is 'explained' in relation to engagement is often negligible and may be of relatively little practical concern in the workplace.

In order to be sure that advice given to practitioners is founded on best evidence, there is a significant need for further research on the topic. Of particular relevance here is the fact that there is a dearth of research on engagement set within health care organisations in the UK published in academic journals. Given that much of the extant research on engagement does not take account of context, it is difficult to be sure of the relevance and applicability of current findings for this setting. Despite this somewhat pessimistic conclusion, the topic of employee engagement continues to show significant promise as an area for research and practice. There is much scope for further research that seeks to develop and extend current conceptualisations and theorisations of engagement through investigations that take greater account of the organisational and political contexts within which engagement is enacted and experienced.

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## **Contributions of Authors**

Professor Catherine Bailey (Principal Investigator and corresponding author) oversaw the project, contributed to the development of the search strategy, undertook the sifting of studies for inclusion and data extraction and prepared the final data for publication. She wrote chapters 1, 3, 6 and 7 and produced the full report. Her areas of expertise include employee engagement, human resource management in the public sector and meaningful work.

Dr Adrian Madden (Research Fellow) contributed to the development of the search strategy, conducted the preliminary trials and main searches, managed the project databases, undertook the sifting of studies for inclusion and data extraction and prepared the final data for publication. He wrote chapter 2 and assisted with the production of the full report. His areas of expertise include research and review methodologies, community governance and meaningful work.

Dr Kerstin Alfes (Co-Investigator) contributed to the development of the search strategy, undertook the sifting of studies for inclusion and data extraction, advised on the interpretation of statistical data and prepared the final data for publication. She wrote chapter 5. Her areas of expertise include employee engagement, strategic HRM and work intensification.

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# Appendices



## **Appendix 1: Employee engagement search terms and strategy**

### Terms associated with “engagement” in the literature

“Absorption”  
“Active engagement”  
“Affective engagement”  
“Agency AND engagement”  
“Authentic engagement”  
“Behavioural engagement”  
“Cognitive engagement”  
“Continuous engagement”  
“Dedication”  
“Democratic engagement”  
“Emotional engagement”  
“Employee engagement”  
“Employee voice”  
“Intellectual engagement”  
“(Industrial OR workplace) AND democracy”  
“Job Engagement”  
“Job involvement”  
“Organizational involvement”  
“Organizational engagement”  
“Personal engagement”  
“Physical engagement”  
“Professional engagement”  
“Professional involvement OR integration”  
“Relational engagement”  
“Social engagement”  
“Social partnership for\*” OR “Social partnership working”  
“Staff engagement”  
“State engagement”  
“Team engagement”  
“Trait engagement”  
“Transactional engagement”  
“Transformational engagement”  
“Vigor” OR “Vigour”  
“Work engagement”  
“(Worker OR employee OR staff) AND empowerment”  
“(Worker OR employee OR staff) AND integration”  
“(Worker OR employee OR staff) AND involvement”  
“(Worker OR employee OR staff) AND participation”  
“Workplace engagement”

### Terms related to “outcomes” and engagement

#### Outcomes - Performance

“Organisational performance”  
“Patient safety”  
“Performance”  
“Productivity OR effectiveness OR efficiency”  
“Quality of care”

#### Outcomes – Morale

“Absenteeism”  
“Job satisfaction”

“Retention / Turnover”  
“(Staff OR worker OR employee) AND health”  
“(Staff OR worker OR employee) AND well-being”

Outcomes – both  
“Caring” OR “compassion”  
“Creativity”  
“Innovation”  
“Patient satisfaction”  
“Promotion”

Terms associated with “evidence”

Primary data  
Secondary data  
Case studies  
Evidence\*  
Evaluations  
Impact assessments  
Meta-analy\*  
Systematic Reviews  
Diaries  
Feedback  
Analy\*  
Survey  
Interviews  
Observations  
Tests

## Appendix 2: List of approved grey literature sources

### Source

---

ACAS research papers  
Blessing White  
CBI  
CIPD  
Corporate Leadership Council  
Department for Business, Innovation and Skills (BIS)  
Engage for Success  
Eurofound  
Gallup Business/Management Journal  
GSR (Government Social Research/Government Research Service)  
Harvard Business Review  
Hay Group  
Health Service Journal (HSJ)  
Hewitt Associates (Now Aon Hewitt)  
IES  
International Labour Organisation (ILO)  
Involvement and Participation Association  
IPSOS Mori  
Kennexa  
McKinsey  
Mercer  
NHS Employers  
NHS Institute  
NICE  
Nursing Times  
Optimise Ltd.  
People Management  
Personnel Today  
Policy Studies Institute (PSI)  
Roffey Park

Routledge Research in Employment Relations  
 Society for Human Resource Management (SHRM)  
 The Boston Consulting Group  
 The Future of Work (ESRC)  
 The King's Fund  
 The Work Foundation  
 Towers Watson  
 UK Commission for Employment & Skills (UKCES)

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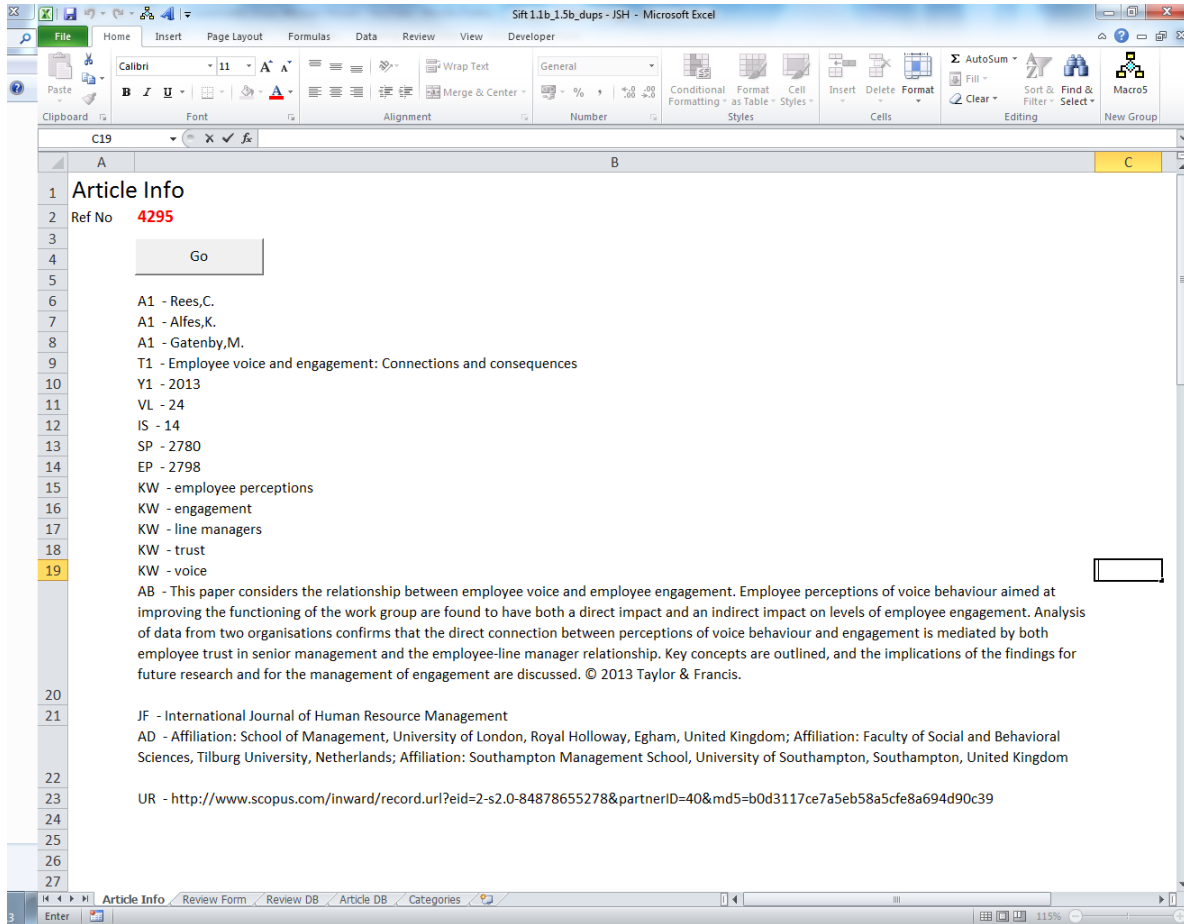
<b>Organisation type</b>	<b>No. of sources</b>
Advisory body	1
Agency	1
Book series	1
Charity	8
Consultancy	12
Employer standard	1
EU agency	1
Event organiser	1
Government / Policy	4
Government agency	1
Government research service	1
International agency	1
Journal	1
Lobbying organisation	1
Membership	5
Membership / consultancy	3
Movement	1
Network	4
Network / resources	1
NHS membership	2
Non-departmental public body	2
Professional / membership	13

Professional council	5
Publication	8
Publication / (RCN)	1
Regulator	3
Research Institute	11
Research Institute / HE	16
Research network	1
Research programme	1
Royal College	13
Think Tank	3
Trade Union	7
Training provider	1
Total	136

---

## Appendix 3: Sample sifting interfaces

### (i) Article information interface



The screenshot shows a Microsoft Excel spreadsheet with the following content:

	A	B	C
1	<b>Article Info</b>		
2	Ref No	4295	
3			
4	<input type="button" value="Go"/>		
5			
6	A1 - Rees,C.		
7	A1 - Alfes,K.		
8	A1 - Gatenby,M.		
9	T1 - Employee voice and engagement: Connections and consequences		
10	Y1 - 2013		
11	VL - 24		
12	IS - 14		
13	SP - 2780		
14	EP - 2798		
15	KW - employee perceptions		
16	KW - engagement		
17	KW - line managers		
18	KW - trust		
19	KW - voice		
20	<p>AB - This paper considers the relationship between employee voice and employee engagement. Employee perceptions of voice behaviour aimed at improving the functioning of the work group are found to have both a direct impact and an indirect impact on levels of employee engagement. Analysis of data from two organisations confirms that the direct connection between perceptions of voice behaviour and engagement is mediated by both employee trust in senior management and the employee-line manager relationship. Key concepts are outlined, and the implications of the findings for future research and for the management of engagement are discussed. © 2013 Taylor &amp; Francis.</p>		
21	<p>JF - International Journal of Human Resource Management AD - Affiliation: School of Management, University of London, Royal Holloway, Egham, United Kingdom; Affiliation: Faculty of Social and Behavioral Sciences, Tilburg University, Netherlands; Affiliation: Southampton Management School, University of Southampton, Southampton, United Kingdom</p>		
22	<p>UR - <a href="http://www.scopus.com/inward/record.url?eid=2-s2.0-84878655278&amp;partnerID=40&amp;md5=b0d3117ce7a5eb58a5cfe8a694d90c39">http://www.scopus.com/inward/record.url?eid=2-s2.0-84878655278&amp;partnerID=40&amp;md5=b0d3117ce7a5eb58a5cfe8a694d90c39</a></p>		
23			
24			
25			
26			
27			

(ii) Reviewers “review form” interface (with drop down menu showing “inclusion / criteria”)

The screenshot displays a Microsoft Excel spreadsheet titled "Sift.1.1b\_1.5b\_dups - JSH - Microsoft Excel". The active sheet is "Review Form". The form is structured as follows:

- Row 1:** Title "Reviewer Form".
- Row 2:** "Reference No:" with the value "4295".
- Row 3:** "Reviewer No:" with a dropdown menu showing "2".
- Row 4:** "Considered:" section with checkboxes for "Title" (checked), "Abstract" (checked), and "Full Item" (unchecked).
- Row 7:** "Scope" section with checkboxes for "Employee engagement" (unchecked), "Staff engagement" (unchecked), "Work / job engagement" (checked), "Personal engagement" (unchecked), "Organisational engagement" (unchecked), and "Combination" (unchecked).
- Row 13:** "Is it peer-reviewed?" with a checked checkbox.
- Row 14:** "Type of publication" dropdown (selected: "1. Peer reviewed article") and "Type of resource" dropdown (selected: "1. Appears to be based on data").
- Row 17-20:** "Sift for potential relevance to RQs" section with checkboxes for RQ1 (unchecked), RQ2 (checked), RQ3 (unchecked), and RQ4 (unchecked).
- Row 21:** "Inclusion / Exclusion criterion for sift 1 (any one of)" dropdown menu.
- Row 22-26:** The dropdown menu is open, showing a list of criteria:
  1. Include
  2. Exclude - dated pre 1990
  3. Exclude - Not in English language
  4. Exclude - Empirical but study design does not include employees
  5. Exclude - Opinion piece only / No evidence
  6. Exclude - Item not related to research questions
  7. Exclude - Other (specify)
- Row 26:** A "Save" button is located to the right of the dropdown menu.

The Excel interface includes the standard ribbon (File, Home, Insert, Page Layout, Formulas, Data, Review, View, Developer) and the status bar at the bottom shows "Ready" and "115%" zoom.

(iii) Sample of compiled results from (ii) above: the reviewed items database

Ref No	Reviewer	Title	Abs	Full	Employee	Staff	Work	Personal	Organisati	Combinati	Peer-Rev	Publicatio	Resource	RQ1	RQ2	RQ3	RQ4	Exclusion	Comment
2	1	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
5	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
10	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	FALSE	FALSE	1	
11	1	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	TRUE	TRUE	FALSE	FALSE	7	Appears to be using source data & 2 ref
26	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	FALSE	FALSE	1	
29	1	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	TRUE	FALSE	1	
33	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	TRUE	TRUE	FALSE	5	
51	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
52	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
53	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
56	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
62	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
63	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
64	1	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	TRUE	FALSE	7	Notes a dip in morale in one place but
71	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	TRUE	FALSE	7	Notes a dip in morale in one place but
97	1	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
103	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	TRUE	FALSE	FALSE	5	
112	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	TRUE	FALSE	5	
116	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	TRUE	FALSE	FALSE	1	
122	1	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	FALSE	FALSE	1	
126	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	TRUE	FALSE	FALSE	5	
128	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
129	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	TRUE	FALSE	FALSE	FALSE	5	
146	1	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	7	FALSE	TRUE	TRUE	FALSE	1	
148	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	8	FALSE	TRUE	TRUE	FALSE	5	Employee commitment
153	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
159	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
164	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
167	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	6	
170	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	6	
173	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	6	
174	1	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
175	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
178	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
182	1	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	TRUE	5	
188	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	6	
191	1	TRUE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	TRUE	5	
192	1	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	FALSE	FALSE	1	
215	1	TRUE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	TRUE	5	Reference to on-line survey noted
219	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
228	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	TRUE	FALSE	5	
230	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	TRUE	FALSE	FALSE	5	
235	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	TRUE	FALSE	5	
236	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	1	FALSE	TRUE	TRUE	FALSE	1	
243	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	FALSE	FALSE	FALSE	FALSE	5	
247	1	TRUE	TRUE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	9	5	TRUE	FALSE	FALSE	FALSE	5	



## Appendix 4: Data extraction form

### NIHR Evidence Synthesis: Employee Engagement Data Extraction Form

Paper checked by: .....Name of reviewer.....  
Date: .....Date.....

Paper reference ID	
Authors	
Year	
Title	
Journal	
Vol/issue/pages	

#### **Abstract**

Insert abstract here ...

**Exclusion Filter (tick)**

<b>Exclude</b>	
Source is not peer-reviewed (if exception, explain)	
Article is not focused on employee/work engagement	
Contains data but outcome variables exclude those identified as key terms (morale and performance: RQ2) or closely associated outcomes (e.g. wellbeing, turnover, absence, OCB, patient care)	
<b>AND:</b> paper does not identify any factors associated with/interventions relating to engagement (RQ3)	
<b>AND:</b> there is no definition, model or operationalisation of engagement (RQ1)	
Population does not include employees	
Does not meet quality criteria identified below (see table). Explain:	
<b>Include</b>	
Possible 'exemplar' article – for which RQ and why	

**RQ2 What evidence is there that engagement is relevant for staff morale and performance?**

**2.1 What is the evidence that engagement is relevant for staff morale within the workforce in general?**

*(Morale to include: morale; happiness; wellbeing; absenteeism; turnover intentions; depression; anxiety; stress; burnout etc).*

Author/date/location	Study population	Measure of engagement used	Methods	Type of analysis	Outcome measures and level (individual/org)	Results/significance	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**

**RQ2 What evidence is there that engagement is relevant for staff morale and performance?**

**2.1 What is the evidence that engagement is relevant for staff morale within the context of health?**

*(Morale to include: morale; happiness; wellbeing; absenteeism; turnover intentions; depression; anxiety; stress; burnout etc).*

Author/date/ location	Study population	Measure of engagement used	Methods	Type of analysis	Outcome measures and level (individual/org)	Results/significance	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**

**RQ2 What evidence is there that engagement is relevant for staff morale and performance?**

**2.2 What evidence is there that engagement is relevant for performance at the a) individual b) unit, team or group c) organisational or d) patient/client level within the workforce in general?**

*(Performance to include: individual performance; OCB; unit/team performance; organisational performance; financial outcomes; other firm-level outcomes; measures of effectiveness or efficiency)*

Author/date/location	Study population	Measure of engagement used	Methods	Type of analysis	Outcome measures and level (individual/org)	Results/significance	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Identified by authors:**

**Identified by reviewer:**

**Key contribution or strengths of the study/quotes**

**RQ2 What evidence is there that engagement is relevant for staff morale and performance?**

**2.2 What evidence is there that engagement is relevant for performance at the a) individual b) unit, team or group c) organisational or d) patient/client level within the context of health?**

*(Performance to include: individual performance; OCB; unit/team performance; organisational performance; financial outcomes; other firm-level outcomes; measures of effectiveness or efficiency; patient outcomes etc)*

Author/date/location	Study population	Measure of engagement used	Methods	Type of analysis	Outcome measures and level (individual/org)	Results/significance	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**

**RQ3 What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?**

**3.1 What evidence is there concerning approaches and interventions within an organisational setting at either a) the individual b) the unit, group or team or c) the organisational level that create and embed high levels of engagement within the general workforce?**

*(Approaches and interventions to include: specific interventions such as job redesign, engagement strategies, participation etc as well as ‘input variables’ that are found to influence people’s level of engagement which could include a wide range of factors such as perceived supervisor support; perceived organisational support; aspects of job design such as autonomy, feedback etc.)*

Author/date/location	Study population	Measure of engagement used	Methods	Type of analysis	Main approach, intervention or factor	Mediating or moderating factors	Results/significance, strength of link to engagement	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**

**RQ3 What approaches and interventions have the greatest potential to create and embed high levels of engagement within the NHS?**

**3.2 What evidence is there concerning approaches and interventions within an organisational setting at either a) the individual b) the unit, group or team or c) the organisational level that create and embed high levels of engagement within the health context?**

Author/date/location	Study population	Measure of engagement used	Methods	Type of analysis	Main approach, intervention or factor	Mediating or moderating factors	Results/significance, strength of link to engagement	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**



**RQ1 How has employee engagement been defined, modelled and operationalised?**

**1.1 How is employee engagement defined within the academic literature and in the health context?**

**1.2 How has engagement been measured and evaluated within the academic literature?**

**1.3 What theories are used to underpin models of engagement within the academic literature?**

(Engagement to include all forms of engagement e.g. work engagement; employee engagement; organisational engagement – state which).

Author/date/ location	Definition of engagement	Measure of engagement used	Overall model supported by the findings	Dominant theoretical framework

**Limitations of study identified by authors and by reviewer**

**Key contribution or strengths of the study/quotes**

## Appendix 5: Guide for Assessing the quality of methods of research / evidence gathering

Criteria	Quantitative	Qualitative	Mixed (additional issues)	Meta-analysis
<b>Adequacy</b> (i.e. sufficiency of approach, etc. to meet research aims)	Of sample, research design, etc.  Content Validity: does the measure actually measure what is claimed  Predictive validity: does the study predict the required outcomes  Construct validity: are the measures in the study distinct; not too high correlation between the constructs	Are the listed factors of local / wider context made clear in the research account  Is there sufficient recognition of the impact of these and other factors in the research / analysis to enable judgement as to the likely accuracy of claims	Are both approaches sufficiently well configured; are they inter-related or parallel (i.e. answering same or different questions)  Does the approaches complement each other (elaboration, enhancement, illustration; clarification: Greene et al 1989)	Does the analysis address a focused question; does the analysis address this in a coherent way  Was the validity of included studies appraised  Is the meta-analysis based on a reasonable number of studies  Were unpublished studies included and controlled for
<b>Sensitivity</b> (and specificity, to uncover findings that fit or don't fit with hypotheses or RQs. It also relates to ethical issues, e.g. equality & diversity)	Of research design to context / engagement	Is the sample 'purposive' to the aims of the research: how were participants selected?  Is lay / local knowledge included and given credibility  Has the research been adapted / refined to meet contextual variables; is this clear / are lessons evident	Do mixed methods provide additional value, e.g.:  Are the results from one method used to inform the other (i.e. triangulated)  Do contradictions between findings lead to a reframing of RQs	Are inclusion / exclusion criteria sensitive to the current interests to justify extraction  Were important studies omitted: why?
<b>Relevance</b> (i.e. is method appropriate; is it within project parameters; evidence of impact)	To EE Evidence Review RQs  Have appropriate scales been used  Have appropriate statistical analyses been employed  Are statistical thresholds and fit criteria observed	To EE Evidence Review RQs  Does the sample provide relevant data to the nature of the research and the context from which it is selected	To EE Evidence Review RQs  Is rationale for mixed approach clear / justified	What question is being addressed by the meta-analysis; does it correspond to the current research question(s)  Has the meta-analysis been cited / reviewed; has it led to a demonstrable change in policy / practice – depending on date of publication
<b>Robustness / Rigor</b> (i.e. replicability [including feasibility]; systematic nature of research conduct; dependability of measure)	Reliability - Does Cronbach Alpha (.7) support reliability - Tests for common method bias for cross-sectional data  Generalizability: to what extent can findings be applied to settings other than those in which they were established?	Is there rigour in the approach to data analysis: i.e., does it follow from the research questions and sampling technique  What is the 'situational' or 'contextual' representativeness of the research: is this explicit or must it be inferred by the evaluator  Does the researcher(s) attempt to properly interpret the data in terms of research questions and context or is the data largely reported without analysis	Is this approach replicable / worth replicating  Do the approaches detract from one another	Is the data-extraction and assessment process replicable  Are all processes documented; how many people were involved in the data appraisal / extraction processes

## Appendix 6: Data extraction form – grey literature

Field	Field guidance or detail
Source	<i>ie name of org</i>
Author	<i>Or organisation of origin</i>
Document title	<i>Or first line of text if no title</i>
Year	
Location (Publication)	
Link to full text	
Full text saved?	<i>Use dropdown</i>
Reference added to EndNote?	<i>Use dropdown</i>
Assessment against quality criteria (use dropdowns)	<i>Relevance/usefulness to NHS practitioner</i>
Quality2	<i>Contains Evidence</i>
Quality3	<i>Has a described methodology</i>
Quality4	<i>Material original to this source?</i>
Quality5	<i>Most recent (if of a series)?</i>
Country of origin	<i>Insert details (country/ies in which research carried out)</i>
Study population	
Type of environment/setting	
Aim of research / Problem to be tackled?	<i>Driver or prompt for research being done</i>
Health context mentioned?	
Definition of engagement	
1 <sup>st</sup> Type of T, R, A, I (Tools, Resources, Approaches, Interventions) discussed (one per field)	<i>Insert detail or N/A</i>
1 <sup>st</sup> Study method(s)	<i>Insert detail or N/A</i>
1 <sup>st</sup> Measures	<i>Insert detail or N/A</i>
1 <sup>st</sup> Results	<i>Insert detail or N/A</i>
1 <sup>st</sup> Evidence	<i>If avail, evidence for single T, R, A, I . Insert detail or N/A</i>
Overarching evidence	<i>If evidence not linked to single TRAI, include here</i>
2 <sup>nd</sup> Type of T, R, A, I discussed (one per field)	<i>Insert detail or N/A</i>
2 <sup>nd</sup> Study method(s)	<i>Insert detail or N/A</i>
2 <sup>nd</sup> Measures	<i>Insert detail or N/A</i>
2 <sup>nd</sup> Results	<i>Insert detail or N/A</i>
2 <sup>nd</sup> Evidence	<i>Insert detail or N/A</i>
<i>Above categories repeated for 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> TRAI</i>	
Any models/framework/guidance mentioned?	<i>Insert detail or N/A</i>
Limitations (author identified)	<i>Insert detail</i>
Limitations (reviewer identified)	<i>Insert detail</i>
Comments, quotes, relevant findings or conclusions	<i>Anything useful for final review, such as any particularly informative description or quotes</i>

**Appendix 7: Number of empirical studies from which data was extracted by country of origin and relevance to each research question**

Research questions	2.1 Morale & engagement		2.2 Performance & Engagement		3 Antecedents of engagement		Overall weighting by country of origin (%)
	General workforce	Health context	General workforce	Health context	General workforce	Health context	
<b>Country of origin</b>							
Africa	1	-	-	-	-	-	0.4
Australasia	-	-	1	-	1	-	0.8
Australia	1	2	-	-	4	4	4.5
Belgium	-	1	-	1	1	2	2.0
Cameroon	1	-	1	-	1	-	1.2
Canada	1	2	1	2	2	5	5.3
China	1	2	2	-	4	3	4.9
Denmark	-	-	-	-	1	-	0.4
Finland	1	1	-	1	6	4	5.3
France	-	-	-	-	2	1	1.2
Germany	3	1	-	-	4	3	4.5
Greece	-	-	1	-	1	1	1.2
India	3	-	2	-	7	-	4.9
International (mixed)	1	1	-	-	1	4	2.9
Ireland	-	1	1	1	1	1	2.0
Israel	-	-	-	1	-	-	0.4
Italy	1	-	-	-	2	-	1.2
Japan	2	-	2	-	2	-	2.5
Malaysia	1	-	-	-	2	1	1.6
Netherlands	-	-	6	-	18	6	12.2
New Zealand	1	-	-	-	2	-	1.2
N. Ireland	-	-	-	-	-	1	0.4
Norway	1	-	-	-	2	1	1.6
Pakistan	-	-	1	-	1	-	0.8
Poland	1	-	-	-	1	-	0.8
Romania	-	-	1	-	2	-	1.2
Scotland	-	1	-	-	-	1	0.8
S. Africa	2	-	-	-	6	1	3.7
S. Korea	-	-	1	-	1	-	0.8
Spain	3	-	2	-	4	-	3.7
Sweden	1	-	-	-	1	-	0.8
Switzerland	-	-	-	-	2	-	0.8
Taiwan	-	-	1	-	4	-	2.0
Turkey	-	-	-	-	1	-	0.4
Uganda	-	-	-	-	-	1	0.4
UK	4	-	5	-	8	-	7.0
USA	5	-	6	-	14	2	11.1
Unstated / unclear	-	-	2	-	4	-	2.5
Sub-totals	35	12	36	6	113	42	
Total*	47		42		155		100.0

- Many items were relevant to more than one research question: totals do not add up to 172.