

Staff Morale in Mental Health Supported Accommodation Services

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Declaration

I, Sarah Dowling, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed:



Date: 13th June 2021

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Abstract

Background

Mental health supported accommodation is an important component of the care pathway for those with complex mental health conditions. Despite an estimated 60,000-80,000 people living in supported accommodation in England, little is known about the staff working in these services.

Aim

To survey the morale of staff working in mental health supported housing services in England and investigate associations between staff morale and service quality, job demands and job resources, and staff turnover and sickness absence 12 months later.

Methods

Staff of all mental health supported housing services in 14 representative areas of England were surveyed using a battery of standardised measures to assess staff morale (comprising burnout, work engagement, job satisfaction and psychological distress), job demands, job resources and personal resources. Service managers also completed a standardised measure to assess service quality. Guided by the Job Demands-Resources Theory, associations between staff morale and job demands, job resources, personal resources and service quality were investigated cross-sectionally using multilevel regression models. Associations of job demands, job resources, personal resources and morale with staff outcomes (turnover and sickness absence) assessed 12 months later were also investigated using regression modelling.

Results

Morale was found to be good, with low-to-moderate levels of burnout, average levels of work engagement and moderate satisfaction with work. However, 35% of staff reported high levels of emotional exhaustion and 36% had scores which reached the threshold for probable psychological ill-health. Those demands and resources which were significantly associated with response

variables were all in the expected direction: job demands were negatively associated with engagement and job satisfaction and positively associated with burnout and psychological ill-health; job resources and personal resources were negatively associated with burnout and psychological ill-health and positively associated with engagement and job satisfaction. The service quality domain of recovery based practice was positively associated with one component of burnout - depersonalisation. Few associations were identified between job demands, job resources, personal resources and morale and staff turnover and sickness absence at 12 months.

Conclusion

This is the first comprehensive survey of staff morale in mental health supported accommodation services in England. Although morale was generally good, there are concerns about levels of emotional exhaustion and psychological distress reported by some staff. Support in the form of relevant qualifications, enhanced training and clinical supervision should be considered to help supported housing staff manage the emotional demands inherent in their work. Further research is needed to investigate morale in other types of supported accommodation.

Impact Statement

The findings from this study will potentially have an impact on the experiences of staff and users of mental health supported housing services. The results will also be of interest to those in the academic community in a range of disciplines including psychiatry and occupational psychology.

It is estimated that 60,000-80,000 people live in mental health supported accommodation services in England. Supported accommodation aims to help residents with complex mental health needs gain the skills and confidence to live more independently. However, prior to this study, little was known about the staff working in these services including details of their qualifications, the demands and resources they encounter in the workplace or their levels of morale.

The morale of staff working in mental health services is crucial for the wellbeing of staff themselves as well as for effective service delivery. Whilst there has been some examination of staff morale in other mental health services in England, to date there have been few studies conducted with staff in supported accommodation. This knowledge gap is concerning given the vital role that staff play in providing high-quality support aimed at promoting service users' recovery.

This thesis examined the morale of staff working in one type of supported accommodation, supported housing, and associations between staff morale, job demands, job resources, personal resources and service quality. There were a number of significant associations between morale and demands and resources in the cross-sectional analyses. Of particular interest was the variable of emotional demands which was significant in six of the seven multilevel regression models. Specifically, the emotional demands experienced by staff were positively associated with burnout and psychological distress and negatively associated with work engagement and job satisfaction.

These results have informed recommendations for staff qualifications, training, clinical supervision and support which will be of benefit to both service providers as well as those organisations commissioning supported

accommodation services. Whilst it is not possible to conclude that this study will directly benefit service users, it is likely that the implementation of recommendations and further research based on this exploratory study will lead to an improved service user experience.

In addition to these service impacts, the results will also be of relevance to those using the JD-R Theory. The JD-R model was recently expanded to include components that reflect the role of the individual in modifying the work environment or the impact of job demands and resources. One of these new elements, personal resources, comprises individual attributes related to resilience and a sense of control over one's environment. The personal resource selected for this study, self-efficacy, was demonstrated to be positively associated with staff work engagement, personal accomplishment and job satisfaction and negatively associated with psychological ill-health and the emotional exhaustion and depersonalisation aspects of burnout. Self-efficacy is malleable and so interventions designed to enhance this attribute could have a positive impact on a range of work settings, ensuring that the results of this thesis will be of interest to both academics and workplace wellbeing practitioners.

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List of abbreviations

AOT	Assertive Outreach Team
CAT-SA	Client's Assessment of Treatment Scale – Supported Accommodation
CI	Confidence interval
CMHT	Community Mental Health Team
CQC	Care Quality Commission
CRF	Case report form
ENMESH	European Network for Mental Health Service Evaluation
FTE	Full-time equivalent
GDPR	General Data Protection Regulation
GHQ-12	General Health Questionnaire (12-item version)
IQR	Interquartile range
IRR	Incident rate ratio
JD-R	Job Demands-Resources Theory
LL	Lower limit
LQWQ	Leiden Quality of Work Questionnaire
MBI	Maslach Burnout Inventory
MSQ-S	Minnesota Satisfaction Questionnaire (short form)
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NIHR	National Institute for Health Research
NSF	National Service Framework
NVQ	National Vocational Qualification
ONS	Office for National Statistics
OR	Odds ratio
PIS	Participant information sheet
QEEW	Questionnaire on the Experience and Evaluation of Work
QuEST	Quality and Effectiveness of Supported Tenancies for people with mental health problems
QuIRC	Quality Indicator for Rehabilitative Care
QuIRC-SA	Quality Indicator for Rehabilitative Care – Supported Accommodation
SD	Standard deviation
UCL	University College London
UL	Upper limit
UWES	Utrecht Work Engagement Scale
WP	Workpackage

Chapter 1 Introduction

1.1 Scope of thesis

In the UK and other Western industrialised countries, the process of deinstitutionalisation resulted in the shifting of mental healthcare delivery from psychiatric hospitals to community-based settings. In this context, people with severe or complex mental illness are often supported through a rehabilitation care pathway comprising inpatient services as well as community services delivered by the NHS, voluntary sector, and independent providers. Supported accommodation services are a key part of this 'whole system' rehabilitation care pathway and provide flexible, graduated support to promote service user recovery and independence.

Despite large numbers of people living in supported accommodation services and the high associated costs, until recently little has been known about the support provided and service user outcomes. The QuEST Study (Quality and Effectiveness of Supported Tenancies for people with mental health problems) aimed to address this evidence gap by identifying the most clinically appropriate and cost-effective approaches to service delivery. More detailed information on the study findings is provided in section 1.2.

However, the QuEST Study did not have as part of its remit an investigation of the characteristics and experiences of staff working in supported accommodation. As staff, and in particular their levels of morale, have been shown to be critical to effective service delivery in other areas of mental healthcare, this study aims to address this knowledge gap. Specifically, this thesis will describe staff working in one type of supported accommodation - supported housing - examining their levels of morale and exploring the factors associated with staff morale in these services.

First, in chapter 2, a comprehensive review of the literature relating to mental health supported accommodation services, staff morale and key occupational outcomes will be undertaken. The development of supported accommodation services in England in the context of deinstitutionalisation will be described, as

will current service types. Research on the individual aspects of staff morale, including burnout, work engagement, job satisfaction and psychological health will be examined in detail, as will the occupational outcomes of turnover and sickness absence. In each case, the literature will be examined from a conceptual perspective before discussing what is known about its application in mental health services. A theoretical model, the Job Demands-Resources Theory, will be introduced as a framework for examining the demands and resources experienced by supported housing staff as well as the impact of these workplace factors on morale.

Chapter 3 summarises the literature most relevant to mental health supported accommodation, including its gaps and shortcomings. This chapter highlights the relative lack of research undertaken to date in mental health supported accommodation, particularly with respect to the experiences of staff working in these services. These insights form the basis of the rationale for the current study. Details of the specific objectives and research questions follow in Chapter 4.

Chapter 5 describes the methods used to investigate the research questions. The selection of a nationally representative sample of supported housing services and the staff working in these are described, as are the measures selected to investigate the variables of interest. The development, piloting and administration of the baseline questionnaire are outlined, as is the follow-up completed 12 months later in order to collect longitudinal data on sickness absence and turnover. To conclude the chapter, the strategy for the analysis of data is provided.

The study results are reported in Chapter 6. The first phase of the study is cross-sectional and investigates the levels of morale in the English supported housing workforce. Using the Job Demands-Resources Theory, the demands and resources associated with levels of morale are explored. The relationship between morale and service quality will also be examined. In the second phase of the study, data on turnover and sickness absence collected at 12-month follow-up are reported and the associations between these variables

and the demands and resources and morale reported at baseline are examined. To conclude, Chapter 7 presents a discussion of findings, as well as the implications for theory and practice.

1.2 Description of original work

The QuEST Study (Quality and Effectiveness of Supported Tenancies for people with mental health problems; RP-PG-0610-10097) was a national research programme funded by the National Institute for Health Research (NIHR) which aimed to identify the most clinically and cost-effective approaches to the delivery of specialist mental health supported accommodation. QuEST commenced in 2012 and finished at the end of March 2018. The study was carried out in 14 representative areas of England.

QuEST comprised four workpackages (WP1-4):

- WP1 involved the adaptation of two tools for use in mental health supported accommodation. The Quality Indicator for Rehabilitative Care (Killaspy et al., 2011) and the Client's Assessment of Treatment Scale (Priebe & Gruyters, 1995) were adapted for use in supported accommodation services using focus groups of staff and services users along with input from a service user reference group and an expert panel. The resulting tools demonstrate good psychometric properties, with the Quality Indicator for Rehabilitative Care – Supported Accommodation (Killaspy, White, et al., 2016) measuring service quality, and the Client's Assessment of Treatment Scale – Supported Accommodation (Sandhu et al., 2016) providing a measure of the service user experience.
- WP2 comprised a survey of mental health supported accommodation in England and a cohort study. A paper describing features of the services and those who are supported by them has been published (Killaspy, Priebe, et al., 2016). The prospective cohort study investigated the proportion of residents who moved on to more independent accommodation and sustained it for 30 months. Overall,

41.5% of service users moved on successfully, with higher rates for those living in floating outreach services (67.3%) than supported housing (39.3%) or residential care (10.3%). Successful move-on was associated with two aspects of service quality, namely recovery based practice and promotion of human rights (Killaspy et al., 2020).

- WP3 was the qualitative component of the study, with 30 staff and 30 service users taking part in in-depth interviews about their experiences of living and working in mental health supported accommodation. Understanding of the goals and purposes of supported accommodation were noted to be similar between staff and service users. The results of this workpackage have been published (Sandhu et al., 2017).
- WP4 was a feasibility trial which investigated whether it would be possible to recruit and randomly assign participants to different types of supported accommodation in order to compare the effectiveness of supported housing and floating outreach services. Of the 1,432 service users screened, only 17 consented to participate. Of these, eight agreed to be randomised and nine participated in a naturalistic follow-up. Results indicate that a large-scale trial is not viable at this time in England (Killaspy et al., 2019).

From September 2012 to March 2018, my role in the above workpackages was as project manager. In conjunction with the chief investigator I had responsibility for the day-to-day running of the QuEST project with tasks including financial management, database development, data management and monitoring of recruitment. As my PhD was not part of the original QuEST protocol, I prepared and submitted a substantial amendment (SA1) to the QuEST Study NHS research ethics approval (REC reference 12/LO/2009; London-Harrow Research Ethics Committee) on 23rd April 2015 which was approved on 6th July 2015.

I designed the study described in this thesis, devised and piloted the staff morale questionnaire, contacted service managers to gain permission to

approach staff, collected all staff morale data and undertook all data cleaning and analysis. I completed the quality measurement tool (QuIRC-SA) with one-third of service managers, with the remainder collected by other members of the research team. Except where the contributions of others have been acknowledged, this thesis represents my own work.

Chapter 2 Review of the literature

This chapter provides a review of the literature relevant to the morale of staff working in specialist mental health supported housing services in England. Through the development and implementation of the systematic search strategy detailed in section 2.1, this literature review summarises and evaluates the existing knowledge relevant to the topic and identifies gaps in research undertaken to date. The chapter begins with a description of supported housing services, starting with their development following deinstitutionalisation before describing the characteristics of current services and those service users who live in them. This is followed by a brief account of quality in supported accommodation services and the ways in which it can be conceptualised and measured.

The chapter then moves on to the concept of staff morale, with a particular focus on how it applies to those who work in mental health services. There is a further discussion of some of the occupational outcomes associated with morale, specifically turnover and sickness absence. Finally, the Job-Demands Resources Theory will be introduced as the approach underpinning the exploratory research conducted with staff working in mental health supported housing services in this thesis.

2.1 Literature search methods

The search strategy was developed through the examination of relevant systematic reviews to aid the development of search terms and ensure that the main conceptual areas of interest were covered. Reviews considered include those on supported accommodation, (Krotofil et al., 2018; McPherson et al., 2018b), morale in mental health services (Cahill et al., 2004; Reininghaus & Priebe, 2007), and Job Demands-Resources theory (E. R. Crawford et al., 2010; Rattrie & Kittler, 2014).

A combination of asterisked and truncated words including mental health staff or workforce, mental health service, mental hospital or disorder, psychiatry, residential facility, supported accommodation, morale, burnout, emotional

exhaustion, job satisfaction, work engagement, absenteeism, presenteeism, job demands-resources and JD-R were included as search terms. The final search terms are detailed in Appendix 1 and were run in MEDLINE, PsychINFO, EMBASE and Cumulative Index of Nursing and Allied Health Literature (CINAHL) databases in August 2015, and then repeated in August 2018. In addition, backward and forward citation searching in relation to key papers was undertaken in order to comprehensively survey the literature in each of the areas discussed in this chapter.

The resulting papers were entered into Zotero bibliographic management software (<https://www.zotero.org/>) and the information was critically analysed for strengths and limitations to enable a synthesis of the literature relevant to the research objectives.

2.2 Mental health supported accommodation

Mental illness is one of the main causes of disease burden in the world, accounting for one in five years lived with disability worldwide (Vos et al., 2017). In the UK, mental health problems represent the largest single cause of disability, with an estimated cost to the economy of £94 billion a year or an estimated 4% of GDP (Organisation for Economic Co-operation and Development & European Union, 2018). In England, an estimated one in six people experience a mental health problem requiring treatment in any given year (Bebbington & McManus, 2020).

Severe mental illness refers to a mental disorder which significantly impairs the ability of an individual to engage in functional activities (Public Health England, 2018). Symptoms and societal stigma can limit participation in major life activities, including education, employment, housing and wider community engagement. Severe mental illness is characterised by a fluctuating course and risk issues including self-neglect and vulnerability to exploitation (Holloway, 2005; Killaspy, 2019). Some individuals with particularly complex needs may have severe negative symptoms and cognitive impairments, as well as pre-existing difficulties such as personality or developmental disorders

(Killaspy, 2019). Physical health comorbidities are common, and there exists a substantial and growing mortality gap compared with the general population (J. F. Hayes et al., 2017). Mental health rehabilitation services focus on supporting the recovery of those with more severe and complex problems in inpatient and community-based settings, including specialist mental health supported accommodation (Killaspy, 2019; Killaspy, Marston, et al., 2016).

2.2.1 Development of mental health supported accommodation

One of the key drivers for the development of mental health supported accommodation in the UK was the process of deinstitutionalisation, or the shift in delivery of mental healthcare from hospitals to the community. By the second half of the 20th century advances in drug treatments, along with changing social attitudes and an increasing emphasis on human rights, enabled more people to be treated in outpatient clinics rather than in large institutions. The 1959 Mental Health Act (Ministry of Health, 1959) stated that the community was the most appropriate place for those with mental health problems to receive care, and in 1961 Health Minister Enoch Powell delivered his 'Water Tower' speech, in which he underlined a commitment to halving the number of beds for people with mental health problems and eliminating many existing mental hospitals.

The 1962 Hospital Plan for England and Wales (Ministry of Health, 1962) paved the way for the transfer of hospital care to district general hospitals, and for the development of community-based mental health services. Later policy developments such as 'Hospital Services for the Mentally Ill' (Department of Health and Social Security, 1971), 'Better Services for the Mentally Ill' (Department of Health and Social Security, 1975) and 'Community Care with Special Reference to Mentally Ill and Mentally Handicapped People' (House of Commons Social Services Committee, 1985) continued to support the expansion of mental health services in community settings.

There were concerns about deficiencies in this new model, commonly called 'community care', particularly around the integration of local systems needed

to provide a coordinated programme of care (Thornicroft & Bebbington, 1989). These concerns led to the implementation of the Care Programme Approach (Department of Health, 1990b, 1999a) which reflected efforts to provide a framework for effective treatment of those with serious mental illness. The 1990 NHS and Community Care Act (Department of Health, 1990a) aimed to address the role of health and local authorities in the treatment of those with mental illness, while the late 1990s brought increased investment and a renewed policy focus on mental health with the publication of the White Paper, *Modernising Mental Health Services* (Department of Health, 1998) and the National Service Framework (NSF) for Mental Health (Department of Health, 1999b). The NSF mandated the development of specific models of care including assertive outreach teams which provided intensive support to those with complex needs, crisis resolution teams offering time-limited support to reduce hospital admissions, and early intervention teams for those experiencing a first episode of psychosis. Due to these structural changes in the delivery of statutory services staff were called upon to move to working in community-based settings, often with varying levels of preparation and training (Bell & Lindley, 2005). Additionally, services increasingly were being delivered outside the NHS by voluntary sector (sometimes called third sector) providers.

The early development of supported accommodation was facilitated in part by financial models designed to support the reinvestment of funds released from the closure of institutions (Gilbert et al., 2014), and from the early 2000s by the Supporting People initiative (Department for Environment, Transport and the Regions, 2001) which amalgamated funding streams to enable local authorities and partners to develop programmes of housing-related support (Watson et al., 2003). Reviews of Supporting People programmes have recognised that the participation of the voluntary sector was a key factor, as these organisations were more able to work across organisational and professional boundaries, and to provide flexible support to those with complex needs (Cameron et al., 2007).

Whilst some expressed concern that the expansion of supported accommodation amounted to 're-institutionalisation' (Priebe, Badesconyi, et

al., 2005), it has been noted that supported accommodation facilities are not institutional in character (Macpherson et al., 2012). Furthermore, studies indicated that patients who moved from psychiatric hospitals to housing in the community gained independent living skills and experienced increased autonomy, more diverse social networks and improved quality of life (J. Leff & Trieman, 2000). These gains were experienced by a range of patients, including those considered 'difficult to place' given the severity of their disabilities (Trieman & Leff, 2002). There also emerged a marked preference by patients for community rather than hospital residence (Tanzman, 1993). Recent systematic reviews have confirmed that patients benefited from deinstitutionalisation, with improvements seen in social functioning, stability or improvements in psychiatric function, and enhanced quality of life (Kunitoh, 2013), without increases in homelessness or imprisonment (Winkler et al., 2016).

In the UK, the closure of long-stay psychiatric hospitals has been called "the most radical change in the nation's public health policy in the 20th century" (Macpherson et al., 2004, p. 180). In addition to the gains experienced by patients outlined above, deinstitutionalisation enabled a shift in funding from secondary to community mental health services, as well as the development of specialist supported accommodation services.

2.2.2 Current provision

In the UK today, supported accommodation remains an important part of the "whole system" pathway for those service users with longer-term mental health conditions (Joint Commissioning Panel for Mental Health, 2016). Supported accommodation services are delivered by a complex network of providers including health services, local authorities, housing associations, voluntary sector organisations and private providers. Some organisations opt to provide only the housing premises, with other agencies contracted to undertake care functions, while others provide both the physical housing and directly employ staff to provide support. Services typically offer focussed support with the aim of helping service users to develop practical living skills, improve social

functioning and increase independence (Pleace & Wallace, 2011). Guidance on the development of services has emphasised the need for a range of accommodation that promotes stability and avoids unnecessary moves, is located close to a service user's social networks and meets individual clinical need and service user choice (Joint Commissioning Panel for Mental Health, 2016; National Institute for Health and Care Excellence, 2020).

2.2.2.1 Types of supported accommodation

Evidence for one type of supported accommodation over another has not been demonstrated (Chilvers et al., 2002, 2006) and recent efforts to investigate the feasibility of comparing different types of provision in a randomised controlled trial have highlighted considerable difficulties in carrying out studies of this type (Killaspy et al., 2019; Killaspy & Priebe, 2020). Mental health supported accommodation is provided through a wide range of models, with limited shared terminology to describe services. This reflects in part the development of supported accommodation in response to local need, but legitimate concerns have been raised about the challenges which arise when conducting evaluations or synthesising effectiveness data. Various attempts have been made to define and categorise supported accommodation, (Leff et al., 2009; Lelliott, 1996; McPherson et al., 2018a; Siskind et al., 2013) although to date none of these approaches has been widely adopted.

The definitions used in this research were developed by Priebe and colleagues (Priebe et al., 2009) and refined as part of the QuEST Study, with services classified into three main types; residential care, supported housing and floating outreach. Residential care services are communal facilities with services such as medication management, cleaning and meals provided. Staff in residential care services are based on-site and services are staffed 24 hours a day. Placements in residential care are not usually time-limited. Supported housing is the most diverse type of supported accommodation, with service users living in shared or individual flats in a larger building (either converted or purpose-built). Staff in supported housing services are based on-site but with hours varying according to the needs of the service from part-time office hours

to 24-hour support with waking night staff. Tenancies are time-limited with the expectation that clients will move on to more independent accommodation within approximately two years. Floating outreach services are delivered by visiting staff to service users in their own homes, which are usually independent, secure tenancies that are not time-limited. The duration and frequency of visits received in floating outreach varies according to need and the focus is on the practical support needed to sustain tenancies. The expectation in floating outreach services is that staff visits will reduce over time and eventually cease (Killaspy, Priebe, et al., 2016).

In England, figures compiled in 2006 revealed that approximately 12,500 people with mental health problems were living in residential care (National Statistics, 2006), with a further 24,000 thought to be receiving floating outreach support (Department for Communities and Local Government, 2006). These figures do not include those living in supported housing services, and more recent estimates suggest that a total of 60,000-80,000 people are living in mental health supported accommodation at any one time (Killaspy, Priebe, et al., 2016; Killaspy & Priebe, 2020). Whilst these services represent a key part of the rehabilitation pathway, along with substantial costs to publicly-funded services, until recently there has been little research into the content of care provided, service quality or the clinical and cost-effectiveness of such services.

2.2.2.2 Service and service user characteristics

When conducting a survey of supported accommodation in England, the QuEST Study found that floating outreach services were the largest of the three service types with an average of 30 places offered compared to 18.5 places in residential care and 12 in supported housing (Killaspy, Priebe, et al., 2016). This finding is unsurprising since floating outreach services provide less intensive support to people in their own independent tenancies, and thus are not restricted to bed numbers in the same way as building-based services (residential care and supported housing). Floating outreach and supported housing services are similar in the median time that they are expected to work with service users (2 years) with this time anticipated to be longer in residential

care services. Whilst there are expectations that service users will move from greater to lesser support as skills and confidence increase, some service users instead move between services with a similar level of support, and others move from less supported to more supported accommodation (Killaspy et al., 2020).

Most supported accommodation services taking part in the QuEST Study reported having some input from community mental health teams, although fewer residents in floating outreach services than in either residential care or supported housing services were under the Care Programme Approach (and so had a named professional responsible for coordinating their care). Although there has been widespread implementation of organised peer support in a number of countries (Commonwealth of Australia Department of Health, 2017; Health Education England, 2017; Keet et al., 2019; Puschner et al., 2019) including in NHS mental health services (Health Education England, 2017), the employment of peer support workers is not a common feature of English supported accommodation services. As there is evidence of peer support having a positive impact on self-reported recovery, empowerment and hope (Bellamy et al., 2017; Lloyd-Evans et al., 2014; Lyons et al., 2021; White et al., 2020) it is not clear why peer support interventions have not been implemented more widely in supported accommodation.

Across different countries, residents in supported accommodation services are predominantly male (Bitter et al., 2016; de Heer-Wunderink et al., 2012; Killaspy, Priebe, et al., 2016; Middelboe et al., 1998; Piat et al., 2015; Priebe et al., 2009) with those living in residential care or supported housing more likely to have a diagnosis of psychosis than service users in floating outreach (de Heer-Wunderink et al., 2012; Friedrich et al., 1999; Killaspy, Priebe, et al., 2016; Priebe et al., 2009). Estimated levels of co-morbid substance misuse across service types range from 12% (Killaspy, Priebe, et al., 2016) to 25% (Priebe et al., 2009), although this variation may be due in part to methodological differences in the assessments. In the QuEST Study, over half of service users across all service types were considered to be at risk of self-neglect and over one-third were vulnerable to exploitation (Killaspy, Priebe, et al., 2016).

Those living in less supported accommodation tend to report greater community integration (Jose et al., 2021; Killaspy, Priebe, et al., 2016), although they are also more likely to have been a victim of crime (Killaspy, Priebe, et al., 2016), and to report lower quality of life (Eklund et al., 2017; Killaspy, Priebe, et al., 2016) and lower levels of personal recovery (Eklund et al., 2017). These findings may indicate that although service user autonomy and social inclusion increases in more independent accommodation, so too does vulnerability and risk to personal safety (Killaspy & Priebe, 2020). Service users tend to express a preference for more independent accommodation (Forchuk et al., 2006; Richter & Hoffmann, 2017), while staff and family members often prefer services with greater levels of support (Friedrich et al., 1999; Holley et al., 1998; Minsky et al., 1995; Piat et al., 2008).

Engagement in employment, training or educational activities external to the service is low for residents across all types of supported accommodation in England (Killaspy, Priebe, et al., 2016; Priebe et al., 2009). Similarly, in a Swedish study, residents in both supported housing and floating outreach settings indicated that they were under-occupied in relation to leisure and occupational activities (Eklund et al., 2017). Low levels of service user employment also have been found in supported accommodation services in the Netherlands (Bitter et al., 2016; de Heer-Wunderink et al., 2012). However, there is evidence of the feasibility and effectiveness of establishing employment support programmes in supported housing (Roeg et al., 2021).

Overall, approximately 40% of people living in supported accommodation services in England move on to less supported accommodation without placement breakdown, although this figure varies between service types (Killaspy et al., 2020; Killaspy & Zis, 2013). In the QuEST Study, after adjusting for service user characteristics, successful move-on (or, for those in floating outreach, managing with less support) was more likely for those in floating outreach than in supported housing or residential care, and more likely for those in supported housing than in residential care (Killaspy et al., 2020). It should be noted that while most supported housing services in England are commissioned to work with service users for around two years, in reality most

service users require longer-term support. As a result there is concern that unrealistic targets may result in service users being moved on prematurely or having to make sideways moves to a similar level of support in order for services to meet performance indicators (Chan et al., 2021; Craig, 2019; Killaspy et al., 2020; Killaspy & Priebe, 2020).

2.2.2.3 Supported accommodation staff

Staff in supported accommodation undertake a range of activities which are key to promoting service users' recovery. Whilst the tasks and level of support will vary according to setting, in general staff provide support with independent living skills such as cooking, washing, cleaning, shopping and budgeting, as well as with physical and mental health, preventing and managing crises, social interaction and community activities including accessing leisure services, employment and education (Kirsh et al., 2009; Priebe et al., 2009).

In a recent systematic review of service user experiences of mental health supported accommodation, supportive relationships between staff and service users emerged as one of the most important themes (Krotofil et al., 2018). Included studies provided evidence on the extent to which service users value encouragement in moving towards independent living (Kirsh et al., 2009), being treated with dignity and respect (Andersson, 2016; Kirkpatrick & Byrne, 2011; Kirsh et al., 2009; Petersen et al., 2012) and being supported to gain skills (Bryant et al., 2005; P. Goering et al., 1992). Qualitative interviews with 30 staff and service users from the three different types of supported accommodation undertaken as part of the QuEST programme of research further highlighted the importance of supportive and encouraging relationships between staff and residents. Staff participants discussed their commitment to working with (rather than doing for) service users in order to achieve greater independence, and to providing tailored person-centred support that helped with gaining skills and confidence (Sandhu et al., 2017). Supported accommodation staff must also support the autonomy of service users, while assisting residents to maintain their personal safety and remain free from exploitation (NICE, 2020).

Staff who can provide person-centred support consistent with a recovery approach, which emphasises collaborative practice and therapeutic optimism while responding to the needs and goals of the individual and respecting their rights to choice and autonomy (Slade et al., 2012), are essential to the delivery of an effective service. Whilst there is a need for staff working in the rehabilitation pathway to have training which incorporates a recovery orientation (NICE, 2020), a recent systematic review identified no studies on recovery training in supported accommodation services (McPherson et al., 2021). More widely, to date there has been only limited research into staff working in supported accommodation, with little known about their training, qualifications and workplace experiences.

2.2.3 Quality of care

Performance measures have been used increasingly in general healthcare to benchmark progress, with measuring quality, particularly using tools that enable monitoring over time, key to driving service improvement (Kilbourne et al., 2010). However, there is evidence that mental healthcare has lagged behind in the development and implementation of quality measurement tools (Institute of Medicine, 2006). This situation arises in part due to difficulties in defining what constitutes quality of care in mental health services, owing to the nature of services (which often involve different professionals from more than one organisation), as well as from the complexities of mental illness and the comorbidities that some service users experience (Moran et al., 2013). Systems for collecting quality data on mental health services are also underdeveloped, particularly in respect of those services delivered in the community (Moran et al., 2013).

Measures such as the Quality Indicator for Rehabilitative Care (QuIRC; Killaspy et al., 2011) seek to address this deficit by providing a standardised toolkit. The QuIRC was developed for use in longer-term inpatient and community facilities through a pan-European study involving ten countries at different stages of deinstitutionalisation (Killaspy et al., 2009). The 143 items in the QuIRC resulted from a systematic review of components of care for

those with complex mental health needs (T. L. Taylor et al., 2009), a review of international care standards, and Delphi exercises with key groups in each country including service users, carers, advocates and practitioners (Turton et al., 2010).

The QuIRC is freely available and is designed to be completed online by a service manager or other senior member of staff (<https://quirc.eu/>). A report is then produced covering seven domains of care; living environment, therapeutic environment, treatments and interventions, self-management and autonomy, social interface, human rights and recovery based practice. The QuIRC therefore evaluates the quality of the structure of the service in terms of its physical environment and staffing arrangements, the extent to which the service demonstrates a recovery-focused ethos, as well as the interventions and therapeutic inputs delivered to service users.

Service quality as measured by the QuIRC is positively associated with the autonomy, experiences of care and perceptions of the therapeutic environment reported by service users (Killaspy et al., 2012, 2013). The domain of recovery based practice has been found to be associated with successful service user discharge from inpatient rehabilitation units (Killaspy, Marston, et al., 2016).

As part of the QuEST Study, the QuIRC was adapted for use in mental health supported accommodation services. Focus groups comprising staff from each of the three service types made suggestions on amendments to the wording of items. These amendments were then considered by three expert panels, two of which included those with lived experience of supported accommodation, with the final wording agreed by the QuEST programme management group. The resulting tool, the Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA; Killaspy, White, et al., 2016), has good psychometric properties and is suitable for use with quality improvement programmes as well as in research.

When the QuIRC-SA was completed with a nationally representative sample of the three types of supported accommodation, supported housing was found

to have the highest level of quality in all but one domain (human rights) in which floating outreach services scored more highly (Killaspy, Priebe, et al., 2016). The domains of recovery based practice and human rights both had positive associations with successful move-on to less supported accommodation (Killaspy et al., 2020). A negative association between the domain of social interface, which evaluates the extent to which services promote integration with the local community, and successful move-on has also been reported (Killaspy et al., 2020). Whilst this latter finding may appear inconsistent, it could be that service users who experience a higher level of integration in the community when living in a service find it difficult to move on if it involves relocating to a new area. This theme also emerged in qualitative interviews with staff and service users in supported accommodation services, in which service users expressed concerns about their ability to manage in a new environment (Sandhu et al., 2017). Use of the QuIRC-SA has been recommended in national guidelines to support quality improvement in supported accommodation (NICE, 2020).

2.2.4 Summary of 2.2

In summary, specialist mental health supported accommodation is a key component of the rehabilitation pathway for those with longer-term or complex mental illness. In the UK supported accommodation services developed as part of deinstitutionalisation, or the shift in delivery of mental health services from hospital to community settings. Today, supported accommodation services are delivered by a range of providers and can be described as one of three main types; residential care, supported housing or floating outreach.

The three service types have different characteristics in terms of those living in the services, staffing levels, license or tenancy arrangements, and duration of expected support, but all aim to help service users gain the practical skills needed for increased independence. Service quality can be measured using standardised tools such as the Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA) which evaluates the physical environment, staffing, processes, therapeutic approach, and interventions.

Whilst the delivery of support consistent with a recovery ethos of collaboration and therapeutic optimism has been demonstrated to be key, little is known about staff working in supported accommodation services.

2.3 Staff morale

2.3.1 Concept of morale

Workplace morale is an important issue in mental health services where staff face unique challenges including stigma surrounding mental illness, demanding relationships with service users, the risk of service user suicides and dealing with behaviours that challenge, including the possibility of aggression (Dreison et al., 2018; Edwards et al., 2000; Fothergill et al., 2004; Rössler, 2012; Verhaeghe & Bracke, 2012). Mental health services are often under-resourced and subject to substantial financial pressures (Bryant et al., 2005; Gilbert et al., 2014; Sørgaard et al., 2007). In addition to the responsibility that employers have for their staff, positive staff morale in mental health services is necessary for the recruitment and retention of staff, viability of models of care, and treatment outcomes for patients (Onyett, 2011; Priebe & Reininghaus, 2011).

Although a term widely used in general parlance, descriptions of the workplace, and in healthcare research the concept of morale is poorly defined (Sabitova et al., 2020). The term morale is sometimes used interchangeably with related concepts such as teamwork or job satisfaction, and at other times used to describe the existence of a shared factor underpinning a number of different organisational concepts (Vandenberg et al., 1999). Some authors consider that morale incorporates a sense of active energy and a strength of purpose (Wood, 2012) while others describe it as an attitude toward group tasks and goals (C. Peterson et al., 2008). Morale is perceived to be desirable in its own right, but also due to the outcomes it is presumed to influence such as loyalty and resilience (C. Peterson et al., 2008). Whilst sometimes described as a group phenomenon indicating a level of commitment to a team, it is more often considered an individual state involving personal satisfaction with one's work situation (C. Peterson et al., 2008; Wood, 2012). In the

absence of a consistent definition, a recent review suggested that studies in healthcare settings should be explicit about the definition of morale being used (Sabitova et al., 2020).

When considering morale in a nursing context, McFadzean and McFadzean (2005) proposed the following definition “Morale is the degree to which an employee exhibits a positive or motivated psychological state” (p. 320). In line with this definition, and with that employed in previous research with staff working in mental health services (S. Johnson et al., 2012; Priebe, Fakhoury, et al., 2005; Richards et al., 2006), for this study morale has been conceptualised as an umbrella term encompassing key areas of work-related wellbeing. Specifically, morale will be considered to include burnout, engagement, job satisfaction and psychological health. These areas, and the impact that they have on both individual and organisational performance, are detailed below.

2.3.2 Burnout

The term burnout was first coined by Freudenberger (1974) to reflect his observations of volunteers working at a free clinic who experienced a range of negative physical and behavioural symptoms along with emotional depletion and a loss of motivation in response to their working conditions. At about the same time, researchers were beginning to investigate this phenomenon among those working in caring professions (Maslach, 1976). Whilst originally restricted to settings where staff worked directly in a service capacity, the concept of burnout was later extended to those in other occupational groups. Burnout occurs across countries and in a variety of occupations (Leiter & Schaufeli, 1996).

Burnout is most often described as having three aspects; emotional exhaustion, depersonalisation (also called cynicism) and reduced personal accomplishment (Maslach & Jackson, 1981). Emotional exhaustion is a feeling of one’s emotional resources being depleted or of being overextended, while depersonalisation is a sense of disinterest in or negative feelings towards

clients. Reduced personal accomplishment is a diminished belief in one's own achievements, particularly those related to working with clients.

Whilst Maslach and Jackson's (1981) three-factor definition is widely used, some researchers have questioned this structure of burnout, particularly whether reduced personal accomplishment is a central element (Cox et al., 2005). Others have gone further, suggesting that the sense of depletion and fatigue referred to as emotional exhaustion represents the core component of burnout (Kristensen et al., 2005). However, this reductionist approach lacks the vital elements of difficulties dealing with people in the workplace and evaluation of the quality of one's work contribution (Maslach & Leiter, 2016).

The three components of burnout were originally thought to occur sequentially, with emotional exhaustion resulting from work overload. Emotional exhaustion in turn was hypothesised to cause detachment from people and work (depersonalisation) resulting in a sense of reduced personal accomplishment or professional inefficacy (Leiter & Maslach, 1988). Alternative process models have been suggested, notably by Golembiewski and Munzenrider (1988), in which depersonalisation is the first burnout component to develop in response to work stressors. This then leads to a reduction in personal accomplishment, followed by emotional exhaustion. Hybrid approaches to these two main models have also been suggested (Taris et al., 2005; van Dierendonck et al., 2001). However, as the vast majority of burnout studies are cross-sectional, testing of causal models is limited. Whilst some longitudinal research has started to examine the sequential development of burnout, studies such as these are often difficult to carry out in occupational settings (Maslach & Leiter, 2016) and have not provided conclusive results.

Another source of debate is the difference between burnout and related concepts such as stress, anxiety or depression (Bianchi et al., 2015; Bianchi & Brisson, 2019; Brenninkmeyer et al., 2001; Heinemann & Heinemann, 2017; Leiter & Durup, 1994; Schonfeld et al., 2019; Schonfeld & Bianchi, 2016; Shirom, 2010). Whilst they have some shared features, researchers have established the independence of the constructs (Maslach & Leiter, 2016;

Schaufeli & Enzmann, 1998; Shirom, 2010). This finding was recently confirmed by a robust meta-analysis which considered 69 studies on burnout and depression and 36 studies on burnout and anxiety (Koutsimani et al., 2019). The emotional exhaustion dimension of burnout is the closest to the concept of stress and so may be correlated with stress-related symptoms including headaches, musculoskeletal complaints and sleep disruption (Maslach & Leiter, 2016). Burnout shares some antecedents and symptoms (particularly fatigue and loss of energy) with depression, but does not include the feelings of sadness, guilt and hopelessness that characterise depression (Shirom, 2005). Furthermore, it should be noted that burnout is specific to the working environment rather than a more pervasive global state (Cox et al., 2005; Shirom, 2005).

In population-based studies, burnout has been associated with negative consequences for workers in the form of increased mental and physical health problems including sleep difficulties, anxiety, depression, memory impairment, decreased concentration, headaches, back pain and cardiovascular disease (Ahola et al., 2005; Melamed et al., 2006; U. Peterson et al., 2008). Burnout also has negative consequences for organisations in the form of increased absenteeism and turnover (Hoge et al., 2007; Stalker & Harvey, 2002), along with lower levels of job satisfaction (Maslach et al., 2001) organisational commitment (Burke & Richardsen, 1993) and job performance (Swider & Zimmerman, 2010).

Within healthcare, staff burnout is associated with a range of serious consequences including lower levels of patient satisfaction, perceived and reported medical errors, healthcare-associated infections, and patient mortality ratios (Hall et al., 2016; Salyers et al., 2017). In mental health settings, burnout is associated with higher levels of staff absence (Borritz et al., 2006), increased turnover intention (Green et al., 2013; Van Bogaert, Clarke, et al., 2013) and reduced job satisfaction (Salyers et al., 2015). Higher mental health staff burnout is also associated with barriers to implementing services changes (Laker et al., 2018), negative feelings towards clients (Holmqvist & Jeanneau, 2006), lower levels of staff-reported quality of care

(Salyers et al., 2015), negative expectations about service users' likely (Salyers et al., 2013), lower levels of treatment satisfaction (Garman et al., 2002) and poorer treatment outcomes (Priebe et al., 2004). However, it should be noted that many of these findings result from cross-sectional studies making it difficult to establish causation (Hall et al., 2016; Salyers et al., 2017).

Those working in mental healthcare are at high risk of developing burnout with a review indicating that it affects 21-67% of mental health staff (Morse et al., 2012). This compares with studies reporting burnout rates in nursing of 34-54% (Aiken et al., 2002) in physicians of 25-60% (Montgomery et al., 2011; Shanafelt et al., 2002, 2015), in teachers of 30-40% (Awa et al., 2010; Bauer et al., 2006), and in the general population of 13-18% (Kant et al., 2003; Lindblom et al., 2006). A recent meta-analysis found pooled estimates of 40% for emotional exhaustion, 22% for depersonalisation and 19% for low personal accomplishment (O'Connor et al., 2018). These estimates were greater than those found in a systematic review of burnout in emergency nurses in which 26% reported high levels of emotional exhaustion (Adriaenssens et al., 2015) and a meta-analysis of palliative care professionals which reported levels of high emotional exhaustion of 17.5%, high depersonalisation of 6.5% and low personal accomplishment of 19.5% (Parola et al., 2017). Levels of emotional exhaustion were similar to those reported in a meta-analysis of burnout in professionals working in cancer care (36%) although cancer professionals reported higher rates of depersonalisation at 34% and low personal accomplishment at 25% (Trufelli et al., 2008).

In the UK concerns were raised in the 1990s about high levels of burnout amongst mental health staff, particularly those working in community settings. In several studies, mean levels of emotional exhaustion (and in some cases depersonalisation) in community mental health teams (CMHTs) were found to be high (Evans et al., 2006; Fagin et al., 1995; Onyett et al., 1997; Prosser et al., 1999; Wykes et al., 1997). Although these results led some to question the sustainability of community-based models of care (Prosser et al., 1996; Wykes et al., 1997), it should be noted that this was a time of "great anxiety" for staff due to often poor preparation for new ways of working (Bell & Lindley,

2005) resulting from the transition from hospital-based to community mental health services described in section 2.2.1. A later study indicated more moderate levels of staff burnout in London CMHTs across all three burnout domains (Billings et al., 2003), although in a multicentre study in England burnout levels were again found to be high in CMHTs with 60% of staff working in these teams in England reaching the threshold for high emotional exhaustion (S. Johnson et al., 2012). Similarly, a survey of community mental health nurses in Wales found 51% reported high levels of emotional exhaustion and 25% high levels of depersonalisation (Edwards et al., 2000), although this declined to 36% and 12% respectively in a subsequent survey (Edwards et al., 2006). A study examining burnout across a range of mental health services in five European countries found emotional exhaustion to be higher amongst community staff compared to staff working on acute wards although levels were in the moderate range for both groups (Sørgaard et al., 2007). The reason for these differences in burnout is unclear, although it could be that burnout fluctuates over time in response to particular challenges such as service changes (S. Johnson et al., 2012).

Staff in more specialist teams generally report lower levels of burnout (S. Johnson et al., 2012; O'Connor et al., 2018). Crisis resolution teams in both London (Nelson et al., 2009) and across England (S. Johnson et al., 2012; Lloyd-Evans et al., 2020) report moderate levels of emotional exhaustion, low depersonalisation and high personal accomplishment, a pattern replicated in assertive outreach teams (AOTs) in the Greater London area (Billings et al., 2003) and in staff working on inpatient rehabilitation wards (S. Johnson et al., 2012). Staff working in assertive outreach and crisis resolution teams were found to have higher levels of personal accomplishment than staff working in CMHTs (Billings et al., 2003; Nelson et al., 2009). In a large multicentre study in England, high burnout levels were reported by those working on acute inpatient wards (S. Johnson et al., 2012), although this had not been found to be the case previously (Bowers et al., 2009; Richards et al., 2006). High levels of burnout have been reported more consistently amongst mental health social workers (Evans et al., 2006; S. Johnson et al., 2012; Priebe, Fakhoury, et al., 2005; Prosser et al., 1999). High levels of emotional exhaustion were also

found in a London-based supported accommodation service, although this was a very small study involving only 20 staff (Bowden, 1994). In their meta-analysis of 20 years of research into burnout in mental health professionals worldwide, O'Connor and colleagues (2018) concluded that while mental health staff often retain a high level of personal accomplishment, on average staff experience high levels of emotional exhaustion and moderate levels of depersonalisation.

There have been few studies comparing the experiences of qualified and unqualified mental health staff, and it is unclear whether staff qualifications influence levels of burnout. Staff described as having limited previous experience and qualifications working in a supported accommodation service were reported to have moderate-to-high levels of burnout, but no comparison was made with staff having professional qualifications (Bowden, 1994). No significant differences were found in reported burnout between qualified staff and those without a professional qualification in a study of staff working in community and acute mental health settings across five European countries (Sørgaard et al., 2010), or between registered nurses and non-registered caregivers working in two Belgian psychiatric hospitals (Van Bogaert, Clarke, et al., 2013). However, lower levels of emotional exhaustion and personal accomplishment were found in healthcare assistants when compared to nurses working on 136 acute wards in England (Bowers et al., 2009). Similarly, lower levels of emotional strain (a composite variable including emotional exhaustion) were found in staff without a professional qualification working across mental health settings in England (S. Johnson et al., 2012).

Although the majority of studies included in their meta-analysis were cross-sectional in nature, making it difficult to draw conclusions about causation, O'Connor, Neff & Pitman (2018) identified a range of determinants associated with the three dimensions of burnout. Work-related factors associated with higher levels of burnout include psychological job demands, increased workload, large caseloads, role conflict and role ambiguity, while support from colleagues and managers, fair treatment and remuneration, job control and autonomy were associated with lower levels of burnout. Effective clinical

supervision is negatively associated with burnout in mental health staff, with both increased frequency (Sherring & Knight, 2009) and higher quality (Edwards et al., 2006; Sherring & Knight, 2009) of supervision associated with lower levels of burnout. In a study of psychiatric trainees across 22 European countries, an absence of supervision increased the odds of experiencing high burnout by 63% (Jovanovic et al., 2016). Individual factors including age, ethnicity, gender and length of time in service are associated with burnout but the directions of findings in this area are inconsistent (O'Connor et al., 2018).

There are also mixed findings as to whether working with clients with more severe mental illness increases the likelihood of staff burnout. Some studies have reported a positive association between service user morbidity and staff burnout (Acker, 2012; Rubin, 1984), while others have found that staff working with clients with more severe mental illness did not experience greater levels of burnout (Billings et al., 2003; Boyer & Bond, 1999; Happell et al., 2003). These conflicting findings may be influenced by a shared caseload model of working within the team (Boyer & Bond, 1999), levels of staff training and supervision, whether staff had chosen to work with a more challenging client group (Billings et al., 2003) or the extent to which staff experience strong teamwork and effective leadership (M. J. Crawford et al., 2010).

In summary, burnout is a three-factor model comprising feelings of emotional exhaustion, feelings of negativity towards clients and a sense of reduced personal accomplishment. Burnout is a work-related concept, which differentiates it from more global mental states such as depression or anxiety with which it shares some antecedents and symptoms. Burnout is associated with a number of negative experiences for staff, patients and organisations. In healthcare, including mental health services, burnout is associated with poorer quality of care, lower patient satisfaction and reduced treatment outcomes. However, the majority of burnout research is cross-sectional in nature, making it difficult to determine causation.

Staff working in mental healthcare are at higher risk of burnout than some other professions, and there is some evidence that staff working in particular settings

or from specific professional disciplines are at greater risk. On average, staff working in mental health services report higher levels of emotional exhaustion and moderate levels of depersonalisation but retain good levels of personal accomplishment. A number of work-related factors are associated with burnout, but the evidence on individual factors is less conclusive. Findings on the relationship between service user morbidity and burnout in mental health staff are mixed, as is the evidence on burnout in staff with professional qualifications compared to those without.

2.3.3 Engagement

The first appearance of the term engagement is attributed to William Kahn (1990) who used it to describe the extent to which employees are physically, cognitively and socially involved in their work roles. Interest in the concept increased around the turn of the 21st century with the rise of the positive psychology movement which emphasized the study of optimal human functioning (Seligman & Csikszentmihalyi, 2000). In the most commonly used definition, work engagement has been described as a “positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption” (Schaufeli et al., 2002, p. 74). In this definition, vigour refers to high levels of energy, resilience and persistence when working, and the willingness to invest effort in one’s work. Dedication is described as a strong identification and involvement with one’s work, resulting in the experience of enthusiasm, challenge and pride. Absorption refers to being fully concentrated on and immersed in one’s work to the extent that time seems to pass quickly (Bakker & Demerouti, 2008; Schaufeli et al., 2002).

Some authors have suggested that engagement is the opposite of burnout, characterised by low levels of emotional exhaustion and cynicism and high levels of personal accomplishment (Maslach et al., 2001; Maslach & Leiter, 1997). Others, while acknowledging that engagement is negatively associated with burnout, consider engagement to instead be an independent and distinct concept (Bakker et al., 2008). Furthermore, an absence of burnout does not necessarily mean that an employee feels engaged (Schaufeli et al., 2002),

thereby indicating that engagement and burnout are not opposites. There is evidence that burnout and engagement load onto distinct factors (Schaufeli et al., 2008; Schaufeli & Bakker, 2004; Trepanier et al., 2015), which confirms that although they are negatively related, engagement and burnout are different concepts.

There has been considerable debate about the relationship between engagement and related terms such as job satisfaction, workaholism and organisational commitment. Whilst there are positive associations between engagement and these concepts, correlations are modest (Christian et al., 2011) and there are also conceptual differences. For example, job satisfaction is an evaluation of one's work circumstances while work engagement describes "an individual's experiences resulting from work" (Christian et al., 2011, p. 97). Furthermore, job satisfaction is about satiation or contentment with one's job, whereas engagement indicates an activation in terms of enthusiasm and energy (Macey & Schneider, 2008; Schaufeli & Bakker, 2010). There may be some similarities between workaholism, or the compulsion to work excessively (Clark et al., 2016), and engagement in respect of absorption. However workaholism includes an obsessive element not present in engagement (Clark et al., 2016). Moreover, while both workaholism and engagement are associated with excessive working time and organisational commitment, only workaholism is associated with distress and psychosomatic complaints (Schaufeli et al., 2008). Organisational commitment relates to the identification of employees with their organisation (Mowday et al., 1979) rather than involvement with a work role or the work itself as is the case with engagement. Finally, studies have shown that engagement has explanatory power beyond that of job involvement, job satisfaction, organisational commitment and intrinsic motivation when predicting both in-role (related to formal job requirements) and extra-role (related to organisational goals) performance (Christian et al., 2011; Rich et al., 2010).

The benefits of work engagement are well-documented. Engaged employees have better levels of self-reported physical and mental health (Seppälä et al., 2012), are more willing to learn new things (Bakker et al., 2012), demonstrate

more organisational commitment (Hakanen, Schaufeli, et al., 2008), display greater personal initiative (Hakanen, Perhoniemi, et al., 2008) and innovation (Gawke et al., 2017), and demonstrate greater creativity (Bakker & Xanthopoulou, 2013). These benefits also extend to organisations, with employees more likely to achieve better in-role and extra-role performance (Bakker et al., 2012; Bakker & Bal, 2010; Christian et al., 2011; Demerouti & Cropanzano, 2010; Halbesleben & Wheeler, 2008), demonstrate more organisational citizenship behaviours (Sulea et al., 2012), and show greater commitment to safety behaviours (Hansez & Chmiel, 2010). Whilst the majority of studies rely on measures self-rated or rated by colleagues, there is also an association between engagement and objective indicators such as sickness absence (Schaufeli et al., 2009), financial performance (Harter et al., 2002; Xanthopoulou et al., 2009), competitive advantage and profitability (see Albrecht 2015 for review).

In healthcare settings, engagement is positively associated with the performance of nurses, including work efficacy in both new and senior nurses (Laschinger, Wilk, et al., 2009), extra-role behaviours (Salanova et al., 2011), patient-centred care (Abdelhadi & Drach-Zahavy, 2012), and job satisfaction and negatively associated with turnover intentions (Laschinger, 2012). These facets, along with greater career satisfaction, compassion satisfaction and patient satisfaction were confirmed by a recent systematic review (Keyko et al., 2016). In the NHS, engagement has been positively associated with patient satisfaction, lower levels of absenteeism and turnover and reduced patient mortality and infection rates (West & Dawson, 2012). However, it should be noted that in this study engagement was not measured using a validated tool but instead used questions which authors felt included the key elements of engagement as well as the constructs of influence in decision-making and the extent to which staff would recommend their organisation as a place to work or receive treatment.

Few published studies examining engagement in mental health staff have been identified, however one undertaken with nursing staff on two Belgian psychiatric wards found that the dedication component of engagement

predicted job satisfaction and intention to remain in the profession (Van Bogaert, Wouters, et al., 2013). No difference was found in engagement levels between nurses and unqualified support staff (Van Bogaert, Wouters, et al., 2013). In a study of 25 crisis resolution teams in England, change in fidelity to a model of good practice in was found to have no association with change in staff engagement over a 12-month period (Lloyd-Evans et al., 2020).

There have been a number of reviews which have considered the work-related antecedents of engagement (Christian et al., 2011; E. R. Crawford et al., 2010; Halbesleben, 2010; Mauno et al., 2010; Young et al., 2018). In a meta-analysis of correlational data, Halbesleben (2010) demonstrated a positive association between overall engagement and work-related social support and autonomy. Christian et al. (2011) confirmed that engagement was positively related to autonomy and social support, as well as to task variety, task significance, feedback, problem solving, job complexity and transformational leadership. Recently, more distal organisational factors such as supportive HR practices and senior leadership, along with clarity of organisational vision and goals have been found to be associated with levels of engagement (Albrecht et al., 2018; Keyko et al., 2016). Whilst these reviews were based on predominantly cross-sectional data, Lesener et al. (2019) used meta-analytic structural equation modelling on 55 longitudinal studies to demonstrate that a range of job-related resources predict engagement over time. Whether some resources have a differential impact on specific aspects of engagement is an area which requires further investigation (Lesener et al., 2020).

Given its associations with employee wellbeing and performance, interventions to increase engagement are of growing interest. In a recent meta-analysis, Knight et al. (2017) found that the overall effect of interventions was small but positive for overall work engagement as well as for the three sub-components of vigour, dedication and absorption. Slightly larger effects were found for the sub-components compared to overall work engagement, providing evidence for a three-factor model over a one-factor model of engagement. Group interventions showed a greater effect, suggesting that this type of intervention may influence antecedents such as social support in

addition to the target of the intervention itself (Knight et al., 2017). However, it should be noted that only 20 studies were included in the meta-analysis and amongst these there was a range of intervention targets (e.g., leadership, resource building, health promotion) and delivery modalities making it difficult to draw firm conclusions.

In summary, engagement is a positive work-related state of mind characterised by vigour, dedication and absorption. Whilst the two concepts are negatively associated, work engagement is not the antithesis of burnout. Work engagement is also distinct from related occupational concepts such as job satisfaction, workaholism and organisational commitment, and has demonstrated explanatory power beyond these concepts in studies investigating job performance. The benefits of work engagement are wide-ranging, including in healthcare settings where they have been associated with organisational and patient benefits. In the small number of studies undertaken in mental health services, associations have been reported between engagement and positive job outcomes, although not with fidelity to good practice. Levels of engagement do not appear to vary between qualified and unqualified mental health staff. Reviews have demonstrated a number of job-related antecedents, with longitudinal data indicating that these predict engagement over time. Interventions, particularly in a group setting, show some promise but further research in this area is required.

2.3.4 Job satisfaction

Job satisfaction has been one of the most widely researched topics in occupational psychology (Judge & Klinger, 2007) with research beginning in the 1930s. Whilst studies were initially concerned with a wide range of work experiences and the impact on employees, later work focused more narrowly on individual aspects of job satisfaction and their relationships to organisational effectiveness (Judge et al., 2017).

As might be expected for a concept with such a long history, there has been considerable debate about its definition. An early and widely-used definition

was that of Locke (1976, p. 1304), who described job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". This is similar to the definition offered by Cranny, Smith and Stone (1992, p. 1) which stated that job satisfaction is an "affective (that is, emotional) reaction to one's job, resulting from the incumbent's comparison of actual outcomes with those that are desired (expected, deserved and so on)". Both definitions represent an understanding of job satisfaction as an emotional reaction. More recently, authors have suggested that while affect is an important consideration in job satisfaction research, job satisfaction itself is an attitude. This assessment is based primarily on the evaluative component of job satisfaction in which employees express an evaluative judgement on their job. Evaluation is a fundamental element of the definition of attitude within wider research on attitudes in social psychology (Eagly & Chaiken, 1993; Judge et al., 2017; Petty et al., 1997; H. M. Weiss, 2002) and this has led to a reconceptualisation of the definition of job satisfaction as "a positive (or negative) evaluation one makes about one's job or job situation" (Weiss, 2002, p.175).

Job satisfaction can be measured either as a global feeling about one's work, or by considering individual facets of the job. Global measures consider an overarching level of job satisfaction, usually by asking the respondent to indicate a summary response to how they feel about their job (Ironson et al., 1989). Other scales consider separate facets of job satisfaction, such as rewards, relationships with colleagues, and organisational factors such as communication or policies (Spector, 1997). Although there may be correlations between the facets, these are conceptually and empirically distinct, showing discriminant validity (Ironson et al., 1989; Judge et al., 2017; Kinicki et al., 2002). Some measures involve summing individual facet scores to produce an estimate of general satisfaction. This approach is less satisfactory, as the facets may not cover comprehensively the elements of general job satisfaction nor does adding the facets together necessarily result in the same internal weighting given to each component by the individual (Ironson et al., 1989).

As discussed in section 2.3.3, job satisfaction is different from the related concept of work engagement, in that job satisfaction is concerned with feelings *about* work and engagement with mood *at* work (Schaufeli & Bakker, 2010). Job satisfaction also differs from organisational commitment which focuses on the organisation as a whole, is defined by a sense of loyalty or attachment to one's organisation (Mowday et al., 1982) and includes an internalisation of the organisation's values and goals (Solinger et al., 2008). Studies have demonstrated that job satisfaction is distinct from organisational commitment, although it should be noted that the two constructs are moderately correlated (Brooke et al., 1988).

Precursors of job satisfaction can be divided into situational and dispositional antecedents (Judge & Kammeyer-Mueller, 2012). Situational antecedents include work characteristics such as skill variety, task identity, task significance, autonomy and feedback as described by Hackman and Oldham (1976). Jobs high in these characteristics offer a sense of achievement and meaning which relates positively to job satisfaction (Judge et al., 2017). Situational antecedents can also relate to the social environment (i.e., relationships with colleagues and supervisors), leadership behaviours, organisational practices (Humphrey et al., 2007; Judge & Kammeyer-Mueller, 2012) and factors such as physical demands (Humphrey et al., 2007). Issues related to the structure of work, such as role conflict (incompatible job demands) and role ambiguity (lack of clarity about responsibilities) are negatively related to job satisfaction (H. M. Weiss & Merlo, 2015).

Dispositional antecedents such as the Big Five personality traits of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (L. R. Goldberg, 1990) have been shown to be related to job satisfaction, with neuroticism, extraversion and conscientiousness demonstrating particularly strong relationships (Judge et al., 2002). Other researchers have found job satisfaction to be related to positive and negative affectivity (Connolly & Viswesvaran, 2000; Thoresen et al., 2003). Core self-evaluations, or beliefs about oneself and one's functioning (Judge et al., 1997) such as self-esteem, general self-efficacy, emotional stability and locus of

control, are associated with job satisfaction both individually and as a composite factor. Meta-analytic correlations between core self-evaluation constructs and job satisfaction ranges from 0.24 for emotional stability to 0.45 for self-efficacy, with a correlation of 0.37 for the combined factor (Bono & Judge, 2003; Judge & Bono, 2001). When considering these three dispositional taxonomies, core self-evaluations are thought to be the most useful in predicting job satisfaction although considerable correlations between the frameworks should be noted (Judge et al., 2008). An interaction approach, in which traits influence the way in which employees respond to situations found in their work environment, is an area for further exploration (Judge & Kammeyer-Mueller, 2012).

The relationship between job satisfaction and the outcome of job performance has been fiercely debated. The debate extends from the earliest days of the discipline, with Brayfield & Crockett (1955) suggesting that there was a negligible relationship between the two. In 1985, an influential meta-analysis of the job satisfaction-performance relationship also indicated a limited relationship with an average true score correlation of 0.17 (Iaffaldano & Muchinsky, 1985). However, the methodology of the latter study has been criticised as it combined a number of facets which may have introduced a downward bias into the estimate (Judge et al., 2001). More recent meta-analyses have instead focused on the relationship between overall job satisfaction and overall performance, with the mean correlation estimated at 0.30 (Judge et al., 2001). Other studies have identified an influence over time of job satisfaction on performance (Ricketta, 2008) as well as associations between satisfaction and business outcomes including profitability and productivity (Harter et al., 2002). Job satisfaction is also associated with positive organisational citizenship behaviours such as altruism, civic virtue and courtesy (Fassina et al., 2008), and negatively with withdrawal behaviours such as turnover intentions (Griffeth et al., 2000) and sickness absence (Scott & Taylor, 1985) as well as with psychological and physical illness (Faragher et al., 2005).

Job satisfaction has been widely studied in nursing (Lu et al., 2012, 2019; McVicar, 2016). With regard to mental health services, Billings et al (2003) and Nelson (2009) found that job satisfaction amongst staff employed in community mental health teams, assertive outreach teams and crisis resolution teams in the Greater London area was moderately positive, with no statistical difference in scores between the team types. In a large multicentre study in England, staff in both inpatient settings (acute general, older adult, rehabilitation, child and adolescent, forensic and psychiatric intensive care wards) and community services (crisis resolution teams and community mental health teams) reported good levels of satisfaction, with scores particularly high in relation to satisfaction with colleagues (S. Johnson et al., 2012). However, this study used a combination of questions taken from the NHS staff survey (Healthcare Commission, 2006) and the 2004 Workplace Employment Relations Survey (Kersley et al., 2005) making it difficult to compare with other studies which used validated job satisfaction measures (e.g., Billings, 2003; Nelson, 2009; Priebe, 2005). Whilst, as noted in section 2.3.2, studies have indicated high levels of burnout in mental health staff, in many of these instances job satisfaction has also been high. Onyett (1997; 2011) considered that this apparently contradictory finding may be due to high levels of work commitment which can be associated with both job satisfaction and burnout.

There may also be differences between professional groups or settings which have not yet been fully explored, for example some studies indicate that mental health social workers may experience both high levels of burnout and low levels of job satisfaction (Evans et al., 2006; Priebe, Fakhoury, et al., 2005; Reininghaus & Priebe, 2007). In a study comparing hospital and community-based mental health staff, Prosser et al. (1996) found no difference in job satisfaction between the two groups, with no change to this pattern in subsequent follow-ups at 12 and 24 months (Prosser et al., 1999). As the sample was relatively small with a high level of staff turnover between time points, it is difficult to generalise from these findings. However, these results are partially supported by a study conducted with 20 mental health supported accommodation services and five rehabilitation wards in long-stay hospitals in the Greater London area. Despite higher levels of patient disability in the

hospital wards, there were no significant differences in job satisfaction found between hospital staff and those working in supported accommodation settings (Shepherd et al., 1996). Only those staff working in privately-owned facilities reported significantly higher levels of job satisfaction compared to those working in hospital or in supported accommodation services run by other types of provider, a finding which may have been due to high levels of satisfaction amongst staff who were also owners of these facilities (Shepherd et al., 1996).

Studies with mental health staff have found job satisfaction to be associated with a range of team characteristics, including team identification (Onyett et al., 1997) and team-level processes such as collaboration and involvement in decision-making (Fleury et al., 2017). Similarly, positive and supportive relationships with colleagues are an important element of job satisfaction (Fleury et al., 2017; Goetz et al., 2018) as is effective clinical supervision (Hyrkas, 2005). Role clarity at both the team level (Onyett et al., 1997) and individual level (Goetz et al., 2018) is positively associated with job satisfaction, although it should be noted that both role clarity and job satisfaction appear to be lower for some staff groups such as mental health social workers (Carpenter et al., 2003). Other organisational-level issues such as pay (S. Johnson et al., 2012; Matos et al., 2010), work location or environment, and scheduling (Matos et al., 2010; Ward & Cowman, 2007) are also factors associated with job satisfaction.

In summary, job satisfaction is an attitude in which employees express a positive or negative judgement on their job or job situation. Job satisfaction can be measured either as a global indicator or as individual facets relating to specific aspects of the job. Job satisfaction differs from constructs such as work engagement which focuses on feelings while at work, and from organisational commitment which relates more to feelings of loyalty to the organisation. The impact of job satisfaction on performance (and the extent to which this may occur) is contested, but there is greater consensus on the positive association between job satisfaction and beneficial organisational behaviours and the negative association with employee withdrawal

behaviours. In mental healthcare job satisfaction is generally found to be good, although some staff groups such as mental health social workers report lower levels of job satisfaction. High levels of burnout are not necessarily correlated with reduced job satisfaction, potentially indicating some shared underpinning factor such as work commitment although this proposition requires further examination. Job satisfaction amongst mental health staff working in community settings (including supported accommodation) is comparable to that of staff working in inpatient settings. Relationships with team members and role clarity are associated with job satisfaction in staff working in mental health services.

2.3.5 Psychological health

An important part of workplace morale is the mental, psychological or emotional health of workers. Psychological wellbeing can be defined as a combination of positive affective states and the process of living well or functioning effectively (Deci & Ryan, 2008; Winefield et al., 2012). Although psychological wellbeing does not require individuals to feel good all of the time, it does describe a state where negative emotions such as failure or disappointment are transitory and do not interfere with an individual's daily life (Huppert, 2009). In an employment context, the psychological wellbeing of staff is key to the effective functioning of the workplace (Schulte & Vainio, 2010).

In their review of the evidence on the relationship between work and health, Waddell and Burton (2006) found strong evidence of benefits to psychological health from being in work. In addition to providing a mechanism by which adequate material resources are obtained, the positive aspects of work include engaging with others, structured use of time and enhanced social status, as well as opportunities for work-related learning, skill utilisation, achievement, fulfilment and personal growth (Finne et al., 2016; McKee-Ryan et al., 2005; Schulte & Vainio, 2010; Waddell & Burton, 2006). Being out of work has been shown to be a source of significant stress and a risk factor for poorer physical

health, mental health and mortality (Schulte & Vainio, 2010; Waddell & Burton, 2006).

As the opposite of psychological wellbeing, psychological distress is defined as a state of emotional suffering which is characterised by mild-to-moderate symptoms of depression and anxiety (Dohrenwend et al., 1980; Drapeau et al., 2012; Stansfeld & Candy, 2006). Consequences of psychological distress take a variety of forms, including increased sickness absence (G. E. Hardy et al., 2003; Wang et al., 2014), reduced productivity (Sanderson & Andrews, 2006), loss of quality of life and negative socio-economic consequences due to disability or early retirement (Houtman, 2005; Organisation for Economic Co-operation and Development, 2012, 2015). Psychological distress is also a risk factor for poor physical health, with a recent meta-analysis of ten large cohort studies from the Health Survey for England finding psychological distress to be a risk factor for all-cause mortality as well as for death from cardiovascular disease and cancer (Russ et al., 2012).

Work-related psychological distress is widespread. In the UK, work-related mental ill-health has become the most frequently cited reason for sickness absence (Carder et al., 2013). An estimated 17.9 million working days were lost in 2019/20 due to work-related mental ill-health, with an average of 21.6 working days lost per case (Health and Safety Executive, 2020a). Work-related stress, depression or anxiety accounted for 51% of all work-related illness in 2019/20 and 55% of days all working days lost (HSE, 2020a). There were 347,000 new cases reported in the UK in 2018/19 with the rate showing signs of increasing in recent years (HSE, 2020a). Using data averaged over the period 2017/18-2019/20, the 2020 Labour Force Survey (Health and Safety Executive, 2020b) indicated that those working in health and social care appear to be at greater risk of work-related psychological distress compared to the average across all industries (HSE, 2020a). This finding is consistent with research showing a greater increase over recent years in work-related mental ill-health amongst health and social care staff compared to other occupational sectors in the UK (Carder et al., 2013).

There is considerable evidence of associations between the conditions present in the workplace and the psychological health of workers (Drapeau et al., 2012), with a number of studies identifying a relationship between adverse psychosocial work factors and psychological distress. In particular, there are clear associations between psychological distress in workers and features of the workplace such as high work demands (workload or psychological demands), low decision latitude (limited control over work tasks) and poor support from colleagues or supervisors. Psychological distress is also associated with workplace factors such as effort-reward imbalance (discrepancy between high levels of effort expended and low levels of reward), lack of organisational justice (fairness in decision-making and in treatment of workers), bullying and job insecurity (Bültmann et al., 2002; Choi et al., 2011; Drapeau et al., 2012; Elovainio et al., 2002, 2005; Finne et al., 2016; Johannessen et al., 2013; Lopes et al., 2010; Marchand et al., 2005; McDonough, 2000; Ndjaboue et al., 2017; Stansfeld et al., 1998, 1999; Stansfeld & Candy, 2006). Whilst some variation in psychological distress has been noted across occupations, due to differences in occupational classification these results are difficult to compare (Drapeau et al., 2012). Although the psychological distress of workers may be related to circumstances outside the workplace (e.g., family relationships, social support and life events), it has so far proved challenging to create an integrated theory of home and work influences (Drapeau et al., 2012).

In a sample of over 11,000 staff from different occupational groups in 19 NHS trusts, Wall and colleagues (1997) found that 26.8% of respondents met the threshold score for 'caseness' indicative of minor psychiatric disorder on the 12-item version of the General Health Questionnaire (GHQ-12; D. P. Goldberg & Blackwell, 1970; D. P. Goldberg & Williams, 1988). This level compared to the British Household Panel Survey (M. Taylor et al., 1995) from the same time period of 17.8%. A systematic review of psychological distress in UK doctors indicated an average of 31% across all specialties, with high work demands, job stress and the number of hours worked positively associated with caseness across specialties and grades (Imo, 2017). This figure is similar to that found in a meta-analysis examining the prevalence of psychological distress in

different occupational groups which reported caseness in 32.4% of NHS staff, with a weighted prevalence estimate across comparable population studies of 19.1% (Goodwin et al., 2013). There is some evidence of under-reporting of psychological distress amongst healthcare staff due to stigma (Kinman & Teoh, 2018) and so these numbers may actually represent an underestimate of the problem.

In mental health services, a greater proportion of sickness absence is attributed to psychological distress compared to other healthcare settings. Johnson (2018) reported that 26% of all sickness absence in UK psychiatrists and 25% in mental health nurses was related to stress, anxiety or depression compared to 17% of doctors and 18% of nurses in acute trusts (NHS Digital, 2017). Whilst it may be that the prevalence of psychological distress is greater amongst those working in mental healthcare (Firth-Cozens, 2007), it could also be that staff working in these services feel more able to acknowledge and report their own mental health difficulties. Research in this area is acknowledged to be limited (Mac Suibhne et al., 2017).

In the early days of community care, Prosser (1996, 1999) and Fagin (1995) reported levels of caseness to be higher in community mental health staff compared to those working in inpatient services. This finding is consistent with later studies, in which caseness was reported to range from 22% amongst those working on older adult wards to 24% on rehabilitation wards, 29% on acute general wards and 39% in community mental health teams (S. Johnson et al., 2012). Caseness levels have also been found to be high in some professional groups such as mental health social workers, with reported levels ranging from 37% (S. Johnson et al., 2012) to 47% (Evans et al., 2006) and amongst occupational therapists (S. Johnson et al., 2012). When comparing staff working in supported accommodation services to those working in rehabilitation units in long-stay hospitals, Shepherd and colleagues (1996) found levels of caseness in hospital staff of 44% and in supported accommodation of 40%, although it should be noted that levels varied from 4% in privately-owned supported accommodation facilities to 50% in those run by the voluntary sector. Whilst Jones (2008) found caseness levels of 41% in

assertive outreach keyworkers, the very small sample size (17 participants) means this result should be treated with caution. In a review of staff morale in mental health inpatient units, Cahill et al. (2004) observed that heterogeneity of measurement precluded an accurate analysis of the extent of occupational stress and recommended the establishment of an agreed set of measures.

In summary, while there are clear benefits to being in work there are also work-related factors which are associated with psychological distress. Those working in health and social care are at particular risk, with rates of psychological distress higher than those in other professions with levels appearing to be on the rise. An estimated 30% of those working in the NHS meet the threshold for 'caseness' or the threshold for minor psychiatric disorder compared to 1 in 5 in the general population. Sickness absence due to psychological distress is higher in mental health services than in other parts of the NHS. Studies have indicated higher levels of caseness in community mental health staff compared to those working in inpatient settings, and amongst mental health social workers. One study found lower levels of caseness amongst those working in supported accommodation services compared to those working in hospital-based rehabilitation wards, although there were significant differences between the different supported accommodation provider types.

2.3.6 Summary of 2.3

Morale is a critical issue in mental health services, where staff experience considerable pressures related to the challenges of working with those experiencing mental ill-health. In addition to the impact that morale has on the lives of staff, morale is also vital for the delivery of effective services that meet the needs of service users. As discussed in section 2.3.1, the concept of morale is often poorly defined. In line with recommendations for greater transparency about the definition being used and previous mental health services research this study has taken a multi-faceted approach to morale, considering it as an umbrella term encompassing burnout, work engagement, job satisfaction and psychological health. As each of these areas has its own

considerable research history as detailed in the sections above, this summary will consider how these contribute to understanding morale in mental health staff.

The risks of developing burnout are high for mental health staff when compared to other professions and other areas of healthcare. Higher levels of burnout are associated with a range of negative consequences for staff, services and service users, ranging from increased staff absence and turnover intentions, to lower levels of service user satisfaction with treatment. Early in the transition to community care, concern was expressed that levels of burnout (particularly emotional exhaustion) were high in community-based staff. Whilst a later study indicated moderate levels of burnout in community mental health teams, levels of burnout appear to have risen again more recently. The reasons for these differences are not clear, and evidence of burnout amongst those working in acute mental health wards is also mixed. Although a pattern of moderate levels of emotional exhaustion, low depersonalisation and high personal accomplishment has been reported in crisis resolution teams, assertive outreach teams and in staff working on rehabilitation wards, there is evidence for high levels of burnout in some staff groups, notably mental health social workers. Moderate-to-high levels of emotional exhaustion were found in a study of staff working in supported accommodation, but the sample was very small. Interestingly, higher levels of emotional exhaustion and (in some studies) depersonalisation do not appear to have resulted in reduced personal accomplishment suggesting that despite feeling emotionally depleted and potentially distant from service users, staff continue to feel effective in their work. There is some evidence that unqualified staff may experience less emotional exhaustion than those with professional qualifications, but studies investigating this comparison are few and further research is required.

There is more limited research on work engagement in mental health services. Although one study did not find engagement to be associated with fidelity to a model of good practice in crisis resolution teams, another found engagement to be associated with job satisfaction and intention to remain in the profession amongst psychiatric nurses. These findings are consistent with the benefits

associated with higher levels of staff engagement in general healthcare settings which include increased job satisfaction and patient satisfaction, as well as lower levels of sickness absence, turnover intention and actual turnover in staff. There is also some evidence that engagement is positively associated with fewer adverse events and reduced patient mortality. Although an area which has received relatively little research attention, no differences have been found in levels of engagement between qualified staff and those without a professional qualification.

Job satisfaction in mental health staff is often found to be moderately high, even amongst staff experiencing high levels of burnout. It has been suggested that this apparently inconsistent finding may be due to both burnout and job satisfaction being underpinned by a common factor such as work commitment, but research is required to investigate further. It should be noted that the pattern of high burnout and high job satisfaction does not necessarily hold true for all staff groups, with mental health social workers reporting both high burnout and lower levels of job satisfaction. This could be due to lower levels of job clarity reported amongst mental health social workers but findings in this area are not conclusive. No differences in job satisfaction have been found between staff based in the community and those working in hospital settings, or between staff working in supported accommodation and on rehabilitation wards.

Healthcare staff report high levels of psychological distress compared to the general population, with sickness absence related to psychological distress higher amongst mental health staff than in other healthcare staff groups. There is evidence that levels of caseness are higher in staff working in community mental health teams and among mental health social workers and occupational therapists. In one study, those working in supported accommodation services reported lower levels of caseness than those working in hospital-based rehabilitation wards, although there was considerable variation between different supported accommodation service providers.

Across the different morale domains, studies involving mental health staff consistently report associations between high levels of morale and role clarity, autonomy or job control, supportive relationships with colleagues and managers, and organisational structures that empower staff. Conversely, low staff morale is associated with emotional demands, high levels of workload, role conflict or ambiguity, insufficient staffing levels, risk of violence, low levels of autonomy and staff feeling that they lack influence in the organisation. Findings are mixed on the relationship between staff morale and service user factors such as morbidity or frequency of contact, with the differences possibly due to levels of staff training, teamwork, support or supervision. It may also be that staff find contact with service users to be rewarding, and the negative impact on morale comes instead from organisational factors such as inadequate staffing levels or excessive administrative responsibilities which may impede staff from engaging or working effectively with service users.

Some differences have been identified in morale levels according to professional group. In particular, there may be cause for concern about mental health social workers as morale levels across several domains have been found to be consistently poorer than those in other staff groups. Evidence on levels of morale in community mental health teams and acute inpatient wards is more equivocal, although several studies have identified low morale in these settings. Morale indicators appear to be more positive in specialist teams. Relatively little research has been conducted with those staff without professional qualifications who work in mental health services, with evidence regarding morale in this group unclear.

2.4 Occupational outcomes

2.4.1 Turnover

Employee turnover, or the voluntary severance of ties to an organisation by an employee (Hom & Griffeth, 1995), has been the subject of numerous studies over the last 100 years (Hom et al., 2017). Whilst acknowledging that there may be some benefits to turnover in the form of new ideas and knowledge (Staw, 1980) or reduction in poor performing employees (S. Lee, 2018), much

of the focus has been on the negative impact of turnover. The organisational consequences of turnover include direct costs associated with replacing an employee (e.g., advertising, recruitment and training), operational disruption, possible demoralisation of remaining staff (Staw, 1980), loss of accumulated knowledge and skills (Strober, 1990) as well as reduced organisational performance across domains including customer service, safety, quality and productivity (Hancock et al., 2013; Hausknecht, 2017; Hausknecht et al., 2009; Hausknecht & Trevor, 2011; Heavey et al., 2013; Park & Shaw, 2013; Shaw, 2011; Shaw et al., 2005).

Turnover research has largely focused on individual turnover and is grounded in March and Simon's (1958) theory which postulated that turnover is shaped by both perceived desirability and perceived ease of movement. Desirability is usually operationalised as job satisfaction, while ease of movement is defined as perceived job alternatives. It was further suggested that employees weigh up the alternatives by comparing them to their current job in formulating their intention to quit (Mobley, 1977; Mobley et al., 1979). Later theorists introduced the unfolding model which suggested that jarring events or 'shocks' (including life events, workplace events incompatible with an employee's values, or unsolicited job offers) could also prompt employees to consider leaving an organisation (T. W. Lee & Mitchell, 1994). Mitchell, Lee and colleagues (Mitchell et al., 2001; Mitchell & Lee, 2001) went on to combine the unfolding model with job embeddedness theory which aims to capture deterrents to turnover. These deterrents can take the form of on-the-job or off-the-job forces and are categorised using the dimensions of links (connections to other people or activities), fit (the extent to which a job is compatible with other aspects of a person's life) and sacrifices (those things that would be lost if links were broken). Job embeddedness thus enables consideration of those forces which compel people to stay in a job. A recent meta-analysis confirmed the contribution of embeddedness constructs to turnover intentions and turnover after controlling for job satisfaction, organisational commitment and the availability of alternative employment (Jiang et al., 2012).

Recently, research has begun to explore collective turnover, or aggregated employee departures within work teams, units or organisations (Hausknecht & Trevor, 2011). Collective approaches enable consideration of the impact of group processes, such as the effect of an organisation's total turnover rate or turnover contagion in which decisions to quit are influenced by those of others (Felps et al., 2009). Turnover rate has historically been expressed as the percentage of staff departing an organisation over a specified period of time (Hausknecht, 2017), although this approach may not provide sufficient insight into the knowledge, skills and abilities which are lost (Nyberg & Ployhart, 2013). By this rationale, the same turnover rate could have markedly different consequences depending on the qualities of those who leave, those who remain and those who arrive to fill vacancies (Hausknecht & Holwerda, 2012).

Whilst it is outside the scope of this study to discuss in detail individual antecedents of voluntary turnover (recent meta-analyses have identified over 50 separate variables, see Heavey et al., 2013; Rubenstein et al., 2018), there is some agreement that the various antecedents can be grouped into a smaller number of categories. Although other theoretical frameworks have been developed (e.g., Maertz & Griffeth, 2004) Rubenstein and colleagues (2015) adapted a previous model (Holtom et al., 2008) in proposing categories of antecedents. These comprise: a) individual attributes such as age or job tenure, b) aspects of the job including pay or autonomy, c) attitudes such as job satisfaction or organisational commitment, d) individual states (e.g., burnout) e) interface between the person and the workplace (embeddedness), and f) perceived alternatives in the job market.

Mediating variables between these antecedents and voluntary turnover are termed withdrawal variables and include withdrawal cognitions and job search activities (Rubenstein et al., 2015). One of these withdrawal variables, turnover intentions, or the plans of an individual to leave a job or organisation in the near future (Mowday et al., 1982) has long been suggested to be the most proximal antecedent to turnover (Kraut, 1975; Mobley, 1977; Tett & Meyer, 1993). The influence of turnover intentions has been confirmed by the meta-analyses of Griffeth et al. (2000) and Rubenstein (2015) although there

are significant contributions to turnover made by other variables including those previously considered relatively distal to turnover including pay, tenure and age (Rubenstein et al., 2015). Turnover intentions remain an important part of turnover theory and are often used as a proxy measure when data on actual turnover are not available (Hom et al., 2017). This approach has been challenged by recent research indicating that turnover intention may be a less reliable predictor of actual turnover than previously thought (G. Cohen et al., 2015; Jung, 2010), although these studies were conducted on organisational rather than individual level turnover.

In healthcare settings, turnover results in financial costs from use of agency staff or overtime during vacancies, as well as recruitment, induction and training expenses (L. J. Hayes et al., 2012; C. B. Jones, 2008; O'Brien-Pallas et al., 2006; Waldman et al., 2004). There is also an association between turnover and reduced organisational effectiveness across a number of domains including quality of care, adverse events, patient safety, productivity, access to services and patient satisfaction (L. J. Hayes et al., 2012; C. B. Jones, 2008; Leiter et al., 1998; O'Brien-Pallas et al., 2006). In mental health services, turnover has a negative impact on productivity and on relationships between staff and clients (Boyer & Bond, 1999) and interrupts clinical continuity as new staff take time to understand their clients' needs and to re-establish therapeutic relationships (Ben-Dror, 1994; Boyer & Bond, 1999; Rollins et al., 2010). There is also evidence that in mental health settings, turnover reduces fidelity to evidence-based practice (Mancini et al., 2009; Rollins et al., 2010; Woltmann et al., 2008). Of considerable concern is a study of 19,248 individuals in England who died by suicide within 12 months of contact with mental health services, in which turnover of non-medical staff was associated with higher suicide rates and a reduced effect of policy and guidance implementation (Kapur et al., 2016).

Turnover is higher in mental health services than in physical health services (Health Education England, 2017) with studies reporting turnover rates to be between 20% and 60% (Blankertz & Robinson, 1997; Mor Barak et al., 2001; Paris & Hoge, 2010). These rates compare to a median annual turnover rate

across the UK of 16% (Chartered Institute of Personnel and Development, 2020). Although staff retention is a stated priority for the NHS (Health Education England, 2017), attrition has worsened in recent years resulting in an urgent need to address high rates of turnover (Buchan et al., 2019). Reports identifying staff recruitment and retention difficulties in mental health services going back to the 1990s have listed reducing staff turnover as a key priority (Bell & Lindley, 2005; Genkeer et al., 2003; Sainsbury Centre for Mental Health, 2000), although these have provided limited evidence for proposed intervention strategies. However, there may be some cause for optimism, as a national UK programme started in 2017 targeting staff retention has resulted in the turnover rate amongst clinical mental health staff falling to 13.4% over the two years of the programme (NHS Improvement, 2018). However, it should be noted that mental health trusts are low in stability (the percentage of staff remaining in post over the course of a year) compared to some other types of NHS trust (Buchan et al., 2019).

Turnover and morale

In their influential meta-analysis of 61 studies examining the correlates of burnout, Lee and Ashforth (1996) found a positive association between the emotional exhaustion component of burnout and turnover intention, but not between either depersonalisation or reduced personal accomplishment and turnover intention. Although there are fewer studies considering burnout and actual turnover, there is some evidence of an association both between emotional exhaustion and turnover (Wright & Cropanzano, 1998) and between depersonalisation and turnover (Firth & Britton, 1989). In their meta-analysis, Swider and Zimmerman (2010) found a positive association between depersonalisation and actual turnover, with a positive although weaker association between turnover and emotional exhaustion.

Although cross-sectional in nature, there have been several studies which have reported associations between aspects of burnout and turnover intentions in healthcare staff including ambulance personnel (Bria et al., 2013), nurses (Laschinger, Leiter, et al., 2009; Maslach & Leiter, 1997) and doctors

(Zhang & Feng, 2011). Although studies examining burnout and actual turnover in healthcare settings are limited in number, in a predictive study involving British nurses depersonalisation was associated with turnover over the subsequent two years (Firth & Britton, 1989). However, a recent study of 2,062 staff working in 97 general nursing and care homes in England found no association between any burnout components at baseline and turnover at 12 months (Costello et al., 2020). This was a robust cohort study involving a large national sample, and it is unclear why the expected association between burnout and turnover was not found, with authors noting only that turnover was higher in homes with nursing input compared to those without.

In common with other healthcare settings, cross-sectional studies in mental health services have reported associations between burnout and turnover intentions. In a stratified sample of 848 psychosocial rehabilitation workers employed in organisations across the United States, Blankertz and Robinson (1997) found associations between intention to leave the profession and emotional exhaustion. Among counsellors employed in addiction treatment programmes drawn from a nationally representative American sample, there was a strong association between emotional exhaustion and intention to quit (Ducharme et al., 2008). Similarly, an association between emotional exhaustion and turnover intention was also found in a study of 388 staff working in American public sector organisations providing mental health services for children, adolescents and families (Green et al., 2013). In the UK, a study of 172 mental health nurses working in a single organisation found associations between turnover intentions and both emotional exhaustion and depersonalisation (Sherring & Knight, 2009). In a study of nearly 11,000 staff from a variety of professional backgrounds working with complex patients in different settings in a single US healthcare system found turnover intention to be positively associated with emotional exhaustion (Yanchus et al., 2017).

Engagement, or the extent to which staff feel energetic, involved and absorbed in their work, has been found to be negatively associated with turnover intention and turnover. In a meta-analysis of studies carried out across of range of occupational sectors, Harter (2002) found that engagement was

negatively associated with turnover intention. However, all included studies measured engagement using the Gallup Workplace Audit (The Gallup Organization, 1992), a tool not widely used in academic research due to its considerable overlap with other constructs including job satisfaction (Schaufeli & Bakker, 2010). A more robust meta-analysis of 74 unique samples comprising a sample size of 45,683 participants (Halbesleben, 2010) found that overall engagement was negatively associated with turnover intention. Recent studies have demonstrated that engagement has a direct and negative relationship with turnover intention (Kim, 2017; Kim & Hyun, 2017) and that low work engagement predicts future turnover (de Lange et al., 2008).

Similarly, in healthcare settings, engagement has also been found to be associated with turnover intention (Shahpouri et al., 2016). In mental health services specifically, a cross-sectional study of nurses working in two Belgian psychiatric hospitals found engagement to be positively associated with intention to stay in the nursing profession (Van Bogaert, Wouters, et al., 2013). When examining the relationship between engagement and actual turnover using data from the 2006-2009 national NHS Staff Surveys, West (2012) found that levels of staff engagement predicted staff turnover with those Trusts having a one standard deviation higher staff engagement score experiencing 0.6% lower turnover rates. Although this study had a large national sample (154,726 in the 2009 dataset), it should be noted that there were shortcomings in the measurement of engagement as described in section 2.3.3.

Job satisfaction is considered an important antecedent of turnover, with greater predictive validity found with overall job satisfaction measures compared to individual facets of job satisfaction such as satisfaction with colleagues or with supervisor support (Griffeth et al., 2000). Although generally demonstrating a weaker effect than intentions to quit, estimates of the relationship between job satisfaction and turnover from meta-analyses have been shown to be moderate, ranging from $\rho = -0.19$ (Griffeth et al., 2000) to $\rho = -0.26$ (Rubenstein et al., 2015). Job satisfaction contributes to turnover independently of other work-related cognitions such as organisational commitment (Tett & Meyer, 1993). However, job satisfaction is unlikely to

influence turnover in isolation as other factors (e.g., the availability of alternative employment) may magnify or mitigate the effect (Hom et al., 1992; Hom & Kinicki, 2001; Maertz & Griffeth, 2004).

Job satisfaction and its relationship to staff turnover in healthcare has been widely studied. A review of nine systematic reviews of turnover in general nursing identified job satisfaction to have been reported frequently as a determinant of intention to leave with consensus across the included reviews on the negative association between the two variables (Halter et al., 2017). However, it should be noted that the evidence of an association between job satisfaction and turnover was less equivocal than had been presented previously and that further research, particularly of actual turnover, is warranted (Halter et al., 2017). When considering turnover in newly-qualified nurses, Murrells and colleagues (2008) found some association between specific facets of job satisfaction and turnover at 18 and 36 months, although there was no association found between turnover and the majority of job satisfaction facets at either time point. In the UK, a recent review investigating retention in the NHS workforce highlighted the relationship between low levels of job satisfaction and turnover (Bimpong et al., 2020), although the study was somewhat limited in scope due to a focus on the influence of pay on satisfaction.

Whilst research on the relationship between job satisfaction and turnover in mental health services is more limited, cross-sectional studies have found negative associations between job satisfaction and turnover intention amongst nurses in inpatient units (Alsarairh et al., 2014; Ito et al., 2001), mental health social workers (Acker, 2004), mental health occupational therapists (Scanlan & Still, 2013), and in a mixed group of staff working in inpatient units and community services (Scanlan & Still, 2019). One study considered 11,726 mental health professionals (psychiatrists, psychologists, social workers, and nurses) working in an American veterans' mental health system and found that the negative relationship between job satisfaction and turnover intention was consistent across occupational groups (Yanchus et al., 2015). A longitudinal study of 1,106 registered nurses, licensed practical nurses and nurses' aides

working in long-term psychiatric inpatient settings found the expected negative association between job satisfaction and actual turnover (Alexander et al., 1998).

Although a topic of interest in the earliest days of organisational psychology (see Wright, 2007 for review), the relationship between psychological distress and turnover has received rather less attention of late with even well-regarded meta-analyses of turnover research (e.g., Griffeth, 2000) failing to consider psychological distress as an antecedent (Wright & Bonett, 2007). However, there are indications that psychological distress has both direct and indirect effects on turnover. In a small longitudinal study of 112 managers in a single US organisation, Wright and Bonett (2007) found that psychological wellbeing showed a significant (negative) main effect on turnover, and also an interaction effect between wellbeing and job satisfaction with those employees having lower levels of both psychological wellbeing and job satisfaction the most likely to leave the organisation over a two-year period. In mental healthcare, there is some limited evidence that psychological ill-health is associated with turnover. In a study of clinical staff working in mental health services in south London, Prosser et al. (1999) reported an association between score on the 12-item version of the General Health Questionnaire (D. P. Goldberg & Blackwell, 1970; D. P. Goldberg & Williams, 1988) and turnover at 12 months, although not at 36 months. However, these results should be interpreted with caution as numbers of staff completing the measures at all time points was very small.

Turnover summary

In summary, turnover has been the subject of considerable research due to its potential negative consequences to organisations in the form of recruitment and training costs and loss of knowledge and skills. In healthcare, these negative impacts extend to quality of care and patient satisfaction. In mental health services, turnover is associated with disruptions to clinical care, challenges in implementing evidence-based practice and patient deaths by suicide. Empirical evidence generally indicates associations between turnover

and morale variables in the expected direction (e.g., a negative relationship with engagement or job satisfaction, and a positive relationship with burnout or psychological ill-health), however a large longitudinal study in UK care homes did not find any association between burnout and turnover at 12 months. It also should be noted that most studies are cross-sectional in nature and rely on data relating to turnover intentions rather than actual turnover. Whilst the intention to leave a job has been confirmed as an antecedent to turnover, its use as a reliable proxy for actual turnover is disputed. There are other methodological issues arising in the turnover literature, for example the use of measures of engagement which have not been validated, and the limited number of studies on psychological ill-health and turnover.

2.4.2 Sickness absence

Generally defined as not attending scheduled work, absenteeism is a widely studied concept with a long research history (D. A. Harrison & Martocchio, 1998) Whilst some absence is due to unavoidable health problems (Rhodes & Steers, 1990), research has focussed on those factors which might be subject to prediction (sociodemographic factors or personality) or change, such as workplace behaviours, social context and the ways in which absence decisions are made (D. A. Harrison & Martocchio, 1998; Johns, 2003). Sickness absence has been acknowledged as a complex phenomenon, and it can be difficult to differentiate between different types of sickness absence as they may look superficially similar (e.g., not attending work) while representing a range of behaviours with different causes (Johns, 2003).

Whilst research has largely considered sickness absence as an individual-level construct involving an employee and the organisation for which they work, studies have also been conducted on the concept of absence cultures or group absence norms. These can be defined as a shared understanding of what constitutes legitimate reasons for and the duration of absence in a particular workplace setting (Chadwick-Jones et al., 1982; Johns & Nicholson, 1982). Researchers have investigated the extent to which absence behaviour can be influenced at the level of a community, social group or country (Johns

& Xie, 1998; Markham & McKee, 1995; Nicholson & Johns, 1985), by macroeconomic factors (P. Taylor et al., 2010; P. J. Taylor & Burridge, 1982), generous governmental sick leave benefits (Geurts et al., 2000), major societal events (Byron & Peterson, 2002) or the portrayal of absence in the media (Patton & Johns, 2012).

Two different types of absence behaviour are commonly measured: absence frequency and duration (Hensing et al., 1998). Frequency, or the number of times an individual has been absent from work in a specified period, is often referred to as 'voluntary absenteeism' and is considered to represent withdrawal from poor work circumstances or an unwillingness to attend work. Duration, or the total length of time absent over a period, is described as 'involuntary absenteeism' that reflects an inability to attend work (Chadwick-Jones et al., 1971; Scott & Taylor, 1985). Whilst empirical studies have found support for this dichotomous approach (e.g., Bakker et al., 2003; Chadwick-Jones et al., 1982; Driver & Watson, 1989; Schaufeli et al., 2009) it could be argued that this interpretation is misleading as it equates frequency with all absence occurrences regardless of whether they are actually involuntary in nature (Shantz & Alfes, 2015), and that total time lost includes all absences whether voluntary or involuntary (Driver & Watson, 1989). A recent study which conducted three meta-analyses to obtain population estimates of the reliability of these two approaches and the correlation between the two concluded that there is little evidence for the frequency-duration absence distinction (Johns & Al Hajj, 2016). It seems likely that both voluntary and involuntary factors underpin both absence measures, e.g., a member of staff who is (involuntarily) unwell decides to take an additional (voluntary) day to recover (Darr & Johns, 2008). Efforts to develop measures which take into consideration both the number of absences and absence duration to produce a total absence score (e.g., 'Bradford Factor', n.d.), may prove useful although it should be noted that those developed to date tend to penalise those with a greater number of absence episodes (Perrett & Martinez Lucio, 2006).

There are issues with the collection of absence data, with employees consistently under-reporting absenteeism. In addition to recall bias, this

discrepancy may be due to the negative connotations of absenteeism (Johns, 1994, 2003; Johns & Miraglia, 2015) or feelings of shame (Knapstad et al., 2014). Whilst more objective absence data can be taken from employee records, there exist a variety of difficulties including gaining permission to access organisational records, poor quality of managerial record-keeping, or a lack of delineation in records between different types of absence indicating shortcomings in the use of organisational records (Johns & Miraglia, 2015). A recent meta-analysis found that self-reports of absence offer adequate test-retest reliability, as well as good convergent validity with organisational records with estimates ranging from $\bar{r} = 0.66$ to 0.73 (Johns & Miraglia, 2015).

The Office of National Statistics reported that 141.4 million days were lost due to sickness absences in the UK in 2018 (Office for National Statistics, 2019). Whilst the gap has narrowed in recent years, public sector employees have a higher level of sickness absence than those working in the private sector. Among large public sector organisations, rates of absence are highest in the health sector, with healthcare staff taking more sick days than those working in local or central government (Office for National Statistics, 2021). In 2016, the Carter Report identified that rates of sickness absence in the NHS were 4.0% compared to 2.9% in the rest of the public sector. Sickness absence represents an estimated cost to the NHS of £2.4bn a year (NHS England, 2015), with staff in mental health trusts having the second highest level of sickness absence after staff working in ambulance trusts (NHS Digital, 2020).

There are also negative consequences from presenteeism, or staff attending work when unwell, although these are more difficult to quantify. Compared to other sectors levels of presenteeism in the caring professions are high, possibly due in part to the relationship that exists between care providers and clients, as well as what has been termed 'irreplaceability' or the difficulties in finding a stand-in if one is absent from work (Aronsson et al., 2000). The Boorman Review interim report (2009) into NHS staff health and wellbeing indicating that over a four-week period 65% of NHS staff reported attending work despite feeling unwell enough to justify staying at home.

Although empirical evidence is limited, there is some indication that sickness absence has a negative impact on productivity (when absent workers are not replaced) and costs (where staff absence is covered using more expensive agency workers) in mental health services (J. Johnson et al., 2018). Furthermore, where locum or agency staff are not provided to cover sickness absence, staff are additionally burdened by having to manage absent colleagues' work, which potentially impacts negatively on the wellbeing of remaining staff (Copeland, 2019). There is some suggestion that absence amongst staff working in mental health services is associated with reduced fidelity to evidence-based practices (Morse et al., 2012) but evidence is limited.

Sickness absence and morale

A number of longitudinal studies have identified a link between burnout and subsequent levels of sickness absence, particularly with regard to absence duration. Using a weighted sum score of all three burnout dimensions, Ahola et al. (2008) found that the risk of taking medically certified sickness absence of nine days or more was 6.9 times greater in those with severe burnout even after adjusting for sociodemographic factors and mental and physical health disorders. Taking a similar approach, Toppinen-Tanner et al. (2005) found that total burnout predicted medically certified future sickness absence of more than three days, with high levels of burnout increasing the risk of absence even after controlling for age, sex, occupation, and previous absence. Whilst Ybema and colleagues (2010) found no relationship between burnout and future absence frequency, burnout influenced future total days absence, with those highest in burnout absent for 11.61 days more on average than those with the lowest burnout scores. However, it should be noted that this study used an adapted version of a work engagement scale to measure burnout, thereby limiting its comparability. In a prospective cohort study of 824 employees working in a range of public sector organisations which used a burnout measure specifically developed for the study, Borritz et al. (2006) found that sickness absence in the highest burnout quartile was 13.9 days compared to 5.4 days in the lowest burnout quartile, with an increase of one standard deviation in burnout predicting an increase of 21% in days of sickness

absence. Using a combination of the emotional exhaustion and depersonalisation domains of burnout, Schaufeli et al. (2009) found that burnout predicted total sickness absence duration over the following 12 months. In their meta-analysis of 115 empirical studies, Swider & Zimmerman (2010) found correlations between sickness absence and all three components of burnout. Emotional exhaustion had a moderate true score correlation with sickness absence ($\rho = 0.21$), while the relationships between absence and the burnout domains of depersonalisation and personal accomplishment were weaker ($\rho = 0.15$ and $\rho = -0.12$ respectively).

Similar results have been found in cross-sectional studies on staff working in healthcare settings, with burnout associated with shorter spells of sickness absence of up to 10 days in the previous 12-month period (Anagnostopoulos & Niakas, 2010) and with a greater number of days taken for mental health reasons (Parker & Kulik, 1995). In a national study of over 3,000 registered nurses in the U.S. those with burnout were found to be more likely to have had one or more days' absence in the previous month, although it should be noted that the response rate was low at only 26% (Dyrbye et al., 2019). In the UK, emotional exhaustion predicted longer-term sickness absence (more than seven days' duration) and total sickness absence in the subsequent 12 months amongst nurses working in six long-stay settings (Firth & Britton, 1989). In mental healthcare specifically, emotional exhaustion was found to be associated with total days' absence in the previous 12 months (Sherring & Knight, 2009). Although no association was found between burnout and subsequent absence from work in supported accommodation services, this may be due to the very small sample (20 participants) and short follow-up period of only three months (Bowden, 1994).

When considering the relationship of engagement to sickness absence, Schaufeli et al. (2009) found that engagement was negatively associated with sickness absence frequency over the subsequent 12 months while Rongen et al. (2014) found it to be negatively associated with long-term (greater than 10 days) sickness absence over six months. In a study of 625 employees providing administrative support to public sector organisations, Soane et al.

(2013) found engagement to be negatively associated with total days of sickness absence, although the follow-up period was limited to three months. Shantz et al. (2015) found engagement to be negatively associated with what they considered to be voluntary absence over four months. Absence was calculated using the Bradford Factor ('Bradford Factor', n.d.), which as indicated above emphasises frequency of absence while also attempting to incorporate absence duration in a single score. In their review of engagement using data from national NHS staff surveys, West and colleagues (2012) found engagement to be a significant predictor of absenteeism and noted that an increase of one standard deviation in levels of engagement could result in a saving of £150,000 in salary costs for the average acute trust. However, as described in section 2.3.3, it should be noted that this report did not use a validated measure of engagement and may have conflated engagement with influence in decision-making and staff willingness to recommend their trust for employment or treatment.

Authoritative meta-analyses by Hackett and Guion (1985) and Scott and Taylor (1985) have indicated a moderate negative association between job satisfaction and sickness absence. Correlations in the order of $\rho = -0.20$ to $\rho = -0.25$ were reported, with a slightly stronger relationship for absence frequency than absence duration (Hackett, 1989). In a longitudinal study of staff working in a variety of roles in four NHS Trusts, lower job satisfaction was found to contribute to increased subsequent total absence days and frequency of absence over a three-year period (G. E. Hardy et al., 2003). This effect was independent and of a similar magnitude to the effect of psychological distress on sickness absence as described below. A reciprocal relationship between job satisfaction and absence has also been identified, with higher absence frequency resulting in lower future job satisfaction (Tharenou, 1993; Ybema et al., 2010). This finding may be due to those with high sickness absence being allocated less interesting tasks or experiencing conflict with managers or colleagues due to their absence (Steers & Rhodes, 1978), or to workers with high rates of absence distancing themselves from their work and selectively evaluating their work as less important than it had been previously (Buunk & Ybema, 1995). A systematic review of studies considering absenteeism in

nursing confirmed a negative relationship between job satisfaction and absence (Davey et al., 2009).

Although relatively under-studied compared to investigations of the relationship between job satisfaction and sickness absence, there is evidence of a relationship between psychological distress and sickness absence. A meta-analysis of 275 effects representing a wide range of occupational groups found small but positive associations between psychological illness and absence from work (Darr & Johns, 2008). In their longitudinal study of 323 NHS staff described above, Hardy, Woods and Wall (2003) found significant correlations between psychological distress and subsequent days and number of times absent. When comparing those who met the threshold for caseness with those who did not, those above the threshold took on average 7.41 days' absence compared to 3.99 days, with an average of 1.68 episodes of absence compared to 1.19 episodes. The association between psychological distress and subsequent days of absence remained after controlling for prior levels of absence and psychological distress.

Sickness absence summary

In summary, sickness absence is acknowledged to be a complex behaviour and one that presents challenges to real-world study. Absence is generally measured using frequency (number of absence episodes) and duration (total number of days). Some authors have suggested that frequency equates to 'voluntary' absence or an unwillingness to attend work, and duration as 'involuntary' absence or a genuine inability to attend work. Whilst some empirical support for this dichotomisation has been demonstrated, a recent meta-analysis found little evidence for this distinction. Efforts have been made to produce a single absence score which takes into consideration both absence frequency and duration, but with limited success. Other methodological issues with absence research arise in the collection of data. Whilst self-report absence data show good convergent validity with organisational records, there remain concerns about both under-reporting by staff and poor record-keeping by organisations.

There is empirical evidence for associations between morale variables and levels of sickness absence. Several longitudinal studies have identified a positive association between burnout and subsequent levels of sickness absence, particularly with respect to total absence duration or longer-term absences. Although there are fewer studies examining the relationship between engagement and absence, there is evidence of a negative association between engagement and both total duration and frequency of absence. Meta-analyses have indicated a moderate negative association between job satisfaction and sickness absence, with a slightly stronger relationship reported for absence frequency compared to absence duration. Psychological distress is positively associated with duration and frequency of absence, with those meeting the threshold for caseness taking absence with greater frequency as well as a greater number of total days.

Sickness absence is higher in the public sector, with rates of absence highest in the healthcare sector compared to other large public sector organisations. Staff absence represents a significant cost to the NHS, with mental health trusts having among the highest levels of absence. In mental health services, sickness absence is associated with increased costs and reduced productivity, and potentially with reduced adherence to evidence-based practice.

2.4.3 Summary of 2.4

Turnover, or the voluntary severance of ties to an organisation by an employee, has a long research history due to the direct and indirect costs associated with recruiting and training new staff. Similarly, sickness absence (defined as not attending scheduled work) can result in increased costs through providing temporary cover or reduced productivity. In mental health services, turnover and sickness absence are important occupational variables due to their impact on both staff and service users.

Turnover is costly for mental health services in terms of providing cover for vacancies as well as the expense involved in recruiting a new member of staff. There are also additional organisational costs relating to the investment made

in staff training and development of skills which are then lost, particularly where more specialised training has been provided. There are human costs to turnover in the form of interrupted therapeutic relationships with service users, disruptions to team functioning, and a potential increase in strain for those staff who remain as they try to cover expanded caseloads. Longitudinal studies have demonstrated that staff turnover is associated with subsequent reduced fidelity to service models or evidence-based practice in a range of settings. A study of patients who died by suicide over a 16-year period in England found turnover of non-medical staff to be associated with higher rates of suicide and reduced effect of recommendations designed to improve safety. Across the NHS, turnover has worsened in recent years, with turnover higher in mental health services than in physical health services.

Absence, or not attending for work when scheduled to do so, also represents significant costs to mental health services. Some of these are similar to those associated with turnover in the form of expenditure on agency cover and increased burden on other staff. Whilst there have been suggestions that absence may be associated with reduced productivity and adherence to evidence-based practice, it should be noted that empirical evidence is limited. In the NHS, staff working in mental health services have one of the highest rates of sickness absence.

In mental health services, staff turnover and absence share some common morale antecedents. The emotional exhaustion component of burnout is associated with both turnover intention and with sickness absence, although depersonalisation is associated only with turnover intention. Levels of engagement have been found to be associated with both turnover intention and absence, although there are methodological concerns regarding the single study on absence. Job satisfaction is associated with both turnover intention and actual turnover, while psychological distress is associated with sickness absence and actual turnover. It should be noted that these findings are based on a relatively small number of studies, many of which are cross-sectional in nature. Evidence is slightly stronger for the associations between job

satisfaction and actual turnover, and between psychological distress and absence.

2.5 Job Demands-Resources Theory

One model used to conceptualise and investigate morale in the workplace is the Job Demands-Resources theory (JD-R; Bakker & Demerouti, 2007; Demerouti et al., 2001). As discussed below, the JD-R model offers a flexible approach to incorporating a wide range of job characteristics to enable the investigation of both positive and negative aspects of the work environment. Some have suggested that the model has become the 'gold standard' when considering relationships between work characteristics and the wellbeing of staff (Taris et al., 2017).

2.5.1 Original JD-R Model

The JD-R theory developed from earlier work stress and job design models including Herzberg's two-factor theory (1966; Herzberg, Mausner, & Snyderman, 1959), the Job Characteristics model (Hackman & Oldham, 1976, 1980), the Job Demand-Control model (Karasek, 1979) and the Effort-Reward Imbalance model (Siegrist, 1996). The JD-R theory has sought to address some of the criticisms levelled at previous theories, namely that they have focussed attention on only one aspect (e.g., either work motivation or work stress), and that models included only a small number of variables in the expectation that these would be relevant in all working environments (Bakker & Demerouti, 2014). In contrast, the JD-R model offers a more flexible framework which can be applied to various settings and accommodate the most relevant job demands or resources in a particular workplace. Due to its broader scope and flexibility, the JD-R appeals to both researchers and workplace wellbeing practitioners (Schaufeli, 2017; Schaufeli & Taris, 2014).

The JD-R theory categorises job characteristics into job demands and job resources. Job demands are those aspects which require substantial physical, emotional or cognitive effort (Bakker & Demerouti, 2007). Examples of job demands include challenging work with clients, work overload, job insecurity

or an adverse physical environment (Demerouti et al., 2019; Schaufeli, 2017). In contrast, job resources, can be defined as those physical, social, psychological or organisational workplace factors which help to achieve work goals or enhance personal development (Bakker & Demerouti, 2007). Resources can occur at the organisational level (career development opportunities or access to flexible working), in relation to colleagues (constructive supervisor feedback or peer support) or the job role (participation in decision-making or role clarity), or in respect of tasks (skill variety or autonomy) (Demerouti et al., 2019; Demerouti & Bakker, 2011; Schaufeli, 2017). Job resources can be intrinsically motivating as they fulfil basic human needs such as autonomy, relatedness, and competence (Van den Broeck et al., 2008) or extrinsically motivating as they help to accomplish work-related goals (Bakker & Demerouti, 2014).

Unlike previous models, the JD-R model is not restricted to specific job demands or resources. The heuristic approach of the JD-R model enables it to be applied to all work environments, with the demands and resources under consideration tailored to a particular context (Bakker & Demerouti, 2014; Schaufeli & Taris, 2014). This approach also allows for inclusion of a wide variety of job characteristics as some demands and resources can be found in almost any work environment (i.e., work pressure, autonomy and social support) while others are more relevant to certain work settings such as cognitive demands in jobs with high levels of information processing or emotional demands in the helping professions (Bakker & Demerouti, 2014).

To account for both ill-health and wellbeing, JD-R theory postulates two separate processes via which job characteristics influence the functioning of employees. The first is a health impairment process in which job demands require employees to invest high levels of effort, thereby leading to energy depletion and eventually to exhaustion (the main component of burnout). This depleted state may in turn lead to negative outcomes for the individual or organisation, such as poor performance, sickness absence or intentions to leave. The second is a motivational process with job resources fostering individual development or the attainment of work-related goals, leading to work

engagement. This energetic state then leads to positive outcomes such as enhanced performance or organisational commitment (Bakker & Demerouti, 2007; Demerouti et al., 2001). The model also proposes that job demands and resources have an interactive effect in which job resources buffer the impact of job demands, while job demands enhance the impact of job resources on engagement by making job resources more salient and encouraging employees to mobilise resources to meet demands. However, it should be noted that there is less evidence for these moderating effects compared to the direct effects proposed by the model (Hu et al., 2011; Schaufeli & Bakker, 2004).

The JD-R theory has been tested in different organisational contexts and its propositions have been well-supported by several meta-analyses and reviews. Some have focussed on particular pathways within the model, for example work engagement and the motivational process (Halbesleben, 2010), while others have tested the JD-R model in full (E. R. Crawford et al., 2010; Nahrgang et al., 2011). Across different occupational sectors, demands and resources relate to burnout and engagement in the same way and as predicted by the JD-R model (Van den Broeck et al., 2017). Following a meta-analysis of 120 studies from across five global regions there is also evidence that the central propositions of JD-R theory, namely the predicted associations between demands and resources and burnout and engagement, are supported in different cultures (Rattrie et al., 2020). Whilst much of the early JD-R research was cross-sectional in nature (Schaufeli & Taris, 2014), a meta-analysis of longitudinal studies using meta-analytic structural equation modelling also found support for the causal assumptions made by the original JD-R model (Lesener et al., 2019).

The original JD-R model is shown in Figure 1.

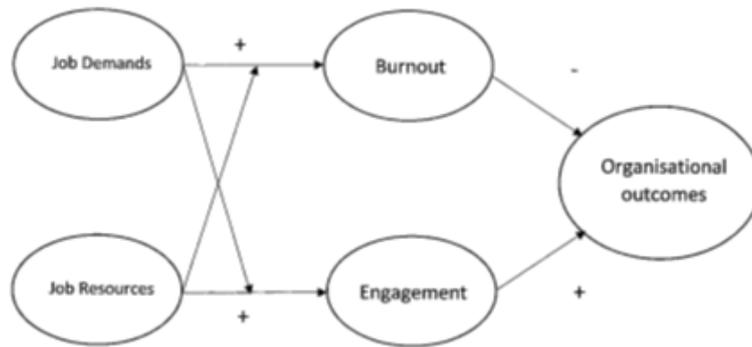


Figure 1 Original Job Demands-Resources Model (Bakker & Demerouti, 2007)

2.5.2 Extended JD-R Theory

Recent extensions to the JD-R have proposed the inclusion of three additional components. These reflect the role of the individual in actively modifying either the work environment, or the impact of job resources and demands (Bakker & Demerouti, 2014, 2016), thereby enabling the JD-R to consider employees as more than passive recipients of external influences (Demerouti et al., 2019).

The first of these is personal resources, which are described as those attributes that are linked to resiliency and a perception of being able to control one's environment successfully (Hobfoll et al., 2003). Specific personal resources tested as part of the JD-R model to date include psychological capital (a composite measure comprising hope, efficacy, resilience, and optimism; Luthans et al., 2004, 2007) as well as the separate constructs of self-efficacy, organisational-based self-esteem, optimism and compassion satisfaction (Grover et al., 2018; Huang et al., 2015; Llorens et al., 2006; Simbula et al., 2011; van Wingerden et al., 2016; Xanthopoulou et al., 2007, 2009). JD-R research more often incorporates personal resources rather than personality traits (Albrecht & Marty, 2020), possibly as personal resources are seen to be less fixed and more open to development. In the most recent version of the JD-R model, personal resources are shown as having a similar role to job resources, in that they are proposed to have a direct positive effect on work engagement (Bakker et al., 2014; Bakker & Demerouti, 2014, 2016).

They are also expected to buffer the impact of job demands on burnout, although there is as yet limited support for this proposition (Bakker & Demerouti, 2014, 2016; Tremblay & Messervey, 2011).

The second addition to the model, job crafting, refers to the process whereby employees actively shape the design of their jobs through actions such as task selection, negotiation of job content and assigning meaning to tasks (Wrzesniewski & Dutton, 2001). Petrou et al. (2012) expanded this definition in the context of the JD-R model to include three specific strategies: seeking job resources, seeking job challenges, and reducing job demands. In a study integrating job crafting with the JD-R model, Tims et al. (2013) found that employees were able to increase their job resources leading to increases in engagement and job satisfaction. Job crafting occurs across a variety of occupations, and employees can be taught job crafting techniques with beneficial results (Gordon et al., 2018; van den Heuvel et al., 2015; van Wingerden et al., 2017).

The final addition to the model, self-undermining, refers to the process by which individuals create obstacles that may undercut their performance (Bakker & Costa, 2014). The model proposes that those who experience strain may demonstrate self-undermining behaviours thereby creating higher levels of job demands over time (Bakker & Demerouti, 2016). Whilst a seemingly intuitive addition to the model, evidence for this proposition is so far limited.

The extended JD-R model incorporates job crafting and self-undermining into reciprocal relationships between job demands and burnout, and between job resources and work engagement. Thus, the theory now includes proposed 'gain spirals' in that those who are motivated by their work are more likely to engage in job crafting which in turn results in increased resources and higher levels of motivation. Similarly, those experiencing high levels of strain may enter a 'loss spiral' in which self-undermining leads to increased job demands and greater strain (Bakker & Demerouti, 2016). This reciprocal causation has been supported, particularly with regard to the motivational process, by both individual studies (Brauchli et al., 2013; Hakanen, Perhoniemi, et al., 2008;

Llorens et al., 2006; Schaufeli et al., 2009) and a meta-analysis of longitudinal studies (Lesener et al., 2019).

The extended JD-R model is shown in Figure 2.

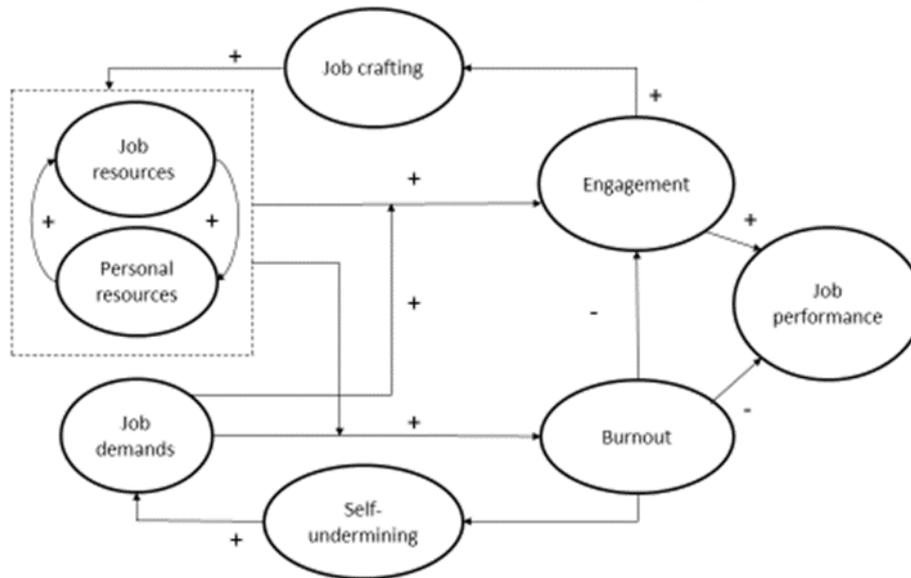


Figure 2 Extended Job Demands-Resources Model (Bakker & Demerouti, 2014)

2.5.3 JD-R Theory critique

Whilst a widely used theory (with over 10,000 citations of the original paper) it is important to also offer a critique of JD-R theory in order to consider its relative weaknesses. One criticism relates to the heuristic nature of the theory, in which job demands, job resources and outcomes can all be represented differently according to the context of a particular workplace. Although, as discussed above, this approach provides a great deal of flexibility it also results in reduced specificity (De Jonge et al., 2014) and makes it difficult to generalise findings (Schaufeli & Taris, 2014). Furthermore, as the model describes only the relationship between different types of variables, additional theories are often required to describe the processes which underpin the ways in which particular demands and resources exert their effects, or how they relate to a given outcome variable. Whilst the use of additional theories for explaining

psychological processes does not prevent the JD-R theory from being a model which can be used in a range of occupational settings (De Jonge et al., 2014; Schaufeli & Taris, 2014), there is clearly a trade-off between parsimony and insight.

Another criticism relates the categorisation of job characteristics into demands and resources (De Jonge et al., 2014; Van den Broeck et al., 2013). De Jonge (2013) gives the example of a role with high levels of responsibility and questions whether this would be considered a job demand (being accountable for outcomes) or a job resource (experiencing high levels of autonomy). Whilst it could be argued that the way in which a job characteristic is experienced or valued by the employee (e.g., positively or negatively) may be a key element of the definition (Schaufeli & Taris, 2014), this lack of specificity may lead to difficulties in the systematic expansion of evidence thereby hindering the development of effective interventions (Michie et al., 2018).

Similarly, it has been suggested that JD-R theory would benefit from a differentiation between types of job demands, namely that these could be classified into two types; challenge demands and hindrance demands. Challenge demands are those which require energy in order to be met but are ultimately stimulating and may result in personal development, recognition or reward. In contrast, hindrance demands are obstacles that impede goal attainment or personal growth and hamper optimal workplace functioning (Cavanaugh et al., 2000; Lepine et al., 2005). Due to the increased effort being expended, both challenge demands and hindrance demands are positively related to burnout, but only challenge demands are also positively associated with engagement (E. R. Crawford et al., 2010; D. D. Goering et al., 2017). Whilst this distinction between the two types of demands has been supported by empirical studies (Albrecht, 2015; Van den Broeck et al., 2010) it should be noted that the differentiation between two types of demands is not straightforward. For example, in some professions such as teaching emotional demands (dealing with pupils and their families) may be an expected job demand and perceived differently than in other occupational groups where emotional demands are not anticipated. Similarly, work pressure may be

expected in deadline-driven professions such as journalism but perceived as problematic in a profession such as healthcare where time is needed to provide adequate care (Bakker & Sanz-Vergel, 2013; Van den Broeck et al., 2010). The differentiation of job demands has not been incorporated into the most recent version of the JD-R model, possibly due to the need for further consideration of the difficulties with categorisation.

Further additions to the JD-R model have been suggested. For example, it has been hypothesised that organisational resources such as leadership or a company's approach to innovation may influence the development of job resources and so should be placed separately in the model (Keyko et al., 2016; Van den Broeck et al., 2013). Such a change may be beneficial and could also help to address criticism that the JD-R model may conflate individual and team-level constructs (Schaufeli & Taris, 2014). Demerouti (2019) proposed that the model be extended to incorporate the strategies used by employees to maximise the positive benefits of job resources or manage the impact of job demands through coping or recovery strategies. Other authors have suggested that the JD-R model could be expanded to incorporate personality variables and that future research could investigate the ways in which personality might influence employees' perception of job characteristics or interact with job characteristics to influence outcomes (Albrecht & Marty, 2020; Bakker, Boyd, et al., 2010). Whilst it is possible that these additions could enhance understanding of any interactive effects of workplace characteristics and individual attributes, there is a risk that the model becomes so complex and unwieldy that it is unusable by researchers or workplace practitioners.

2.5.4 JD-R Theory in health services research

The JD-R model has been used to study a range of outcomes in different healthcare staff groups including nursing (Broetje et al., 2020; Cheng et al., 2020; Hansen et al., 2009; McVicar, 2016; Rahnfeld et al., 2016; Spence Laschinger et al., 2012), hospice workers (Stensland & Landsman, 2017), medical residents (Bakker et al., 2011; Zis et al., 2014), dentists (Hakanen et al., 2017; Hakanen, Perhoniemi, et al., 2008), care home workers (Clausen et

al., 2012), home health workers (Jang et al., 2017; Vander Elst et al., 2016) and mixed groups of health care professionals (Gordon et al., 2015, 2018; U. Peterson et al., 2008).

Use of the JD-R model in mental health services research has been limited, although in their study of staff working in both inpatient and community mental health services in England, Johnson and colleagues (2012) found that the two principal components of burnout (in the form of emotional strain) and engagement explained 62% of the variation in morale indicators, a finding consistent with JD-R theory. Job resources in the form of support for autonomy, self-efficacy and staff cohesion were associated with lower levels of burnout in a cross-sectional study of 358 staff working in 13 American mental health agencies (Dreison et al., 2016). Another cross-sectional study found that job demands (in this instance work-home interference, shift work and emotional demands) were associated with the emotional exhaustion component of burnout, and that job resources (rewards and recognition, job control, feedback and participation) were negatively associated with burnout and turnover intention and positively associated with job satisfaction (Scanlan & Still, 2019). Although this study involved clinical staff from a range of professional disciplines working in a large Australian mental health service, the response rate was low (25%) and the measures used were not consistent with other mental health services research thereby limiting comparability. In a study based on a combination of JD-R theory and Conservation of Resources theory (Hobfoll, 2001), Van Woerkom, Bakker and Nishii (2015) found that the job resource of perceived organisational support for strengths use (i.e., encouraging staff to undertake tasks in keeping with their personal strengths) buffered the impact of combined job demands (workload and emotional demands) on sickness absence amongst clinical staff working in a Dutch mental health agency. Although the study was prospective in nature, the follow-up period was only two months due to the organisation launching a separate initiative that disrupted data collection.

2.5.5 Summary of 2.5

The Job-Demands Resources (JD-R) Theory is an occupational framework of considerable popularity. Building on a number of previous theories, it is a flexible model enabling the most relevant aspects of a particular work context to be taken into consideration. The JD-R model categorises work characteristics into job demands (those things which require substantial effort) and job resources (aspects which assist with achieving work goals). The model proposes processes by which job demands lead to burnout and negative outcomes such as turnover intentions or sickness absence, and job resources lead to engagement and positive outcomes such as enhanced performance or organisational commitment. In addition to these main effects, interactions by which job resources buffer the impact of job demands and job demands enhance the salience of job resources are also included. The JD-R has demonstrated consistent findings in line with its theoretical assumptions, in both cross-sectional and longitudinal research in different workplace settings and across cultures.

Recent refinements of the model include the addition of personal resources (individual attributes related to resiliency), job crafting (processes by which employees proactively shape their job roles), and self-undermining (employees under strain creating obstacles which further weaken performance). Job crafting and self-undermining contribute to reciprocal relationships with job resources and job demands respectively, described by the model as gain and loss spirals. Further suggestions have been made for the inclusion of additional individual cognitive and behavioural strategies, but at the risk of introducing considerable complexity.

Criticisms of the JD-R Theory include one of the attributes which makes it such an attractive model for researchers and workplace practitioners, namely its heuristic nature. Whilst this approach ensures that a wide range of job demands and resources can be included, additional theories are often required to explain effects. There are also difficulties with defining job demands and job resources. Although this might seem a straightforward exercise, it may be

that it is the positive or negative interpretation of a work characteristic by the employee that matters. Furthermore, there is some evidence that demands can be separated into challenge demands and hindrance demands. In line with the JD-R definition of job demands, both require energy in order to be met, but challenge demands are ultimately stimulating in that they promote mastery or provide opportunities, while hindrance demands are merely obstacles or barriers.

Whilst the JD-R model has been used in a number of different healthcare settings, its application in mental health services has been limited. The few studies undertaken have demonstrated findings in line with the model, with a range of job demands associated with higher levels of the emotional exhaustion component of burnout. Selected job resources were found to be negatively associated with burnout and turnover intentions, positively associated with job satisfaction, and in one study buffered the impact of job demands on future sickness absence.

2.6 Summary of Chapter 2

This chapter has provided a detailed review of the research literature relevant to the morale of staff working in mental health supported accommodation. In addition to describing the development and characteristics of supported accommodation services in England, this chapter has examined the literature on staff morale as it relates to both the individual concepts and relevance to mental health services. Finally, the Job Demands-Resources model has been introduced and critiqued. A more detailed summary, along with the limitations of the existing literature and rationale for the current study is provided in the next chapter.

Chapter 3 Current project

High quality, effective supported accommodation services are an essential part of UK mental health services (Macpherson et al., 2012) and provide an important component of the “whole system” pathway for those with longer-term mental health problems (Joint Commissioning Panel for Mental Health, 2016). Services provide flexible, focussed support that usually aims to facilitate service users to manage with less support over time (Killaspy, Priebe, et al., 2016). Staff in supported accommodation services undertake a variety of tasks to promote service users’ recovery and independence and are key to the delivery of person-centred care. Given the importance of supported accommodation staff, it is important to have an understanding of their workplace experiences including levels of morale. In previous mental healthcare research, morale has been shown to be associated with a range of workplace factors and outcomes at the individual and organisational level.

Based on the detailed examination provided in Chapter 2, this chapter will provide an overview of the literature on morale in mental health staff. The limitations of this body of research will be explored, and the rationale for the current study and its intended contribution to the understanding of staff morale in mental health supported accommodation services explained.

3.1 Previous research

As noted in section 2.2.2, despite the large numbers of people living in supported accommodation, until recently there has been little research into the content or quality of the care provided. As part of the QuEST Study, services in England were categorised into one of three main types; residential care, supported housing and floating outreach (Killaspy, Priebe, et al., 2016; Priebe et al., 2009). These three types offer differing levels of support according to clinical need, aiming to help service users improve social functioning and develop the skills needed for more independent living. Services are delivered by a range of providers and most have some input from community mental health teams. There is no evidence that one type of supported accommodation

is more beneficial, and a recent feasibility study demonstrated the challenges of carrying out randomised controlled trials (Killaspy et al., 2019). Those living in more autonomous accommodation report greater community integration but are also more likely to have been a victim of crime and report lower quality of life (Killaspy, Priebe, et al., 2016). Approximately 40% of those living in supported accommodation move on successfully to less supported accommodation without experiencing a placement breakdown (Killaspy et al., 2020).

Staff in supported accommodation services play a vital role in promoting service users' recovery. Whilst the support provided will vary according to service type, assistance is generally provided with skills such as washing, cooking, cleaning, shopping and budgeting, as well as with promoting physical health, mental wellbeing and social interaction. Data collected using the QuIRC-SA (Killaspy, White, et al., 2016) quality measure developed during the QuEST Study demonstrated the value of the service ethos for positive outcomes, with the domains of human rights and recovery based practice both associated with successful move-on (Killaspy et al., 2020). Research into service user experiences has confirmed the importance of a supportive relationship characterised by trust and respect between staff and service users (Krotofil et al., 2018).

Staff morale is important for the delivery of effective mental health services, as well as for the benefit of staff themselves. Low levels of morale are associated with occupational outcomes such as increased staff absence and turnover, both of which have negative consequences for quality of care, service user satisfaction and costs. Previous research in mental health services has taken a composite approach to morale, considering it a general term encompassing aspects of work-related wellbeing and satisfaction (S. Johnson et al., 2012; Priebe, Fakhoury, et al., 2005; Richards et al., 2006). Morale is often operationalised as consisting of burnout, work engagement, job satisfaction and psychological health, although other studies have also included occupational stress (Richards et al., 2006), team identity (Priebe, Fakhoury, et

al., 2005), or proxy measures such as sickness absence or issues with recruitment and retention (Richards et al., 2006).

When considering morale facets individually, staff working in mental health services report on average high levels of the emotional exhaustion component of burnout and moderate levels of depersonalisation yet appear to maintain good levels of personal accomplishment (O'Connor et al., 2018). Even where levels of burnout are high, staff often report moderately high levels of job satisfaction (Onyett, 2011; Onyett et al., 1997), although this pattern does not exist in all areas with some staff experiencing both poor job satisfaction and high levels of burnout. There is cause for concern about levels of burnout in some staff groups and settings, particularly mental health social workers and those working in community mental health teams. Work engagement has not been widely studied in mental health services, although in healthcare more generally there are some associations with positive occupational outcomes. Whilst levels of psychological distress may be higher in mental healthcare than in other staff groups, these have been found to vary with some evidence of greater numbers meeting the threshold for caseness in community mental health teams and among mental health social workers. Evidence is mixed as to whether there are differences in morale between staff with professional qualifications and those without.

Morale has its precursors in the work environment, making it essential to understand these factors and the opportunities for improvement or enhancement. Studies involving mental health staff have reported associations between high levels of morale and role clarity, autonomy, positive relationships with colleagues and support from managers. In turn, low staff morale is associated with high workload or caseloads, role ambiguity, emotional demands, insufficient staffing levels, risk of violence, and low levels of autonomy. Evidence on the relationship between staff morale and service user factors such as severity of illness is inconclusive.

According to the Job Demands-Resources Theory (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001), job characteristics can be classified as either

job demands (those things which require substantial effort) or job resources (those which assist with the achievement of personal growth or work goals). The model proposes two main processes; the health impairment process in which job demands lead to burnout and negative outcomes, and the motivational process in which job resources lead to engagement and positive outcomes. The JD-R model has been used to investigate a range of occupational outcomes in healthcare settings, including some mental health services, with job demands and job resources showing patterns of evidence as predicted by the model. The model has recently been extended to include the role of the individual in responding to or modifying job demands and resources. One of these additions is entitled personal resources, defined as those attributes associated with resilience and an individual's views about their ability to control their environment.

3.2 Limitations of existing literature

Whilst there is considerable evidence of the relationship between factors in the work environment, morale and occupational outcomes in the research literature, most of the studies carried out in healthcare settings have been in physical health rather than mental health services. Much of the evidence on morale in mental healthcare is focused on burnout, with considerably fewer studies on the more positive aspect of engagement. Whilst job satisfaction has been noted to be generally high, the reasons for lower levels of satisfaction in some staff groups and its occurrence alongside high levels of burnout requires further investigation. Numbers reaching the threshold for caseness in some settings and staff groups are cause for concern, and a better understanding of this finding is needed. Additionally, much of the evidence across all morale domains has been gained from cross-sectional studies, with longitudinal studies the exception.

Whilst it is reasonable to assume that there may be some similarity in experiences between staff working in supported accommodation and other mental health staff groups, equivalence cannot be assumed. Supported accommodation services are often working with a similar service user group to

NHS rehabilitation services which have been noted to have good levels of morale (S. Johnson et al., 2012), but the infrastructure, delivery and setting of supported accommodation services differs from those provided by the statutory health and social care sectors. Furthermore, there currently exists no published research on the extent of training or qualifications for staff working in supported accommodation. As a result, there remains a fundamental gap in knowledge about staff working in mental health supported accommodation and their experiences of the workplace.

To date, only two studies are known to have been conducted on levels of morale of this workforce. One study conducted with 20 supported accommodation services and five hospital-based rehabilitation wards in the Greater London area found no difference in job satisfaction between those working on wards and those working in the community (Shepherd et al., 1996). A small study undertaken in four supported accommodation services, which at the time of the study had recently opened in response to the closure of a long-stay psychiatric hospital in one London health authority area, investigated levels of burnout at two time points and the impact on subsequent staff absence (Bowden, 1994). Emotional exhaustion was found to be in the average range at the first time point and high at the second time point, with depersonalisation and personal accomplishment low at both time points. There was no association found between burnout and subsequent absence, although absence data were collected only for a three-month period. The sample in this study was described as being largely unqualified and inexperienced (Bowden, 1994). Whilst Shepherd et al. (1996) did not provide details on staff qualifications, the authors noted that those working on rehabilitation wards had been in both their present jobs and in the mental health field longer than those working in supported accommodation.

There are obvious limitations with this body of research. Firstly, both studies were carried out in the Greater London area which may limit their generalisability to other locations. In addition, both have relatively small sample sizes (particularly the Bowden study which included only 20 staff), which makes it difficult to generalise any of the findings on morale. It is also

worth noting that both studies were conducted over 20 years ago during a time of considerable change in the delivery of mental health services due to deinstitutionalisation. As a result, findings may in some ways be reflective of their time and an adjustment to new ways of working rather than a more general experience of working in supported accommodation. In any case, the delivery of supported accommodation is likely to have changed considerably in the intervening years making an update and extension to these studies overdue.

As established in Chapter 2, until recently there had been limited research on the quality of mental health supported accommodation services. The development of a bespoke quality measure, the QuIRC-SA (Killaspy, White, et al., 2016), has enabled the consideration of a range of quality domains and their association with service user outcomes. However, the relationship between service quality and the experiences of staff has not been explored. Whilst studies in healthcare settings, and mental healthcare particularly, have suggested an association between staff morale and service quality, the direction of this relationship has not been established. Furthermore, other morale studies in mental health services have indicated that factors related to quality, including the built environment, would benefit from consideration as potential explanatory variables (S. Johnson et al., 2012).

The use of the term morale as used in mental health research requires some clarification. In occupational psychology research there is a view that morale is poorly defined with considerable overlap with other related concepts and limited recent theoretical development. However, several important studies in mental health service research (e.g., Johnson et al., 2012; Priebe et al., 2005; Richards et al., 2006) have described morale using a multifaceted approach. Whilst in the most recent of these studies (S. Johnson et al., 2012), morale was described as encompassing burnout, work engagement, job satisfaction and psychological health, others have included additional indicators as outlined above. A recent review of the use of the term morale in healthcare research noted this heterogeneity and recommended improved clarity of definition and methods for assessment as well as enhanced theoretical

justification (Sabitova et al., 2020). However, the authors noted that research in this area does provide an opportunity to meaningfully consider how the individual constructs included under the umbrella of morale relate to each other and to the overall experiences of staff working in mental health services.

One study of morale in a range of mental health staff and settings (S. Johnson et al., 2012), identified two principal components (emotional strain and engagement) which explained 62% of the variance in morale indicators. As discussed in section 2.5.4, this finding is consistent with the Job Demands-Resources Theory and its health impairment and motivational pathways. Whilst the JD-R model provides a robust framework to examine how job demands and job resources might relate to morale and to occupational outcomes, it has not been widely used in mental health services research, and not at all in supported accommodation services.

3.3 Study rationale

In this study I aimed to address the current lack of knowledge about staff working in mental health supported accommodation services in England. In the sections above I have outlined the importance of supported accommodation to the mental health rehabilitation pathway and the critical role of staff in delivering services consistent with a recovery ethos. Furthermore, I have demonstrated the value of investigating staff morale, and its association with important organisational outcomes in mental health services. The Job Demands-Resources model has been introduced as a robust occupational framework for examining the sources and outcomes of strain and support experienced in the workplace.

In the next chapter I will describe the aims and objectives of this study and the specific research questions which guided the examination of morale amongst staff working in supported accommodation services.

Chapter 4 Aims and objectives

As described in detail in Chapter 2 and summarised in Chapter 3, the morale of staff working in mental health services is crucial for the wellbeing of staff themselves as well as for effective service delivery. Whilst there has been some examination of the morale of staff working in other mental health services in England, to date there has been only very limited published research involving staff working in mental health supported accommodation services. This absence is particularly relevant given the key role played by supported accommodation services in the mental health rehabilitation pathway.

4.1 Aims

The overall aim of this thesis was to investigate the morale of staff working in mental health supported accommodation. Specifically, I have described the morale of staff working in one type of supported accommodation, investigated the demands and resources staff experience in the workplace and explored how these and service quality are associated with levels of morale as well as with turnover and sickness absence over time.

The objectives and research questions are detailed below.

4.2 Objectives and research questions

In this thesis I have focussed on one type of supported accommodation, namely supported housing. Supported housing is the most diverse type of supported accommodation, with staff based on-site and service users living in shared or individual units in a larger building. Staff availability ranges from office hours to 24-hour support depending on the needs of the service. Supported housing services included in this study were drawn from the 14 representative areas of England involved in the QuEST Study. Full details of the service selection process are provided in Chapter 5.

In line with previous mental health services research, in this thesis morale has been defined as encompassing burnout, engagement, job satisfaction and

psychological health. Taking this multidimensional approach to morale provided an opportunity to consider the individual constructs which constitute morale and to compare levels of morale with published data on other mental health staff groups.

In order to investigate morale in supported housing, this study used the Job Demands-Resources Theory (Bakker & Demerouti, 2007; Demerouti et al., 2001). As demonstrated in Chapter 2, the JD-R model offers a robust framework with which to evaluate aspects of morale and its antecedents. The JD-R theory also provides the flexibility to consider the workplace demands and resources most relevant to the supported housing work context. As the theory has not been widely used in mental health services research, and not at all in studies of mental health supported accommodation services, its use in this thesis has enabled the application of the theory in a new population. As the JD-R theory has recently been extended (Bakker & Demerouti, 2014, 2016) this study also provided the opportunity to test new aspects in the model, specifically the component of personal resources. In addition to offering a better understanding of the sources and impact of work-related strain and support in this staff group, if low levels of morale are uncovered it will also provide an opportunity to inform the development of targeted interventions.

4.2.1 Objective 1: To describe levels of morale (burnout, engagement, job satisfaction and psychological health) in the English mental health supported housing workforce.

As argued in Chapter 3, the research literature on staff morale in mental health supported accommodation services is limited and out of date. To address this issue, the first phase of this thesis involved collecting questionnaire data from a representative sample of supported housing services in England. The questionnaire included validated measures of morale, all of which have been used previously in research with staff working in other types of mental health services. The development and content of the questionnaire is fully described in Chapter 5.

The research questions resulting from objective 1 are detailed below.

Research question 1a: What are the levels of burnout reported by staff?

Research question 1b: What are the levels of work engagement reported by staff?

Research question 1c: What are the levels of job satisfaction reported by staff?

Research question 1d: What are the levels of psychological ill-health reported by staff?

4.2.2 Objective 2: To investigate whether levels of morale are associated with service quality, demands and resources.

As established in Chapter 2, there are a number of morale precursors found in the work environment. The JD-R model provides a framework by which the factors most relevant to morale in a particular organisational setting can be identified and investigated. Findings from the wider mental health services staff morale literature, informed by the knowledge gained during the QuEST Study, enabled the identification of the aspects of the working environment most likely to be of relevance to morale in supported housing. These aspects included the positive elements of role clarity, support from colleagues and line managers, and autonomy, along with the more difficult aspects of high workload, role ambiguity, job insecurity and emotional demands.

In keeping with the JD-R model, these facets were classified as job demands (those things which require substantial effort) or job resources (those which assist with the achievement of personal growth or work goals) prior to analysis. In addition to job demands and job resources, the personal resource of self-efficacy was also considered. An exploratory analysis was then carried out to examine the associations between specific job demands, job resources and

personal resources for each aspect of morale. The analysis also included examination of associations between morale and service quality as measured by the QuIRC-SA.

Research question 2a: What job demands, job resources and personal resources are associated with burnout, engagement, job satisfaction and psychological ill-health?

Research question 2b: What service quality domains are associated with burnout, engagement, job satisfaction and psychological ill-health?

4.2.3 Objective 3: To determine whether demands and resources at baseline are associated with staff turnover and sickness absence at 12-month follow-up.

Turnover and sickness absence are important considerations in mental health services. Both can result in significant financial costs, loss of expertise and disruptions to care. Much of the research on turnover in healthcare relies on cross-sectional data and the use of turnover intentions as a proxy for actual turnover. Although there are more longitudinal studies on the predictors of sickness absence, there is some disagreement as to whether the number of absence episodes compared to total days absent over a period of time are measuring the same phenomenon.

Twelve months after the baseline questionnaire was completed, data were collected on turnover (e.g., whether the member of staff was still working in the service) and both days and episodes of sickness absence. Collecting data on actual turnover enabled examination of the demands and resources associated with staff leaving the organisation rather than on their intention to do so. Furthermore, by collecting both days and episodes sickness absence it was possible to test whether there were different explanatory variables for the two types of absence.

Research question 3a: What job demands, job resources and personal resources reported at baseline are associated with staff turnover at 12-month follow-up?

Research question 3b: What job demands, job resources and personal resources reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

Research question 3c: What job demands, job resources and personal resources reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

Following my upgrade from MPhil to PhD and further development of the literature review, three additional research questions were added to objective 3 to reflect the possible role of morale as an explanatory variable in the consideration of sickness absence and turnover at 12 months. These additional research questions are similar in scope to research questions 3a-c.

Research question 3d: What morale variables reported at baseline are associated with staff turnover at 12-month follow-up?

Research question 3e: What morale variables reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

Research question 3f: What morale variables reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

At the time of my upgrade, I proposed one additional objective which was to examine the possible differentiation of job demands into challenge and hindrance demands in accordance with proposed changes to the Job Demands-Resources Theory. This objective proved not to be feasible, as only one of the job demands already included in the study (work and time pressure) could be considered a challenge demand. The job demand of work and time

pressure was significant in only one of the final models, meaning that it was not possible to investigate whether it had a differential impact from the other (hindrance) demands.

Having briefly outlined the aims, objectives and research questions relating to this thesis, in the next chapter I will focus on the methods used. Detail will be provided on recruitment of participants, development and completion of the baseline questionnaire, follow-up data collection and analysis of both cross-sectional and longitudinal data.

Chapter 5 Methods

5.1 Setting

As outlined in section 1.2, the sample was drawn from the 14 areas of England participating in the QuEST Study. These areas were selected using a composite measure developed in a previous national survey of mental health supported accommodation (Priebe et al., 2008). The measure is based six criteria: level of mental health needs; degree of urbanisation; spend on mental health care; extent of community-based mental health services; provision of residential care placements; and local housing provision. The resulting composite measure produced an index of standardised scores (ranging from -1.057 to 2.589) allowing 166 mental health local implementation areas to be ranked.

For the QuEST Study it was decided to select areas which were coterminous with local authority boundaries. For this reason, the 166 regions were divided into 11 bands, with the middle region from each band subsequently selected. If the region selected was not coterminous with the local authority boundary, then they were replaced with the region with the next nearest standardised score. The local authorities of these areas were then contacted about the extent of their mental health supported accommodation provision. Areas that were repeatedly non-responsive to information requests or which had no services of one of the three types were excluded, with replacement areas selected using the next nearest standardised score. The final areas selected were Bath & North East Somerset, Brent, Cheshire East, Coventry, Doncaster, Hull, Reading, Stockton, Telford & Wrekin, Tower Hamlets, Warrington and Wirral. Additionally, the London boroughs of Camden and Islington were selected as these represented services local to the research team, resulting in a total of 14 areas. The area with the lowest standardised score was Telford (-0.755) and that with the highest score was Islington (1.776).

All supported housing services which were identified as part of the scoping exercise in 2012 were eligible for inclusion in this study. Whilst it was originally

intended to collect staff morale data only from those supported housing services which had participated in QuEST, it was decided to widen this to all supported housing services in the 14 areas to increase the sample size. Where new supported housing services were identified which had emerged after the original service mapping and prior to the commencement of staff morale data collection in 2016, these services were also eligible for inclusion.

5.2 Study design

As described in the objectives detailed in section 4.2, there are two phases to this project. The first phase of the study was cross-sectional and addressed study objectives one and two. First, levels of morale (burnout, engagement, job satisfaction and psychological health) in the supported housing workforce were described. Then, in line with the Job Demands-Resources Theory, associations between the explanatory variables of job demands, job resources and personal resources and the morale response variables were explored. The second phase of the study, relating to objective three, was longitudinal and involved the analysis of data collected at 12-month follow-up on days and episodes of staff sickness absence, as well as staff turnover.

5.3 Participants

Provided they had worked in the service for a minimum of one month, all support staff working in participating supported housing services were eligible to take part. Those without a clinical support role such as administrators or cleaners were excluded.

The manager in each service was asked to complete the QuIRC-SA with a member of the research team. Managers were not eligible to complete the staff questionnaire due to the number of items which relate to supervisor support, and managers would have different line management arrangements to the rest of the staff team.

5.4 Measures

5.4.1 Questionnaire development

As described in section 2.5, one of the benefits of the JD-R Theory is that it allows job demands and resources to be defined according to a particular occupational context. This heuristic approach allows for the inclusion of general job characteristics as well as those variables of greatest relevance to a particular work setting. Scales were selected for the questionnaire in part to reflect those used in previous studies of staff in other mental health settings. The recommendations of Cahill et al. (2004), that a consistent battery of outcome measures be used in studies of mental health staff morale, were also taken into consideration. Measures were further influenced by the JD-R Theory literature, as well as by insights gained in the wider QuEST study. In addition to those scales selected originally, two were added to the questionnaire following piloting (see section 5.5.1).

The demographic questions were placed at the beginning of the questionnaire and were the only items with a forced-response format. Questions that could be perceived as more sensitive in nature (those asking about life outside the workplace and views of one's own abilities) were placed at the end of the questionnaire.

5.4.2 Staff

5.4.2.1 Demographic and occupational data

Data were collected on socio-demographic and occupational characteristics of participants including sex, age, ethnicity, marital status, level of education, whether the participant had any dependants (as a parent or carer), length of time spent working in mental health services, length of time employed in their current service, the extent of participation in shift work and whether they were employed in the service on a full-time or part-time basis.

Following the pilot detailed in section 5.5.1, a brief life events scale was added to the questionnaire in order to control for stressors taking place outside of the

workplace. The List of Threatening Events (Brugha et al., 1985) lists 12 distressing events and participants were asked to indicate whether any had happened to them in the previous 12 months. Scoring is binary with 1 indicating if the life event had happened in the preceding 12 months and 0 if it had not. The scores across all 12 events are then totalled with higher scores indicating that a greater number of these events had been experienced.

5.4.2.2 Demands and resources

The Leiden Quality of Work Questionnaire (van der Doef & Maes, 1999) was selected for the measurement of job demands and job resources due to its previous use in studies using the JD-R Theory. The LQWQ has also been widely used in studies based on the Job Demand-Control model on which the JD-R theory is partly based (Häusser et al., 2010). Nine of the 12 subscales (skill discretion, decision authority, task control, supervisor support, co-worker support, work and time pressure, role ambiguity, job insecurity, lack of meaningfulness) were included. These scales comprise a total of 42 items with each item having four response options from (1) disagree completely to (4) agree completely. The subscales on physical exertion and hazardous exposure were not included as these were not felt to be relevant to mental health supported accommodation staff. The subscale on job satisfaction was not used as this construct is being measured by the Minnesota Satisfaction Questionnaire (see section 5.4.2.3). When examined in a sample of 10,112 Dutch workers across a diverse range of professions, a stable factor structure was confirmed and internal reliability was found to be satisfactory, with Cronbach's alpha ranging from 0.73 to 0.93 across the 12 scales.

Additionally, the seven items of the emotional demands subscale of the Questionnaire on the Experience and Evaluation of Work (Veldhoven et al., 2015) were included to reflect the potentially emotionally demanding nature of work undertaken in services for a client group experiencing severe and persistent mental illness. Response options for the QEEW range from (1) always to (4) never. The QEEW has been used extensively in both research and occupational settings and has been used to operationalise constructs of

the Job Demands-Resources model in a number of studies (see van Veldhoven, 2015 for details). Using Mokken scale analysis, a psychometric method of data reduction used to assess whether items in a scale are measuring a single latent variable (Mokken, 1971), internal consistency of the scale was found to be satisfactory with a Rho(t) of 0.85. The Rho reliability coefficient, developed in order to address some of the issues identified in using Cronbach's alpha (Sijtsma, 2009), is preferred in Mokken scaling (Aleo et al., 2019). A scale should have a Rho(t) of at least 0.80, although values above 0.70 are acceptable (Sijtsma & Molenaar, 1987).

Following the questionnaire pilot (see section 5.5.1), and in order to reflect the emerging developments in the JD-R theory outlined in section 2.5.2, a scale was added to measure personal resources. After consideration of the concepts included in JD-R research previously (psychological capital, self-efficacy, organisational-based self-esteem and optimism), a general self-efficacy scale was selected. Self-efficacy is a concept derived from social cognitive theory (Bandura, 1986) and describes the judgement of an individual about their ability to mobilise the necessary resources to undertake a course of action to meet the demands of a given situation (Bandura, 1988b). It should be noted that self-efficacy has been found to influence a wide range of behaviours, and that levels of self-efficacy can change and develop over time based on learning and experience (Gist & Mitchell, 1992). Experience can be based either on one's own past performance or gained vicariously from seeing a colleague complete a task (Bandura, 1997).

Self-efficacy can be differentiated into two types; generalised self-efficacy, or a trait-like tendency to see oneself as capable of meeting demands in a range of situations, or task or situation-specific self-efficacy which is a state-like motivational construct (Chen et al., 2001; Eden, 2001; Gist & Mitchell, 1992; Judge et al., 1998). Although task-specific measures of self-efficacy have been shown to be important predictors of motivation and performance in work settings (Stajkovic & Luthans, 1998), in order to measure self-efficacy in supported housing staff more broadly a measure of general self-efficacy was considered most appropriate for use in this study. General self-efficacy

correlates with other constructs such as self-esteem and is thought to help employees maintain motivation in stressful circumstances. The New General Self-Efficacy Scale (Chen et al., 2001) consists of eight items scored on a 5-point Likert scale from (1) strongly disagree to (5) strongly agree, providing a range of possible scores from 8 to 40. Principal component analysis indicated that the scale is unidimensional, with high internal consistency (Cronbach's alpha 0.86) and stable test-retest coefficient ($r = 0.67$).

5.4.2.3 Morale

The Maslach Burnout Inventory - Human Services Survey (Maslach & Jackson, 1981) is a widely used measure of burnout in mental health services research and assesses three dimensions of burnout; emotional exhaustion (feeling overextended and exhausted), depersonalisation (an impersonal response to clients or patients) and reduced personal accomplishment (evaluating one's competence negatively). The MBI contains 22 items and ratings for each item range from (0) never to (6) every day. The emotional exhaustion subscale consists of nine items, with a Cronbach's alpha of 0.90 and a test-retest coefficient ranging from 0.59 (Leiter, 1990) to 0.82 (Maslach & Jackson, 1981). The depersonalisation subscale has five items, with a Cronbach's alpha of 0.79 and test-retest coefficient of 0.50 (Leiter, 1990) to 0.72 (R. T. Lee & Ashforth, 1993). There are eight items in the personal accomplishment subscale which has test-retest coefficients ranging from 0.57 (Jackson et al., 1986) to 0.80 (Maslach & Jackson, 1981) and a reliability coefficient of 0.71. Scores for each of the three dimensions of burnout are calculated separately and can be categorised into high, medium or low levels of burnout according to standardised norms for different professional groups. Whilst there are alternative burnout measures available, e.g., the Copenhagen Burnout Inventory (Kristensen et al., 2005), the Oldenberg Burnout Inventory (Halbesleben & Demerouti, 2005), and the Shirom-Melamed Burnout Measure (Melamed et al., 1992; Shirom, 1989), these have not been widely used in mental health staff research. Whilst the MBI has been criticised by some researchers for its item construction and three-dimensional structure (Halbesleben & Demerouti, 2005) it is still the dominant burnout measure and

was selected for use in this study due to its widespread use in research with staff working in mental health services.

Engagement was measured using the short form of the Utrecht Work Engagement Scale (Schaufeli et al., 2006) which was developed from the original 17-item version. When completing the UWES, respondents are asked to indicate how often they feel a particular way about their work, ranging from (0) never to (6) every day. Although engagement comprises three distinct factors (vigour, dedication and absorption), due to high correlations between the dimensions these can be collapsed into one score where the outcome of interest is the concept of engagement rather than its constituent parts. When administered across nine different countries and mixed occupational groups, the Cronbach's alpha was found to vary from 0.85 to 0.94 with a median of 0.91 (Schaufeli et al., 2006). In two longitudinal samples, test-rest reliability coefficients ranged from 0.64 to 0.73. Whilst the UWES does not have occupation-specific norms, it does have cut-offs for very low, low, average, high and very high scores. Recent meta-analyses have demonstrated that the UWES is the most popular tool for measuring work engagement (Kulikowski, 2017), including in intervention studies aimed at enhancing levels of engagement (Knight et al., 2017).

The Minnesota Satisfaction Questionnaire (D. J. Weiss et al., 1967) is one of the most extensively validated measures of employee attitudes (Judge & Klinger, 2007). The scale consists of 20 items measuring satisfaction with aspects of work, with items rated on a five-point scale ranging from (1) very dissatisfied to (5) very satisfied. The original MSQ has 100 questions, from which the short form (MSQ-S) comprising 20 questions was developed. In the MSQ-S, a total job satisfaction score can be calculated by summing all scores, or a two-part score can be calculated from 12 items measuring intrinsic satisfaction (feelings about the nature of the job tasks, and the extent to which one feels the job fits one's needs and abilities) and 6 items relating to extrinsic satisfaction (satisfaction with working conditions and rewards). There are two further items which indicate general job satisfaction. On the MSQ-S, scores of 60 for overall satisfaction, 36 for intrinsic satisfaction and 18 for extrinsic

satisfaction indicate a neutral attitude. Hoyt reliability coefficients of internal consistency (Hoyt, 1941) for the intrinsic satisfaction scale range from 0.84 to 0.91, and from 0.77 to 0.82 for the extrinsic scale. Median reliability coefficients are 0.86 and 0.80 respectively (D. J. Weiss et al., 1967). Although revision to individual items has been suggested (Hirschfeld, 2000; Schriesheim et al., 1993) confirmatory factor analysis has supported the discriminant validity of the intrinsic and extrinsic scales (Hirschfeld, 2000). Although there are no normative categories provided for mental health staff, the short form MSQ has been widely used in mental health services research.

The General Health Questionnaire is a measure used to detect minor psychiatric disorder in the general population and within non-psychiatric clinical settings (D. P. Goldberg & Blackwell, 1970). The 12-item version of the GHQ (D. P. Goldberg & Williams, 1988) has been widely used in mental health services staff research. There are six positively worded items and six negatively worded items, all having a 4-point scoring system with respondents asked to indicate how often they feel a particular way. Although the precise wording varies by question, each has an option for 'better than usual', 'same as usual', 'worse than usual' and 'much worse than usual'. Higher scores indicate greater severity and the manual provides thresholds which indicate 'caseness' or the likely presence of a psychiatric condition. There are several different scoring methods, however the manual suggests that the Likert scoring method (0-1-2-3) produces a smoother score distribution than the original GHQ scoring (0-0-1-1) if the aim is the assessment of severity. Whilst there is some debate about the internal structure of the GHQ-12, there is stronger evidence for a unidimensional model compared to a multidimensional model (Hankins, 2008; Molina et al., 2014; Smith et al., 2013). Internal consistency reliabilities of the global score as estimated using Cronbach's alpha range from 0.79 to 0.90 (Gnambs & Staufenbiel, 2018).

5.4.2.4 Occupational outcomes

Data on turnover intention were collected at baseline in order to adjust for the longitudinal analysis of turnover at 12-month follow-up (see section 5.6.3).

Turnover intention is considered to be the most proximal antecedent to turnover and is sometimes used as a proxy when data on turnover are unavailable. A four-item measure by Kelloway, Gottlieb and Barham (1999) was used to assess turnover intentions. Questions are "I am thinking about leaving this organization", "I am planning to look for a new job", "I intend to ask people about new job opportunities", and "I don't plan to be in this organization much longer". Each item is rated on a 5-point scale from (1) strongly disagree to (5) strongly agree with scores across all items totalled to give a range of scores from 4 to 20. In the development of the measure, Cronbach's alpha was reported at two time points as 0.92 and 0.93 respectively (Kelloway et al., 1999) indicating good internal consistency.

Similarly, sickness absence data were collected at baseline in order to be able to control for previous absence levels in the longitudinal examination of sickness absence (see section 5.6.3). As occupational records were not widely available, sickness absence in this study was self-report, for which there is good convergent validity with records-based measures (Johns & Miraglia, 2015). In line with the literature discussed in section 2.4.2, sickness absence was collected as both frequency and duration. The time period specified was the 12 months prior to the survey, with this timing selected as the most common time frame by which to measure absence as a low base rate behaviour and to minimise any seasonal variations to sickness absence (Johns & Miraglia, 2015; Steel, 2003). As recommended in previous research (Johns & Miraglia, 2015), a free response format was used in order to avoid bias introduced by use of a nominal scale (Schwarz, 1999). Questions were also phrased to focus specifically on absence due to sickness as a salient and socially acceptable reason for not attending work (Johns & Miraglia, 2015). Questions included in the survey were: "How many episodes of sickness absence have you had in the last 12 months?", and "Over all of these episodes, how many days sickness absence have you had in the last 12 months?"

Following a presentation of the proposed research at the ENMESH conference in 2015 (Dowling, 2015), it was suggested that the questionnaire might also benefit from a measure of presenteeism, or attending work when feeling unwell

(Aronsson & Gustafsson, 2005). A question taken from Aronsson, Gustafsson & Dallner (2000) was added: “Has it happened over the previous 12 months that you have gone to work despite feeling that you really should have taken sick leave due to your state of health?” with four response options (1) no, never (2) yes, once (3) yes, 2-5 times (4) yes, more than 5 times.

The final version of the baseline questionnaire can be seen in Appendix 2.

5.4.3 Managers

As outlined in sections 1.2 and 2.2.3, the QuIRC-SA (Killaspy, White, et al., 2016) was developed as part of QuEST workpackage 1 to assess the quality of care in mental health supported accommodation services across seven domains (living environment, therapeutic environment, treatments and interventions, self-management & autonomy, social interface, human rights and recovery-based practice) with each domain producing a score as a percentage. The questionnaire comprises 142 questions (see Appendix 3).

5.5 Procedures

5.5.1 Pilot

The questionnaire was entered into Opinio, a web-based questionnaire tool supported by University College London. Prior to the piloting taking place, the questionnaire was tested by the QuEST Chief Investigator, four members of the QuEST research team and two volunteers who did not have a background in research. Suggestions for amendments to the instructions were incorporated into the final version.

Six residential care services that participated in QuEST WP2 were involved in the piloting of the questionnaire. Managers provided email contact details for staff and all 44 staff members in the services were sent an email via Outlook inviting them to complete the questionnaire. The participant information sheet was attached to the email and the electronic link to the questionnaire was contained within the message. The email also included a unique ID number

which participants were asked to enter at the beginning of the questionnaire. Participants were advised that by completing the questionnaire they would be entered into a prize draw for £100 of store vouchers. Further incentives were offered in the form of £10 of vouchers to the service if three or more members of staff (or all staff if the service had fewer than three) completed the questionnaire.

Invitations were sent on a rolling basis as the email addresses were received from managers. All participants had at least 21 days to complete the questionnaire, with those recruited earlier having up to 28 days. Those who had not already completed the questionnaire received three reminder emails including one on the day before the questionnaire link was closed. In services where participation was low, managers were contacted by phone and asked to remind staff to complete the questionnaire.

Twenty-one questionnaires were completed and submitted, 15 of which had no missing data with the remaining six questionnaires having a total of 11 questions left unanswered. Two questionnaires were started but not submitted. A further eight questionnaires were started but it was not possible to determine how many participants this represented as they did not proceed far enough to enter their participant ID number. It may be that some or all of these participants later returned to complete the questionnaire.

Of the 21 questionnaires completed, five did not enter their participant ID number. Two of these ID numbers were later entered manually after staff who received a reminder email contacted the researcher to indicate that they had in fact completed the questionnaire. Three ID numbers remained missing and as these contain the numeric service code it was not possible to identify from which service these originated.

One service did not have any questionnaires recorded as having been completed while in each of the other five services at least three questionnaires were submitted. The overall response rate was 48% with details shown in Table 1. Other than gender, no staff characteristics were requested from

managers so it is not possible to determine whether there were any factors associated with response rates.

Table 1 Pilot questionnaire responses

	Male	Female	Total
Invitations sent	23	21	44
Questionnaire started	12	11	23
Questionnaires completed and submitted	10	11	21
Incomplete questionnaires (not submitted)	2	0	2
Response rate	43%	52%	48%

Several minor amendments to the questionnaire and processes resulted from the piloting. Whilst the overall response rate of 48% was felt to be acceptable for an online questionnaire, it was agreed to increase the incentive for baseline data collection from £10 to £20 of store vouchers and to change the threshold for receiving a voucher to 50% of staff in the service taking part.

Sending invitation and reminder emails manually to potential participants in the pilot was time-consuming, and concern was expressed that with a larger sample in the baseline data collection this method would be unmanageable. It was determined that it would be possible to send the invitation email from Opinio in HTML format with the participant information sheet embedded in the email. This approach was felt to be more efficient than sending emails manually and would have the added benefit of allowing reminders to be sent automatically at pre-specified intervals. Additionally, Opinio would generate a unique link to the questionnaire for each participant, thereby allowing clearer recording of those who completed the survey.

In the pilot, services had varying number of days for completion of the questionnaire, ranging from 21 to 28 days depending on when email addresses were provided by managers. In order for each participant to have access to the questionnaire for the same number of days in the baseline data collection, it was agreed to create a copy of the questionnaire for each service (or batch of services) with the appropriate closure date set in Opinio.

As noted by one of the pilot participants, the questions relating to presenteeism and sickness absence had a 12-month timeframe, making it difficult for those working in the service for less than a year to respond. It was decided to create a branch in the questionnaire by adding a question to ask whether staff had worked in the service for more than one year. Those who had worked in the service for at least a year received the original phrasing of the question while those employed in their current service for less than one year received a question amended to ask these questions with respect to how long they have worked in the service.

Since there was no pattern to the missing data, no other amendments to the questionnaire were made. See Appendix 2 for the final version of the questionnaire.

5.5.2 Baseline data collection

Supported housing services were approached to obtain the manager's agreement for the service to take part in the study. Managers of the participating services were asked to provide email addresses for all support workers in the service at that time, and an appointment was made for the completion of the QuIRC-SA with the manager. Staff email addresses were entered into Opinio and used to set up the invitation function. Each participant received an introductory email with a unique URL which allowed them to access the questionnaire. Automated reminders were sent at 10 days, 20 days and 27 days if the questionnaire had not yet been completed. Each invitation and reminder contained the appropriate Trust logo and had the participant information sheet and consent form embedded in the email (see Appendix 4). Emails contained a unique link to the questionnaire and staff were asked to click on this to start once they had read the participant information sheet. The first question on the electronic questionnaire asked staff to indicate that they had read the participant information sheet and were giving their consent to take part. As each batch of invitations required the questionnaire to be copied and the invitation detail re-entered, Notepad templates were created for the invitation and reminder emails to ensure consistency.

In services where staff did not have organisational email addresses or where there was limited computer access, paper copies of the questionnaire were sent to the service along with participant information sheets and consent forms. Staff members were asked to read the participant information sheet and complete the consent form, sealing it in an envelope provided with the questionnaire before returning it to the manager. The manager then returned all the sealed envelopes to the researcher. It was made clear to managers that all support staff should have the opportunity to complete the questionnaire and it has been assumed that this was the case.

Completions were monitored and all staff with incomplete questionnaires were contacted shortly before their respective 28-day deadline with a personal email asking them to complete and return the questionnaire. Forty-seven staff were contacted in this way resulting in a further 19 completed questionnaires. Managers of services where fewer than 50% of staff had completed the questionnaire in the week preceding the deadline were contacted and asked to remind their staff to take part. Services with a number of staff on annual leave (i.e., over the summer months) were able to request an additional week for questionnaire completion.

The QuIRC-SA is designed to be completed by either the manager of the service or a senior member of staff. According to the exclusion criteria, managers did not complete the staff questionnaire. See Appendix 5 for the manager participant information sheet and consent form.

With one exception, all QuIRC-SAs were completed in person with the manager or the nominated senior member of staff. One was collected by telephone due to difficulties in scheduling a face-to-face meeting with the service manager. All responses were recorded on a paper copy of the QuIRC-SA and later entered into a secure online database. QuIRC-SA data were collected within one month of the collection of staff questionnaire data.

5.5.3 Follow-up data collection

Twelve months after baseline participation, service managers were contacted and asked which staff participants were still working in the service. The data provided were entered onto a paper case report form (CRF) for each service (see Appendix 6).

Those members of staff still working in the service were then contacted by email to ask them to provide details of episodes and total days of sickness absence that had occurred over the 12 months since the baseline questionnaire was completed. If no reply was received by email, up to three attempts were made to contact the staff member by telephone to try to obtain the follow-up data. For staff who had left the service, managers were asked to provide sickness absence information from the time of the individual's completion of the questionnaire to their date of departure. Staff participants had consented to follow-up information being collected in this way at recruitment. Where services had closed or been recommissioned under a new provider, organisational Human Resources departments were contacted and asked to provide the sickness absence data. In all cases, sickness absence information was transcribed onto a separate paper CRF for each individual participant (Appendix 7).

5.5.4 Data management

The online tool Opinio was used to collect the baseline questionnaire data. Opinio is supported by UCL and is compliant with the Data Protection Act 2018 and General Data Protection Regulation (GDPR) legislation. Opinio was also compliant with the 1998 Data Protection Act as the relevant legislation at the time of data collection and processing. Data were pseudo-anonymised on download with participants' names and email addresses removed. Each participant was assigned a unique participant ID in the format used by the QuEST study which contains a service number identifier necessary for analysing the data by service.

The participant ID document was stored on a password-protected memory stick separately from the survey data and accessible only by the QuEST research team. Electronic survey data were stored on a password-protected desktop computer accessible only by the researcher and paper copies were stored separately from both the memory stick and consent forms. The data resulting from the completion of paper questionnaires were entered into Opinio and then treated in the same manner for data management purposes.

As described in section 5.5.3, data resulting from the 12-month follow-ups were recorded on paper CRFs. These did not contain any identifiable information and were pseudo-anonymised using the unique ID previously assigned to the participant. Once follow-ups were completed, the data were entered into an Excel spreadsheet which was stored on the same password-protected desktop computer.

Managers or other senior staff completing the QuIRC-SAs were also allocated a unique participant ID. This number was recorded on the paper copy of the QuIRC-SA prior to data being entered into a secure password-protected online database. The data for each service were downloaded from the database for analysis, pseudo-anonymised at the time of download, and stored on the password-protected desktop computer.

All data were handled and stored in accordance with guidance from the UCL Joint Research Office and QuEST standard operating procedures. Processes included checks carried out on 10% of the data to ensure accuracy of transcription from paper CRFs to electronic records.

5.6 Analysis

5.6.1 Data preparation

For both the baseline and longitudinal data, full descriptive data were produced for all variables, with continuous variables having the mean and standard deviation (SD) presented or the median and interquartile range (IQR) if highly

skewed. Frequencies and percentages were produced for categorical variables. Histograms were used to visualise the distribution of data.

Baseline data

Flow diagrams were produced to demonstrate the recruitment of services and staff participants. Questionnaire responses were downloaded from Opinio and merged into a single Excel spreadsheet prior to the data being cleaned and imported into Stata version 14 (StataCorp, 2015).

Completeness of data was examined per scale. With the exception of the GHQ-12 which specified that omitted items should be counted as low scores (D. P. Goldberg & Williams, 1988), if at least two-thirds of a scale had been completed then mean value imputation was used to calculate the missing data. On the life events scale, for any missing values it was assumed that these events had not been experienced in the previous 12 months.

All reverse-scored items were recoded, and then items in each scale were summed to produce a total score. Threshold scores were calculated for the three components of the MBI according to the ranges given in the manual for the mental health occupational subgroup (Maslach & Jackson, 1981). Thresholds for the emotional exhaustion component of burnout are; low ≤ 13 , average 14-20 and high ≥ 21 . Thresholds for depersonalisation are; low ≤ 4 , average 5-7 and high ≥ 8 . For the burnout component of personal accomplishment, low scores indicate higher levels of burnout; low ≥ 34 , average 33-29 and high ≤ 28 . The Likert scoring method (0-1-2-3) was used to calculate total scores for the GHQ-12, with threshold scores also calculated. Scores ≥ 12 (out of a maximum of 36) indicate 'caseness' or the likely presence of a psychiatric condition (D. P. Goldberg & Blackwell, 1970; D. P. Goldberg & Williams, 1988).

Sickness absence data were inspected and outliers removed. Outliers were considered to be those staff who reported sickness absence equal to or greater than 60 days or nine episodes over the previous 12 months. Total days and

episodes of sickness absence over the 12 months prior to completion of the baseline questionnaire were calculated for all participants. For those who had worked in the service for less than 12 months, totals were calculated for the length of time that they had worked in the service. This total was then divided by the number of months the participant had worked in the service and multiplied by 12 to produce an estimated sickness absence figure for the previous 12 months. Whilst this approach assumes that sickness absence continues to accrue at a steady rate, it was felt to be preferable to excluding these staff from the analysis. All data generated using this approach were rounded to the nearest integer.

A total score was calculated across all four items of the turnover intentions scale. Participants responded to a single question on presenteeism, or whether they had attended work when they felt that the state of their health was such that they should have taken sick leave over the previous 12 months. Due to the construction of the question, only data for those who had worked in the service for more than one year are reported.

For the purposes of analysis, data on ethnicity was collapsed into the five categories recommended by the Office for National Statistics (Office for National Statistics, n.d.)

Follow-up data

Follow-up data on turnover and sickness absence collected on paper CRFs were entered into an Excel spreadsheet. These data were imported into Stata version 14 (StataCorp, 2015) before being merged with the baseline dataset using the unique participant ID.

Those staff who had left their service involuntarily due to service closure were excluded from further analysis. Sickness absence data were inspected and outliers removed using the same thresholds as had been used with the baseline data (equal to or greater than 60 days or nine episodes over the previous 12 months). For those staff who had remained working in the service

for less than 12 months after baseline data collection, total days and episodes of sickness absence were calculated for the length of time between baseline and their date of departure. This total was then divided by the number of months that the participant had worked in the service and multiplied by 12 to produce estimated sickness absence figures for the 12-month follow-up period. All data generated using this approach were rounded to the nearest integer.

5.6.2 Cross-sectional analysis

The cross-sectional analysis relates to the first two study objectives and associated research questions, all of which are reiterated below.

Objective 1: To describe levels of morale (burnout, engagement, job satisfaction and psychological health) in the English mental health supported housing workforce.

Research question 1a: What are the levels of burnout reported by staff?

Following the imputation of missing data according to the procedure described in section 5.6.1, items in each of the three MBI subscales (emotional exhaustion, depersonalisation and personal accomplishment) were summed to produce total scores. Each total subscale score was then categorised as low, average or high according to the cut-offs for the mental health occupational subgroup contained in the manual (Maslach & Jackson, 1981).

Research question 1b: What are the levels of work engagement reported by staff?

As discussed in section 5.4.2.3, although engagement comprises three factors, when the concept of engagement is the factor of interest (rather than its constituent parts) it can be collapsed into a single factor. This approach relates particularly to the use of short form of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006) as was the case in this study. Hence, total scores were calculated for each participant across all nine items.

Research question 1c: What are the levels of job satisfaction reported by staff?

Two scores were calculated for each participant by summing the 12 items measuring intrinsic job satisfaction, and the six items relating to extrinsic satisfaction. In keeping with previous studies of mental health staff morale (Billings et al., 2003; Nelson et al., 2009) the two items relating to general job satisfaction were not included.

Research question 1d: What are the levels of psychological ill-health reported by staff?

The GHQ-12 yields an overall total score, which was calculated using the Likert scoring method (0-1-2-3), with higher scores indicating greater severity. Total scores were coded using the threshold in the manual in order to identify 'caseness', or probable psychological ill-health.

Objective 2: To investigate whether levels of morale are associated with service quality, demands and resources.

Research question 2a: What job demands, job resources and personal resources are associated with burnout, engagement, job satisfaction and psychological ill-health?

Research question 2b: What service quality domains are associated with burnout, engagement, job satisfaction and psychological ill-health?

Responses to items measuring job demands (work and time pressure, role ambiguity, lack of meaningfulness, job insecurity and emotional demands), job resources (skill discretion, decision authority, task control, supervisor support, and co-worker support) and the personal resource of general self-efficacy were summed to produce total scores for each of the subscales.

Scales measuring burnout, engagement, job satisfaction and psychological ill-health, were calculated as detailed under research questions 1a-d.

Service quality was measured using the QuIRC-SA (Killaspy, White, et al., 2016), with the seven domain scores (living environment, therapeutic environment, treatments and interventions, self-management & autonomy, social interface, human rights and recovery-based practice) calculated as percentages using the web-based version of the tool (<https://quirc.eu>). The QuIRC-SA domains of self-management & autonomy and therapeutic environment were found to be highly correlated with recovery-based practice (with correlation coefficients of 0.804 and 0.715 respectively) and so were dropped as recovery-based practice had been associated with positive service user outcomes in previous studies (Killaspy et al., 2020).

Descriptive statistics were calculated for all demographic variables and occupational characteristics, with frequencies and percentages given for ethnicity, sex, civil partnership or marital status, caring responsibilities, educational and professional qualifications, contract type and working pattern), and mean and standard deviation (or median and IQR if highly skewed) produced for age, hours worked per week, time working in current service and time in mental health services. The number of distressing life events reported as having been experienced in the previous 12 months were summed, and then dichotomised into 0 versus 1 or more.

Due to the structure of the data, with staff clustered within services, mixed modelling was used to model effects at both the individual and service level. A random effect for service was included in all models in order to account for observations within clusters being more alike than observations between clusters. The convention of a minimum of 10 participants per explanatory variable was assumed (Harrell, 2001).

Correlations between explanatory variables were considered before being entered into the model to avoid collinearity, with a correlation coefficient of >0.70 among predictors taken to indicate the possible presence of multicollinearity. Scatter plots were used with continuous response variables and their potential explanatory variables to check for linear relationships.

Linear mixed effects models were fitted for seven of the response variables: Burnout (emotional exhaustion), burnout (depersonalisation), burnout (personal accomplishment), work engagement, job satisfaction (extrinsic), job satisfaction (intrinsic), and psychological ill-health. Univariate analyses were first conducted with all explanatory variables (demands, resources and service quality) individually to identify associations between these and the response variables. Those which were significant at the $p \leq 0.1$ level were entered into one model simultaneously while also controlling for potential confounders. In line with previous research on morale with other mental health staff groups (S. Johnson et al., 2012), potential confounders of age, sex, length of time working service and whether the participant had a mental health qualification were included, along with whether the participant had experienced any significant negative life events in the previous 12 months. The threshold of $p \leq 0.1$ was selected in order to take an inclusive approach to identifying potential explanatory variables.

For all final models the fit was checked by looking at the regression coefficient and confidence intervals, and the residuals were checked for normality using a histogram and a standardised normal probability (P-P) plot. In order to examine the magnitude of the results, effect sizes were calculated for all variables significant in the final models using Cohen's f^2 . Cohen's f^2 was selected as the measure of effect size most appropriate for hierarchical data (Selya et al., 2012).

5.6.3 Longitudinal analysis

The longitudinal analysis relates to the third study objective and associated research questions which are reiterated below.

Objective 3: To determine whether demands and resources at baseline are associated with staff turnover and sickness absence at 12-month follow-up.

Research question 3a: What job demands, job resources and personal resources reported at baseline are associated with staff turnover at 12-month follow-up?

Using the data collected at follow-up regarding whether a member of staff was still working in the service 12 months after completing the questionnaire, a binary variable was created to indicate whether participants were still working in the service. Those members of staff who were no longer working in a service due to service closure were excluded from the analysis.

A mixed effect logistic model was fitted for turnover at 12 months first using univariate analyses with all explanatory variables (demands, resources and service quality) individually to identify any associations. Those variables which were significant at the $p \leq 0.1$ were entered into one model simultaneously while also controlling for potential confounders of age, sex, length of time working in the service, whether the participant had a mental health qualification or caring responsibilities outside of work and turnover intentions reported at baseline. Data on whether the participant had experienced any significant negative life events in the 12 months prior to baseline were not included.

Research question 3b: What job demands, job resources and personal resources reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

Research question 3c: What job demands, job resources and personal resources reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

As the sickness absence data were overdispersed and had excessive zeros, two zero-inflated negative binomial regression models were fitted. A zero-inflated negative binomial regression model has two parts; a count model and a logit model. This approach accommodates values of zero which happen to be zero (but could plausibly take other values) as well as those which are fixed at zero.

The potential explanatory variables of job demands, job resources and personal resource of self-efficacy were each entered individually. Those found to be significantly associated with absence episodes or days at $p \leq 0.1$ were subsequently entered together into the final model with the demographic variables age, sex, length of time working in the service, whether the participant had a mental health qualification or caring responsibilities outside of work, and baseline episodes or days of sickness absence.

As indicated in Chapter 4, three additional research questions in relation to turnover and sickness absence were also formulated. These are detailed below and were analysed using the same processes described above in relation to in research questions 3a-3c. The only difference in analysis from that carried out in relation to research questions 3a-3c was for research question 3d. Due to limited degrees of freedom in the model, it was not possible to use the more inclusive level of $p \leq 0.1$ as in other models in this thesis and a more restrictive threshold of $p \leq 0.05$ was used instead.

Research question 3d: What morale variables reported at baseline are associated with staff turnover at 12-month follow-up?

Research question 3e: What morale variables reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

Research question 3f: What morale variables reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

Chapter 6 Results

6.1 Data preparation

Although 110 participants reported having a professional mental health qualification, 17 of these were considered not to have a qualification as their training comprised an in-house session without external validation, or short course of insufficient level to constitute a professional qualification (e.g., mental health first aid). An undergraduate psychology degree was considered to constitute a mental health qualification. Qualifications were then categorised by level ranging from National Vocational Qualification (NVQ) level 2 to postgraduate. When coding the type of qualification, the subject of the highest qualification was used (e.g., a BSc in psychology with an MSc in psychotherapy was coded as psychotherapy).

In order to minimise data loss, on the five occasions when participants mistakenly reported their years working in mental health services as being lower than years working in their current service, it was decided that the larger number would be used for both. In the six instances when years working in mental health services was missing, the number given for years working in current service was used.

Where staff worked across more than one service and were unable to indicate their 'main' service, they were randomly assigned to one of the services at which they worked. The relevant participant IDs were copied to a blank Excel spreadsheet and the RAND function was used to generate a random number for each. The participant IDs were then sorted according to the random number generated. The top half was assigned to the service with the lowest QuEST ID number, and the bottom half as belonging to the service with the higher ID number (e.g., service numbers 030/131). The same process was used if staff were shared across three services. If it was not possible to split the staff group evenly across the services, then the 'extra' member of staff went to the service with the greater number of service users to reflect the likelihood of staff spending more of their working hours at the larger service.

One service was dropped at this stage as there were only two staff respondents working across three services.

The distributions of scores for explanatory and response variables were explored using histograms. The response variables of emotional exhaustion, depersonalisation, personal accomplishment and work engagement were all noted to be skewed. However, as the residuals on all models (see section 6.4.2) were normally distributed no transformations were required.

6.2 Sample characteristics

Across the 14 areas, a total of 101 potential supported housing services were identified. Twenty-one of these were ineligible; two had previously withdrawn participation in WP2 of the QuEST study, three were not specialist mental health services, seven were identified as being floating outreach rather than supported housing services, and nine had closed since the service list was compiled in 2012. Of the remaining 80 services a total of 38 had previously participated in some aspect of QuEST; four in WP1 only, 21 in WP2 only, and 13 in both WP1 and WP2. Thirty-five of the 80 services had been identified as part of the wider QuEST programme but had not been approached previously to participate in QuEST. Seven services were new and not in existence during the QuEST scoping exercise carried out in 2012 as described in section 5.1. Managers at all 80 eligible services agreed for their service to take part in the staff experience questionnaire and provided staff email contact details. Whilst the QuIRC-SA was completed with managers in all 80 services, there were seven services where no staff questionnaires were completed. The final pool of services was thus 72 of a possible 80 (90%). The flow diagram showing recruitment of services can be seen in Figure 3.

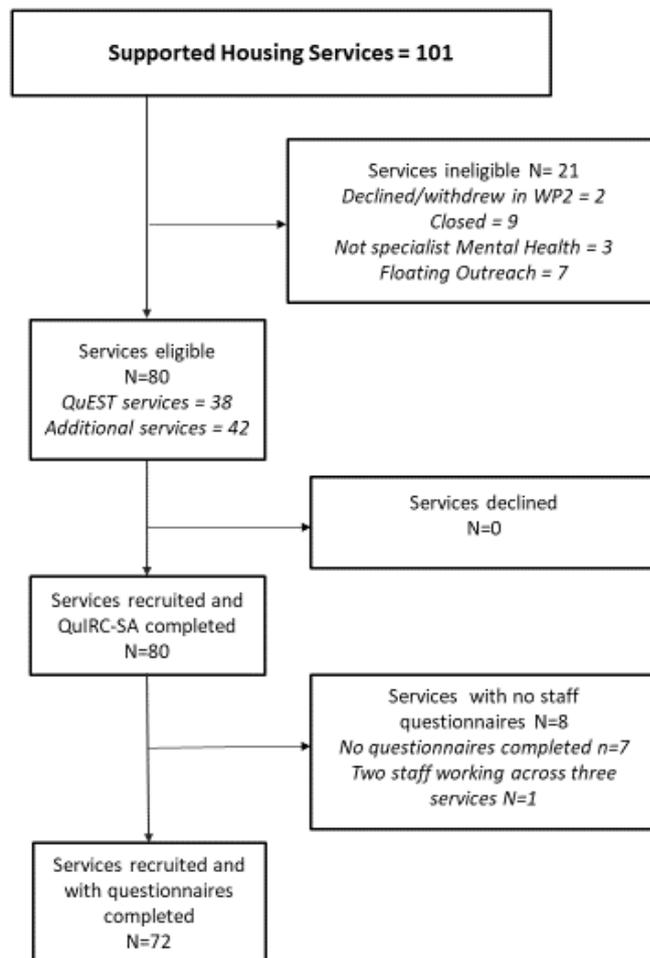


Figure 3 Service recruitment

From the 80 participating services, a total of 379 staff were sent the questionnaire. Of these, 339 were sent electronically and 40 on paper. No responses were received from 112 staff who received electronic questionnaires or from 20 of the staff sent paper copies. Of the 227 staff who accessed the electronic questionnaire, 12 completed the consent form but answered no questions. Of the 215 staff who proceeded to answer questions in the electronic format, 20 started but did not complete the questionnaire and these questionnaires were excluded. A total of 195 staff (58%) completed and submitted the online questionnaire and 19 staff (48%) who received a paper copy completed and returned the questionnaire by post. A total of 214

questionnaires (56%) were thus completed. At a service level, response rates in the 72 services ranged from 17% to 100% with a median of 60%. A flow diagram showing questionnaire completions can be found in Figure 4.

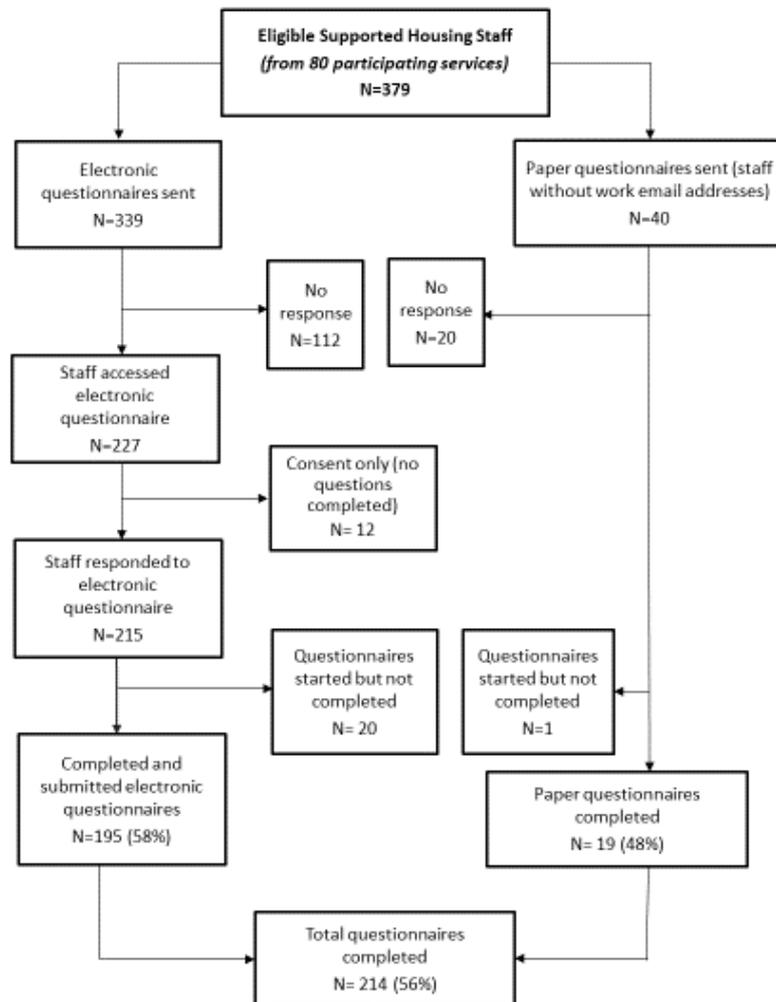


Figure 4 Staff recruitment

Two-thirds of staff were female and over half (58%) were from a White ethnic background. The mean age was 39.7 years (SD 13.1). Forty-five percent were in a civil partnership, married or cohabiting, while 38% had some caring responsibilities outside work. Demographic characteristics of the sample recruited at baseline are shown in Table 2.

Table 2 Sample demographic characteristics

Variable	n=214
Sex, n (%)	
Male	72 (34)
Female	142 (66)
Ethnicity, n (%)	
White British/White Irish/White other	125 (58)
Black African/Black Caribbean/Black other	52 (24)
Indian/Pakistani/Bangladeshi	16 (7)
Mixed/Other	21 (10)
Age, years: mean (SD)	39.7 (13.1)
Marital status, n (%)	
Single (never registered in civil partnership, married or cohabited)	85 (40)
Single (separated, divorced, widowed or civil partnership dissolved)	33 (15)
Currently married, in a civil partnership or cohabiting	96 (45)
Caring responsibilities, n (%)	
Parent of child aged under 12 years	47 (22)
Carer of adult friend or family member	48 (22)
Any caring responsibilities	82 (38)

In terms of employment status, 90% of staff reported being on permanent contracts, with 76% working shifts. Nearly 80% of staff reported working full-time, with mean hours worked per week of 36.4 (SD 6.9). Median time working in mental health services was five years (IQR 2-12), with median time working in the current service of two years (IQR 0.92-6). The median number of days absent over the year prior to baseline data collection was two (IQR 0-5.0), and the median number of absence episodes over the previous year was one (IQR 0-2.0). When asked how many times they had attended work in the past 12 months when due to ill health they felt that they should have taken sick leave, 110 out of a possible 154 (71%) staff who had worked in the service for at least one year reported that it had happened on one or more occasions, with 7% indicating that it had happened five or more times. The four questions relating to turnover intentions were answered by all 214 participants, with a mean of 11.4 (SD 4.6) out of a maximum of 20. Higher scores are indicative of greater

intention to leave the current job, and 17 staff (8%) had maximum scores of 20. The occupational characteristics of the sample recruited at baseline are shown in Table 3.

Table 3 Sample occupational characteristics

Variable	n=214
Working pattern, n (%)	
Full-time	170 (79)
Part-time	34 (16)
As needed	10 (5)
Hours worked per week, mean (SD)	36.4 (6.9)
Contract type, n (%)	
Permanent	193 (90)
Temporary	7 (3)
Locum/Agency/Bank	14 (7)
Shift pattern, n (%)	
Office hours	52 (24)
Shifts, no overnights or on-call nights only	71 (33)
All shifts	91 (43)
Undertake staff supervision, n (%)	
No	147 (69)
Yes	67 (31)
Time working in current service, years: median (IQR)	2 (0.92-6)
Time working in mental health, years: median (IQR)	5 (2-12)
Turnover intentions: mean (SD)	11.4 (4.6)
Sickness absence days in prev. 12 months: median (IQR)	2 (0-5.0)
Sickness absence episodes in prev. 12 months: median (IQR)	1 (0-2.0)
Presenteeism n=154, n (%)	
Never	44 (29)
Once	38 (25)
Two-five times	61 (39)
More than five times	11 (7)

Of the 214 staff participants, 93 (43%) were considered to have a mental health qualification. The majority of these (67%, 62/93) reported having qualifications with a vocational basis (NVQ or foundation degree), while 33% ($n = 31$) had degrees at undergraduate or postgraduate level. The majority of qualifications (57%) were either in the area of health and social care or a mental health-specific vocational course. Nineteen percent of qualifications were in psychology, with smaller numbers in social work, counselling, psychotherapy, nursing and housing. Both level and subject of the qualifications are shown in Table 4.

Table 4 Staff highest mental health qualifications

	n=93
Mental Health qualification level, n (%)	
NVQ1/NVQ2	17 (18)
NVQ3	30 (32)
NVQ4	10 (11)
Foundation degree	5 (5)
Degree	16 (17)
Postgraduate degree	15 (16)
Mental Health qualification subject, n (%)	
Health and social care (general or mental health-specific)	37 (40)
Psychology (including BSc)	18 (19)
Other (e.g., certificate/diploma in community MH)	16 (17)
Social Work	8 (9)
Counselling	6 (6)
Psychotherapy (including art psychotherapy)	5 (5)
Nursing	2 (2)
Housing	1 (1)

When considering the highest level of educational qualification in any subject between staff with and without a mental health qualification, a greater number of those with a professional qualification reported having a postgraduate degree (32% compared to 7%), while more staff without a mental health qualification reported their highest educational qualifications to be at NVQ2 or NVQ3 level (41% compared to 23%). The proportion of staff who reported

having an undergraduate degree as their highest educational qualification was similar in both groups (Table 5).

Table 5 Staff highest qualification (any subject)

Level of highest qualification (any subject)	Staff with no MH qualification (n=121)	Staff with MH qualification (n=93)
No qualification, n (%)	6 (5)	0 (0)
GCSE/NVQ1/NVQ2, n (%)	21 (17)	5 (5)
AS level/A level/NVQ3, n(%)	29 (24)	17 (18)
HNC/HND/NVQ4, n (%)	10 (8)	5 (5)
Foundation degree, n (%)	5 (4)	3 (3)
Degree, n (%)	41 (34)	33 (35)
Postgraduate qualification (including PG cert/dip and MA/MSc), n (%)	9 (7)	30 (32)

6.3 Service characteristics

The median number of places across all services was 11 (IQR 7-15) with a median expected length of stay of 2 years (IQR 2-3). Levels of staff support varied, with 27 services (38%) reporting having 24-hour support with staff on waking nights, 16 (22%) providing 24-hour support with staff on sleeping nights and 29 (40%) offering less than 24-hour support.

In terms of ownership, 66 services indicated that they were run by either a Housing Association or third sector organisation, 13 by an independent or private organisation, with 13 describing themselves as being run by either health or social services. Whilst percentages have not been given as managers were able to select more than one option, it is clear that most would categorise themselves as being run by a third sector organisation. Fourteen services indicated that current or former service users were employed in the service in roles including gardener, peer mentor, support worker and apprentice project worker.

The QuIRC-SA domain scores for the 72 services from which completed questionnaires were received are shown in Table 6. The highest mean domain

score was human rights (79.7%) and the lowest was treatments and interventions (53.1%).

Table 6 QuIRC-SA domain scores

QuIRC-SA domain % scores, mean (SD)	n=72
Living Environment	77.9 (7.4)
Therapeutic Environment	60.9 (7.2)
Treatments & Interventions	53.3 (8.2)
Self-Management & Autonomy	68.8 (6.4)
Social Interface	55.1 (11.4)
Human Rights	79.3 (8.2)
Recovery Based Practice	69.5 (9.8)

Five domain scores were retained for further analysis. The domains of self-management & autonomy and therapeutic environment were dropped as they were highly correlated with recovery based practice (with correlation coefficients of 0.804 and 0.715 respectively). The domain of recovery based practice was retained as this domain was associated with successful service user move-on in previous studies (Killaspy et al., 2020).

6.4 Results (cross-sectional)

6.4.1 Objective 1

The first study objective and resulting exploratory research questions are detailed below.

Objective 1: To describe levels of morale (burnout, engagement, job satisfaction and psychological health) in the English mental health supported housing workforce.

Research question 1a: What are the levels of burnout reported by staff?

Participants reported a mean score of 16.8 (SD 11.9) on the emotional exhaustion subscale, which is in the average range (14-20) according to the MBI manual (Maslach & Jackson, 1981). Participants scored in the low range

(≤ 4) on the depersonalisation subscale with a mean of 4.0 (SD 4.3), and in the low range (≥ 34) on the reduced personal accomplishment subscale with a mean of 38.2 (SD 6.7). Using the thresholds provided in the manual for the mental health occupational subgroup, 74 participants (34.9%) were in the high emotional exhaustion group, 39 (18.2%) in the high depersonalisation group and 20 (9.5%) in the low personal accomplishment group.

Research question 1b: What are the levels of work engagement reported by staff?

Mean work engagement as measured by the UWES-9 was 39.6 (SD 9.5). This is in the average range according to manual norms, although these are not specific to mental health staff (Schaufeli et al., 2006).

Research question 1c: What are the levels of job satisfaction reported by staff?

On the 12 items of the intrinsic subscale, participants scored 45.2 (SD 6.6), while on the six items of the extrinsic subscale mean scores were 20.2 (SD 4.8). A neutral attitude is indicated by scores of 36 for intrinsic satisfaction and 18 for extrinsic satisfaction. These scores indicate that staff were moderately satisfied, with greater satisfaction about the nature of their job tasks (intrinsic satisfaction) than with their working conditions (extrinsic satisfaction).

Research question 1d: What are the levels of psychological ill-health reported by staff?

Participants reported a mean of 10.7 (SD 6.0) on the GHQ-12. Seventy-seven staff (36.0%) had scores which reached the threshold which indicates 'caseness' or probable psychological ill health (D. P. Goldberg & Williams, 1988).

Objective 1 summary

Overall, this sample demonstrated fairly good levels of morale. Across the three burnout subscales mean scores indicated low to average levels of burnout. Levels of work engagement were in the average range, and staff reported being moderately satisfied with their jobs. However, over one-third reported high levels of emotional exhaustion and nearly one-fifth high levels of depersonalisation. Approximately one-third of the sample had scores above the threshold for caseness.

Details of the number of participants completing each of the morale scales, mean or median scores, and numbers of those reaching high burnout thresholds on the MBI or caseness on the GHQ are summarised in Table 7.

Table 7 Morale variables

Morale variable	N	mean (SD) or median (IQR)	High burnout or caseness, n/N (%)
MBI (Emotional exhaustion)	212	15 (7.0-26.0)	74/212 (34.9)
MBI (Depersonalisation)	214	2.0 (0.0-6.0)	39/214 (18.2)
MBI (Personal accomplishment)	211	40 (34.0-43.0)	20/211 (9.5)
UWES (Work engagement)	210	41 (35.0-46.0)	NA
MSQ (Job satisfaction, intrinsic)	210	45.2 (6.6)	NA
MSQ (Job satisfaction, extrinsic)	211	20.2 (4.8)	NA
GHQ (Psychological ill-health)	214	10.7 (6.0)	77/214 (36.0)

Note. NA=not applicable

6.4.2 Objective 2

The second study objective and the resulting exploratory research questions are detailed below.

Objective 2: To investigate whether levels of morale are associated with service quality, demands and resources.

Research question 2a: What job demands, job resources and personal resources are associated with burnout, engagement, job satisfaction and psychological ill-health?

Research question 2b: What service quality domains are associated with burnout, engagement, job satisfaction and psychological ill-health?

Job demands were measured using four subscales of the LQWQ; work and time pressure, role ambiguity, lack of meaningfulness and job insecurity. In order to consider the potential emotional demands inherent in working with service users with complex needs, the emotional demands subscale of the Questionnaire on the Experience and Assessment of Work (Veldhoven et al., 2015) was also included. Job resources were measured using five subscales of the Leiden Quality of Work Questionnaire (van der Doef & Maes, 1999); skill discretion, decision authority, task control, supervisor support and co-worker support. Personal resources were measured using the New General Self-Efficacy Scale (Chen et al., 2001). Responses to all demands and resources subscales are shown in Table 8.

Table 8 Demands and resources subscale scores

Demands and resources subscales	n	mean (SD)	Possible range
Skill discretion	212	24.3 (3.2)	8-32
Decision authority	214	11.7 (1.9)	4-16
Task control	213	10.9 (1.9)	4-16
Supervisor support	211	15.2 (2.9)	5-20
Co-worker support	213	18.6 (2.9)	6-24
Self-efficacy	213	32.2 (4.4)	8-40
Work & time pressure	213	6.7 (1.2)	3-12
Role ambiguity	213	12.2 (2.9)	6-24
Lack of meaningfulness	213	6.7 (2.2)	3-12
Job insecurity	214	6.7 (2.2)	3-12
Emotional demands	214	9.2 (3.1)	7-28

Mixed modelling was used to investigate the relationship between the explanatory variables of job demands, job resources, personal resources and service quality and the response variables of burnout, engagement, job

satisfaction and psychological ill-health. Univariate analyses were conducted for all explanatory variables individually. Those which were significant at the $p \leq 0.1$ level were then entered into one model along with the potential confounders of age, sex, length of time working in the service and whether the participant had a professional mental health qualification or had experienced any significant negative life events in the previous 12 months. Due to staff being clustered within services, a random effect for service was included in all models.

Correlations between explanatory variables were examined before they were entered into the model to avoid collinearity. Beyond those detailed in section 6.3 amongst QuIRC-SA domains, no high correlations (above 0.70) were found and all explanatory variables were retained. The correlation matrix is shown in Appendix 8. For all final models the residuals were checked for normality using a histogram and a standardised normal probability (P-P) plot which can be found in Appendix 9.

Seven mixed models, one for each of the response variables, were fitted. Tables showing each of the final models are below with further details, including results of the univariate analyses, provided in Appendix 10. However, in summary, those demands and resources which were significantly associated with the response variables were all in the expected direction. Demands were negatively associated with the response variables of engagement and job satisfaction, and positively associated with the response variables of burnout and psychological ill-health. Resources (including the personal resource of self-efficacy) were positively associated with the response variables of engagement and job satisfaction, and negatively associated with the response variables of burnout and psychological ill-health.

Whilst the quality domain of recovery based practice was significant in three unadjusted analyses and one final model, no other quality domains were significant in any of the models. Recovery based practice is included in Tables 9-11 where it was found to be significant in the univariate analyses and hence

included in the respective final models. Full results of all coefficients relating to QuIRC-SA domain scores are provided in Appendix 10.

The job demand of emotional demands was the most frequently occurring of the five types of demand under consideration, and was significantly associated with the response variable in six out of a possible seven final models. Lack of meaningfulness and job insecurity were each significantly associated with the response variable in three out of seven models, while the job demand of work and time pressure was significant in one final model. The job resources of skill discretion, task control and supervisor support were each associated with the response variable in two out of seven final models. The personal resource of self-efficacy was significantly associated with the response variable in six out of a possible seven models. The job demand of role ambiguity and the job resources of decision authority and co-worker support were not significantly associated with the any response variables in any of the final seven models.

Cohen's f^2 was calculated for all variables significant in the final models. Using established conventions for the description of Cohen's f^2 (J. Cohen, 1988), effect sizes were categorised as: small = 0.02; medium = 0.15; large = 0.35. Most of the 26 effect sizes calculated were found to be small, although two are medium and one large.

Model one: Burnout (emotional exhaustion)

In the unadjusted model, all demands and resources were significantly associated at the $p \leq 0.01$ or $p \leq 0.001$ level with the emotional exhaustion component of burnout. All associations were in the expected direction, with resources negatively associated with emotional exhaustion and demands positively associated with emotional exhaustion. The QuIRC-SA domain of recovery-based practice was positively associated with emotional exhaustion, with significance at the $p \leq 0.1$ level.

In the mutually adjusted final model, when all significant explanatory variables were entered together along with the selected demographic variables, the

three explanatory variables which remained significant were emotional demands, job insecurity and the personal resource of self-efficacy. A one unit increase in emotional demands was associated with a 1.699 (95% CI 1.263 to 2.135) unit increase in emotional exhaustion ($p = 0.001$), a one unit increase in job insecurity was associated with a 0.721 (95% CI 0.052 to 1.389) increase in emotional exhaustion ($p = 0.035$), and a one unit increase in self-efficacy was associated with a 0.367 (95% CI -0.686 to -0.048) unit decrease in emotional exhaustion ($p = 0.024$). As shown in Table 9, effect sizes for both self-efficacy and job insecurity were small ($f^2 = 0.022$), while the effect size for emotional demands was medium ($f^2 = 0.281$).

Table 9 Association of demands, resources and service quality with emotional exhaustion

Emotional Exhaustion (n=207)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	-0.071	-0.632	0.489	
Decision authority	-0.404	-1.223	0.414	
Task control	-0.237	-0.569	1.043	
Supervisor support	-0.288	-0.830	0.255	
Co-worker support	-0.495	-1.130	0.139	
Self-efficacy	-0.367*	-0.686	-0.048	0.022
Work & time pressure	0.204	-1.095	1.502	
Role ambiguity	0.145	-0.488	0.778	
Lack of meaningfulness	0.333	-0.776	1.443	
Job insecurity	0.721*	0.052	1.389	0.022
Emotional demands	1.699***	1.263	2.135	0.281
Recovery based practice	0.122	-0.138	0.258	

Note. CI = confidence interval; LL = lower limit; UL = upper limit
 † $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model two: Burnout (depersonalisation)

With the exception of the demands of task control and job insecurity, all demands and resources in the unadjusted model were significantly associated with the depersonalisation component of burnout at the $p \leq 0.05$, $p \leq 0.01$ or $p \leq 0.001$ level. Job insecurity and the QuIRC-SA domain of recovery-based practice were positively associated with depersonalisation, with significance at the $p \leq 0.1$ level.

When all significant explanatory variables were entered together, along with the selected demographic variables, the explanatory variables which remained significant were emotional demands, the personal resource of self-efficacy and the quality domain of recovery based practice. As shown in Table 10, the effect sizes for all three significant explanatory variables were small.

Table 10 Association of demands, resources and service quality with depersonalisation

Depersonalisation (n=209)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	-0.052	-0.284	0.180	
Decision authority	0.049	-0.284	0.381	
Task control	n.s.			
Supervisor support	-0.032	-0.261	0.198	
Co-worker support	-0.143	-0.409	0.124	
Self-efficacy	-0.204**	-0.339	-0.069	0.037
Work & time pressure	0.044	-0.492	0.581	
Role ambiguity	-0.018	-0.285	0.248	
Lack of meaningfulness	0.275	-0.194	0.745	
Job insecurity	0.053	-0.232	0.338	
Emotional demands	0.350***	0.167	0.532	0.069
Recovery based practice	0.061*	0.003	0.118	0.021

Note. CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = variable not significant in univariate analysis and not included in final model

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model three: Burnout (personal accomplishment)

In the unadjusted model, the demands of role ambiguity and lack of meaningfulness, the resources of skill discretion, decision authority and co-worker support, and the personal resource of self-efficacy were significantly associated with the personal accomplishment component of burnout at the $p \leq 0.01$ or $p \leq 0.001$ level. The job demand of work and time pressure and the QuIRC-SA domain of recovery based practice were both associated with personal accomplishment at the $p \leq 0.1$ level.

In the mutually adjusted model, the two explanatory variables which remained significant were self-efficacy and lack of meaningfulness. Whilst the effect sizes for lack of meaningfulness ($f^2 = 0.061$) and self-efficacy ($f^2 = 0.141$) were both small, the latter was near the threshold for a medium effect ($f^2 = 0.15$). (Table 11).

Table 11 Association of demands, resources and service quality with personal accomplishment

Personal accomplishment (n=207)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	0.231	-0.111	0.574	
Decision authority	0.142	-0.355	0.639	
Task control	n.s.			
Supervisor support	n.s.			
Co-worker support	-0.189	-0.575	0.196	
Self-efficacy	0.354***	0.153	0.555	0.141
Work & time pressure	-0.133	-0.889	0.622	
Role ambiguity	0.014	-0.373	0.401	
Lack of meaningfulness	-1.260***	-1.953	-0.567	0.061
Job insecurity	n.s.			
Emotional demands	n.s.			

Recovery based practice	-0.053	-0.135	0.029	
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Note. CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = variable not significant in univariate analysis and not included in final model

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model four: Work engagement

In the unadjusted model, all demands and resources with the exception of task control were significantly associated with work engagement at the $p \leq 0.01$ or $p \leq 0.001$ level. As shown in Table 12, skill discretion, self-efficacy, work and time pressure, lack of meaningfulness and emotional demands all remained significant in the mutually adjusted model, although effect sizes were small.

Table 12 Association of demands, resources and service quality with work engagement

Work engagement (n=205)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	0.810***	0.371	1.249	0.064
Decision authority	0.103	-0.532	0.737	
Task control	n.s.			
Supervisor support	0.061	-0.378	0.499	
Co-worker support	-0.224	-0.711	0.263	
Self-efficacy	0.570***	0.314	0.827	0.092
Work & time pressure	1.111*	0.086	2.136	0.022
Role ambiguity	-0.008	-0.494	0.510	
Lack of meaningfulness	-1.892***	-2.789	-0.994	0.083
Job insecurity	-0.485	-1.015	0.045	
Emotional demands	-0.381*	-0.727	-0.034	0.022

Note. CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = variable not significant in univariate analysis and not included in final model

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model five: Job satisfaction (extrinsic)

In the unadjusted model, all job demands, job resources and the personal resource of self-efficacy were significantly associated with extrinsic job satisfaction at $p \leq 0.001$. As shown in Table 13, four explanatory variables remained significant in the mutually adjusted model; the job resources of task control and supervisor support, and the job demands of job insecurity and emotional demands. Whilst the effect sizes for the other three explanatory variables were small, the effect size for supervisor support was large (above the threshold of $f^2 = 0.35$).

Table 13 Association of demands, resources and service quality with extrinsic job satisfaction

Job satisfaction (extrinsic) (n=206)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	0.076	-0.099	0.250	
Decision authority	0.031	-0.244	0.286	
Task control	0.280*	0.036	0.525	0.025
Supervisor support	0.873***	0.702	1.044	0.486
Co-worker support	0.001	-0.191	0.192	
Self-efficacy	0.011	-0.088	0.110	
Work & time pressure	-0.112	-0.525	0.301	
Role ambiguity	-0.068	-0.263	0.128	
Lack of meaningfulness	-0.205	-0.547	0.138	
Job insecurity	-0.283**	-0.490	-0.075	0.036
Emotional demands	-0.299***	-0.432	-0.166	0.095

Note. CI = confidence interval; LL = lower limit; UL = upper limit

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model six: Job satisfaction (intrinsic)

In the unadjusted model, all demands and resources were significantly associated with intrinsic job satisfaction ($p \leq 0.001$).

In the mutually adjusted model, seven of the explanatory variables remained significant (three job demands, three job resources and the personal resource of self-efficacy), all with small effect sizes (Table 14).

Table 14 Association of demands, resources and service quality with intrinsic job satisfaction

Job satisfaction (intrinsic) (n=205)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	0.461**	0.190	0.732	0.055
Decision authority	0.214	-0.182	0.610	
Task control	0.566**	0.181	0.951	0.043
Supervisor support	0.388**	0.124	0.652	0.036
Co-worker support	0.184	-0.114	0.481	
Self-efficacy	0.229**	0.075	0.383	0.039
Work & time pressure	0.342	-0.301	0.984	
Role ambiguity	-0.050	-0.353	0.253	
Lack of meaningfulness	-0.624*	-1.158	-0.089	0.027
Job insecurity	-0.409*	-0.729	-0.090	0.031
Emotional demands	-0.264*	-0.470	-0.058	0.032

Note. CI = confidence interval; LL = lower limit; UL = upper limit
 † $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model seven: Psychological distress

In the unadjusted model, all demands and resources were significantly associated with psychological ill-health ($p \leq 0.001$).

As shown in Table 15, in the mutually adjusted model two explanatory variables remained significant; emotional demands and the personal resource of self-efficacy. Whilst the effect size for emotional demands was small ($f^2 = 0.095$), the effect size for self-efficacy was above the threshold of 0.15 for a medium effect ($f^2 = 0.194$)

Table 15 Association of demands, resources and service quality with psychological distress

Psychological distress (n=209)				
Demands and resources	Coefficient	Mutually adjusted		Cohen's f^2
		95% CI		
		LL	UL	
Skill discretion	0.016	-0.268	0.299	
Decision authority	-0.269	-0.683	0.144	
Task control	0.101	-0.300	0.503	
Supervisor support	-0.128	-0.404	0.148	
Co-worker support	-0.222	-0.535	0.091	
Self-efficacy	-0.529***	-0.690	-0.368	0.194
Work & time pressure	-0.222	-0.882	0.439	
Role ambiguity	-0.020	-0.337	0.298	
Lack of meaningfulness	0.392	-0.172	0.957	
Job insecurity	0.247	-0.089	0.582	
Emotional demands	0.497***	0.278	0.717	0.095

Note. CI = confidence interval; LL = lower limit; UL = upper limit
 † $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Objective 2 summary

As described above, in the linear mixed effects models all demands and resources which were significantly associated with the response variables in both unadjusted and final models were in the expected direction. Demands were positively associated with burnout and psychological ill-health and negatively associated with engagement and job satisfaction. Resources (including the personal resource of self-efficacy) were positively associated

with engagement and job satisfaction, and negatively associated with burnout and psychological ill-health.

The quality domain of recovery based practice was significantly associated with all three facets of burnout (emotional exhaustion, depersonalisation and personal accomplishment). Specifically, recovery based practice was positively associated with emotional exhaustion and depersonalisation and negatively associated with personal accomplishment in the univariate analyses at the $p \leq 0.1$ level. Recovery based practice was significant only in the final model for the depersonalisation component of burnout and the effect size was small at $f^2 = 0.021$. No other quality domains were significant in any of the univariate analyses.

Most effect sizes were small in magnitude, although the effect size of supervisor support in relation to extrinsic job satisfaction was large. Medium effect sizes were found for emotional demands in relation to emotional exhaustion and for self-efficacy in relation to psychological ill-health. A summary of the direction of the associations (positive or negative) and effect sizes of all significant associations in the final models is shown in Table 16 below, with more detailed tables for each model including coefficients and 95% confidence intervals in Appendix 10.

Although not part of the research questions, it should be noted that some of the demographic variables were significant in the final models. Age was negatively associated with emotional exhaustion, depersonalisation and psychological ill-health and positively associated with intrinsic job satisfaction. Female gender was negatively associated with depersonalisation and positively associated with work engagement. Having a mental health qualification was negatively associated with both intrinsic and extrinsic job satisfaction, and having experienced a negative life event in the previous 12 months was negatively associated with extrinsic job satisfaction and positively associated with psychological ill-health.

Table 16 Summary of effect sizes and direction of associations in final models

	Burnout (EE)	Burnout (DP)	Burnout (PA)	Work engagement	Job satisfaction (extrinsic)	Job satisfaction (intrinsic)	Psychological distress
Skill discretion				+ ($f^2 = 0.064$)		+ ($f^2 = 0.055$)	
Decision authority							
Task control					+ ($f^2 = 0.025$)	+ ($f^2 = 0.043$)	
Supervisor support					+ ($f^2 = 0.486$)	+ ($f^2 = 0.036$)	
Co-worker support							
Self-efficacy	- ($f^2 = 0.022$)	- ($f^2 = 0.037$)	+ ($f^2 = 0.141$)	+ ($f^2 = 0.092$)		+ ($f^2 = 0.039$)	- ($f^2 = 0.194$)
Work & time pressure				- ($f^2 = 0.022$)			
Role ambiguity							
Lack of meaningfulness			- ($f^2 = 0.061$)	- ($f^2 = 0.083$)		- ($f^2 = 0.027$)	
Job insecurity	+ ($f^2 = 0.022$)				- ($f^2 = 0.036$)	- ($f^2 = 0.031$)	
Emotional demands	+ ($f^2 = 0.281$)	+ ($f^2 = 0.069$)		- ($f^2 = 0.022$)	- ($f^2 = 0.095$)	- ($f^2 = 0.032$)	+ ($f^2 = 0.095$)
Recovery based practice		+ ($f^2 = 0.021$)					

Note. Effect size presented is Cohen's f^2 ; with magnitude conventions of small = 0.02; medium = 0.15; large = 0.35

6.5 Results (longitudinal)

6.5.1 Objective 3

The third study objective and the resulting exploratory research questions are detailed below. Tables showing each of the final models are included in this chapter with further details, including results of the univariate analyses, are provided in Appendix 11.

Objective 3: To determine whether demands and resources at baseline are associated with staff turnover and sickness absence at 12-month follow-up.

Research question 3a: What job demands, job resources and personal resources reported at baseline are associated with staff turnover at 12-month follow-up?

Turnover data were collected for all 214 staff recruited at baseline. Of these, 128 participants were still working in the service and 86 were not. Of the 86 participants no longer working in the service, 11 had left due to service closure and were excluded from further analysis. The turnover rate of participants across all services was 36.9% (75/203).

As described in section 5.6.3, a logistic mixed effect model was fitted for voluntary turnover at 12 months. Univariate analyses were completed with all job demands, job resources and personal resources individually to identify any associations. It had been intended to enter those which were significant at the $p \leq 0.1$ into one model simultaneously along with potential confounders of age, sex, length of time working in the service and whether the participant had a mental health qualification or caring responsibilities. However, when all demands and resources were entered into the model individually, none were significant (Table 17).

Table 17 Associations between demands and resources at baseline and turnover at 12 months

Turnover			
Unadjusted			
Demands and resources	Odds ratio	95% CI	
		LL	UL
Skill discretion	0.981	0.885	1.088
Decision authority	0.918	0.773	1.090
Task control	0.898	0.751	1.074
Supervisor support	0.994	0.884	1.117
Co-worker support	1.003	0.894	1.125
Self-efficacy	0.978	0.909	1.053
Work & time pressure	1.052	0.810	1.367
Role ambiguity	1.053	0.941	1.180
Lack of meaningfulness	1.204	0.953	1.521
Job insecurity	0.986	0.845	1.149
Emotional demands	1.071	0.966	1.188

Note. CI = confidence interval; LL = lower limit; UL = upper limit

Research question 3b: What job demands, job resources and personal resources reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

As noted above, of the 214 participants recruited at baseline, 128 were still working in their service at the time of 12-month follow-up. Of these 128 participants, self-report data on days and episodes of sickness absence were collected from 113 staff members. Nine staff declined follow-up and six were on long-term leave at the time of data collection. Of the 86 staff no longer working in their service, 11 had left due to service closure and so were excluded from further analysis as sickness absence records were not obtainable. Of the 75 staff who had left their service voluntarily, sickness absence data were available for 54 staff in relation to absence days, and 52 for absence episodes. Of the remainder, either the date of leaving was

unknown (so no calculation was possible), or the service was unable or unwilling to provide the absence data for staff who had left.

Once sickness absence data were calculated for staff who had left the service before 12-month follow-up in accordance with the method described in section 5.5.3, absence days were available for 167 staff and absence episodes for 165. For all staff, the median number of days absent over the year between baseline and follow-up data collection was two (IQR 0-7.0), and the median number of absence episodes over the previous year was one (IQR 0-2.0).

As described in section 5.6.3, a zero-inflated negative binomial regression model was fitted for sickness absence episodes at 12 months. Univariate analyses were completed with all job demands, job resources and personal resources individually to identify any associations. It had been intended to enter those which were significant at the $p \leq 0.1$ into one model simultaneously along with potential confounders of age, sex, length of time working in the service and whether the participant had a mental health qualification or caring responsibilities outside of work. However, when all demands and resources were entered into the model individually, none were significant (Table 18).

Table 18 Associations between demands and resources at baseline and episodes of sickness absence at 12 months

Sickness absence episodes			
Unadjusted			
Demands and resources	IRR	95% CI	
		LL	UL
Skill discretion	0.983	0.918	1.052
Decision authority	0.989	0.907	1.078
Task control	0.981	0.884	1.090
Supervisor support	0.978	0.909	1.051
Co-worker support	0.958	0.899	1.021
Self-efficacy	0.974	0.928	1.022
Work & time pressure	0.898	0.748	1.078

Role ambiguity	1.056	0.984	1.133
Lack of meaningfulness	1.089	0.966	1.228
Job insecurity	1.046	0.939	1.166
Emotional demands	0.976	0.921	1.036

Note. IRR = Incident rate ratio; CI = confidence interval; LL = lower limit; UL = upper limit

Research question 3c: What job demands, job resources and personal resources reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

A zero-inflated negative binomial regression model was fitted for total days of sickness absence at 12 months. Univariate analyses were completed with all job demands, job resources and personal resources individually to identify any associations. Only one explanatory variable, co-worker support, was significant at the $p \leq 0.1$ level. When co-worker support was entered into the mutually adjusted model with potential confounders of age, sex, length of time working in the service and whether the participant had a mental health qualification or caring responsibilities it did not remain significant (Table 19).

Table 19 Associations between demands and resources at baseline and days of sickness absence at 12 months

Sickness absence episodes (n=157)			
Demands and resources	IRR	Mutually adjusted	
		95% CI	
		LL	UL
Skill discretion	n.s.		
Decision authority	n.s.		
Task control	n.s.		
Supervisor support	n.s.		
Co-worker support	1.085	0.981	1.199
Self-efficacy	n.s.		
Work & time pressure	n.s.		

Role ambiguity	n.s.		
Lack of meaningfulness	n.s.		
Job insecurity	n.s.		
Emotional demands	n.s.		

Note. IRR = Incident rate ratio; CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = not significant in univariate analysis; not included in final model

As described in Chapter 4, following the extension of the literature review three additional research questions were added to objective 3 to reflect the possible role of morale as an explanatory variable in the consideration of sickness absence and turnover. Using the data on turnover and sickness absence described in section 6.5.1, results for each of these additional research questions are as follows.

Research question 3d: What morale variables reported at baseline are associated with staff turnover at 12-month follow-up?

A logistic mixed effect model was fitted for voluntary turnover at 12 months. Univariate analyses were completed with all baseline morale variables individually to identify any associations. It had been intended to enter those which were significant at the $p \leq 0.1$ level into one model simultaneously along with potential confounders of age, sex, length of time working in the service and whether the participant had a mental health qualification or caring responsibilities. However, due to limited degrees of freedom in the model, it was not possible to use the more inclusive level of $p \leq 0.1$ as in other models and a more restrictive threshold of $p \leq 0.05$ was used instead.

When the baseline morale variables (burnout, engagement, job satisfaction and psychological ill-health) were entered into the model individually, the emotional exhaustion domain of burnout and intrinsic job satisfaction were both significant at the $p \leq 0.05$ level. When entered into the mutually adjusted model with demographic variables, neither remained significant (Table 20).

Table 20 Associations between morale at baseline and turnover at 12 months

Morale	Odds ratio	95% CI	
		LL	UL
		Mutually adjusted	
Emotional exhaustion	1.010	0.974	1.048
Depersonalisation	n.s.		
Personal accomplishment	n.s.		
Engagement	n.s.		
Job satisfaction (intrinsic)	0.951	0.884	1.024
Job satisfaction (extrinsic)	n.s.		
Psychological distress	n.s.		

Note. IRR = Incident rate ratio; CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = not significant in univariate analysis; not included in final model

Research question 3e: What morale variables reported at baseline are associated with episodes of staff sickness absence at 12-month follow-up?

A zero-inflated negative binomial regression model was fitted for sickness absence episodes at 12 months. When the baseline morale variables (burnout, engagement, job satisfaction and psychological ill-health) were entered into the model individually, the depersonalisation domain of burnout was significant at $p \leq 0.1$, and work engagement, intrinsic job satisfaction and extrinsic job satisfaction were significant at the $p \leq 0.05$ level. When entered into the mutually adjusted model with demographic variables, no morale variables remained significant (Table 21).

Table 21 Associations between morale at baseline and episodes of sickness absence at 12 months

Sickness absence episodes (n=149)			
Morale	Mutually adjusted		
	IRR	95% CI	
		LL	UL
Emotional exhaustion	n.s.		
Depersonalisation	0.948	0.899	1.001
Personal accomplishment	n.s.		
Engagement	0.986	0.962	1.011
Job satisfaction (intrinsic)	1.005	0.960	1.052
Job satisfaction (extrinsic)	0.965	0.910	1.028
Psychological distress	n.s.		

Note. IRR = Incident rate ratio; CI = confidence interval; LL = lower limit; UL = upper limit; n.s. = not significant in univariate analysis; not included in final model

Research question 3f: What morale variables reported at baseline are associated with total days of staff sickness absence at 12-month follow-up?

A zero-inflated negative binomial regression model was fitted for total days of sickness absence at 12 months. When the baseline morale variables (burnout, engagement, job satisfaction and psychological ill-health) were entered into the model individually, only the personal accomplishment domain of burnout was significant. When entered into the mutually adjusted model with demographic variables, personal accomplishment remained significant. As shown in Table 22, for every one unit increase in personal accomplishment the rate ratio for days' absence would be expected to increase by a factor of 1.083 (95% CI 1.040 to 1.127).

Table 22 Associations between morale at baseline and days of sickness absence at 12 months

Sickness absence episodes (n=156)			
Mutually adjusted			
Morale	IRR	95% CI	
		LL	UL
Emotional exhaustion	n.s.		
Depersonalisation	n.s.		
Personal accomplishment	1.083***	1.040	1.127
Engagement	n.s.		
Job satisfaction (intrinsic)	n.s.		
Job satisfaction (extrinsic)	n.s.		
Psychological distress	n.s.		

Note. † $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Note. IRR = Incident rate ratio; CI = confidence interval; LL = lower limit; UL = upper limit; n.s. not significant in univariate analysis; not included in final model

Objective 3 summary

Very few associations were identified between explanatory variables reported at baseline and sickness absence and turnover at 12 months. In the final models, no demands and resources were significantly associated with any response variables. One morale component, the personal accomplishment domain of burnout, was associated with days of sickness absence.

Although not part of the research questions, some demographic variables were significant in the final models. Female gender and having caring responsibilities were positively associated and length of time in service and age were negatively associated with turnover. Age was negatively associated with both episodes and total days of sickness absence. Baseline sickness episodes were significantly associated with episodes of absence at 12 months, although this was not the case for days' absence. Turnover intentions were not significant in the mutually adjusted model for turnover.

6.6 Summary of results

In summary, the morale of staff working in mental health supported housing services in England is good. Staff report low-to-moderate levels of burnout, average levels of work engagement and satisfaction with their work. However, a significant number of staff experience high levels of emotional exhaustion and the numbers who report levels of psychological distress which meet the threshold for caseness is high.

In the cross-sectional analyses, all demands and resources which were significantly associated with the morale response variables in both unadjusted and final models were in the expected direction. Job demands were negatively associated with engagement and job satisfaction and positively associated with burnout and psychological ill-health. Job resources were negatively associated with burnout and psychological ill-health and positively associated with engagement and job satisfaction. In line with Job Demands-Resources Theory, the personal resource of self-efficacy demonstrated the same pattern of associations with morale as job resources. The service quality domain of recovery based practice was positively associated with the burnout facet of depersonalisation in the final model, and in the univariate analyses with the other two burnout facets of emotional exhaustion (positively) and personal accomplishment (negatively). No other quality domains were associated with staff morale.

Very few associations were identified between explanatory variables reported at baseline and sickness absence and turnover at 12 months. In the final models, no demands and resources were significantly associated with any response variables. One morale component, the personal accomplishment domain of burnout, was positively associated with the total number of days of sickness absence taken over 12 months.

Some of the potential confounders were significant in final models of both cross-sectional and longitudinal analyses. Age was negatively associated with emotional exhaustion, depersonalisation, psychological ill-health, turnover and

total days of absence over 12 months, and positively associated with intrinsic job satisfaction. Female gender was negatively associated with depersonalisation and positively associated with work engagement and turnover. Having a mental health qualification was negatively associated with both intrinsic and extrinsic job satisfaction, and having experienced a negative life event in the previous 12 months was negatively associated with extrinsic job satisfaction and positively associated with psychological ill-health.

These findings, their comparison to other studies in mental health services and their implications for practice and further research will be discussed in the next chapter.

Chapter 7 Discussion

This study is the first to comprehensively describe the characteristics of staff working in supported housing services in England and investigate the experiences of the workforce. Specifically, this thesis has investigated levels of staff morale, the demands and resources associated with morale, as well as associations with the key occupational outcomes of turnover and sickness absence in this staff group. In cross-sectional analyses, the direction of associations between demands and resources and all morale variables was in keeping with the Job Demands-Resources model, providing evidence of the usefulness of this model in investigating the experiences of staff working in supported housing. However, findings with respect to turnover and sickness absence over 12 months were limited.

In Chapter 3, the shortcomings of the current research literature with respect to staff in supported accommodation services were discussed. It was argued that although staff have a significant role to play in the delivery of services, little was known about them or their workplace experiences. It was noted that there have been some studies carried out with staff in supported accommodation services previously (Bowden, 1994; Shepherd et al., 1996). However, these studies were both carried out in the Greater London area over twenty years ago, limiting our knowledge of this staff group and their experiences.

As established in Chapter 2, there are a number of reasons why staff morale is an important issue in mental health services. Staff working in mental healthcare experience considerable pressures, including the stigma surrounding mental illness, the possibility of dealing with aggression from service users, and the risk of service user suicide. Thus, morale is an important consideration for staff themselves. Furthermore, empirical evidence has demonstrated that good morale is essential for the delivery of effective services that meet the needs of service users. In other healthcare settings, poor morale has been associated with key occupational variables such as turnover and sickness absence, both of which are costly for services and disruptive to patient care. Consideration of this area is particularly topical, as

there is evidence that staff morale, already identified as a source of concern in health and social care, has worsened considerably during the COVID-19 pandemic (Gillett & Wright, 2021; Health and Social Care Committee, 2021).

To address the absence of information about staff working in supported housing in England, research questions were formulated to describe levels of morale in the supported housing workforce, examine the demands and resources associated with morale (including service quality) and explore whether these are associated with turnover and sickness absence over time. In this final chapter I will begin with an overview of the results relating to each of the study objectives and how these compare to previous research. I will then discuss the strengths and limitations of the methods used in this thesis and consider the implications of the findings for practice and future research.

7.1 Main findings

7.1.1 Staff and service characteristics

As discussed in section 5.1, the QuEST Study was carried out in 14 representative areas of England, with areas selected using a composite measure developed in a previous national survey of mental health supported accommodation (Priebe et al., 2008). The measure is based six criteria: level of mental health needs; degree of urbanisation; spend on mental health care; extent of community-based mental health services; provision of residential care placements; and local housing provision with the resulting measure produced an index of standardised scores enabling mental health local implementation areas to be ranked. For the current study, all 80 supported housing services in these 14 areas were invited to participate. Of these, 38 services had previously taken part in one or more of the QuEST Study components, and 42 services were new to this study. The service quality measure, the Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA; Killaspy, White, et al., 2016) was completed with service managers in all 80 services, and 214 staff in 72 services completed questionnaires comprising measures of morale including; burnout (MBI; Maslach & Jackson, 1981), work engagement (UWES; Schaufeli et al., 2006),

job satisfaction (MSQ; D. J. Weiss et al., 1967) and psychological distress (GHQ; D. Goldberg & Williams, 1988). Residential care and floating outreach services were not included in this study.

Characteristics of participating supported housing services and staff are reported in the next section, followed by a description of levels of morale and the demands and resources found to be associated with morale in section 7.1.2. Details of the follow-up completed 12 months after recruitment to obtain data on turnover and staff sickness absence are reported in section 7.1.3.

7.1.1.1 Service characteristics

As discussed in section 2.2, supported housing is the most diverse type of supported accommodation in England, with service users living in shared or individual flats within a larger building. Tenancies in supported housing are usually time-limited. Levels of staffing vary according to the needs of the service, ranging from 24-hour support with staff on waking night shifts, to part-time office hours (Killaspy, Priebe, et al., 2016).

Service quality was measured using the Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA; Killaspy, White, et al., 2016) which, as discussed in section 2.2.3, assesses seven domains of care; living environment, therapeutic environment, treatments and interventions, self-management and autonomy, social interface, human rights and recovery based practice. The QuIRC-SA domain scores for the 72 services in which staff completed the questionnaire are shown in Table 6. Scores are expressed as a percentage, and those in the current study follow a similar pattern to those reported for supported housing as part of the wider QuEST Study (Killaspy, Priebe, et al., 2016), with the quality domain of human rights having the highest score and treatments and interventions the lowest score.

As noted in section 6.3, most services indicated that their staff were employed by either a Housing Association or third sector organisation. In terms of service delivery, similar numbers of services reported providing 24-hour support with staff on waking nights (38%) or less than 24-hour support (40%). A smaller

proportion of services provided 24-hour support with staff on sleeping nights (22%). Nearly one-fifth of services (19%) indicated that current or former service users were employed in the service. As discussed in section 2.2.2.3, although peer support workers are widely employed in other mental health services, only two services in the current study indicated that they had peer mentors with a further four services indicating that current or former service users were employed as support workers or apprentice project workers.

7.1.1.2 Staff characteristics

The gender ratio and age profile of participants was similar to those reported in staff samples from other mental health settings in England (e.g., S. Johnson et al., 2012; Billings et al., 2003; Nelson et al., 2009) including supported accommodation (Shepherd et al., 1996). However, the sample in this study was more ethnically diverse than that in previous studies with just over one-half of participants identifying as being from a White ethnic background compared to a previous large national survey of staff working in English community and inpatient services in which 75% of staff were from a White ethnic group (S. Johnson et al., 2012).

Compared to those in the study carried out by Johnson et al. (2012), supported housing staff had been working in their current service for less time (median of two years) and in mental health services (median five years) compared to staff in English mental health services (median three years in their current service and nearly nine years in mental health). This suggests that staff working in supported housing may be less experienced than staff in other parts of the mental health system, a finding that corroborates a previous study of inpatient mental health rehabilitation and supported accommodation services (Shepherd et al., 1996).

Supported housing staff in this study were also less likely to have a professional mental health qualification than those in previous studies of UK mental health staff. In their survey of 100 wards and 36 community teams in England, Johnson and colleagues (2012) found that staff without professional

qualifications accounted for 29% of their sample while in this study the figure was 57%. The proportion of staff having a relevant qualification is also lower than the reported average across the whole UK supported housing sector (i.e., including non-mental health supported housing) of 52% (Skills for Care, 2015).

In the current study, of the 43% of staff with a mental health qualification, two-thirds of these qualifications were vocational in nature. Whilst previous research in mental health supported accommodation (Bowden, 1994; Priebe et al., 2009; Shepherd et al., 1996) did not report the percentage of staff with a professional qualification, it was noted that only a small number of services employed staff such as psychologists or counsellors (Priebe et al., 2009). Few staff in the current study had qualifications in areas commonly found in other mental health services such as social work (9%) or nursing (2%). Previous studies have suggested that limited numbers of staff with this type of professional training is a cause for concern given the complexity of needs of service users (Lelliott, 1996).

When comparing supported housing staff with and without a qualification in mental health, the proportion of those with an undergraduate degree was similar in both groups (35% of those with a mental health qualification and 34% of those without). However, staff with a mental health qualification were more likely to have a postgraduate qualification (32% compared to 7%). Whilst comparators outside the UK may be of limited usefulness given the differences in education and healthcare systems, it is worth noting that these proportions of qualifications are very similar to those reported in a national survey of psychosocial rehabilitation workers in the United States of whom 34% had an undergraduate degree and 35% a postgraduate degree (Blankertz & Robinson, 1997).

Qualifications in this staff group were difficult to categorise as there are a plethora of different types of qualification from a variety of awarding bodies, and information about their content or level of attainment is not always clear. Qualifications included those in the area of general health and social care as these are widely accepted by employers in the supported accommodation

field, although the content may be of limited relevance to mental healthcare. There may also have been limitations in the decision to categorise an undergraduate degree in psychology as a mental health qualification in this study, as not all psychology courses include core modules relevant to clinical mental healthcare. As a result, some staff who were counted as having a mental health qualification may have had limited exposure to therapeutic approaches and techniques. Hence, the percentage of those considered to have a relevant mental health qualification may be overstated.

The finding that supported housing staff are less likely to have a mental health qualification than those working in other parts of the rehabilitation pathway is perhaps unsurprising given that services, delivered primarily by third sector providers, are not commissioned as 'clinical' services in the same way as those delivered by statutory providers. However, it may be that this lack of clinical expertise is relevant to morale. In previous studies, staff without a professional qualification have reported lower levels of the emotional exhaustion component of burnout (Bowers et al., 2009; S. Johnson et al., 2012) but, in some cases, also demonstrated a reduced sense of personal accomplishment (Bowers et al., 2009) or higher levels of professional self-doubt (Sørgaard et al., 2010). However, these studies were undertaken in services with a higher percentage of professionally qualified clinical staff, perhaps suggesting that qualified staff shoulder more of the responsibility for decision-making potentially causing unqualified staff to feel less burdened but also less effective. This assertion is supported by findings in a European survey comparing the experiences of qualified and unqualified staff in which qualified nurses reported higher work demands (Sørgaard et al., 2010).

7.1.2 Objectives one and two

As discussed in section 2.3, morale is an umbrella term used to describe levels of staff wellbeing and satisfaction. Although not a term widely used in occupational psychology, a recent review recognised that this multi-faceted approach to morale is frequently used in mental health services research (Sabitova et al., 2020). In keeping with this approach, morale in this study was

conceptualised as comprising burnout, engagement, job satisfaction and psychological distress.

As noted in the Chapter 6 summary, overall, the morale of supported housing staff across England was found to be good. Similar to other studies (e.g., Johnson et al., 2012) staff reported being satisfied with their work with low-to-moderate levels of burnout and good levels of engagement. However, in common with other mental health staff groups, the numbers of staff reporting levels of psychological distress which met the threshold for caseness was high.

This section will discuss each of the components of morale individually, starting with the levels of morale in this staff group before examining the associated demands and resources. Whilst all significant demands and resources will be discussed in relation to each morale variable, those which occurred more frequently across the final mutually adjusted cross-sectional models will also be discussed in greater depth in section 7.1.2.5.

The summary of findings in this section relates to objectives one and two:

Objective one: To describe levels of morale (burnout, engagement, job satisfaction and psychological health) in the English mental health supported housing workforce.

Objective two: To investigate whether levels of morale are associated with service quality, demands and resources.

7.1.2.1 Burnout

Burnout is a work-related phenomenon defined by Maslach and Jackson, (1981) as comprising three factors; a sense of depletion (emotional exhaustion), feelings of disinterest towards clients (depersonalisation) and a diminished belief in one's achievements (reduced personal accomplishment). As established in section 2.3.2, those working in mental health services are at high risk of burnout. Furthermore, burnout results in a range of negative

consequences for individual members of staff, teams, organisations, and service users.

Levels of burnout

In this study of staff working in supported housing, mean scores across the three burnout subscales of the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) indicated low-to-average levels of burnout. Specifically, the mean emotional exhaustion score was 16.8 (SD 11.9) placing it in the average range according to the normative data for mental health staff. The mean depersonalisation score was 4.0 (SD 4.3) which is in the low range (scores of 5-7 denote the average range). Personal accomplishment was high with mean scores of 38.2 (SD 6.7). In summary, on average, supported housing staff reported feeling average levels of emotional exhaustion, with low-to-average levels of depersonalisation but with high levels of personal accomplishment.

These results compare favourably to the only other data known to have been reported previously for staff working in mental health supported accommodation. Bowden et al. (1994) reported levels of emotional exhaustion as 20.1 (SD 12.4) and 22.9 (SD 12.5) at recruitment and three-month follow-up, mean depersonalisation of 4.4 at both time points (SD 4.8 and 4.4 respectively) and personal accomplishment as 35.6 (SD 7.1) and 35.8 (SD 8.4). However, it is important to recall that this study was very small ($n = 20$) and undertaken in a single London local authority over 25 years ago and so is unlikely to be representative of levels of burnout in the supported accommodation workforce.

As can be seen in Table 23, levels of burnout in supported housing staff also compare favourably to those reported by those working in other mental health services in England, including; acute general wards, community mental health teams, crisis resolution teams and are comparable to levels of burnout reported by staff working on rehabilitation wards (S. Johnson et al., 2012). The pattern of results from this study is also in keeping with findings from an extensive review of burnout in mental health services (O'Connor et al.,

2018) which considered 62 articles across 33 countries and found that the average mental health professional reports high levels of emotional exhaustion [mean 21.11 (95% CI 19.98, 22.24)], moderate levels of depersonalisation [mean 6.76 (95% CI 6.11, 7.42)] and good levels of personal accomplishment [mean 34.60 (95% CI 32.99, 36.21)]. Comparing these data to scores from this study, supported housing staff are experiencing less emotional exhaustion, lower levels of depersonalisation and greater personal accomplishment than other mental health staff.

Table 23 Comparison of burnout by service type

	Acute general wards N=721	Crisis Resolution Teams N=216	Community Mental Health Teams N=258	Rehabilita- tion wards N=137	Supported Housing (current study) N=214
MBI Emotional Exhaustion Mean (SD)	21.1 (12.7)	17.7 (10.7)	23.8 (11.0)	16.1 (11.3)	16.8 (11.9)
Number (%) in high burnout category	347 (49%)	80 (38%)	153 (60%)	39 (29%)	74 (35%)
MBI Depersonalisation Mean (SD)	5.8 (5.9)	5.8 (5.2)	5.7 (5.2)	4.1 (4.7)	4.0 (4.3)
Number (%) in high burnout category	226 (32%)	57 (27%)	73 (29%)	24 (18%)	39 (18%)
MBI Personal accomplishment Mean (SD)	32.1 (8.9)	35.0 (7.7)	34.3 (7.4)	35.1 (7.9)	38.2 (6.7)
Number (%) in high burnout category	199 (29%)	46 (23%)	49 (19%)	32 (24%)	20 (10%)

However, this broadly positive picture should not obscure the finding that a substantial minority of supported housing staff met the threshold for high levels of burnout. As can be seen in Table 23, 35% of staff reported high levels of emotional exhaustion, which although lower than that reported by Johnson et al. (2012) in community mental health teams (60%) and acute general wards (49%), is similar to that in crisis resolution teams (38%) and higher than that reported by staff of rehabilitation wards (29%). Reported levels of high depersonalisation were comparable to rehabilitation wards (both 18%) which

is appreciably lower than other staff groups (e.g., 29% in community mental health teams and 32% in acute general wards). Far fewer supported housing staff reported low personal accomplishment (10%), than all other service types including rehabilitation wards (24%). Whilst the findings on whether greater levels of service user need are related to staff burnout are inconclusive, as discussed in section 2.3.2 there are a number of work-related factors which may be related to these differing levels of burnout across service types. However, as the majority of burnout research is cross-sectional in nature, causality cannot be established (O'Connor et al., 2018).

Comparisons with staff working on rehabilitation wards are of particular relevance as supported accommodation services are often working with a similar service user group. However, it is possible that service users in supported housing are less unwell than those in rehabilitation services as they were able to move on from inpatient facilities. Furthermore, although such comparisons are useful, and the findings are broadly positive in relation to burnout in supported housing, it is still of concern that over one-third of supported housing staff are reporting high levels of emotional exhaustion and nearly one-fifth are reporting high levels of depersonalisation. Those demands and resources associated with each facet of burnout are discussed in the next section.

Demands and resources associated with burnout

In summary, both emotional exhaustion and depersonalisation were positively associated with emotional demands and negatively associated with self-efficacy. Job insecurity was associated only with emotional exhaustion and the service quality domain of recovery based practice was associated only with depersonalisation. For the burnout domain of personal accomplishment, the directions of the associations were reversed, with self-efficacy being positively associated with personal accomplishment. Personal accomplishment was also negatively associated with the job demand lack of meaningfulness.

As can be seen in Table 16, when effect sizes were calculated for the demands and resources that were statistically significant in the final mutually adjusted models for each of the burnout domains, most were small. The exceptions were the personal resource of self-efficacy in relation to personal accomplishment, which at $f^2 = 0.141$ approached the threshold for a medium effect ($f^2 = 0.15$), and emotional demands in respect of emotional exhaustion ($f^2 = 0.281$), slightly below the threshold for a large effect size ($f^2 = 0.35$).

As discussed in section 5.4.2.2, self-efficacy is a concept arising from Bandura's social cognitive theory (Bandura, 1986) which describes the beliefs held by an individual about their ability to mobilise the necessary resources to meet the demands of a situation or achieve a desired outcome (Bandura, 1988b). It has been suggested that those with lower levels of self-efficacy may experience higher levels of strain due to reduced coping mechanisms (Bandura, 1988a). Self-efficacy has been found to be associated with burnout in a range of professions and across different countries (Shoji et al., 2016). In a meta-analysis of associations between burnout and self-efficacy, the average effect size estimate was of medium size, with the largest effect in relation to the burnout facet of personal accomplishment (Alarcon et al., 2009; Shoji et al., 2016).

Thus the results of this study are in keeping with previous research, as the largest effect size for self-efficacy was in personal accomplishment ($f^2 = 0.141$), whereas only small effect sizes were found for emotional exhaustion and depersonalisation ($f^2 = 0.022$ and $f^2 = 0.037$ respectively). The results of this study are also consistent with a study of burnout in 358 staff working in 13 recovery-focussed community mental health teams in the United States, in which self-efficacy was associated with higher personal accomplishment after controlling for gender, level of education and job demands (Dreison et al., 2016). As self-efficacy was associated with morale variables in all but one of the final models, this personal resource will be discussed further in section 7.1.2.5.

As noted above, the effect size of emotional demands in relation to emotional exhaustion was of medium magnitude ($f^2 = 0.281$). This finding is consistent with previous research involving staff working in an Australian mental health service in which the job demand of emotional demands was the strongest predictor of emotional exhaustion (Scanlan & Still, 2019). However, it is unclear whether it is the emotional demands themselves, or the interpretation of the demands by staff that is the issue. As emotional demands were associated with morale variables in all but one of the final models, this workplace demand will be discussed further in section 7.1.2.5.

Although the effect size is small, the association between burnout and the quality domain of recovery based practice should be noted. Recovery based practice has been shown to be of importance to service user outcomes in supported accommodation (Killaspy et al., 2020) and in this study is the only quality domain to have significant associations with any of the morale variables in the final models. Although only significant in the final model for depersonalisation ($f^2 = 0.021$), it was also significant in the univariate analyses for the emotional exhaustion ($\beta 0.122$; 95% CI -0.138 to 0.258) and personal accomplishment ($\beta -0.053$; 95% CI -0.135 to -0.029) burnout domains. The direction of the associations is consistent, with recovery based practice positively associated with emotional exhaustion and depersonalisation, and negatively associated with personal accomplishment. In other words, greater levels of recovery based practice in a service are associated with higher levels of staff burnout. This unexpected finding is discussed in more detail in section 7.1.2.5.

Based on the extensive literature relating to burnout in mental health staff, and the robust meta-analysis carried out by O'Connor et al. (2018), there are a number of factors which might have been expected to be associated with burnout in supported housing staff but that were not found to be significant in the final models. Job control or a sense of autonomy at work was consistently reported to be associated with lower levels of emotional exhaustion and increased personal accomplishment in the studies included in the review (O'Connor et al., 2018). This finding is also consistent with the large-scale

study undertaken by Johnson et al. (2012) which found low autonomy to be associated with a composite emotional strain factor which included emotional exhaustion and depersonalisation. Johnson and colleagues (2012) also found that greater emotional strain was associated with limited support from managers and colleagues. Role ambiguity has been associated with increased emotional exhaustion (O'Connor et al., 2018) but not in the current study. Possible reasons why some of these well-established associations were not found in this study of supported housing staff are discussed in section 7.1.2.5.

7.1.2.2 Engagement

Work engagement is defined as the extent to which staff experience a positive state of mind about their work, characterised by feelings of vigour, dedication and absorption (Schaufeli et al., 2002). Engagement is a recently developed organisational concept, and so there has been considerably less research on work engagement in mental health staff compared to areas of morale such as burnout.

Levels of engagement

In supported housing staff, mean work engagement as measured by the 9-item version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006) was 39.6 (SD 9.5) which is in the average range according to manual norms. In contrast to the thresholds available on the MBI as discussed in section 7.1.2.1, it should be noted that the UWES norms are not specific to mental health staff. The manual does not provide any occupation-specific norms, justifying this approach by stating that any differences between staff groups rarely exceed the practically relevant difference of one standard deviation (Schaufeli et al., 2006). However, the authors do note patterns of responses in the different occupational groups tested, such as low vigour but high dedication in home care workers. Thus, the results of this study will provide valuable information for the further development of normative data and for use as a comparator in future studies.

The only data known to have been published using the UWES-9 in English mental health services is from a study carried out with 25 crisis resolution teams in England, which reported engagement scores ranging from 39.6 (SD 8.0) at baseline to 38.3 (SD 9.2) at 12-month follow-up (Lloyd-Evans et al., 2020). These scores are very similar to those reported by supported housing staff in this study, which is interesting given that supported housing staff had lower burnout scores (Lloyd-Evans et al., 2020). This finding provides support for the assertion, highlighted in section 2.3.3, that engagement is not merely the opposite of burnout (Maslach & Leiter, 1997) but a distinct construct which benefits from measurement in its own right. It is also evidence that an absence of burnout does not mean that a member of staff necessarily feels more engaged (Schaufeli et al., 2002). The study of crisis resolution teams in England identified that there was no association between a change in total fidelity score (which indicated adherence to a model of best practice across four domains of care) and change in levels of staff work engagement over time (Lloyd-Evans et al., 2020). Furthermore, this study did not investigate workplace or individual staff variables associated with engagement. The demands and resources associated with engagement in the current study are discussed in the next section.

Demands and resources associated with engagement

In the final model, work engagement was found to be positively associated with the job resource of skill discretion or the extent to which staff are able to exercise creativity and develop skills in responding to a variety of tasks (van der Doef & Maes, 1999). Engagement was also positively associated with the personal resource of self-efficacy. Engagement was negatively associated with the job demand variables work and time pressure, lack of meaningfulness and with emotional demands. However, all effect sizes were small, although it is worth noting that engagement is the only one of the morale variables that was associated with work and time pressure. No associations were found between engagement and any of the QuIRC-SA service quality domains.

These findings are consistent with the previous meta-analyses on work engagement in which the job resources of autonomy, or the amount of freedom staff have in determining how they carry out their tasks (Christian et al., 2011), and self-efficacy have both been found to be positively associated with engagement (Christian et al., 2011; Halbesleben, 2010), while pressure of work is negatively associated with engagement (Halbesleben, 2010). The pattern of effect sizes in this study is largely consistent with previous findings in which job resources generally are more strongly associated with engagement than job demands (Halbesleben, 2010; Mauno et al., 2007).

Autonomy was also found to be associated with a composite variable assessing positive engagement with work in Johnson and colleagues' (2012) survey of mental health services staff in England and in a longitudinal study of health care staff in Finland (Mauno et al., 2007). A review of work engagement in nursing staff also found that autonomy was positively associated with engagement in four of the six studies considered (Keyko et al., 2016). In a recent meta-analysis of longitudinal data, organisation-level resources such as autonomy or job control were found to have the strongest effect on engagement over time (Lesener et al., 2020), However individual resources such as self-efficacy were not included in the review.

Again, there were some unexpected negative findings in this study. For example, Van Bogaert and colleagues (2013) found that engagement among staff working in two Belgian psychiatric hospitals was associated with aspects of the working environment including positive ratings of management at both the individual unit and organisational levels. Similarly, the composite variable of positive engagement with work was found by Johnson and colleagues (2012) to be associated with support from managers and colleagues. Neither co-worker nor supervisor support was associated with engagement in the final model in the current study, although both were significantly associated with engagement in the univariate analyses (β 1.065, 95% CI 0.648 to 1.481 and 0.914, 95% CI 0.487 to 1.340 respectively). The absence of associations between morale in supported housing staff and support from supervisors and colleagues is discussed further in section 7.1.2.5.

7.1.2.3 Job satisfaction

Intrinsic job satisfaction refers to the nature of the tasks carried out at work, opportunities for achievement and recognition, and the extent to which the job fits one's needs and abilities. Extrinsic job satisfaction relates to feelings about status, job security and rewards such as pay (Herzberg, 1966; Herzberg et al., 1959).

Levels of job satisfaction

On the 12 items of the intrinsic subscale of the Minnesota Satisfaction Questionnaire (D. J. Weiss et al., 1967), participants' mean score was 45.2 (SD 6.6), while on the six items of the extrinsic subscale the mean score was 20.2 (SD 4.8). A neutral attitude is indicated by scores of 36 for intrinsic satisfaction and 18 for extrinsic satisfaction, indicating that supported housing staff are moderately satisfied with their jobs, with greater satisfaction reported for intrinsic satisfaction than for extrinsic satisfaction.

As can be seen from Table 24, the levels of intrinsic job satisfaction compare favourably to those reported for assertive outreach teams and community mental health teams (Billings et al., 2003) as well as with crisis resolution teams (Nelson et al., 2009). However, levels of extrinsic satisfaction are the lowest amongst all staff groups. When examining mean item values, the item of the MSQ on pay scored the lowest (mean 2.8, SD 1.2, possible range 1-5). This may indicate that supported housing staff are particularly dissatisfied with pay which may be a driver of lower extrinsic job satisfaction. As most supported housing services are run by the voluntary sector, employment terms and conditions are variable, and may compare poorly to those in the statutory sector. It may also be the case that there are relatively fewer opportunities for advancement, greater job insecurity due to the regular recommissioning of services and a less clearly defined career pathway than in the NHS, all of which may be related to lower levels of extrinsic job satisfaction.

Although not used in the cross-sectional mixed models as it was felt that separate analyses of intrinsic and extrinsic satisfaction provided a greater level

of detail, the total job satisfaction score was calculated in order to compare scores to the only previous study of job satisfaction in supported accommodation (Shepherd et al., 1996). Mean total job satisfaction was higher in this study (72.6, SD 11.8) than in that carried out by Shepherd and colleagues in twenty supported accommodation facilities in the Greater London area (68.9, SD 9.7). This finding indicates that staff in this study have greater overall job satisfaction than those working in similar services over twenty-five years ago. As noted previously, the study by Shepherd et al. (1996) was carried out during a period of rapid change in health services, with staff expected to move from hospitals to community settings as part of deinstitutionalisation. Levels of dissatisfaction reported at that time could relate to a lack of choice in moving to work in supported accommodation services, changes in employment terms and conditions if moving from the NHS to a private or voluntary sector provider, or staff adapting to new models of service delivery for which they were not necessarily well-equipped (Bell & Lindley, 2005). As staff working in supported housing services in this study will have made a positive choice to work in these services rather than feeling displaced from working in NHS services this is likely to have an impact on overall job satisfaction.

Table 24 Comparison of job satisfaction by service type

	Assertive Outreach Teams N=187 (Billings, 2003) Mean (95%CI)	Community Mental Health Teams N=114 (Billings, 2003) Mean (95%CI)	Crisis Resolution Teams N=132 Nelson, 2009) Mean (95%CI)	Supported accommodation (Shepherd, 1996) Mean (SD)	Supported Housing (current study) Mean (SD)
MSQ Intrinsic job satisfaction	42.5 (40.8-44.2)	42.2 (41.4-43.0)	42.8 (40.9-44.7)	NA	45.2 (6.6)
MSQ Extrinsic job satisfaction	20.8 (19.9-21.7)	21.2 (20.6-21.8)	21.0 (20.4-21.6)	NA	20.2 (4.8)
MSQ Total job satisfaction	70.8 (68.0-73.6)	70.9 (69.5-72.3)	71.2 (68.7-73.8)	68.9 (9.7)	72.6 (11.8)

Note. NA – data not available

Demands and resources associated with job satisfaction

In summary, the intrinsic and extrinsic facets of job satisfaction demonstrated similar associations with demands and resources. Both were positively associated with task control and supervisor support and negatively associated with job insecurity and emotional demands. In addition, intrinsic job satisfaction was found to be positively associated with skill discretion and self-efficacy, and negatively associated with lack of meaningfulness. Where the two facets of job satisfaction were found to have associations with the same demands and resources, the effect sizes were generally similar. However, a large effect size ($f^2 = 0.486$) was found for the association between supervisor support and extrinsic satisfaction.

These results are fairly consistent with previous research. Autonomy, in the form of control over daily tasks (task control) and the extent to which staff are involved with a variety of tasks with opportunities to learn new things (skill discretion) has been found to be associated with job satisfaction in mental health staff (Goetz et al., 2018). Job insecurity has been found to be negatively associated with job satisfaction in mental health staff working in both hospital and community settings (Dallender & Nolan, 2002; Hannigan et al., 2000) which is in keeping with findings in the current study. However, positive relationships with colleagues figure prominently as a source of job satisfaction in studies with other mental health staff groups (Billings et al., 2003; Dallender & Nolan, 2002; Fleury et al., 2017; Matos et al., 2010; Nelson et al., 2009), but were not significant in either of the final job satisfaction models in this study. As noted in section 7.1.2.2, the lack of association between morale in supported housing staff and co-worker support is unexpected and discussed further in section 7.1.2.5.

Furthermore, supervisor support has not been a significant factor with respect to job satisfaction in any of the studies of mental health services reviewed for this thesis. This may be due to its less frequent selection as a possible explanatory variable (e.g., not included in Fleury et al., 2017 or Goetz et al., 2018), although it is also spontaneously reported by staff in free-text responses or qualitative interviews less often than other factors (Matos et al., 2010; Prosser et al., 1997). Where supervisor support is raised, it tends to be in

relation to senior management at the organisational level rather than immediate line managers (Dallender & Nolan, 2002). The association of supervisor support with both intrinsic and extrinsic job satisfaction and the large effect size in relation to extrinsic job satisfaction is a novel finding in mental health services research and one that requires further investigation in this staff group. It may be that the limitations in professional qualifications discussed in section 7.1.1.2 in relation to this staff group make supervisor support more salient, but this hypothesis cannot be confirmed in the current study. The association between staff morale and supervisor support is discussed further in section 7.1.2.5.

The physical working environment has also been linked with job satisfaction in mental health staff (Dallender & Nolan, 2002; Matos et al., 2010), but no associations with the QuIRC-SA domain of living environment were found. It may be that the questions in this domain of the QuIRC-SA focus more on the areas of greatest relevance to service users (e.g., facilities for making meals or snacks, whether service users have keys to the front door and their own rooms, ability of service users to select furnishings and décor for their room, etc.) rather than those which might be of particular importance to staff (e.g., appropriate space for one-to-one meetings, a staff room for breaks, condition of any sleepover room). It may be useful to investigate whether elements of the staff-related working environment such as whether the facilities are fit for purpose and perceived to be conducive to a therapeutic environment as has been suggested in previous qualitative studies (Lamb & Cogan, 2016; Totman et al., 2011) are related to job satisfaction in this staff group.

7.1.2.4 Psychological distress

The opposite of psychological wellbeing, psychological distress is characterised by mild-to-moderate symptoms of depression and anxiety. In this study, psychological distress was measured by the 12-item version of the General Health Questionnaire (GHQ-12; D. Goldberg & Williams, 1988) which is designed to detect minor psychiatric disorder and has been widely used in both the general population and in work settings. It is also considered to be a

well-validated instrument with thresholds providing clear clinical significance (Wall et al., 1997).

Levels of psychological distress

Over one-third (36%) of supported housing staff had scores which reached the threshold for ‘caseness’ or probable psychological ill-health. Compared to data reported by Johnson et al. (2012), it can be seen in Table 25 that this is higher than staff working in inpatient and community services in England with the exception of community mental health teams where the percentage reaching the threshold for caseness was 39%. In contrast, only 24% of staff on rehabilitation wards met this threshold. In a review of all UK occupational and population studies using the GHQ between 1990 and 2011, a weighted population estimate of minor psychiatric disorder as measured by the GHQ of 19.1% was established (Goodwin et al., 2013).

Table 25 Comparison of psychological distress by service type

	Acute general wards N=721	Crisis Resolution Teams N=216	Community Mental Health Teams N=258	Rehabilitation wards N=137	Supported Housing (current study) N=214
Number (%) reaching threshold for GHQ-12 caseness	199 (29%)	46 (23%)	98 (39%)	30 (24%)	77 (36%)

This level of psychological distress is a particularly striking finding given the largely positive levels of other facets of morale reported above. Given that levels of burnout were comparable to other staff groups previously identified as having good morale (e.g., staff working in rehabilitation wards, Johnson et al., 2012), work engagement levels were in the average range and total job satisfaction was higher than other staff groups, the numbers reaching the threshold for psychological ill-health is both concerning and surprising.

Using the GHQ-28 (D. P. Goldberg & Hillier, 1979) Shepherd and colleagues (1996) reported levels of caseness in supported accommodation staff of 40%, with wide variation between different settings from 4% in privately owned facilities to 50% in services run by the voluntary sector. Whilst it may have been thought initially that these levels of caseness were related solely to a time of major restructuring in mental health services due to deinstitutionalisation, the results of this study potentially indicate a more pervasive problem. Furthermore, as Shepherd et al. (1996) found the highest levels of caseness among staff employed by voluntary sector organisations, and most services in the current study were run by either a Housing Association or voluntary sector organisation, it is possible that psychological distress is in some way related to employer type.

Demands and resources associated with psychological distress

Only two explanatory variables were associated with psychological distress in the final model. The personal resource of self-efficacy was positively associated with a medium effect size ($f^2 = 0.194$) and emotional demands were positively associated with a small effect size ($f^2 = 0.095$).

As discussed in section 5.4.2.2, self-efficacy refers to the beliefs individuals have about their ability to respond to the demands of a set of circumstances (Bandura, 1986, 1988b). Low levels of self-efficacy mean that individuals may feel less able to manage challenging situations or tasks and experience greater strain or distress as a result (Lloyd et al., 2017). Low self-efficacy has been found to be related to anxiety, depression and psychosomatic symptoms (Bandura, 1997; Fry & Debats, 2002; Kavanagh, 1992; O'Leary, 1992). Kavanagh (1992) noted that there are a number of possible pathways for this relationship and suggested a model in which there are reciprocal relationships between self-efficacy, performance and mood.

Although no studies were identified which examined the relationship between general self-efficacy and psychological distress in staff working in mental health services, an occupational-specific form of self-efficacy, occupational

coping self-efficacy, was found to be negatively associated with psychological distress in nurses (Fida et al., 2018; Spence Laschinger et al., 2015). More generally, self-efficacy has been found to be negatively associated with psychological distress as measured by the GHQ-12 in adolescents (Parto & Besharat, 2011), university students (Costa et al., 2013; Karademas & Kalantzi-Azizi, 2004), nursing students (Gibbons et al., 2011) and older adults (Fry & Debats, 2002).

Depending on the work setting, occupational demands may be physical (needing to lift heavy loads or being exposed to high levels of heat or noise), contractual (shift work or unpredictable working hours) or psychological (exposure to customer aggression or the suffering of others). All have been identified as risk factors for psychological distress while social support, autonomy and decision latitude have been found to be associated with lower psychological distress (see Drapeau et al., 2012 for review). Whilst few of these factors were associated with psychological distress in the current study, emotional demands were positively associated with psychological distress, although the effect size was small ($f^2 = 0.095$). Similar to the observation made in section 7.1.2.1 about the relationship between emotional demands and burnout, this finding may be less about the emotional demands themselves and more about the training or support available to supported housing staff to enable them to manage these demands effectively.

7.1.2.5 Summary

In summary, morale of staff working in supported housing in England is good with low-to-moderate levels of burnout, average levels of engagement, good job satisfaction and low levels of psychological distress on average. However, as discussed above there are still significant numbers of staff reporting high levels of burnout (particularly emotional exhaustion) and meeting the threshold for probable psychological ill-health. Furthermore, when compared to other mental health staff groups, extrinsic job satisfaction is low.

This study has taken a unique approach to the examination of morale by utilising the Job Demands-Resources Theory to guide the investigation of the demands and resources associated with morale in this staff group. Whilst data discussed in relation to objective two is cross-sectional and so causality cannot be established, there are patterns of associations which require further comment.

Emotional demands were significant in all of the final mixed models with the exception of the personal accomplishment domain of burnout. All associations were in the expected direction, with emotional demands positively associated with burnout and psychological distress, and negatively associated with work engagement and job satisfaction. All effect sizes were small, with the exception of that in relation to the emotional exhaustion component of burnout which was of medium size. However, the other effect sizes are not immaterial, particularly in relation to psychological distress, extrinsic satisfaction and the depersonalisation component of burnout. Given the pervasiveness of the association between emotional demands and morale variables, further exploration of the implications for practice will be discussed in section 7.3.

Related to the findings of emotional demands is the association between the quality domain recovery based practice and burnout. Whilst recovery based practice was significant only in the final model for depersonalisation, and univariate coefficients for emotional exhaustion and personal accomplishment were small, the association between recovery based practice and burnout still presents a concerning picture. There is an expectation that staff in the rehabilitation pathway deliver a service in line with a recovery ethos. Whilst this aim rightly prioritises the needs of service users, results of this study indicate that such a focus comes at a cost for staff in supported housing. It may be that, due to low levels of professional qualifications and limited workplace training, staff in supported housing are not adequately equipped to deliver a recovery-oriented service. In particular, without adequate training and support, staff may find it difficult to resolve the tension between maintaining a therapeutic relationship that emphasises shared decision-making while also managing risk (Felton et al., 2018). It is also possible that

a person-centred approach is more emotionally demanding or results in an increase in staff workload. It could be that recovery practices are implemented by services in a top-down manner, meaning that staff have a limited sense of autonomy about the implementation of such practices or experience a conflict between their own values and those espoused by the organisation (Williams et al., 2016). Work overload, a lack of control and values conflicts have all been identified as being associated with increased burnout (Maslach & Leiter, 2016).

However, it should be noted that the findings of this study are not consistent with previous research which has indicated that higher levels of recovery orientation in a service are associated with improved staff morale including lower levels of burnout (Kraus & Stein, 2013) and greater job satisfaction (Osborn & Stein, 2016). Higher levels of service recovery orientation are also associated with lower odds of staff turnover over 12 months (Ross et al., 2021). Some of the contrast with the current study may be due to differences in samples, with staff in previous studies more likely to have a professional qualification, a higher level of education overall, and (where measured) more years working in mental health services than the current sample. The differences could also be methodological, as all three of the previous studies identified used the Recovery Self-Assessment (RSA; O'Connell et al., 2005). The RSA is a 36-item self-report measure which assesses the perceptions of an individual staff member about practices considered consistent with a recovery approach. In contrast, the QuIRC-SA is completed by the service manager giving an overall report of the recovery orientation of the service. The QuIRC-SA questions that contribute to the scoring of the recovery based practice domain, several of which might indicate challenges for staff in balancing service user autonomy and risk, are shown in Appendix 12. Due to both the importance of recovery based practice for service user outcomes and the possible challenges for supported housing staff in delivering this approach, further investigation is required.

The personal resource of self-efficacy was associated in final models with all morale variables with the exception of extrinsic job satisfaction. Self-efficacy

was negatively associated with the emotional exhaustion and depersonalisation facets of burnout and with psychological distress, and positively associated with the personal accomplishment facet of burnout as well as with work engagement and job satisfaction. The effect size in relation to psychological distress was medium, as was that of the personal accomplishment domain of burnout. All other effect sizes were small. As noted in section 5.4.2.2, self-efficacy refers to an individual's beliefs about their ability to exert control over the demands of a situation (Bandura, 1988b). As self-efficacy depends on one's past experiences, it is possible that older staff and those with more years of experience in the workplace may have had more opportunities to overcome challenges and hence hold stronger beliefs about their ability to respond to future job-related tasks (Shoji et al., 2016). Self-efficacy has been found to influence a wide range of behaviours, and levels of self-efficacy can change and develop over time based on learning and experience (Gist & Mitchell, 1992). As this experience can be based either on one's own past performance or gained vicariously from seeing a colleague complete a task (Bandura, 1997) enhancing self-efficacy may be a suitable target for intervention in supported housing.

Other demands and resources selected for this study were significantly associated with fewer morale variables but their potential impact on areas of morale should not be underestimated. Supervisor support was significantly associated only with intrinsic and extrinsic job satisfaction, but the effect size in relation to extrinsic job satisfaction was the largest of all the effect sizes in this study. As observed in section 7.1.2.3, it may be that the lower levels of experience and qualifications in supported housing staff mean that supervisor support has a greater impact. There is some evidence in the wider occupational literature that the effect of supervisor support is greater when demands are high (Bakker, van Veldhoven, et al., 2010) and so it may be that this effect size for supervisor support is large in part due to the challenges felt by staff. In mental health nurses working in the community, the absence of line management support has been shown to be associated with higher emotional exhaustion (Edwards et al., 2001; Hannigan et al., 2000) and

negative attitudes towards clients (Hannigan et al., 2000) and so despite its limited associations it remains an important area of investigation.

Autonomy or job control is a complex issue in mental health services research. Some studies have highlighted the positive nature of autonomy, in particular its value as a rewarding workplace factor by community mental health staff (Onyett et al., 1997; Reid, Johnson, Morant, Kuipers, Szmukler, Bebbington, et al., 1999) and its association with engagement (S. Johnson et al., 2012) and lower rates of burnout (O'Connor et al., 2018). Lack of autonomy has also been found to be associated with greater emotional strain (S. Johnson et al., 2012). Decision latitude, or the ability of staff to make decisions related to the way they work, is positively associated with job satisfaction and personal accomplishment and negatively associated with psychological distress in mental health social workers (Evans et al., 2006). However, greater autonomy may in some circumstances result in increased feelings of being burdened by a sense of responsibility for service users (Reid, Johnson, Morant, Kuipers, Szmukler, Bebbington, et al., 1999) or for finding solutions to difficult issues (Sørgaard et al., 2007). In a qualitative study with staff on inpatient wards, greater autonomy was identified as a way of enhancing morale, but only where staff roles and responsibilities were clearly defined (Totman et al., 2011). As it is not clear from this study the extent to which supported housing staff have clarity about their roles, this is a possible area for future consideration.

The measure used in this study to measure demands and resources, the Leiden Quality of Work Questionnaire (LQWQ; van der Doef & Maes, 1999), includes three subscales which relate to autonomy; decision authority (opportunities available to make or influence decisions about one's work), task control (day-to-day control an employee has over tasks) and skill discretion (level of skill required and the level of flexibility available in determining how to use those skills). There were some similarities in the associations with demands and resources between the three domains, for example both skill discretion and task control are associated with intrinsic job satisfaction. There were also differences with only skill discretion associated with work engagement. Decision authority is not associated with any final models. Thus,

it would appear that task variety and the ability to decide how to use skills to meet tasks are of greater importance to staff in supported housing, although it should be noted that effect sizes in all cases are small.

Despite previous research in which support from colleagues has been identified as an important workplace factor, co-worker support was not significant in any of the final models in this study. Relationships with colleagues are frequently cited as a source of satisfaction or reward by mental health staff (Billings et al., 2003; M. J. Crawford et al., 2010; Dallender & Nolan, 2002; Fleury et al., 2017; Matos et al., 2010; Nelson et al., 2009; Onyett et al., 1997; Reid, Johnson, Morant, Kuipers, Szmukler, Bebbington, et al., 1999; Totman et al., 2011). Furthermore, team cohesion in the form of mutual trust and support are associated with lower levels of burnout (Dreison et al., 2018) and also with reduced emotional strain and increased work engagement (S. Johnson et al., 2012). The absence of any association in this thesis may be due in part to inconsistent measurement of the co-worker support construct, which has been articulated variously as collegiality (Dallender & Nolan, 2002), contributing to the team, the company of colleagues (Billings et al., 2003; Nelson et al., 2009; Prosser et al., 1997), working atmosphere in the practice team (Goetz et al., 2018), team support, team interdependence and familiarity between co-workers (Fleury et al., 2017). In the current study, co-worker support was defined more as social support with questions relating to whether colleagues were appreciative, helpful or friendly. There is also the possibility that contact between staff members in supported housing is relatively infrequent, and that opportunities for mutual support are limited by the keyworker system in which each member of staff has responsibility for their own service users.

7.1.3 Objective three

As discussed in Chapter 2, turnover and sickness absence are important occupational outcomes for mental health services. Both are costly in terms of staff cover, recruitment, training and loss of expertise. Furthermore, both can

cause disruptions to continuity of care and may be associated with reduced implementation of evidence-based practice.

The summary of findings in this section relates to objective three:

Objective 3: To determine whether demands and resources at baseline are associated with staff turnover and sickness absence at 12-month follow-up.

7.1.3.1 Turnover

Level of turnover

The turnover rate across all 72 participating supporting housing services was nearly 37%. This is higher than the turnover rate reported for the UK adult care sector as a whole of 30.4%, although lower than the 39% reported for care workers in registered facilities (Care Quality Commission, 2020). The turnover rate was also higher than that reported for care homes by Costello and colleagues (2020) of 22.7%. In a study of 50 rehabilitation units across England, median staff turnover over 12 months was found to be 14% (IQR 8-21) at baseline and 9% (IQR 4-17) at 12-month follow-up which is similar to the 15% annual turnover reported amongst American psycho-social rehabilitation workers (Blankertz & Robinson, 1997).

Associations with turnover

There were no significant associations between demands and resources at baseline and turnover at 12 months. When the baseline morale variables of burnout, engagement, job satisfaction and psychological distress were considered individually only the emotional exhaustion component of burnout and intrinsic job satisfaction were significantly associated at the $p \leq 0.05$ level. When entered into the mutually adjusted model together with selected demographic characteristics neither remained significant.

These findings are not in keeping with previous research, in which morale variables have been found to be associated with turnover. In the general occupational literature, the emotional exhaustion and depersonalisation facets of burnout have been positively associated with turnover (Swider & Zimmerman, 2010; Wright & Cropanzano, 1998). Whilst much of the research into morale and turnover in healthcare staff is cross-sectional and so relies on measures of turnover intention rather than actual turnover, depersonalisation was found to be positively associated with turnover over a two-year period among nurses working in British long-stay settings (Firth & Britton, 1989). Similarly, in a study of nurses and healthcare assistants in psychiatric inpatient settings job dissatisfaction was positively associated with turnover (Alexander et al., 1998). There was also some evidence of an association between psychological distress and turnover at 12 months although not at 36 months in mental health services staff (Prosser et al., 1999). However, a large cohort study of staff working in care homes in England found no association between burnout and turnover at 12 months (Costello et al., 2020).

Although not part of the research question, it should be noted that some demographic variables were significant in the final model. Female gender and having caring responsibilities were positively associated with turnover, and age and length of time working in the service were negatively associated with turnover. The findings on age and length of time in service are consistent with the UK adult social care sector as a whole (Skills for Care, 2020). Turnover intentions were not significant in the final model, lending support to assertions that employees may be prevented from acting on intentions to leave by economic conditions, availability of alternative employment or family considerations (Jung, 2010).

7.1.3.2 Sickness absence

Levels of sickness absence

As suggested by previous research (see section 2.4.2), sickness absence was collected as total days and number of episodes over 12 months. For those staff who left the service before 12-month follow-up, sickness absence information was sought from the service manager and calculated as described in section 5.6.1. For all staff, the median number of days absent over the year between baseline and follow-up data collection was two (IQR 0-7.0), and the median number of absence episodes over the previous year was one (IQR 0-2.0).

Comparators in other mental health services are limited, although Onyett and colleagues (1997) reported that in a sample of 445 members of staff working in community mental health teams, 47% reported no sickness absence over a six-month period, 40% took between one and five days, 5% reported taking six to 10 days and 6% more than 10 days. In the current study, 44% of staff reported having taken no sickness absence during the 12 months prior to follow-up, 28.74% took between one and five days, 8.4% took between six and 10 days and 18.55% took more than 10 days. Thus, in this limited comparison it would appear that a similar number of supported housing staff are taking no sick leave, but a much greater proportion are taking more than 10 days of sick leave per year. In the current study, data were not collected on supported housing staff full-time equivalent (FTE), so it was not possible to calculate a sickness absence rate as is produced for NHS staff by dividing days of sickness absence by days available for work.

Some research on sickness absence has categorised absence into short or long-term periods of absence according to organisational or national policies (Ahola et al., 2008; Anagnostopoulos & Niakas, 2010; Dekkers-Sánchez et al., 2008; Firth & Britton, 1989). This enables the consideration of whether there are different precursors to different types of absence. However, this was not

possible in the current study as the number of days was not collected in relation to each separate absence episode.

Associations with sickness absence

There were no significant associations between demands and resources at baseline and episodes of sickness absence at 12 months. The job resource of co-worker support was significant at the $p \leq 0.1$ level in the univariate analyses for days of sickness absence but was not significant when entered into the mutually adjusted model with potential confounders.

The pattern of morale variables which were significantly associated were different for days and episodes of sickness absence. When the baseline morale variables of burnout, engagement, job satisfaction and psychological distress were considered individually in relation to episodes of absence, the depersonalisation domain of burnout was significant, as were engagement and both intrinsic and extrinsic job satisfaction. However, none were significant in the final mutually adjusted model. For total days' absence, only personal accomplishment was significant in the univariate analyses, but it remained significantly associated when entered into the mutually adjusted model with potential confounders. The association between sickness absence days and personal accomplishment was positive indicating that higher levels of personal accomplishment are associated with greater total sickness absence.

These findings are not in keeping with previous research in which a number of longitudinal studies have identified associations between all morale variables considered in this thesis and subsequent sickness absence (see section 2.4.2). Overall, studies have identified positive associations between the emotional exhaustion and depersonalisation facets of burnout and subsequent levels of sickness absence, particularly with regard to long-term sickness absence or total absence taken. Positive associations have also been reported between psychological distress and the duration and frequency of absence, with those meeting the threshold for caseness taking more total absence and having more frequent episodes. Negative associations have

been identified between engagement and absence, and meta-analyses have indicated a moderate negative relationship between job satisfaction and absence, with a slightly stronger relationship for absence frequency. None of these associations were identified in supported housing staff.

Furthermore, in a robust meta-analysis of burnout and sickness absence, personal accomplishment was been found to be negatively associated with both absence duration and frequency with a slightly stronger relationship with absence frequency (Swider & Zimmerman, 2010). Thus, the finding in relation to personal accomplishment and absence days in supported housing staff is in the opposite direction than expected when considering previous research evidence. Whilst it may be that supported housing staff with a positive belief in their working achievements (e.g., increased personal accomplishment) find it easier to take sick leave when required, this may also be a chance finding and so should be treated with caution. Further discussion of the findings in relation to sickness absence can be found in the summary section below.

7.1.3.3 Summary

In summary, the findings in this study with respect to turnover and sickness absence over 12 months are inconsistent with previous research. Whilst effect sizes in longitudinal research are often smaller (Adachi & Willoughby, 2015) the near absence of any variables associated with turnover or sickness absence is puzzling. Although a meta-analytic review has demonstrated that the assumptions of the JD-R model are confirmed in longitudinal studies (Lesener et al., 2019), it may be that in this staff group the demands and resources selected are not those which are pertinent to absence or turnover. However, this does not explain the absence of any associations between morale and occupational outcomes particularly in the face of the extensive findings in previous research. It may be that the time to follow-up was a factor, as when time intervals are longer or shorter than the 'true' causal lag the chances of detecting an effect of an explanatory variable on a response variable are reduced (Taris & Kompier, 2014). However, a 12-month follow-up is not unusual in mental health services research and is a common

aggregation period in the turnover literature (Johns & Miraglia, 2015; Schaufeli et al., 2009; Steel, 2003).

As was noted above, some univariate analyses were significant, but nearly all failed to achieve significance in the mutually adjusted models which included potential confounders of age, gender, length of time in service, and whether the person had a mental health qualification or caring responsibilities. As discussed in Chapter 6, some of these demographic variables achieved significance in the mutually adjusted models, indicating that the findings may be explained in part by these factors and thus may represent a meaningful area of future research in this staff group.

It may be that turnover in supported housing staff is associated with factors not measured in this study such as pay or opportunities for advancement. As discussed in section 7.1.1.1, most supported housing services are run by third sector organisations which may not be able to offer terms and conditions of employment comparable to those in the statutory services. Furthermore, many supported housing services are small and so are able to offer only limited opportunities for career development or promotion. Staff may thus need to leave the organisation in order to progress. Both pay and career advancement have previously been identified by psychosocial rehabilitation staff as reasons they might consider leaving the field (Blankertz & Robinson, 1997).

Alternatively, given that supported housing staff have, on average, been in post for less time than those working in other mental health services (see section 7.1.1.2) it may be that for some staff working in supported housing is seen as transitory employment with staff having a limited commitment to their role and feeling able to move on fairly quickly. There could also be a subset of staff for whom working in supported housing services is a stepping-stone to professional training opportunities such as mental health nursing or clinical psychology. Indeed, it was recently noted that one unintended consequence of the introduction of the NHS nurse associate scheme has been increased recruitment of staff from social care settings (Buchan et al., 2019). However,

it is not possible to substantiate these hypotheses in the current study as data on the destination of leavers were not collected

There were considerable challenges in collecting sickness absence data for staff participants. Rather than using organisational records, absence data were collected as a self-report. This was in part due to awareness gained during the wider QuEST Study that record keeping in supported housing services was of variable quality. Reporting of sickness absence may have suffered from recall or social desirability bias (Johns, 1994, 2003; Johns & Miraglia, 2015). It is also possible that those staff working in services with more sophisticated systems may have looked up an accurate record rather than relying on recollection. Although a meta-analysis of 30 studies established that there is good convergent validity between self-reports of absence and organisational records (Johns & Miraglia, 2015) it is not possible to confirm whether that was the case in this sample.

Consideration was given to the possibility that the inclusive approach to absence data introduced an element of bias. As discussed in section 5.6.1, absence data were calculated for those staff who had left the organisation. This was done by first obtaining levels of absence between baseline data collection and their date of departure. Totals were then divided by the number of months that the participant had worked in the service and multiplied by 12 to produce estimated sickness absence figures for the 12-month follow-up period. It may have been that those staff who left the organisation were in some way different to those who remained in terms of their sickness absence, or that obtaining organisational absence data for those who left was different than the self-report data supplied by those staff who remained. However, when a sensitivity analysis was completed with only those staff who remained in service at 12-month follow-up, the pattern of the findings was the same.

7.2 Strengths and limitations

This study was the first comprehensive examination of morale in mental health supported housing services in England and provides valuable data on this staff

group. This section will outline the strengths and associated limitations of this thesis in four main areas; definition of morale, use of the Job Demands-Resources model, integration with the QuEST Study and methodological issues.

7.2.1 Definition of morale

One strength of my approach was the development of a clear definition of morale. Whilst widely used in mental health services research, morale has remained a poorly defined term (Sabitova et al., 2020) and has been operationalised inconsistently in previous studies. To arrive at a definition, I examined carefully previous mental health services research and also the wider occupational literature. This enabled me to describe morale clearly as encompassing burnout, work engagement, job satisfaction and psychological distress. The inclusion of the positive aspect of engagement alongside the more detrimental aspect of burnout is relatively unusual in mental healthcare research and if included in future studies will give a more comprehensive picture of morale.

Clarity of definition and examination of the literature also ensured that I selected robust outcome measures which followed guidelines for the development of a consistent battery of measures in morale research (Cahill et al., 2004) and allowed comparison with previous studies in mental health services thereby adding to the wider body of knowledge. Furthermore, all outcome measures used had been extensively validated in wider occupational studies. This has not always been the case in previous morale research in healthcare settings, for example use of the NHS staff survey to measure job satisfaction (S. Johnson et al., 2012) or engagement (West & Dawson, 2012). In addition to ensuring that measurement is psychometrically sound, using validated tools has benefits in terms of comparability of results and opportunities to aggregate data about morale in mental health services and identify areas of concern.

However, the comparison of supported housing staff with NHS mental health services is a potential limitation, as it may not have been most appropriate given the differences in training, qualifications, employment terms and conditions and service delivery. Furthermore, the number of measures made for a lengthy survey which might have been burdensome to participants. This study may also have benefitted from the examination of relationships between morale variables. Using a technique such as factor analysis could have helped to identify whether morale indicators were distinct or if they could have been reduced to a smaller number of factors.

7.2.2 Use of Job Demands-Resources Theory

Another strength of this study was the use of the Job Demands-Resources Theory as a framework to guide the systematic examination of the factors associated with morale in supported housing staff. Whilst much of the previous research on morale in mental health services is atheoretical, one previous study did employ the Demand-Control model (Karasek, 1979) in the examination of morale in a range of mental healthcare settings in England (S. Johnson et al., 2012). Whilst the Demand-Control model has been widely used in occupational research, the empirical evidence for the model is mixed, particularly in relation to its hypothesised interaction effects (de Lange et al., 2003; van der Doef & Maes, 1999). Furthermore, the Demand-Control model proposes only limited number of variables to be of relevance. Whilst the JD-R model incorporates some of the insights gained from research using the Demand-Control model, it offers a more flexible approach which enables the inclusion of the most relevant job demands and resources in a particular work context. Thus, my thesis was able to include a wide range of demands and resources as befits the exploratory nature of the project, all informed by previous mental health services research as well as by JD-R theory.

However, the heuristic nature of the JD-R Theory and this wide-ranging approach also had limitations. Despite the care taken in selection of the most appropriate demands and resources, it may that those chosen were not those most applicable to the experiences of supported housing staff. Whilst some

were clearly of importance as they were associated with a number of morale variables (e.g., emotional demands), others such as co-worker support and role ambiguity were not significant in any of the final cross-sectional models and so it may be that they are not relevant to morale in this staff group. Alternatively, it may be the way in which the demands and resources were measured that is problematic. For example, although items were included on supervisor support, this subscale of the LQWQ was more about whether staff feel their supervisor is helpful, attentive and concerned about the welfare of staff rather than asking about supportive line management or clinical supervision. Finally, there may be other demands and resources of greater relevance, such as feedback from the line manager, rewards and recognition, perceived fairness, and work-home interference which have been identified as relevant to aspects of morale in other studies of mental health services (Dallender & Nolan, 2002; Lasalvia et al., 2009; Scanlan & Still, 2019).

Another strength of the study was the inclusion of personal resources as an explanatory variable. Personal resources, or those individual attributes associated with resilience and a sense of control over one's environment, were added to the JD-R model relatively recently and so have not been widely tested. General self-efficacy was selected for this thesis due partly to its influence on a wide range of behaviours, as well as its malleability which would make it a suitable target for intervention. Collection of data on self-efficacy was also perceived to be less intrusive than a personality questionnaire. Given its associations with six out of seven final models in the cross-sectional analysis it would appear to be an appropriate choice of personal resource in this staff group.

However, there was no comparison made with other personal resources such as optimism or self-esteem so it is unclear what the contribution of a different personal resource measure would be. Alternatively, a work-related self-efficacy variable could have been selected rather than general self-efficacy as these have been shown to predict work-related outcomes, particularly when related to performance in a specific domain (Chen et al., 2001). Testing the final models before and after the addition of self-efficacy would have enhanced

understanding of the contribution of personal resources to morale models beyond those of workplace demands and resources.

7.2.3 Integration with QuEST

One of the key strengths of this study was its integration into the national QuEST research programme. My thesis benefitted from the work done in the early stage of QuEST to identify local authority areas based on a composite measure to create a nationally representative sample of services in England. I also benefitted from the existing engagement with services that had been recruited into the QuEST Study. Whilst I recruited an additional 42 services to participate in my research, 38 services had already had some contact with QuEST. Although it is possible that those recruited for the purposes of the staff morale survey were different in some way to those who participated in QuEST, it seems unlikely as selection of the original 38 services was done randomly.

Another benefit of the wider study was the use of the QuIRC-SA to measure service quality. Whilst I completed the QuIRC-SA with one-third of participating services, the remainder were collected by other members of the study team during follow-up visits to the services. It appears this is the first time that a measure of service quality has been used in a study of staff morale in mental health services. Although it was useful to consider associations between service quality and morale, it may be that quality would be more appropriately considered as an outcome of morale rather than a predictor. Additionally, greater use could have been made of data from the QuIRC-SA beyond consideration of the domain scores.

There were also some limitations to being part of the QuEST Study, as my data collection had to fit into the overall timetable of the research programme. This meant that there was not sufficient time to carry out any qualitative interviews which may have been useful in identifying the demands and resources experienced by supported housing staff rather than relying on previous research involving staff working in statutory mental health services. I

commenced my PhD nearly half-way through the original QuEST timetable, and earlier development of the thesis proposal may have allowed the inclusion of questions relating to morale in the qualitative component of QuEST (workpackage 3) or the use of service user-related measures. It was also important in the data collection for my thesis to minimise the burden on services as their continued participation in QuEST was of primary importance.

7.2.4 Methodology

As mentioned in the previous section, the recruitment of a representative sample was a considerable strength of this study. The overall response rate of 56% was satisfactory, and similar to the overall response rate of 64% reported in a survey of staff morale in 100 wards and 36 community teams in England (S. Johnson et al., 2012). The median response rate at a service level for this study was 60%, the same as the median response rate at NHS Trust level reported by Johnson and colleagues (2012). However, there were some difficulties with recruitment which may have affected study outcomes. Firstly, there were eight services where no staff completed the baseline questionnaire. These services may be different in some systematic way, for example staff may have been more burned out or experiencing heavier workload and so felt they didn't have time to reply. There were also considerable differences in the response rates between services, with nine services having a 100% response rate and one service with only a 17% response rate. Six of the 72 services had response rates of less than 40% and those with low response rates may have been unrepresentative.

There was also a difference in response rates between staff who had access to a work email address, and so could complete the survey electronically, and those who did not (58% and 48% respectively). For those services that did not provide staff with email addresses, or where staff reported having limited access to computers during the working day, paper copies of the questionnaire were provided. It was necessary to rely on the service manager to distribute the questionnaires, so it is possible that not all members of staff received one. Furthermore, for those staff that received the paper questionnaire there may

have been concerns about confidentiality as completed questionnaires were collected by the manager (although in sealed envelopes). Staff also had the option to return the questionnaire directly, but this may not have felt possible for some. In addition to the pragmatic considerations, there is also a question about whether services without staff emails or staff access to computers are different in some way, for example are less well-resourced or have poorer organisational practices.

Data analysis was a strength of this thesis, with both a cross-sectional and longitudinal component. With the cross-sectional analysis, mixed modelling was undertaken to reflect the hierarchical nature of the data. Including demands and resources as individual explanatory variables was beneficial as it allowed a fine-grained examination of those most relevant to morale. This approach was particularly useful given the lack of previous information on this staff group and as this was an exploratory study. However, this modelling strategy means it is possible that some associations were significant purely by chance. Additionally, although the results of the first phase of the study were very interesting, the cross-sectional nature of the data means it is not possible to identify possible causality. As discussed previously, there were very few associations in the longitudinal analysis and those that did emerge were not consistent with previous research.

The baseline questionnaire comprising a number of validated measures was a strength of this study. However, in addition to concerns about the overall length, there may also be issues which arose due to the way in which measures were combined. For example, it has been noted that GHQ responses are higher in occupational studies than in population studies, suggesting a possible framing effect in which questions related to work stress, job satisfaction or other occupational constructs may influence staff responses (Goodwin et al., 2013). In the current study, the positioning of the GHQ towards the end of the questionnaire could have introduced bias as the GHQ has been shown to be sensitive to contextual factors such as positioning within a larger questionnaire and questionnaire length (Goodwin, 2013). Furthermore, studies which contain self-report questions on sickness absence

as well as the possible explanatory variables may lead to hypothesis guessing on the part of participants (Ybema et al., 2010). With the exception of the QuIRC-SA and turnover, all data resulted from self-report measures which may have led to bias in the estimates of relationships between variables due to common method variance (Podsakoff et al., 2003).

7.3 Implications for practice

One of the key findings of this thesis is the association of emotional demands with the morale of staff working in supported housing. Although most of the effect sizes are not large, emotional demands were significantly associated with six out of a possible seven models in the cross-sectional analysis. Emotional demands were positively associated with emotional exhaustion, depersonalisation and psychological distress, and negatively associated with work engagement and job satisfaction. Furthermore, the effect size with the critical morale component of emotional exhaustion was of medium size ($f^2 = 0.281$).

Whilst working with service users having complex needs may be challenging, it could be the case that it is not the emotional demands themselves but the ability of staff to manage these demands. This assertion is supported by previous research which clearly indicates that emotional demands in the form of greater service user levels of need do not necessarily lead to increased staff burnout (Billings et al., 2003; Boyer & Bond, 1999; M. J. Crawford et al., 2010) or increased psychological distress (Walsh & Walsh, 2002). Instead, it appears to be the subjective experience of these demands by staff that is at issue. This supposition is further supported by JD-R theory which argues that it is the way in which demands and resources are perceived or experienced (either positively or negatively) that is key (Schaufeli & Taris, 2014). As it may be that these perceptions are shaped by whether staff have the 'appropriate tools' in the form of training, constructive feedback and a supportive work environment (Cherniss, 1995) the remainder of this section will consider these aspects.

7.3.1 Qualifications and training

Staff working in supported housing are required to deliver person-centred interventions to service users having complex and diverse needs. In order to do so, staff must build supportive relationships and engage in collaborative planning about an individual's recovery goals while maintaining therapeutic optimism for service users' recovery (Killaspy et al., 2021; van der Meer & Wunderink, 2019). As discussed in section 7.1.1.2, staff working in supported housing are less likely to have a relevant mental health qualification than those working in other mental health services, and as a result may not be well-equipped to deliver recovery-oriented care or may find it challenging to resolve tensions between shared decision-making and managing risk.

Whilst some research has been carried out on the workforce issues facing the wider housing with care and support sector (Skills for Care, 2015), the recommendations produced were not specific to mental health settings. The report also noted that for those services not regulated by the Care Quality Commission (which would include supported housing) there are no requirements around staff learning and development, and that expectations at a service or organisational level vary (Skills for Care, 2015). Whilst further consideration could be given to the development of standardised qualifications for staff working in supported housing services, any requirements should be balanced against increases in bureaucracy which may impede the flexibility seen to be offered by third sector providers (Durcan et al., 2017) and the need for employers to recruit staff with suitable values and attitudes (Skills for Care, 2015).

Furthermore, qualifications alone may not provide staff with the full range of skills needed to work effectively in supported housing. Hence, it is important to consider the training and continuing professional development offered to staff. Recently published guidance from the National Institute for Health and Care Excellence recommends that staff working in the mental health rehabilitation pathway have training which emphasises recovery principles so that all staff work with a recovery-orientated approach (NICE, 2020). Whilst

there is evidence that from the wider QuEST Study that staff in supported housing are delivering recovery-oriented care (Killaspy, Priebe, et al., 2016; Sandhu et al., 2017) the associations found in this study between burnout and recovery-based practice scores on the QuIRC-SA indicate that delivery of this approach may present challenges for staff.

Whilst some supported accommodation services do carry out workplace training, there is limited evidence about whether this training is of good quality or is providing staff with the skills needed. Indeed, there are indications that this training often relies on non-standardised materials with limited attention given to evidence-based content or modes of delivery (McPherson et al., 2021). The focus is often on 'on-the-job' training or short courses which are not accredited (Skills for Care, 2015). Furthermore, as many supported housing services are provided by third sector organisations, there are likely to be difficulties in identifying sufficient resources to provide adequate training and continuing professional development (Durcan et al., 2017), particularly given recent reductions in funding (McPherson et al., 2021).

In order to ensure clinically appropriate and cost-effective training provision the development of agreed standards, as well as funding for and access to such training must all be addressed. One mechanism might be to integrate training for supported housing staff with that delivered to staff working in statutory mental health services. Such an approach would provide opportunities for cross-boundary inter-professional training as recommended for those working in health and social care for service users having complex needs (Mental Health Foundation, 2016). Whatever the mechanism, training should not be viewed as a singular event, but as a continuous process which incorporates opportunities for reflective practice and group discussion (Boardman, 2016). At a minimum, an audit of the training delivered to the supported accommodation workforce, its quality and benefits to staff and service users is warranted.

7.3.2 Supervision and support

However, it should not be assumed that training on its own is sufficient to help supported housing staff manage the emotional demands of their work, as it must be reinforced by a working environment that supports good practice (Boardman, 2016). Staff need a space where they can reflect on their work, acknowledge the challenges of providing support to service users having complex needs and enable them to manage any sense of pessimism about service users' recovery (NICE, 2020). Clinical supervision, defined as a process which "supports, assures and develops the knowledge, skills and values of an individual, group or team" (Skills for Care, 2007), provides a confidential environment where staff can discuss their work as well as their responses to it (Care Quality Commission, 2013). Clinical supervision should be separate from managerial supervision and can be delivered in 1:1 sessions, small group sessions in which two or more members of staff meet with a supervisor, or peer supervision where staff discuss their work with each other (Care Quality Commission, 2013).

Clinical supervision has been shown to be effective in improving patient care in mental health services (Snowdon et al., 2017) and to have positive benefits for staff morale. Staff who receive less supervision and perceive it to be of a poorer quality are at increased risk of burnout (Edwards et al., 2006; Sherring & Knight, 2009) and report lower job satisfaction (Hyrkas, 2005). Clinical supervision can also enable staff to consider the working of the team and an individual's role within it (Onyett, 2011) which may be beneficial as previous studies have emphasised the importance of role clarity in relation to morale (Carpenter et al., 2003; S. Johnson et al., 2012; Onyett et al., 1997; Totman et al., 2011). Supervisor attributes such as communication skills and the provision of emotional support may assist staff as they navigate challenging work environments (Choy-Brown et al., 2016) and facilitate the implementation of recovery-oriented practice (Tondora et al., 2014).

There is limited evidence about the frequency or quality of clinical supervision provided in supported housing services. As part of completing the QuIRC-SA,

all services in this study reported that staff have a named supervisor. However, it is not clear whether this has been interpreted by service managers to indicate clinical supervision or merely line management arrangements. Similarly, over half of services indicated that they engage in group supervision but this may have been understood as having team meetings to discuss service outcomes rather than an opportunity to reflect on practice, receive supportive feedback or learn from the experiences of others.

Whilst some supported housing services are known to provide independent external clinical supervision (J. Harrison, 2019), others rely instead on support from statutory services, an arrangement which may present challenges in terms of the perceived independence of such support. It is possible that in some supported housing services staff are not provided with any clinical supervision, meaning that they have no confidential space in which to discuss or process the emotional demands of the role. In addition, where clinical supervision is absent or limited in nature staff may be missing opportunities to develop additional skills in line with recovery principles. As with the delivery of training as discussed above, an audit of what is currently delivered, by whom and its impact on staff morale and service user outcomes is needed.

7.3.3 Organisational structure

Support in the form of clinical supervision may be of particular importance in supported housing, as services operate a keyworker system in which staff have named responsibility for service users. In a qualitative study of mental health staff based in the community, the keyworker role was highlighted as one that entailed an additional sense of responsibility and pressure (Reid, Johnson, Morant, Kuipers, Szmukler, Thornicroft, et al., 1999). The keyworker approach can be contrasted with other mental health services in which service user caseloads are shared. For example, despite working with service users having a high level of need, in Assertive Community Treatment teams this shared caseload approach is associated with lower levels of burnout thought to result from greater team collaboration (Boyer & Bond, 1999) and a sharing of “successes and failures” (Rollins et al., 2010, p.3). Whilst a keyworker

approach undoubtedly has benefits for service users in terms having a named member of staff with whom they can work to achieve their goals, it is essential that staff in keyworker systems have adequate support.

Input from statutory mental health services may also be a critical factor in supporting these housing staff. In the wider QuEST Study, all participating supported housing services reported receiving external input from a community mental health team, and nearly three-quarters received support from their local community mental health rehabilitation team (Killaspy, Priebe, et al., 2016). However, the quantity and quality of this support has been found to vary with some services reporting a lack of communication from statutory services which may cause supported housing staff to feel unsupported, particularly in times of crisis. Recent NICE guidance (2020) has indicated that community mental health rehabilitation teams should work closely with supported accommodation services to ensure clarity about roles and responsibilities in the support and treatment of service users.

Other organisational structure issues related to supported housing and how they relate to staff morale also need to be considered. Many of these are similar to those identified in wider adult social care such as low pay and a lack of clarity about career pathways (Care Quality Commission, 2019). In a recent review of mental health supported accommodation, Boardman (2016) observed that pay needs to reflect the scope of the job and that opportunities should be present for career progression. Both of these aspirations are challenges to third sector organisations in a time of reducing funding, but are likely to be necessary for retaining a motivated workforce.

7.3.4 Summary of implications for practice

In summary, implications for practice arising from this thesis focus primarily on supporting staff to manage the emotional demands inherent in their work. Support in the form of appropriate qualifications and training, individual or group supervision which enables staff to reflect on their work, and attention to organisational structures such as the keyworker role may assist staff in

developing the necessary skills and resilience. At present, these recommendations pertain only to supported housing as further research is needed to investigate staff qualifications, ongoing professional development, supervision and support in other types of mental health supported accommodation.

7.4 Future research

7.4.1 Theory

The concept of morale as used in healthcare research requires further development. At present, although the term is widely used, it lacks a consistent definition. This may be related in part to the historical development of the term which has changed over time in both the workplace and non-work contexts (B. Hardy, 2010; Sabitova et al., 2020). At different points morale has been used synonymously with other occupational terms such as job satisfaction or motivation, causing considerable heterogeneity in the research literature (Sabitova et al., 2020). Moreover, some of these related concepts such as organisational commitment or job satisfaction were more precisely defined and gave rise to measurement instruments enabling examination of associations with work performance (B. Hardy, 2010). At present there seems to be little appetite for resolving these conceptual discrepancies.

In mental health services research morale has been defined variously as an umbrella term encompassing various aspects of employee wellbeing (S. Johnson et al., 2012), limited to a single facet such as burnout (Bowers et al., 2009), included concepts such as team identity (Priebe, Fakhoury, et al., 2005) and been extended to occupational outcomes such as recruitment and retention (Richards et al., 2006). This lack of a coherent approach makes it difficult to synthesise findings from morale research, impedes understanding of its precursors and impact, and limits opportunities for the development of effective interventions.

The lack of a clear definition of morale also hinders assessment. In a review of morale on inpatient wards, Cahill and colleagues (2004) called for the

development of a “common battery of measures” for the assessment of morale. However, to date there has been no accepted set of instruments, due in part to a lack of agreement about what it is that should be measured. As discussed in section 7.2.1, future research should also consider the relationship between morale variables and whether they can be reduced to a smaller number of dimensions (S. Johnson et al., 2012).

When examining morale, consideration must also be given to the assessment of its precursors. This thesis successfully used the Job Demands-Resources model to explore the demands and resources most relevant to staff in supported housing. As a heuristic model, the JD-R offers the necessary flexibility for the inclusion of the most appropriate demands and resources. However, this flexibility may introduce added complexity as researchers define and measure demands and resources differently. As discussed in section 2.5.3, there is some criticism of the JD-R model that it gives limited guidance even to the classification of work factors into demands and resources. Again, this lack of specificity may make it challenging to build a body of research which illuminates the experiences of staff working in mental health services.

Finally, it was not possible to implement all aspects of the extended JD-R model in this thesis. The differentiation of job demands into challenge demands or hindrance demands was not tested as there were insufficient challenge demands selected for inclusion. It may also be that personal resources do not function as currently suggested in the extended JD-R model and instead should be considered as a buffer of the impact of job demands on burnout (Van den Broeck et al., 2013). Neither self-undermining nor job crafting were included in this study as they were added to the JD-R model after data collection. Future studies could examine these proposed reciprocal relationships (Lesener et al., 2019).

7.4.2 Supported accommodation

7.4.2.1 Examination of existing data

There is scope for additional exploratory analyses of the data collected as part of this thesis. In particular, examining additional data from the QuIRC-SA would be beneficial. Recently recommended in national guidelines for measuring service quality (NICE, 2020), the QuIRC-SA provides considerable information beyond the domain scores used in this thesis. For example, information on service location (urban or rural), number of beds, service user level of need, incidents of aggressive behaviour, level of support provided by statutory services, and the staff-service user ratio are all collected in the QuIRC-SA and could be considered in a supplementary analysis using the existing morale data. Quality could also be considered as an outcome of morale, rather than as an explanatory variable as in this study.

Associations between morale and quality could also be considered at the service level rather than individual level of analysis. Whilst there is limited precedence for this in mental health services research (Wood, 2012), there is some consideration of collective or team morale in the wider occupational literature (B. Hardy, 2010; Motowidlo et al., 1976; C. Peterson et al., 2008; Zeitz, 1983). However, to use the data from this thesis would require aggregating individual responses, for example by calculating means of individual level scores in a service, to create a service-level measure of morale. This may not be ideal as the measures used were clearly phrased to measure individual rather than collective experiences. However, it could be argued that aggregated measures capture important aspects of work factors and so provide information that is complementary (Finne et al., 2016). Alternatively, some elements of morale have been measured at the team level (Torrente et al., 2012) and this could be explored further.

As it was not part of the research questions, demographic data were included in analyses only as potential confounders. As discussed in Chapter 6, there were some significant associations found between morale variables and potential confounders. Age and gender were significant in both cross-sectional

and longitudinal analyses. Specifically, age was negatively associated with emotional exhaustion, depersonalisation, psychological distress, as well as with turnover and episodes and total days' sickness absence over 12 months. Age was positively associated with intrinsic job satisfaction. Female gender was negatively associated with depersonalisation and positively associated with work engagement as well as with turnover at 12 months. Mental health qualifications were negatively associated with job satisfaction and length of time in service was negatively associated with turnover. Whilst there is some previous research on demographic variables in relation to morale, findings are inconsistent (O'Connor et al., 2018). Although outside the scope of this thesis, the findings in this study indicate that this is an area which could be usefully explored more comprehensively and in the context of previous research in order to further investigate the direction and magnitude of associations between demographic variables and morale.

7.4.2.2 Further studies

This thesis has provided considerable information on the job demands and resources experienced by staff working in supported housing. However, future research would benefit from a more detailed analysis of those found to be of greatest relevance including emotional demands and self-efficacy. Specifically, a qualitative exploration of emotional demands would be valuable, as qualitative accounts can play an important role in understanding how staff experience the workplace and the mechanisms by which particular stressors may lead to poor morale (Totman et al., 2011). Qualitative methods may also give staff an opportunity to express their experiences of emotional demands in the workplace and how support in managing these might be improved. Future research could also investigate emotional demands using methods other than staff self-report, for example the severity of service user illness or frequency of contact. As findings on the relationship between staff morale and service user factors are mixed, with some evidence that differences may be due to staff training, shared caseloads or levels of support, further examination is warranted in this staff group.

Similarly, as self-efficacy also appears to play an important protective role in the morale of this staff group, further research into this personal resource may be beneficial. As noted in section 5.4.2.2, levels of self-efficacy are not fixed and can be modified over time based on learning and experience (Gist & Mitchell, 1992). Opportunities to develop feelings of mastery in specific domains by completing challenging assignments, observing others successfully completing tasks, providing support and encouragement (Maurer, 2001) along with interventions such as coaching or role-modelling may be effective in enhancing self-efficacy (Tams, 2008). In mental health services, interventions to enhance self-efficacy could include clinical skills training (Dreison et al., 2016) which may be of particular relevance for this staff group. Additionally, training which aims to equip staff by enhancing perceptions of control and resilience may also be constructive (Schwoerer et al., 2005). As discussed in section 7.1.2.5, age and years of work experience could be investigated as potential moderators. Since opportunities to reduce demands in mental health services may be limited, supporting staff to manage these demands through enhanced self-efficacy may be a viable approach (Dreison et al., 2016).

Whilst a range of appropriate demands and resources were selected for this study, as noted in Chapter 6 they appear to have no association with either turnover or sickness absence over time. Neither does morale appear to be associated with turnover or sickness absence, despite considerable previous research evidence to the contrary. The reasons for this scarcity of findings in relation to these important occupational outcomes clearly requires further exploration. Whilst there are sensitivities around both sickness absence and turnover which may present challenges for a qualitative study, the quantitative examination of alternative factors which may influence turnover and sickness absence in this staff group would be beneficial. Although previous research has noted good convergent validity between self-reported and organisational records of sickness absence, in future research it may be preferable to obtain data only from organisational records. It may also be helpful to record the number of days of absence against each episode so that any differences in short versus long-term spells of absence could be investigated.

Further research is also needed into service user outcomes associated with morale (S. Johnson et al., 2012). Whilst the service quality scores derived from the original QuIRC have been shown to be positively associated with service user ratings of their experiences of care (Killaspy et al., 2012, 2013), the inclusion of a service user-reported outcome measure such as the Client's Assessment of Treatment Scale for Supported Accommodation (CAT-SA; Sandhu et al., 2016) developed as part of the QuEST Study may also make an important contribution. Furthermore, associations between staff morale and important service user outcomes such as successful move-on to less supported accommodation should be examined.

As the current study included only supported housing services, investigations of staff morale in other types of mental health supported accommodation, residential care and floating outreach, are also recommended. As different types of supported accommodation services vary in terms of service user characteristics, expected length of stay or where staff are based (Killaspy, Priebe, et al., 2016) there may also be differences in the demands and resources associated with morale. It would also be beneficial to explore morale in supported accommodation services in other counties and in the context of different mental healthcare systems.

7.5 Conclusion

In conclusion, this study represents the first comprehensive survey of staff morale in mental health supported accommodation services in England. The study was conducted in a nationally representative sample of one type of supported accommodation, supported housing, and provides valuable data on staff working in these services. Specifically, this thesis has explored the demands and resources staff experience in the workplace, as well as the relationships between these workplace factors, service quality, staff morale and the occupational outcomes of sickness absence and turnover. Morale was defined as encompassing burnout, work engagement, job satisfaction and psychological health.

In order to investigate morale, this study used the Job Demands-Resources Theory (JD-R; Bakker & Demerouti, 2007; Demerouti et al., 2001). As the theory has not been used widely in mental health services research, and is not known to have been used previously in a supported accommodation context, its use in this thesis was novel. JD-R Theory allows for the selection of the demands and resources most relevant to a particular work context, and those considered in this study reflect previous research undertaken other mental health services. This study also incorporated a recent addition to the theory in the form of personal resources.

Overall, morale in this staff group is good with low-to-moderate levels of burnout, average levels of work engagement and satisfaction with their work. However, a significant minority of staff report high levels of emotional exhaustion and the numbers who experience levels of psychological distress which meet the threshold indicative of minor psychiatric disorder is high.

In the cross-sectional analyses, all demands and resources which were significantly associated with the morale response variables were in the expected direction. Whilst few associations were found between service quality as measured by the QuIRC-SA and morale, the domain of recovery based practice was found to be positively associated with the burnout facet of depersonalisation. Very limited associations were identified between explanatory variables reported at baseline and sickness absence and turnover at 12 months.

The findings of this study have implications for practice in terms of the qualifications and training of staff in supported housing, the ways in which staff are supported and receive supervision, and the structure of supported housing services. This study has also raised questions about the role of personal resources in the Job Demands-Resources model, demonstrated that there is a need for greater clarity about the definition and operationalisation of the concept of morale in mental health services research, and highlighted opportunities for future research in supported accommodation services.

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Appendices

Appendix 1: Literature review search terms

Terms and order of entry	
1	Job demands-resources model or job demands-resources or JD-R.tw
2	Burnout or emotional exhaustion or job satisfaction or work engagement or morale.tw
3	((mental health (staff or personnel or workforce or professional* or worker* or nurs*)) or ((psychiatr* or psychiatry* adj (staff or personnel or workforce or professional* or worker* or nurs*)) or mental health service* or community mental health service* or psychiatr* hospital or mental hospital*.tw
4	exp Mental Disorders or ((psychol* or psychiat* or mental*) adj (illness* or disorder* or problem* or disease* or disab*)) or mental health.tw AND residential facilit*or assisted living facilit*or group home*or halfway house* or nursing home or residential treatment or (residential adj (care or rehab* or service* or home*)) or ((support * or shelter* or assist*) adj (hous* or home* or accom* or living or tenanc*)) or ((floating or visiting) adj (support or outreach)) or outreach.tw AND staff or personnel or workforce or work or occupation or job or employee.tw
5	Absent* or absenteeism or sickness absen*.tw or (exp sick leave/sn, td)
6	(Exp personnel Turnover/sn, td) or turnover.tw
7	Presenteeism.mp
	1 and 2 [JD-R and morale]
	2 and 3 [Morale and mental health staff/services]
	1 and 3 [JD-R and mental health staff/services]

	3 and 5 [Mental health staff/services and sickness absence]
	3 and 6 [Mental health staff/services and turnover]
	3 and 7 [Mental health staff/services and presenteeism]
	1 and 4 [JD-R and mental health supported accommodation]
	2 and 4 [Morale and mental health supported accommodation]
	4 and 5 [Mental health supported accommodation and sickness absence]
	4 and 6 [Mental health supported accommodation and turnover]
	4 and 7 [Mental health supported accommodation and presenteeism]
	1 and 5 [JD-R and sickness absence]
	1 and 6 [JD-R and turnover]
	2 and 5 [Morale and sickness absence]
	2 and 6 [Morale and turnover]
	1 and 2 and 5 [JD-R and morale and sickness absence]
	1 and 2 and 6 [JD-R and morale and turnover]
	1 and 7 [JD-R and presenteeism]
	2 and 7 [morale and presenteeism]

Appendix 2: Baseline staff questionnaire

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Appendix 3: Quality Indicator for Rehabilitative Care – Supported Accommodation (QuIRC-SA)

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Appendix 4: Staff participant information sheet and consent form

Staff experience participant information sheet and consent form (v.2 01.07.15)

Quality and Effectiveness of Supported Tenancies for people with mental health problems (QuEST)

INSERT TRUST LOGO HERE

You are being invited to take part in a research study. In order to decide whether you would like to participate, please read the following information carefully. You may wish to print a copy of this document for your records.

What is the purpose of the study?

The aim of this study is to find out about the experiences of staff working in mental health supported accommodation services.

Why have I been invited?

We are asking if you would be willing to take part in this study because you work in supported accommodation in one of the areas where we are carrying out the study.

Do I have to take part?

No, you are free to choose whether to take part or not. If you choose not to take part it will not affect your current or future employment in any way. If you agree to take part but later change your mind you can withdraw from the study at any time. If you leave the study this will have no effect on your present employment or future prospects.

What does the study involve?

We will ask you to fill in an online questionnaire which should take approximately 20 minutes to complete. You will be asked questions about yourself, your working arrangements and how you feel about your work. Your responses to the questionnaire will be kept confidential and you can complete the questionnaire wherever you have internet access.

We will contact you again in 12 months to ask you to complete a few items from the original questionnaire including information on absences you may have had from work. We expect that this will take no more than 5 minutes of your time. If you are no longer employed by the supported accommodation service, we will ask the manager of the service to complete these questions instead.

What are the possible benefits of taking part?

Taking part will provide important information about the experiences of staff working in supported accommodation. This will help us to understand the positive aspects of working in supported accommodation and some of the things that staff find more difficult, as well as the impact that these things have.

All those who take part in the study will be entered into a prize draw for £50 in Marks & Spencer vouchers. The winner will be selected at random once all data collection has been

completed. Based on the expected number of participants in the study, you will have approximately a 1 in 200 chance of winning the vouchers. You will still be entered into the prize draw if you later decide to withdraw from the study.

What are the possible disadvantages of taking part?

Other than giving up some of your time to complete the questionnaire, there are no disadvantages to taking part.

Will my responses be kept confidential?

All personal information that you provide will be treated as confidential. It will only be used for the purposes of the research and will not be transferred to any organisation outside UCL. The responses to the questionnaire will be transferred from the Opinio secure survey site to the UCL department conducting the survey, which will retain it in compliance with the UCL Records Retention Schedule. The data will also be stored by UCL Information Services for six months and will then be removed from the Opinio system.

We will make sure that all of the information related to the study is stored securely in an anonymous form. You will be given a unique research number and only this number will appear on the information stored. Access to stored information will be controlled by the researcher (Sarah Dowling) and only she and other members of the research team will have access to this information. All paper information will be kept in a locked cabinet in a locked room and electronic data will be stored on a password-protected desktop computer.

Under some circumstances, for instance if you told the researcher about something that could lead to you or someone else being harmed they may need to pass on these concerns in accordance with usual procedures regarding quality of care and/or safeguarding of vulnerable adults.

What will happen to the results of the study?

The data will be anonymised, analysed and compiled into a PhD thesis. Some parts of this thesis may later be submitted for publication in academic journals. You will not be identified in the thesis or in any report or publication. No personal details of any study participants will be included.

A summary of the key findings will be available on our study website (<http://www.ucl.ac.uk/quest>). If you would like to receive a copy of this summary report you can request one at the end of the questionnaire.

What if there is a problem?

Any complaint you have about the way you have been dealt with in the study will be addressed.

If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated by members of staff you may have experienced due to your participation in the research, National Health Service or UCL complaints mechanisms are available to you. Please ask your researcher if you would like more information on this.

In the unlikely event that you are harmed by taking part in this study, compensation may be available.

If you suspect that the harm is the result of the Sponsor's (University College London) or the Trusts' negligence then you may be able to claim compensation. After discussing with

your researcher, please make the claim in writing to Professor Helen Killaspy who is the Chief Investigator for the research and is based at the Division of Psychiatry, University College London. The Chief Investigator will then pass the claim to the Sponsor's Insurers, via the Sponsor's office. You may have to bear the costs of the legal action initially, and you should consult a lawyer about this.

Who has reviewed the study?

This study has been reviewed and approved by the London (Harrow) Research Ethics Committee.

Who has funded the study?

The Quality and Effectiveness of Supported Tenancies for People with Mental Health Problems (QuEST) Project is funded by the National Institute for Health Research Programme Grants Scheme.

Contacts for further information

If you have any further questions about the study, please contact the researcher, Sarah Dowling, on 020 7679 9416 or by email at sarah.dowling@ucl.ac.uk. If you wish, you can also contact the Chief Investigator, Helen Killaspy, on 0207 679 9710 or by email at h.killaspy@ucl.ac.uk.

Giving informed consent

If you feel that you would like to take part in this study, please read the statements below to check that you agree with them before proceeding to the online questionnaire.

- I have read the participant information sheet and understand what the study involves.
- I understand that I can print a copy of the information sheet to keep for my records.
- I understand that I can contact the researcher to discuss the study and to ask questions.
- I understand that I am free to withdraw from the study at any time, without having to give a reason, and that this will not affect my current employment status or future employment prospects.
- I understand that I will be contacted again in 12 months' time and asked for some additional information including details of any absences from work. If I am no longer employed in the service at that time I give permission for the manager of the service to provide this information.
- I agree that the anonymised findings from the research can be used in the thesis, publications and reports as detailed in the information sheet. I understand that my identity will not be revealed.
- I understand that I can request a copy of the summary report of the research findings. If I choose to give my name or contact details in order to receive this report, these details will only be available to the research team and will not be used for any other purpose.
- I am satisfied that the information I give will be confidential and handled in accordance with the provisions of the Data Protection Act 1998.
- I accept that if I tell the researcher about something that could lead to me or someone else being harmed they may need to report these concerns.

If you agree with all of the statements above, please open the email entitled “Invitation to participate in the QuEST staff experience study” and click on the link to the online questionnaire. The first question will check that you agree to take part. If you answer “Yes – I agree” you can then proceed to the rest of the questionnaire.

Thank you for your time and for your help in our research.

Appendix 5: Manager participant information sheet and consent form

Staff experience manager participant information sheet and consent form (v.2 01.07.15)

Quality and Effectiveness of Supported Tenancies for people with mental health problems (QuEST)

INSERT TRUST LOGO HERE

You are being invited to take part in a research study. In order to decide whether you would like to participate, please read the following information carefully. You may wish to print a copy of this document for your records.

What is the purpose of the study?

The aim of this study is to find out about the experiences of staff working in mental health supported accommodation services.

Why have I been invited?

We are asking if you would be willing to take part in this study because you are the manager of a supported accommodation service in one of the areas where we are carrying out the study.

Do I have to take part?

No, you are free to choose whether to take part or not. If you choose not to take part it will not affect your current or future employment in any way. If you agree to take part but later change your mind you can withdraw from the study at any time. If you leave the study this will have no effect on your present employment or future prospects.

What does the study involve?

We will ask you to fill in an online questionnaire about the service you manage. The questionnaire should take approximately 45 minutes to complete and you will be able to print a report about your service when you have finished.

We are also asking staff working in your supported accommodation service to complete an online questionnaire now and to provide some brief follow-up information in 12 months' time. If the staff member is no longer employed by the service in 12 months we will ask you to provide some of the information instead. We expect that this will take no more than five minutes of your time and we will ask the permission of staff participants for the information to be collected in this way.

What are the possible benefits of taking part?

Taking part will provide important information about the experiences of staff working in supported accommodation. This will help us to understand the positive aspects of working in supported accommodation and some of the things that staff find more difficult, as well as the impact that these things have.

All managers of services where at least three members of staff (or all staff members if this number is less than three) take part in the study will be entered into a prize draw for £50 in Marks & Spencer vouchers. The winner will be selected at random once all data collection has been completed. Based on the expected number of participants in the study, you will have approximately a 1 in 200 chance of winning the vouchers. You will still be entered into the prize draw if you or your members of staff later decide to withdraw from the study.

What are the possible disadvantages of taking part?

Other than giving up some of your time to complete the questionnaire, there are no disadvantages to taking part.

Will my responses be kept confidential?

All personal information that you provide will be treated as confidential. It will only be used for the purposes of the research and will not be transferred to any organisation outside UCL. The responses to the questionnaire will be transferred from survey site to the QuEST project manager, who will ensure it is retained in compliance with the UCL Records Retention Schedule.

We will make sure that all of the information related to the study is stored securely in an anonymous form. You will be given a unique research number and only this number will appear on the information stored. Access to stored information will be controlled by the researcher (Sarah Dowling) and only she and other members of the research team will have access to this information. All paper information will be kept in a locked cabinet in a locked room and electronic data will be stored on a password-protected desktop computer.

Under some circumstances, for instance if you told the researcher about something that could lead to you or someone else being harmed they may need to pass on these concerns in accordance with usual procedures regarding quality of care and/or safeguarding of vulnerable adults.

What will happen to the results of the study?

The data will be anonymised, analysed and compiled into a PhD thesis. Some parts of this thesis may later be submitted for publication in academic journals. You will not be identified in the thesis or in any report or publication. No personal details of any study participants will be included.

A summary of the key findings will be available on our study website (<http://www.ucl.ac.uk/quest>). If you would like to receive a copy of this summary report you can request one using the contact details on the website.

What if there is a problem?

Any complaint you have about the way you have been dealt with in the study will be addressed.

If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated by members of staff you may have experienced due to your participation in the research, National Health Service or UCL complaints mechanisms are available to you. Please ask your researcher if you would like more information on this.

In the unlikely event that you are harmed by taking part in this study, compensation may be available.

If you suspect that the harm is the result of the Sponsor's (University College London) or the Trusts' negligence then you may be able to claim compensation. After discussing with your researcher, please make the claim in writing to Professor Helen Killaspy who is the Chief Investigator for the research and is based at the Division of Psychiatry, University College London. The Chief Investigator will then pass the claim to the Sponsor's Insurers, via the Sponsor's office. You may have to bear the costs of the legal action initially, and you should consult a lawyer about this.

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Giving informed consent

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- I understand that I am free to withdraw from the study at any time, without having to give a reason, and that this will not affect my current employment status or future employment prospects.
- I agree that the anonymised findings from the research can be used in the thesis, publications and reports as detailed in the information sheet. I understand that my identity will not be revealed.
- I understand that I can request a copy of the summary report of the research findings. If I choose to give my name or contact details in order to receive this report, these details will only be available to the research team and will not be used for any other purpose.
- I am satisfied that the information I give will be confidential and handled in accordance with the provisions of the Data Protection Act 1998.
- I accept that if I tell the researcher about something that could lead to me or someone else being harmed they may need to report these concerns.

If you agree with all of the statements above, please open the email entitled “Invitation to managers” and click on the link to the online questionnaire. You can log in using the information provided in the email. The first question will check that you agree to take part. If you answer “Yes – I agree” you can then proceed to the rest of the questionnaire.

Thank you for your time and for your help in our research.

Appendix 6: Service-level data collection sheet at 12-month follow-up

**Staff experience 12m follow-up data collection
 service proforma (v.1 09.05.17)
 Quality and Effectiveness of Supported Tenancies
 for people with mental health problems (QuEST)**

1. Have there been any service changes since baseline (commissioning, new provider, redundancy, TUPE, etc.)? yes/no

If yes, provide details

2. Have any staff left in the last 12 months? yes/no

If yes, provide details

3. Please provide details below of QuEST staff experience participants:

Participant initials	Still working in service (Y/N)? If no, request date of departure and reason for leaving.	Episodes of absence over 12 months	Days of absence across all episodes

THANK YOU VERY MUCH FOR TAKING PART IN THIS STUDY

Appendix 7: Participant data collection sheet at 12-month follow-up

**Staff experience 12m follow-up data collection sheet (v.1
12.03.15)**

**Quality and Effectiveness of Supported Tenancies
for people with mental health problems (QuEST)**

1. How many days sickness absence have you had in the previous 12 months?

2. How many episodes of sickness absence have you had in the previous 12 months?

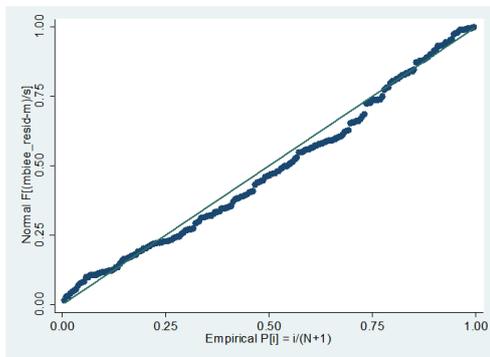
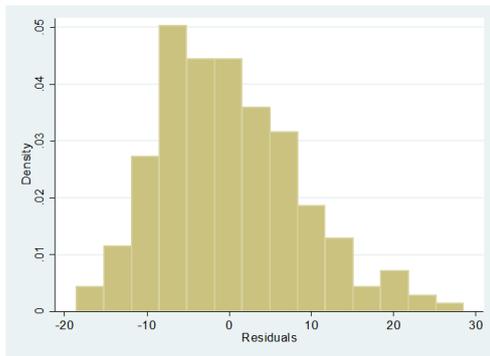
THANK YOU VERY MUCH FOR TAKING PART IN THIS STUDY

Appendix 8: Correlations between explanatory variables

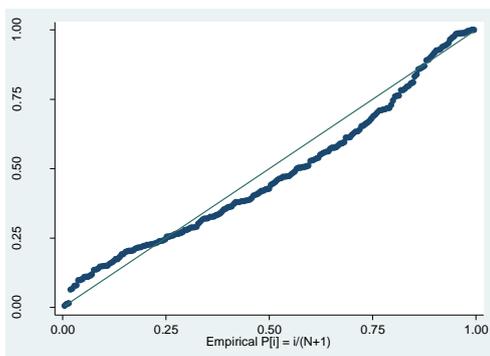
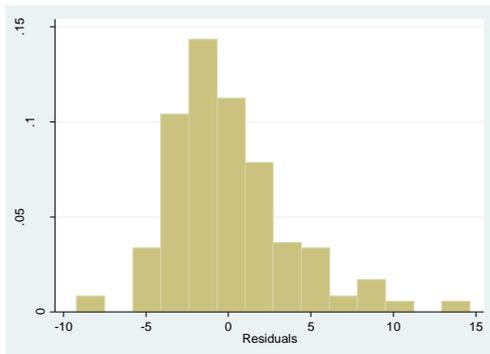
	Skill discr.	Dec. auth.	Task con.	Sup. supp.	Co. supp.	W&t pres.	Role amb.	Lack mean.	Job insec.	Emot. dem.	LE	TE	SMA	SI	HR	TI	RBP
Skill discretion	1.000																
Decision authority	0.447	1.000															
Task control	0.184	0.423	1.000														
Supervisor support	0.488	0.412	0.369	1.000													
Co-worker support	0.606	0.403	0.397	0.568	1.000												
Work and time pressure	-0.346	-0.366	-0.464	-0.469	-0.460	1.000											
Role ambiguity	-0.539	-0.509	-0.410	-0.508	-0.565	0.534	1.000										
Lack of meaningfulness	-0.587	-0.306	-0.179	-0.357	-0.469	0.257	0.456	1.000									
Job insecurity	-0.290	-0.321	-0.203	-0.336	-0.345	0.376	0.413	0.107	1.000								
Emotional demands	-0.105	-0.149	-0.184	-0.179	-0.163	0.379	0.270	0.033	0.303	1.000							
Living environment (LE)	0.029	0.143	0.209	0.079	0.121	-0.049	-0.022	-0.044	0.016	0.021	1.000						
Therapeutic environment (TE)	0.116	0.112	0.172	0.118	0.225	-0.075	-0.030	-0.105	0.101	-0.035	0.504	1.000					
Self-management & autonomy (SMA)	0.046	0.077	0.104	-0.072	0.029	0.046	0.056	-0.050	0.094	0.077	0.570	0.646	1.000				
Social interface (SI)	0.062	0.130	0.079	0.097	0.120	-0.033	0.003	-0.113	0.204	-0.008	0.270	0.549	0.470	1.000			
Human rights (HR)	0.029	0.057	0.107	-0.052	0.084	-0.010	0.069	-0.076	0.098	-0.074	0.388	0.613	0.604	0.495	1.000		
Treatments and interventions (TI)	0.057	0.095	0.092	0.079	0.152	-0.087	-0.097	-0.080	0.027	0.037	0.249	0.750	0.589	0.393	0.340	1.000	
Recovery-based practice (RBP)	0.069	0.055	0.186	0.046	0.186	0.030	0.085	-0.018	0.139	0.029	0.578	0.804	0.715	0.484	0.601	0.456	1.000

Appendix 9: Histograms and standardised normal probability (P-P) plots of final models

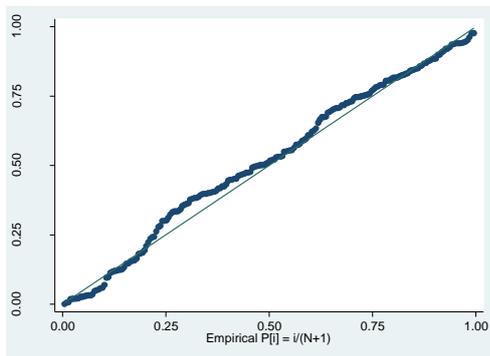
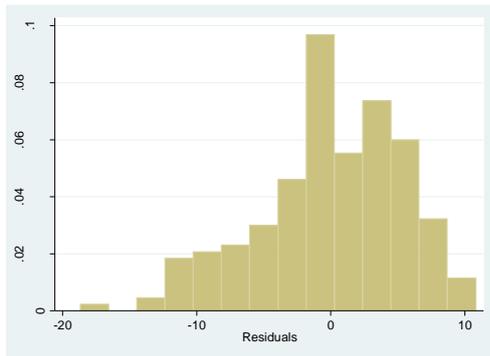
Emotional exhaustion



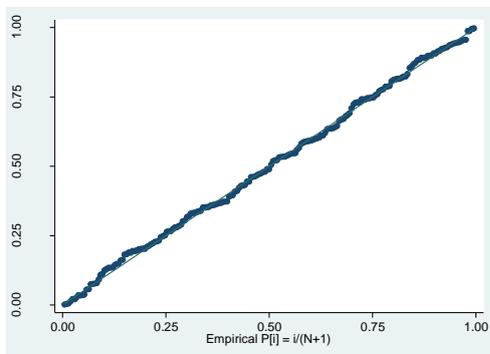
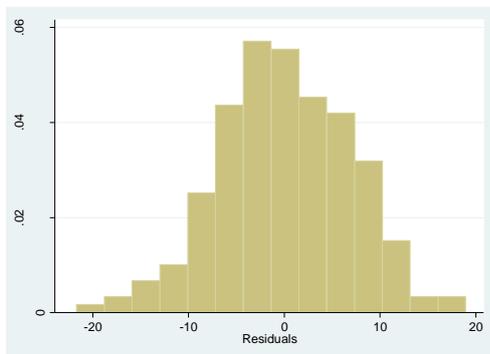
Depersonalisation



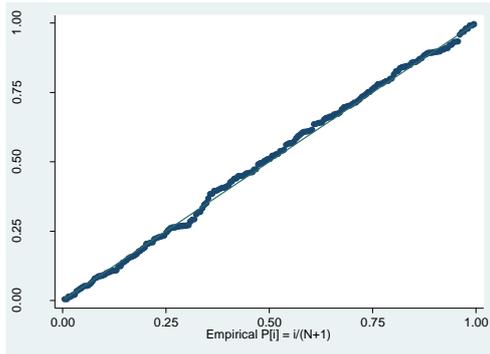
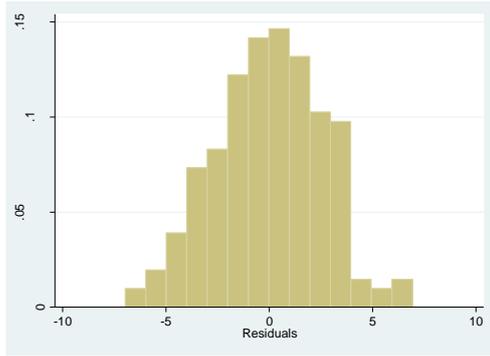
Personal accomplishment



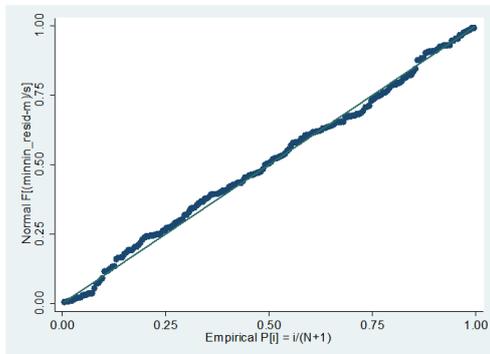
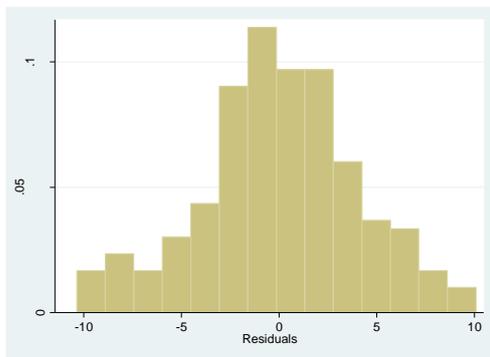
Engagement



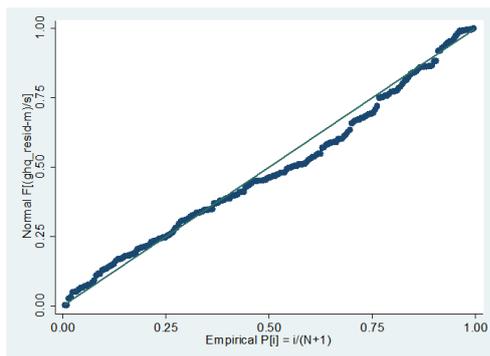
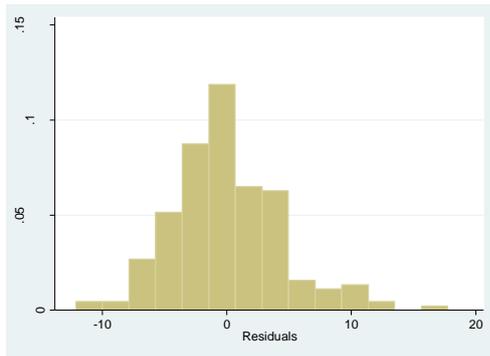
Job satisfaction (extrinsic)



Job satisfaction (intrinsic)



Psychological ill-health



Appendix 10: Mixed models (objective 2)

Emotional exhaustion (MBI)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size
	Coefficient	95% CI	Coefficient	95% CI	
			<i>Full model n=207, R² = 0.46</i>		
					<i>Cohen's f²</i>
Skill discretion	-1.107***	-1.580 to -0.633	-0.071	-0.632 to 0.489	
Decision authority	-1.854***	-2.646 to -1.062	-0.404	-1.223 to 0.414	
Task control	-1.132**	-1.974 to -0.290	-0.237	-0.569 to 1.043	
Supervisor support	-1.304***	-1.842 to -0.767	-0.288	-0.830 to 0.255	
Co-worker support	-1.342***	-1.873 to -0.810	-0.495	-1.130 to 0.139	
Self-efficacy	-0.884***	-1.233 to -0.535	-0.367*	-0.686 to -0.048	0.022
Work & time pressure	3.354***	2.150 to 4.558	0.204	-1.095 to 1.502	
Role ambiguity	1.629***	1.122 to 2.136	0.145	-0.488 to 0.778	
Lack of meaningfulness	2.030***	0.965 to 3.094	0.333	-0.776 to 1.443	
Job insecurity	1.753***	1.045 to 2.461	0.721*	0.052 to 1.389	0.022
Emotional demands	1.946***	1.503 to 2.388	1.699***	1.263 to 2.135	0.281
Recovery Based Practice	0.159†	-0.031 to 0.348	0.122	-0.014 to 0.258	
Social Interface	0.126	-.0400 to 0.293	n.s.		
Human Rights	0.030	-0.185 to 0.245	n.s.		
Treatments & Interventions	0.179	-0.047 to 0.405	n.s.		
Living Environment	-0.009	-0.258 to 0.240	n.s.		
Age			-0.201***	-0.317 to -0.085	
Gender (female)			-1.546	-4.164 to 1.073	
Mental health qualification (yes)			2.210	-0.278 to 4.698	
Length of time in service			-0.067	-0.334 to 0.201	
Life events (any in previous 12m)			-0.465	-3.082 to 2.153	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Depersonalisation (MBI)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size Cohen's f^2
	Coefficient	95% CI	Coefficient	95% CI	
			Full model $n=209$, $R^2 = 0.26$		
Skill discretion	-0.289***	-0.466 to -0.112	-0.052	-0.284 to 0.180	
Decision authority	-0.313*	-0.609 to -0.016	0.049	-0.284 to 0.381	
Task control	-0.196	-0.505 to 0.113	n.s.		
Supervisor support	-0.262*	-0.464 to -0.060	-0.032	-0.261 to 0.198	
Co-worker support	-0.308**	-0.507 to -.109	-0.143	-0.409 to 0.124	
Self-efficacy	-0.322***	-0.449 to -0.196	-0.204**	-0.339 to -0.069	0.037
Work & time pressure	0.689**	0.229 to 1.149	0.044	-0.492 to 0.581	
Role ambiguity	0.381***	0.186 to 0.576	-0.018	-0.285 to 0.248	
Lack of meaningfulness	0.742***	0.349 to 1.135	0.275	-0.194 to 0.745	
Job insecurity	0.247†	-.021 to 0.515	0.053	-0.232 to 0.338	
Emotional demands	0.353***	0.174 to 0.533	0.350***	0.167 to 0.532	0.069
Recovery Based Practice	0.065†	-0.000 to 0.131	0.061*	0.003 to 0.118	0.021
Social Interface	0.026	-0.032 to 0.084	n.s.	-0.029 to 0.090	
Human Rights	-0.005	-0.079 to 0.069	n.s.	-0.122 to 0.045	
Treatments & Interventions	0.0007	-0.080 to 0.081	n.s.	-0.115 to 0.039	
Living Environment	0.038	-0.049 to 0.125	n.s.	-0.109 to 0.066	
Age			-0.078**	-0.127 to -0.029	
Gender (female)			-1.406*	-2.510 to -0.301	
Mental health qualification (yes)			0.310	-0.741 to 1.362	
Length of time in service			-0.021	-0.135 to 0.093	
Life events (any in previous 12m)			-0.825	-1.929 to 0.279	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Personal accomplishment (MBI)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size Cohen's f^2
	Coefficient	95% CI	Coefficient	95% CI	
			Full model $n=207$, $R^2 = 0.31$		
Skill discretion	0.570***	0.303 to 0.838	0.231	-0.111 to 0.574	
Decision authority	0.779***	0.322 to 1.237	0.142	-0.355 to 0.639	
Task control	0.081	-0.393 to 0.555	n.s.		
Supervisor support	0.242	-0.066 to 0.550	n.s.		
Co-worker support	0.401**	0.096 to 0.706	-0.189	-0.575 to 0.196	
Self-efficacy	0.553***	0.366 to 0.739	0.354***	0.153 to 0.555	0.141
Work & time pressure	-0.707†	-1.423 to 0.009	-0.133	-0.889 to 0.622	
Role ambiguity	-0.524***	-0.826 to -0.221	0.014	-0.373 to 0.401	
Lack of meaningfulness	-1.658***	-2.256 to -1.060	-1.260***	-1.953 to -0.567	0.061
Job insecurity	-0.191	-0.593 to 0.212	n.s.		
Emotional demands	-0.033	-0.326 to 0.260	n.s.		
Recovery Based Practice	-0.078†	-0.170 to 0.015	-0.053	-0.135 to -0.029	
Social Interface	0.018	-0.062 to 0.099	n.s.		
Human Rights	0.037	-0.065 to 0.139	n.s.		
Treatments & Interventions	0.074	-0.040 to 0.188	n.s.		
Living Environment	-0.013	-0.135 to 0.108	n.s.		
Age			0.037	-0.034 to 0.109	
Gender (female)			0.678	-0.963 to 2.320	
Mental health qualification (yes)			-0.109	-1.671 to 1.452	
Length of time in service			-0.037	-0.205 to 0.132	
Life events (any in previous 12m)			-0.564	-2.186 to 1.058	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Work engagement (UWES)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size Cohen's f^2
	Coefficient	95% CI	Coefficient	95% CI	
			Full model $n=205$, $R^2 = 0.45$		
Skill discretion	1.429***	1.082 to 1.775	0.810***	0.371 to 1.249	0.064
Decision authority	1.437***	0.803 to 2.071	0.103	-0.532 to 0.737	
Task control	0.333	-0.345 to 1.011	n.s.		
Supervisor support	0.914***	0.487 to 1.340	0.061	-0.378 to 0.499	
Co-worker support	1.065***	0.648 to 1.481	-0.224	-0.711 to 0.263	
Self-efficacy	0.877***	0.607 to 1.146	0.570***	0.314 to 0.827	0.092
Work & time pressure	-1.352**	-2.370 to -0.334	1.111*	0.086 to 2.136	0.022
Role ambiguity	-1.243***	-1.653 to -0.833	-0.008	-0.494 to 0.510	
Lack of meaningfulness	-3.423***	-4.208 to -2.639	-1.892***	-2.789 to -0.994	0.083
Job insecurity	-0.957***	-1.515 to -0.399	-0.485	-1.015 to 0.045	
Emotional demands	-0.554**	-0.957 to -0.151	-0.381*	-0.727 to -0.034	0.022
Recovery Based Practice	-0.025	-0.157 to 0.108	n.s.		
Social Interface	0.017	-0.096 to 0.131	n.s.		
Human Rights	-0.027	-0.173 to 0.119	n.s.		
Treatments & Interventions	-0.051	-0.213 to 0.111	n.s.		
Living Environment	0.086	-0.089 to 0.261	n.s.		
Age			0.087	-0.010 to 0.183	
Gender (female)			2.491*	0.387 to 4.594	
Mental health qualification (yes)			-1.780	-3.379 to 0.231	
Length of time in service			-0.618	-0.279 to 0.156	
Life events (any in previous 12m)			-1.507	-3.636 to 0.621	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Job satisfaction (extrinsic)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size Cohen's f^2
	Coefficient	95% CI	Coefficient	95% CI	
			Full model $n=206$, $R^2 = 0.69$		
Skill discretion	0.650***	0.479 to 0.821	0.076	-0.099 to 0.250	
Decision authority	0.965***	0.667 to 1.264	0.031	-0.224 to 0.286	
Task control	0.950***	0.641 to 1.259	0.280*	0.036 to 0.525	0.025
Supervisor support	1.185***	1.031 to 1.339	0.873***	0.702 to 1.044	0.486
Co-worker support	0.819***	0.626 to 1.012	0.001	-0.191 to 0.192	
Self-efficacy	0.258***	0.118 to 0.398	0.011	-0.088 to 0.110	
Work & time pressure	-1.807***	-2.261 to -1.353	-0.112	-0.525 to 0.301	
Role ambiguity	-0.828***	-1.015 to -0.641	-0.068	-0.263 to 0.128	
Lack of meaningfulness	-1.106***	-1.494 to -0.719	-0.205	-0.547 to 0.138	
Job insecurity	-1.023***	-1.296 to -0.751	-0.283**	-0.490 to -0.075	0.036
Emotional demands	-0.541***	-0.721 to -0.361	-0.299***	-0.432 to -0.166	0.095
Recovery Based Practice	0.009	-0.079 to 0.097	n.s.		
Social Interface	0.039	-0.039 to 0.117	n.s.		
Human Rights	-0.026	-0.126 to 0.074	n.s.		
Treatments & Interventions	0.014	-0.093 to 0.121	n.s.		
Living Environment	0.074	-0.039 to 0.187	n.s.		
Age			0.033	-0.003 to 0.069	
Gender (female)			-0.040	-0.847 to 0.768	
Mental health qualification (yes)			-1.450***	-2.222 to -0.678	
Length of time in service			-0.007	-0.090 to 0.077	
Life events (any in previous 12m)			-0.868*	-1.675 to -0.061	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Job satisfaction (intrinsic)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size
	Coefficient	95% CI	Coefficient	95% CI	
			<i>Full model n=205, R2 = 0.60</i>		
					<i>Cohen's f²</i>
Skill discretion	1.169***	0.939 to 1.398	0.461***	0.190 to 0.732	0.055
Decision authority	1.560***	1.148 to 1.973	0.214	-0.182 to 0.610	
Task control	1.456***	1.021 to 1.890	0.566**	0.181 to 0.951	0.043
Supervisor support	1.210***	0.945 to 1.475	0.388**	0.124 to 0.652	0.036
Co-worker support	1.263***	1.005 to 1.522	0.184	-0.114 to 0.481	
Self-efficacy	0.588***	0.400 to 0.777	0.229**	0.075 to 0.383	0.039
Work & time pressure	-2.211***	-2.885 to -1.537	0.341	-0.301 to 0.984	
Role ambiguity	-1.252***	-1.511 to -0.992	-0.050	-0.353 to 0.253	
Lack of meaningfulness	-2.191***	-2.725 to -1.657	-0.624*	-1.158 to -0.089	0.027
Job insecurity	-1.257***	-1.648 to -0.866	-0.409*	-0.729 to -0.090	0.031
Emotional demands	-0.583***	-0.857 to -0.310	-0.264*	-0.470 to -0.058	0.032
Recovery Based Practice	0.033	-0.077 to 0.144	n.s.		
Social Interface	0.009	-0.091 to 0.108	n.s.		
Human Rights	-0.049	-0.174 to 0.076	n.s.		
Treatments & Interventions	-0.021	-0.157 to 0.115	n.s.		
Living Environment	0.108	-0.033 to 0.249	n.s.		
Age			0.073**	0.017 to 0.130	
Gender (female)			0.321	-0.926 to 1.569	
Mental health qualification (yes)			-1.738**	-2.933 to -0.542	
Length of time in service			-0.098	-0.226 to 0.031	
Life events (any in previous 12m)			-1.273	-2.529 to -0.018	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Psychological distress (GHQ)	Unadjusted		Mutually adjusted (demands, resources, QuIRC-SA and demographics)		Effect size Cohen's f^2
	Coefficient	95% CI	Coefficient	95% CI	
			<i>Full model (n=209, R2 = 0.45)</i>		
Skill discretion	-0.549***	-0.789 to -0.309	0.016	-0.268 to 0.299	
Decision authority	-0.937***	-1.334 to -0.540	-0.269	-0.683 to 0.144	
Task control	-0.734***	-1.153 to -0.315	0.101	-0.300 to 0.503	
Supervisor support	-0.615***	-0.887 to -0.343	-0.128	-0.404 to 0.148	
Co-worker support	-0.695***	-0.960 to -0.429	-0.222	-0.535 to 0.091	
Self-efficacy	-0.712***	-0.869 to -0.554	-0.529***	-0.690 to -0.368	0.194
Work & time pressure	1.500***	0.881 to 2.119	-0.222	-0.882 to 0.439	
Role ambiguity	0.807***	0.550 to 1.064	-0.020	-0.337 to 0.298	
Lack of meaningfulness	1.376***	0.842 to 1.910	0.392	-0.172 to 0.957	
Job insecurity	0.681***	0.325 to 1.037	0.247	-0.089 to 0.582	
Emotional demands	0.679***	0.437 to 0.921	0.497***	0.278 to 0.717	0.095
Recovery Based Practice	0.050	-0.040 to 0.140	n.s.		
Social Interface	0.046	-0.031 to 0.123	n.s.		
Human Rights	0.071	-0.029 to 0.171	n.s.		
Treatments & Interventions	0.022	-0.088 to 0.132	n.s.		
Living Environment	-0.010	-0.128 to 0.109	n.s.		
Age			-0.063*	-0.122 to -0.004	
Gender (female)			0.983	-0.339 to 2.305	
Mental health qualification (yes)			0.505	-0.757 to 1.768	
Length of time in service			-0.019	-0.155 to 0.117	
Life events (any in previous 12m)			1.639*	0.308 to 2.970	

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Appendix 11: Mixed models (objective 3)

	Turnover (demands and resources)	Unadjusted		Mutually adjusted (significant demands and resources + demographics)	
				<i>Full model (n=202)</i>	
		<i>Odds ratio</i>	<i>95% CI</i>	<i>Odds ratio</i>	<i>95% CI</i>
Demands and Resources	Skill discretion	0.981	0.885 to 1.088	n.s.	
	Decision authority	0.918	0.773 to 1.090	n.s.	
	Task control	0.898	0.751 to 1.074	n.s.	
	Supervisor support	0.994	0.884 to 1.117	n.s.	
	Co-worker support	1.003	0.894 to 1.125	n.s.	
	Self-efficacy	0.978	0.909 to 1.053	n.s.	
	Work & time pressure	1.052	0.810 to 1.367	n.s.	
	Role ambiguity	1.053	0.941 to 1.180	n.s.	
	Lack of meaningfulness	1.204	0.953 to 1.521	n.s.	
	Job insecurity	0.986	0.845 to 1.149	n.s.	
Emotional demands	1.071	0.966 to 1.188	n.s.		
Demogr.	Age			0.964*	0.929 to 0.999
	Gender (female)			2.602*	1.098 to 6.167
	Mental health qualification (yes)			1.273	0.597 to 2.712
	Length of time in service			0.887*	0.794 to 0.992
	Turnover intentions			1.149*	1.053 to 1.254
	Caring responsibilities (yes)			1.830	0.849 to 3.941

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

	Sickness absence episodes (demands and resources)	Unadjusted		Mutually adjusted (significant demands and resources + demographics)	
				<i>Full model (n=154)</i>	
		<i>IRR</i>	<i>95% CI</i>	<i>IRR</i>	<i>95% CI</i>
Demands and Resources	Skill discretion	0.983	0.918 to 1.052	n.s.	
	Decision authority	0.989	0.907 to 1.078	n.s.	
	Task control	0.981	0.884 to 1.090	n.s.	
	Supervisor support	0.978	0.909 to 1.051	n.s.	
	Co-worker support	0.958	0.899 to 1.021	n.s.	
	Self-efficacy	0.974	0.928 to 1.022	n.s.	
	Work & time pressure	0.898	0.748 to 1.078	n.s.	
	Role ambiguity	1.056	0.984 to 1.133	n.s.	
	Lack of meaningfulness	1.089	0.966 to 1.228	n.s.	
	Job insecurity	1.046	0.939 to 1.166	n.s.	
Emotional demands	0.976	0.921 to 1.036	n.s.		
Demogr.	Age			0.980	0.958 to 1.002
	Gender (female)			0.994	0.612 to 1.615
	Mental health qualification (yes)			0.951	0.618 to 1.463
	Length of time in service			1.026	0.983 to 1.070
	Baseline episodes absence			1.256*	1.068 to 1.478
	Caring responsibilities (yes)			1.327	0.897 to 1.965

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

	Sickness absence days (demands and resources)	Unadjusted		Mutually adjusted (significant demands and resources + demographics)	
				<i>Final model (n=157)</i>	
		<i>IRR</i>	<i>95% CI</i>	<i>IRR</i>	<i>95% CI</i>
Demands and Resources	Skill discretion	1.060	0.976 to 1.151	n.s.	
	Decision authority	0.980	0.820 to 1.172	n.s.	
	Task control	0.956	0.827 to 1.105	n.s.	
	Supervisor support	1.051	0.935 to 1.181	n.s.	
	Co-worker support	1.088†	0.100 to 1.185	1.085	0.981 to 1.199
	Self-efficacy	1.031	0.964 to 1.102	n.s.	
	Work & time pressure	0.849	0.678 to 1.063	n.s.	
	Role ambiguity	1.001	0.914 to 1.096	n.s.	
	Lack of meaningfulness	0.090	0.752 to 1.052	n.s.	
	Job insecurity	0.981	0.882 to 1.091	n.s.	
	Emotional demands	1.039	0.961 to 1.119	n.s.	
Demogr.	Age			0.964*	0.938 to 0.990
	Gender (female)			1.048	0.592 to 1.854
	Mental health qualification (yes)			1.079	0.557 to 2.091
	Length of time in service			1.049	1.003 to 1.096
	Baseline days absence			0.991	0.945 to 1.038
	Caring responsibilities			1.329	0.765 to 2.310

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

	Turnover (morale)	Unadjusted		Mutually adjusted (significant morale variables + demographics)	
				<i>Full model (n=196)</i>	
		<i>Odds Ratio</i>	<i>95% CI</i>	<i>Odds Ratio</i>	<i>95% CI</i>
Morale	Emotional exhaustion	1.029*	1.001 to 1.059	1.010	0.974 to 1.048
	Depersonalisation	1.069†	0.992 to 1.153	n.s.	
	Personal accomplishment	0.997	0.950 to 1.046	n.s.	
	Engagement	0.981	0.948 to 1.015	n.s.	
	Job satisfaction (intrinsic)	0.944*	0.896 to 0.955	0.951	0.884 to 1.024
	Job satisfaction (extrinsic)	0.938†	0.874 to 1.008	n.s.	
	Psychological distress	1.042	0.987 to 1.100	n.s.	
Demogr.	Age			0.962*	0.926 to 0.999
	Gender (female)			3.363*	1.351 to 8.373
	Mental health qualification (yes)			1.248	0.577 to 2.699
	Length of time in service			0.858*	0.761 to 0.967
	Turnover intentions			1.095	0.986 to 1.215
	Caring responsibilities (yes)			2.266*	1.006 to 5.106

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

	Sickness absence episodes (morale)	Unadjusted		Mutually adjusted (significant morale variables + demographics)	
				<i>Final model (n=149)</i>	
		<i>IRR</i>	<i>95% CI</i>	<i>IRR</i>	<i>95% CI</i>
Morale	Emotional exhaustion	1.010	0.993 to 1.027	n.s.	
	Depersonalisation	1.042†	0.998 to 1.089	0.948	0.899 to 1.001
	Personal accomplishment	0.996	0.960 to 1.033	n.s.	
	Engagement	0.983*	0.966 to 1.000	0.986	0.962 to 1.011
	Job satisfaction (intrinsic)	0.969*	0.943 to 0.995	1.005	0.960 to 1.052
	Job satisfaction (extrinsic)	0.956*	0.917 to 0.996	0.965	0.910 to 1.023
	Psychological distress	1.024	0.984 to 1.066	n.s.	
Demogr.	Age			0.978*	0.957 to 0.999
	Gender (female)			0.988	0.618 to 1.579
	Mental health qualification (yes)			1.001	0.651 to 1.541
	Length of time in service			1.022	0.979 to 1.067
	Baseline episodes absence			1.253***	1.120 to 1.403
	Caring responsibilities (yes)			1.355	0.926 to 1.983

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

	Sickness absence days (morale)	Unadjusted		Mutually adjusted (significant morale variables + demographics)	
				<i>Final model (n=156)</i>	
		<i>IRR</i>	<i>95% CI</i>	<i>IRR</i>	<i>95% CI</i>
Morale	Emotional exhaustion	1.015	0.994 to 1.038	n.s.	
	Depersonalisation	1.018	0.952 to 1.088	n.s.	
	Personal accomplishment	1.062*	1.016 to 1.111	1.083***	1.040 to 1.127
	Engagement	0.998	0.974 to 1.023	n.s.	
	Job satisfaction (intrinsic)	0.976	0.937 to 1.016	n.s.	
	Job satisfaction (extrinsic)	0.971	0.912 to 1.034	n.s.	
	Psychological ill-health	1.008	0.968 to 1.051	n.s.	
Demogr.	Age			0.953***	0.932 to 0.975
	Gender (female)			1.115	0.702 to 1.769
	Mental health qualification (yes)			1.136	0.653 to 1.974
	Length of time in service			1.049	1.004 to 1.096
	Baseline days absence			0.993	0.969 to 1.018
	Caring responsibilities (yes)			1.159	0.686 to 1.958

† $p \leq 0.1$; * $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

n.s. not significant in univariate analysis; not included in final model

Appendix 12: QuIRC-SA items for recovery based practice domain

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