

# **Examining Antecedents and Outcomes to Develop a Holistic Understanding of Loneliness in Work**

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In memory of Donald, Leonard, and Poppy.

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## **Abstract**

The overarching research purpose is to develop a more robust and comprehensive understanding of loneliness in work using a mixed methods research design. This research is timely and of great importance; the challenges of loneliness in work are increasingly salient due to global technological advancements and digitalisation, and their major impact on how work is designed, managed, and organised (EC, 2022; EESC, 2017; ILO, 2022; OECD, 2019). These pre-existing long-term dynamics towards the expansion of alternative forms of work, including remote work and hybrid work, have been further exacerbated by the Covid-19 pandemic (Cigna, 2020; OECD 2021; Makey et al., 2024; Niebuhr et al., 2022). Overall, notions of flexibility have been recast with the latest Office for National Statistics (henceforth, ONS) working arrangements report survey suggesting that 14 percent of UK workers work remotely, and 26 percent work in a hybrid fashion (ONS, 2024a). Globally, by the year 2030, the prediction is that workers who perform their jobs in an entirely remote capacity will increase by 25 percent, and reach a total of 92 million remote workers (Masterson, 2024). The increased prevalence of loneliness in work is a direct consequence of this significant increase in remote working (Groarke et al., 2020).

The pertinence of this research is amplified by a robust stream of empirical evidence that indicates that feelings of loneliness are associated with diminished mental health and well-being (Perlman and Peplau, 1984), depression (Cacioppo et al., 2010; Erzen and Çikrikci, 2018), heart disease (Valtorta et al., 2016), suicidal ideation (Killgore et al., 2020), and mortality (Shiovitz-Ezra and Ayalon, 2010; Sugisawa et al., 1994), amongst others at the individual level. Additionally, at the organisational level, workplace loneliness “leads to increases in the intention of employees to quit, organisational cynicism, and organisation alienation” (Deniz, 2019: 216), thereby affecting organisational performance. Attention thus far, has been directed to addressing loneliness at the societal level in the case of vulnerable groups (i.e., the elderly, disabled, and people in care) (Macdonald et al., 2021; Ortiz-Ospina and Roser,

2020); the challenges posed by loneliness in work remain underexplored. The structural nature of global societal changes in remote working and the increasing prevalence of loneliness underscore the pressing need to conceptualise loneliness in work. This research contributes to a holistic understanding of the antecedents of loneliness in work, an empirically tested process model of loneliness in work, and an understanding of how individuals' experiences of loneliness in work might lead to pathways of health or ill-health at the individual, organisational, and societal levels (Peplau and Perlman, 1979).

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# Chapter 1: Introduction to Loneliness in Work in the United Kingdom

## 1.1 Introduction

Organisations in the United Kingdom (henceforth, UK) are becoming increasingly concerned about employees' mental health and well-being with the term 'sick note culture' garnering recent attention in the media (Schollar and McAnulty, 2024). An ONS report suggests that in 2022, 185.6 million working days were lost in the UK through sickness or injury which was a record high (ONS, 2022a). The latest figures for employment levels suggest that the number of people in employment in the UK is 33 million (Francis-Devine and Powell, 2024), and "there was a peak of 2.83 million people not working due to long-term sickness in the UK in April 2024" (Clark, 2024: 1). Further, 9.38 million people aged 16 to 64 are economically inactive (Francis-Devine and Powell, 2024). Wider societal questions are, therefore, being posed, including how the mental health and well-being epidemic can be managed alongside the necessary organisational productivity and profitability. Further, questions remain as to how those who are economically inactive but of working age can be attracted back into the workforce as "unemployment is associated with decreased psychological well-being and increased psychological stress" (Modini et al., 2016: 332).

"Whilst the literature on mental health in the workplace largely focuses on the negative impacts of work and how work may contribute to the development of mental disorders" (Modini et al., 2016: 331), it is important to discuss the potential benefits an individual can experience of being in employment. "Employment meets important psychosocial needs and is able to facilitate recovery from mental ill-health" (Modini et al., 2016: 332) through the provision of financial security, a sense of worth, increased self-esteem, a supportive network of colleagues, a daily structure, and the promotion social interaction (Honey, 2004; Modini et al., 2016). Given these benefits of employment, it is critical to help unemployed individuals to return to the workforce which could be "either by

macro-economic policies and programs for retraining and placement in existing jobs or by community interventions to promote effective job search to facilitate regaining high quality paid work” (Vinokur and Price, 2015: 171).

Having discussed the benefits of employment in relation to an individual’s mental health and well-being, the potential negative implications of employment on an individual’s mental health and well-being also need to be considered. It follows that the central research theme in this thesis is loneliness in the context of work; loneliness is a concept that is “increasingly recognised as an important determinant of mental health” (Klein et al., 2021: 1). More widely in society in the UK, 7.1 percent of the population are estimated to experience chronic loneliness (they often or always feel lonely); and 49.63 percent, which equates to 25.99 million individuals, who feel lonely occasionally, sometimes, or always (Campaign to End Loneliness, 2023). Within the context of work, “a conservative estimate suggests just over one million workers experience loneliness in the UK” (New Economics Foundation, 2017: iv). Another estimate suggests that one in ten UK workers experience loneliness in work (Jopling et al., 2023) which, in line with the estimated working population of 33 million (Francis-Devine and Powell, 2024), would suggest that 3.3 million employees experience loneliness in work. Whilst the exact prevalence of loneliness is difficult to determine, to quantify the costs of loneliness in work for organisations, four pathways regarding the impact of loneliness have been identified (New Economics Foundation, 2017):

1. The impact of loneliness on employee health outcomes, and associated sickness absence – estimated at £20 million.
2. The impact of loneliness on the health of those who are cared for by individuals who are in work, and the associated costs to employers of employees undertaking these caring activities – estimated at £220 million.
3. The impact of loneliness on employee well-being, and costs to the organisation of lower productivity – estimated at £665 million.
4. The impact of loneliness on employee well-being, and organisational costs associated with voluntary staff turnover – estimated at £1.62 billion.

Whilst the organisational costs of loneliness in work have been discussed, there are significant impacts on individuals' mental health and well-being ranging from depressive symptoms to suicidal ideation (Cacioppo et al., 2010; Erzen and Çikrikci, 2018; Killgore et al., 2020; Shiovitz-Ezra and Ayalon, 2010; Sugisawa et al., 1994; Valtorta et al., 2016). The potential impacts of loneliness in work at both the individual and organisational levels are more broadly recognised; however, the study of the specific antecedents of loneliness in work is still in its infancy.

Further, the rapid rise in remote and hybrid work arrangements during and in the wake of the Covid-19 pandemic have seen a structural shift in how the UK workforce is composed (Miyake, 2021). Whilst these changes were necessary during the pandemic, "many Human Resources departments did not have well-developed policies or procedures to govern remote work or prior experience with managing remote employees" (Becker et al., 2022: 450), and therefore, they are currently grappling with remote work and hybrid work policies and decision-making. The challenges of loneliness in work are increasingly salient due to global technological advancements and digitalisation, and their major impact on how work is designed, managed, and organised (EC, 2022; EESC, 2017; ILO, 2022; OECD, 2019).

Considering this context, the main purpose of this thesis is twofold. Firstly, this research seeks to more broadly conceptualise loneliness in work, by strengthening the theoretical links between loneliness in work, its potential antecedents, and its potential outcomes both at the individual and organisational levels. Secondly, this thesis pursues a better understanding of the organisational and governmental policies and practices that positively impact loneliness in work, thereby improving individuals' experiences in the workplace. The overall research design is presented in chapter three, the three studies are presented in chapters four to six, and the final chapter combines the results from the three studies to identify opportunities, challenges, and future pathways for research.

In this first chapter, the central concepts in this thesis will be introduced, and the research problem within which the thesis is framed will be presented. The chapter begins by defining four central concepts: loneliness in work, the psychosocial work environment, employee well-being, and job performance. Next, the research context is delineated through a discussion of the UK Government's annual loneliness strategies, and the rapid increase in hybrid working experienced during and since the Covid-19 pandemic. Following this, the key arguments supporting the research are articulated, and the structure of the thesis is provided.

## **1.2 Defining Central Concepts**

Loneliness in work is the concept that is at the core of this thesis. Alongside loneliness in work, there are three other central concepts which will also be defined: the psychosocial work environment; employee well-being; and job performance.

### **1.2.1 Loneliness**

“Humans are inherently social” (Lam and Lau, 2012: 4265), and interaction with others is imperative in ensuring social esteem, feelings of connectedness, and belonging which are linked to attachment theory (Firoz et al., 2020; Maslow, 1943). “Attachment theory provides a strong psychological base for understanding loneliness. It states that individuals have a strong need for social connection and assumes loneliness to be an outgrowth of relational deficits” (Firoz et al., 2020: 762). Loneliness is viewed as a complex construct and a universal phenomenon (Rokach, 2012) that includes three related dimensions: intimate loneliness, relational loneliness, and collective loneliness (Hawkey et al., 2005; Hawkey et al., 2012). These three dimensions reflect the three dimensions of attentional space (Hall, 1963). Intimate loneliness corresponds to Dunbar's (2014) inner core and those with whom one has an intimate connection, for example a spouse or partner; studies suggest that those with a

partner or spouse experience lower levels of intimate loneliness (Cacioppo et al., 2015; Russell, 1982). Relational loneliness can refer to a breakdown in human social interaction and the quality of social relationships (Cacioppo et al., 2006; McWhirter, 1990); the relational group comprises close friends and family members (Dunbar, 2014). Collective loneliness “refers to a person’s valued social identities or active network wherein an individual can connect to similar others at a distance in the collective space” (Cacioppo et al., 2015: 241).

Loneliness is viewed as “a discrepancy between one’s desired and achieved levels of social relations” (Perlman and Peplau, 1981: 32); the emphasis on loneliness is negative. Characteristics of loneliness have been developed by scholars and it is often defined as a distressing and unpleasant experience (Weiss, 1973; McWhirter, 1990; Perlman and Peplau, 1981; Rolheiser, 1979). Perlman and Peplau argue that there are two further characteristics of loneliness: it can be a result of deficiencies in personal relations, and it is a subjective phenomenon meaning that people will experience loneliness in different ways (Perlman and Peplau, 1981). Tzouvara et al. researched in the field of nursing and support the notion of the subjectivity of loneliness; “people who choose to be socially isolated might not feel lonely, and people who feel lonely might not be socially isolated” (Tzouvara et al., 2015: 330). Thus, as Rosedale expresses, loneliness has dual states; experiences of loneliness vary from individual to individual “on a continuum from positive to negative” (Rosedale, 2007: 207). Moustakas (1961) supports this notion; he argues that loneliness anxiety is the negative form, and existential loneliness is the positive form. Moreover, loneliness is experienced by all humans at some point in their lifetime and it is said to have a universal quality; “no person has ever walked our earth and been free from the pain of loneliness” (Rolheiser, 1979: 9).

On the other hand, early discussions regarding the ancient concept of loneliness were led by philosophers who primarily wrote about positive loneliness (de Jong Gierveld, 1998). This construct is observable in the German term *Einsamkeit* which was widely used in German literature until 1945; the word denotes “a

voluntary withdrawal from the daily hassles of life, and orientated to higher goals, such as reflection, meditation and communication with God” (de Jong Gierveld, 1998: 73). The voluntaristic nature of this loneliness is critical in understanding its positive manifestations. In the philosophical school of thought, loneliness is seen as “an essential part of the human condition” (Rosedale, 2007: 203). This notion is positive; loneliness allows time for reflection and self-discovery, which ultimately leads to finding freedom (Heidegger, 1962). The philosophical perspective suggests that the inner struggle to overcome loneliness is crucial in the process of self-discovery. Consequently, loneliness provides individuals with the opportunity to pursue meaning in life and to be open to new possibilities.

It is also important to delineate the difference between loneliness and three related terms that have separate, distinct meanings: social isolation; solitude; and aloneness. “In general, aloneness, isolation, and solitude tend to refer to the objective characteristics of a social environment, whereas loneliness is based on an individual’s perception” (Wright, 2006: 59). Some scholars argue that there is a paradox of solitude; “being alone is still most often portrayed as an undesirable state with negative implications for well-being” (Caplan et al., 2019); however, potential benefits of being alone include time for self-exploration (Goossens, 2014; Heidegger, 1962), and creativity (Csikszentmihalyi, 1996).

### **1.2.2 Loneliness in work**

Whilst section 1.2.1 provides an overview of general definitions of loneliness, this section focuses on the definition of loneliness in the specific context of work. The notion of loneliness dominating current managerial literature is fundamentally negative (Bradburn, 1969; McWhirter, 1990; Perlman and Peplau, 1981; Weiss, 1973; Wright and Silard, 2021). More specifically, three characteristics pertaining, respectively, to the emotional, relational and subjective sphere, are regarded as critical. First, loneliness in work has largely been addressed from a social psychology perspective that privileges an attributional approach. For example, Michaela and colleagues’ study identified 13 “underlying perceptions of the causes for loneliness” (1982, p. 929), including shyness, impersonal

situations, and a lack of opportunities, which can be interpreted using two dimensions: internalities versus externalities, and stabilities versus instabilities.

Second, loneliness can be a result of deficiencies in personal relations (Perlman and Peplau, 1981). Two relational dimensions – i.e., relational loneliness and collective loneliness (see section 1.2.1) – are directly linked to the work-related social network (Hawkley et al., 2005; Hawkley et al., 2012). Relational loneliness could be experienced in the context of work due to a breakdown in human social interaction because of a perceived lack of quality of social relationships with close friends (Cacioppo et al., 2006; Dunbar, 2014; McWhirter, 1990). Collective loneliness could be experienced in the context of work when an employee struggles to join a network and connect to those with similar outlooks and interests in the collective work environment (Cacioppo et al., 2015).

Third, loneliness can be subjective, meaning that it is contingent upon the individual experience in work (Hsieh and Hawkley, 2018; Ozceijk and Barsade, 2018; Perlman and Peplau, 1981; Rolheiser, 1979; Tzouvara et al., 2015). Experiences of loneliness in work vary along a continuum from loneliness anxiety (negative) to existential loneliness (positive) (Moustakas, 1961) and will be different from employee to employee (Rosedale, 2007). The external condition of being alone is a neutral state and it is the employee's cognitive interpretation of this state which determines ensuing emotions (Lazarus, 1991; Scherer, 1984).

### **1.2.3 Psychosocial work environment, work-related psychosocial hazards and work-related psychosocial factors**

The psychosocial work environment, a term first used in 1982 (Alfredsson et al., 1982), is “a broad concept that basically refers to how the individual experiences and responds to his or her surroundings” (Rugulies, 2019: 1) at work.

The dominant research on loneliness in work adopts a psychological perspective that emphasises the negative aspects of the psychosocial work environment (Cacioppo et al., 2006; Dunbar, 2014; McWhirter, 1990) through the notion of



work-related psychosocial hazards: employment and working conditions “have the potential to cause harm to individual health and safety as well as other adverse organizational outcomes such as sickness absence, reduced productivity or human error” (Leka et al., 2017, p. 1). Psychosocial risk factors, collectively referred to as psychosocial hazards, include:

“shift work, sleep deprivation, multiple and urgent cognitive demands, critical incidents, lack of equipment or poorly designed/maintained equipment, changing environments, tedium, interpersonal conflict, interactions with the public/victims, lack of autonomy, poor supervision/support, role conflicts, and work-family balance” (Larivière et al., 2016: 227).

A broader conceptualisation of the psychosocial work environment is comprised of psychosocial factors; “aspects of work organisation, design and management that include, among others, work demands, the availability of organizational support, rewards, and interpersonal relationships in the workplace” (Leka et al., 2017: 1). These psychosocial factors do not carry positive or negative connotations; they are “experienced by the individual and elicit cognitive and emotional processes” (Rugulies, 2019: 3). Ten work-related psychosocial factors are recognised in the literature (Leka et al., 2017):

1. The organisational culture and function
2. Job content
3. Workload and work pace
4. Work schedule
5. Control
6. Environment and equipment
7. Interpersonal relationships at work
8. Role in organisation
9. Career development
10. The home-work interface

For example, an individual could perceive their interpersonal relationships at work negatively if they experience social isolation, they have poor relationships

with superiors, or they experience harassment or violence in the workplace (Leka et al., 2017). Conversely, positive connotations of interpersonal relationships at work could be generated through strong relationships, good teamwork and appropriate policies and practices to deal with conflicts (Leka et al., 2017).

The ten factors and their sub-dimensions are explained in more detail in the following. The first factor, the organisational culture and function, includes the key sub-dimensions of organisational communication processes, the psychosocial safety climate, clear organisational objectives, appropriate support for problem solving, and personal development. “Most work is not objectively lonely, but organisations may fail to meet people’s social and emotional expectations” (Oljemark, 2023: 31). The organisational values should align with the key issues of concern for employees and organisational value statements must be clearly articulated, convincing, and unambiguous (DCMS, 2021; Miller and Yu, 2003). Additionally, organisational values that aid in establishing social norms that help orientate employees towards the kinds of behaviour that will lead to a climate of trust, belonging, and shared values, are seen as advantageous (Miller and Yu, 2003). In demonstrating, living, and breathing the organisational values, “leaders are important for role modelling and engaging, managers are important for embedding and reinforcing, and employees are important for empowering and reciprocating” (Harvey et al, 2022: 19); all employees in an organisation’s hierarchy have an important role to play. To create a caring, nurturing organisational culture, well-being champions (henceforth, WCs) are recommended by the UK Government as a good way of ensuring that employee well-being is monitored and kept at the top of the agenda within an organisation (DCMS, 2021).

The second factor, job content, includes the sub-dimensions of interesting work, the meaningfulness of work, and the use of an employee’s skills (Leka et al., 2017). The term ‘boreout’ was coined during the Covid-19 pandemic and has been used in the discussion of ascertaining whether employees are experiencing chronic boredom which arises through a perceived meaninglessness of work, or

burnout, which arises through long working hours and a poor work-life balance (Lufkin, 2021). A poor work environment and being underchallenged in one's job are two factors linked to chronic boredom which are linked to various consequences at the individual and organisational levels, including increased employee turnover, early retirement intention, symptoms of stress, and poor self-rated health (Harju et al., 2014).

The third factor, workload and work pace, includes the sub-dimensions of the time to complete work tasks, and reasonable deadlines. Work has become increasingly demanding, and "employees are often being required to work beyond their contracted hours due to tight deadlines and understaffing" (Roelen et al., 2009: 1107). Turan's (2019) research reports a strong correlation between workload and time pressure and burnout, and loneliness is proposed as a mediator in this relationship; however, this has not been empirically tested. Zhao and colleagues (2023) propose that individuals have their own capacity zone, which is the amount of work that they can complete within their allocated working hours. The challenge is how work tasks can be allocated to meet organisational requirements, whilst balancing employees' capacities and subsequent mental health and well-being outcomes (Zhao et al., 2023).

The fourth factor, work schedule, includes the sub-dimensions of shift patterns, working hours, and flexibility. The association between loneliness and temporary work has been studied, and employees who are employed on temporary contracts experience higher levels of loneliness in work compared to employees on permanent contracts (Moens et al., 2021). On the other hand, increased flexibility around work location (i.e., on-site versus remote) and increased flexibility around working hours (i.e., working 'core hours', for example 10am to 4pm, with flexibility to work another two hours earlier or later to suit the employee) are seen as "beneficial for employee well-being and productivity" (Becker et al., 2022: 459).

The fifth factor, control, includes the sub-dimensions of decision-making ability and autonomy. Job autonomy “fulfils employees’ basic psychological needs, enabling them to act based on intrinsic motivation” (Yan et al., 2024: 4); in other words, the power to make decisions can stimulate an employee’s motivation and enthusiasm at work. Yan and colleagues’ (2024) study concludes that “granting employees greater autonomy can enhance work productivity” (Yan et al., 2024: 13), and the study also suggested that “job autonomy can mitigate the negative impact of workplace loneliness” (Yan et al., 2024: 13). Organisations, therefore, should allow employees some scope within their roles to tailor their work to their needs and interests, allowing them to work more independently which can lead to positive performance outcomes (Nesheim et al., 2017).

The sixth factor, the environment and equipment, encompasses the physical and environmental working conditions, including space, lighting, and noise. Public Health England (2015) published a report on the impact of particular elements of the physical work environment on employee well-being, “specifically the office layout, office furniture, workplace lighting and temperature, and employee control over their work environment” (2015: 4). Findings from the report include the importance of office design: whilst open plan offices increase collaboration, quiet spaces need to be integrated for privacy and concentration (Public Health England, 2015). Furthermore, by law, employers must do a Display Screen Equipment (DSE) workstation assessment for employees who use DSE (i.e., laptops, PCs, tablets, and smartphones) frequently (Health and Safety Executive, 2024a). The workstation assessment includes a review of the employee’s workstation (i.e., equipment, furniture and work conditions) and any special requirements the employee may need (i.e., support for employees with a disability) (Health and Safety Executive, 2024b). Employers must conduct a new workstation assessment at key points in the employee lifecycle: when a new workstation is set up; when a new employee starts work; when a change is made to an existing workstation; and when an employee is experiencing pain or discomfort (Health and Safety Executive, 2024b).

The seventh factor, interpersonal relationships at work, encompasses the sub-dimensions of teamwork, social support, conflict at work, and relationships with colleagues and superiors. “The quality of the social connections is found to have a crucial impact on how the employees perceive and connect with their organisations” (Turan, 2019: 1601). Interpersonal relationships at work are characterised by the key roles of supervisor support and support from colleagues. “Supervisors have a well-established role at the workplace and their actions can influence the well-being of employees” (Stoica et al., 2014: 104). Good relationships with colleagues and more specifically, “comradeship, can help build morale in an organisation, effectively producing more loyal, productive employees” (Wright, 2005 : 126). Furthermore, comradeship helps to foster a warm organisational environment; beneficial for the employees and organisation alike (Wright, 2005). On the other hand, an “unsatisfactory social relationship is important for organisations due to its adverse impact on workers’ performance” (Lam and Lau, 2012: 4277), as well as their well-being (Basit and Nauman, 2023; Mohapatra et al., 2020), fostering a cold organisational climate (Wright, 2005).

The eighth factor, the role in the organisation, includes the sub-dimensions of clear roles and responsibilities, and support to meet individual and organisational objectives. Karkkola and colleagues’ research suggests “that the role clarity is associated with subjective vitality at work through higher autonomy and higher competence, and that role conflict is negatively associated with subjective vitality at work through lower autonomy and lower relatedness” (2019: 456). Moreover, low role clarity has been associated with higher rates of very long sickness absences, compared to high role clarity (Väänänen et al., 2004).

The ninth factor, career development, includes the sub-dimensions of career prospects, job security, and reward. Reward and recognition are crucial in employees’ experiences at work: “by acknowledging the importance of recognition, organisations could choose to develop strategies to enhance employees’ self-esteem and reduce loneliness” (Oljemark, 2023: 160). This directly feeds into two other work-related psychosocial factors, the

organisational culture and function, and interpersonal relationships at work, because a culture of appreciation and managers who can recognise and reward employees' contributions are the two critical steps in recognising and rewarding employees. Furthermore, job insecurity has been linked to higher rates of loneliness which is also linked to higher rates of depression (Kalil et al., 2010). Those who are less confident in their career prospects are also at a greater risk of experiencing loneliness, which again is linked to an increased likelihood of mental health and well-being challenges (Matthews et al., 2018).

The tenth factor, the home-work interface, includes the sub-dimensions of supportive organisational policies (i.e., hybrid and remote work policies), and work-life balance. "Life balance policies are beneficial for individuals, their families, organisations and society" (Brough et al., 2008: 261). Evidence suggests that the demand work has on an individual's time is increasing: "the evidence from the UK, which has the longest working hours in Europe, shows that while the average number of hours worked has been steady for the past 20 years, the proportion working more than 48 hours has increased in the past decade" (Guest, 2002: 257). Long work hours are synonymous with work-life conflict (Byron, 2005; Skinner and Pocock, 2008), "which occurs when work demands generate pressure interfering with one's personal life" (Huo and Jiang, 2023: 2). Whilst the work-conflict theory is one theory associated with work-life balance, the other is work-life enrichment theory (Khan and Fazili, 2016). Work-life enrichment theory suggests that "individuals in highly engaging, interesting and fulfilling jobs may choose and enjoy long hours" (Skinner and Pocock, 2008: 305). Work-life enrichment theory, therefore, assesses the extent to which an employee's experiences at work improves their quality of life outside of work which will vary from individual to individual (Greenhaus and Powell, 2006).

The importance of psychosocial factors at work for the well-being of employees is documented in existing literature, with a particular focus on the risks associated in cases where work-related psychosocial factors have had negative implications for employees. Studies have drawn parallels between psychosocial

risks and cardiovascular disease (Everson-Rose and Lewis, 2005), depression (Leka et al., 2017; Netterstrøm et al., 2008), and musculoskeletal pain (Freimann et al., 2016), and these are all factors which create an adverse work environment. However, existing research does not focus on the positive connotations of work-related psychosocial factors for employees, despite some recognition that good relationships and team dynamics are crucial for individual and organisational health and performance (Leka and Jain, 2019).

#### **1.2.4 Employee well-being**

The Chartered Institute of Personnel and Development (henceforth, CIPD) supports the notion that employers “have a fundamental duty of care for the health, safety, and welfare of their workers” (2024: 3), and employee well-being should be a fundamental element of all Human Resources (henceforth, HR) strategies and reflected in the way an organisation operates. Well-being, like loneliness, is considered to be a subjective concept (Waddell and Burton, 2006), and research suggests that there are three core components in evaluating one’s well-being: “high levels of positive affect, low levels of negative affect, and a cognitive evaluation of one’s satisfaction with their life as a whole” (Page and Vella-Brodrick, 2008: 443). The cognitive evaluation of an individual’s satisfaction with their life occurs through their sensemaking processes (see section 2.4). Further, employee well-being is defined as “that part of an employee’s overall well-being that they perceive to be determined primarily by work and can be influenced by workplace interventions” (Juniper, 2011: 25).

#### **1.2.5 Job performance**

Job performance is predicated on the fundamental elements of human resource management: employees are selected from a pool of applicants due to the likelihood that they will perform better in the role than others (Viswesvaran and Ones, 2000). Job performance, for the purposes of this research, is defined as “scalable actions, behaviours and outcomes that employees engage in or bring about that are linked with and contribute to organisational goals” (Viswesvaran and Ones, 2000: 216). A heuristic framework of individual work performance,

defined as “behaviours or actions that are relevant to the goals of the organisation” (Campbell, 1990: 704), is proposed, which consists of three dimensions: task performance (TP), contextual performance (CWP), and counterproductive work behaviour (CPWB) (Ramos-Villagrasa et al., 2019). TP is focused upon the work behaviours demonstrated in contributing to the provision of a service or the production of a good (Ramos-Villagrasa et al., 2019), and is defined as “the proficiency with which individuals perform the core substantive or technical tasks central to his or her job” (Koopmans et al., 2014: 1). CWP is focused upon the employee behaviours that contribute to a positive social and psychological work environment; otherwise known as organisational citizenship behaviour (Koopmans et al., 2013; Ramos-Villagrasa et al., 2019). CWP is defined as the “behaviours that support the organizational, social and psychological environment in which the technical core must function” (Koopmans et al., 2014: 1). CPWB is defined as “behaviour that harms the well-being of the organization” (Koopmans et al., 2014: 1).

### **1.3 Delineating the Context: Loneliness in Work in the United Kingdom**

#### **1.3.1 The UK Government’s loneliness strategy and annual loneliness reports**

The first important part of the research context lies in an appreciation of the work being undertaken at the societal level in relation to loneliness in work. The information provided in this chapter is predicated on the work undertaken by the Conservative Government which was in power until the 4<sup>th</sup> July, 2024 (Cracknell et al., 2024). An annual loneliness strategy was introduced in 2018 by the Conservative Government, led by Theresa May, due to the rising importance of loneliness in the UK population seen at a national level (Gov.UK, 2018a). Following the strategy, loneliness annual reports have been published since 2020, and the first edition documented a prevalence of loneliness of somewhere



between six and 18 percent of the UK population (i.e., the prevalence in the general population, not specifically in the context of work) (Department for Culture, Media, and Sport (henceforth, DCMS), 2018). In the loneliness strategy, it is stated that the UK Government aims to reduce loneliness in three ways by: reducing the stigma associated with loneliness; driving a lasting shift so that loneliness is considered in policymaking; and, improving the evidence base on loneliness to ensure access to information, including the provision of compelling cases for action, and enabling informed decisions on how to deal with loneliness (DCMS, 2018). In order to achieve these goals, the UK Government needs to work with key stakeholders in society, one of which is employers; the information from the loneliness annual reports needs to be filtered through to organisations effectively to enable action to be taken.

In the most recent loneliness annual report (DCMS, 2023), UK Government departments made commitments for the next two years for the work they will continue to do to tackle loneliness. The Department for Business and Trade recognises that “employment can be a vital lifeline for social contact” (DCMS, 2023: 43) and the department has committed to increase workforce participation, protect vulnerable workers, and support business confidence (DCMS, 2023). The Department of Health and Social Care has set out to improve the “understanding of the links between loneliness and suicide and how to tackle it” (DCMS, 2023: 30), as well as supporting initiatives to reduce health inequalities and supporting carers to participate in physical activity (DCMS, 2023). Further, the Department of Science, Innovation, and Technology is working to “explore the relationship between internet usage and loneliness over the next two years to better understand the positive and negative impact of connecting online” (DCMS, 2023: 29). Whilst the selected areas are most closely related to this thesis, numerous departments have set aims in the loneliness report including the Department for Culture, Media, and Sport, the Department for Environment, Food, and Rural Affairs, the Department for Education, the Department for Transport, the Office for Veterans’ Affairs, the Ministry of Housing, Communities and Local Government (prior to the 4 July, 2024, this

department was known as the Department for Levelling Up, Housing and Communities), the Department for Work and Pensions, the Home Office, and the Ministry of Justice.

Alongside the loneliness strategy and annual reports, the UK Government has appointed a Minister for Loneliness for the past six years. This role was first undertaken by Dame Tracey Crouch in 2018, followed by Mims Davies MP, Baroness Barran MBE, and up until the July 2024 election, by Stuart Andrew MP. The project to appoint a Minister for Loneliness was pioneered by the late MP, Jo Cox, who recognised the prevalence of loneliness in the UK, and this work has continued in her legacy (Gov.UK, 2018*b*). To date, most of the work by the Ministers for Loneliness has been in improving the understanding of loneliness, and “loneliness is a factor that has to be considered [...] key tasks (are put) to each department to think about what measures might help tackle loneliness in the development of each policy” (Chakelian, 2024: 4). It is unclear whether a Minister for Loneliness will be appointed in the new Labour Government; an appointment has not been made as at the 7<sup>th</sup> August, 2024 (The Labour Party, 2024). The role of Minister for Loneliness previously sat within the civil society and youth brief within the DCMS in the Conservative Government (Preston, 2024) and Stephanie Peacock MP is confirmed to hold this position in the new Labour Government as at the 7<sup>th</sup> August, 2024 (Preston, 2024). However, reassurance that loneliness is still included as a named issue in the civil society and youth brief, and the clarification on whether there will be an appointment of a Minister for Loneliness is still being sought as at the 7<sup>th</sup> August, 2024 (Preston, 2024).

Several charity organisations play a pivotal role in working towards improving loneliness in the UK context alongside the All-Party Parliamentary Group on Tackling Loneliness and Connected Communities, a cross-party group of ten MPs and peers which supports action and research on loneliness in the UK (as at the 6<sup>th</sup> March, 2024) (Parliament UK, 2024). The British Red Cross, alongside the help of the All-Party Parliamentary Group, published a report entitled ‘Loneliness in Work’ (2023) to “hold the Government to account for delivering against its

ground-breaking cross-departmental strategy for tackling loneliness” (Jopling et al., 2023: 7). This report includes a call to action for employers; “employers need to listen to what their workers want and ensure that their workplace cultures are designed to respect and support their colleagues’ relationship needs” (Jopling et al., 2023: 11). Age UK also conduct research into loneliness and have published loneliness heat maps to show the areas of the UK (across 32,844 neighbourhoods) with the highest risk of loneliness (Age UK, 2024), as well as research on the importance of digital inclusion amongst older people in combatting loneliness (Age UK, 2020).

Despite the positive work being undertaken by the organisations discussed above, there is some cause for concern particularly in the closure of charity organisations dedicated to the area of loneliness. The Jo Cox Foundation, a Foundation created to continue Jo Cox MP’s work, seeks to “nurture stronger communities, champion respect in politics, and advocate for a fairer world” (The Jo Cox Foundation, 2024a: 3). The Connection Coalition was formed as a sub-organisation of the Jo Cox Foundation in April 2020 to fight loneliness and social isolation; an important part of the goal of creating “less lonely, better-connected communities across the UK, where everyone feels that they belong” (The Jo Cox Foundation, 2024b: 4). The Connection Coalition was closed in June 2024 as funding expired (The Jo Cox Foundation, 2024b). The Campaign to End Loneliness, founded in 2011 “to highlight the health impacts of loneliness in people of all ages, bringing together research, policy and practice to catalyse action” (Campaign to End Loneliness, 2024), was transferred to the Centre for Loneliness Studies at Sheffield Hallam University in May 2024 (Sheffield Hallam University, 2024) due to financial constraints. Furthermore, The Cares Family, a group of charities located in London and the north-west of England closed in October 2023 due to insolvency (North London Cares, 2023). These closures and financial struggles, alongside the uncertainty of the future of a dedicated Minister for Loneliness in the UK Government, have happened at a time where the prevalence of loneliness is not any lower than when the organisations were created, which is a cause of concern (ONS, 2024b).

### **1.3.2 Rapid increase in hybrid working**

The second important element in understanding the context of loneliness in work in the UK is the rapid increase in remote and hybrid working that has been experienced in the wake of the Covid-19 pandemic which is said to have “revolutionised employers’ attitudes towards flexible working arrangements” (Knight et al., 2022: 4), and to have “accelerated the pace of digitalisation” (Jain, 2021: 1). Digitalisation “is the use of digital technologies and data as well as interconnection that results in new or changes to existing activities” (Jain, 2021: 3).

Prior to the Covid-19 pandemic (i.e., prior to 2020), 19 percent of the working population were working from home at least once a week, whilst in 2022 this increased to 44 percent of the working population (CIPD, 2022). An immediate consequence of the rapid shift to remote work during the pandemic was managers leading their teams remotely for the first time through technology-mediated communication (Henke et al., 2022); “a sudden change that exacerbated the challenges of collaborating and leading from a distance” (Caligiuri et al., 2020: 698). Caligiuri and colleagues’ (2020) study reports that only 20 percent of managers received training on how to manage employees working remotely during the pandemic, and were tasked with important decisions about organisational priorities, communication, and who should work on-site if a presence was required (Caligiuri et al., 2020). The approaches taken by organisations during the pandemic “laid the basis for the ‘new normal’” (Vyas, 2022: 155) (i.e., the ongoing employer-employee relationship in a post-pandemic work environment). Managerial, technical, and social challenges associated with employees’ work environments have been acknowledged (Jain, 2021; Powell et al, 2004), including factors such as access to the appropriate technology and equipment, a good internet connection, and building and maintaining relationships with colleagues whilst working remotely (Henke et al., 2022).

On the other hand, there are a diverse range of benefits of remote and hybrid working including reduced operational costs (with the two areas of largest

savings being in commercial rent and travel and accommodation expenses) (Hill and Hill, 2021), the ability to attract and retain a wider pool of talent (Best, 2021; Hopkins and Bardoel, 2023), and an enhanced work-life balance for employees (Vyas, 2022). Many organisations are currently navigating debates around the ideal working week and whether a fixed number of days working on-site should be mandated, or whether this should remain flexible (Christian, 2023). For example, in March 2024, Boots plc announced a return to office mandate to work five days a week because remote working had a poor impact on the organisational culture (McCulloch, 2024). In contrast, the engineering-design firm Arup, allows its 15,500 employees to choose their working hours across a full week (Monday to Sunday), rather than the traditional Monday to Friday, with employees needing to spend two days per week in an Arup office (Patel, 2021).

Overall, the rapid increase in remote and hybrid working is an important contextual element of this thesis due to the changing nature of the workplace, and any potential associated impacts on employees' experiences of loneliness in work.

#### **1.4 Delineating the Research Problem**

As mentioned earlier in this chapter, the main purpose of this thesis is twofold. Firstly, this research seeks to conceptualise loneliness in work more broadly, by strengthening the theoretical links between loneliness in work, its potential antecedents, and its potential outcomes both at the individual and organisational levels. Secondly, this thesis pursues a better understanding of the organisational and governmental policies and practices that positively impact loneliness in work, a research gap also identified by Lim and colleagues (2018), thereby improving individuals' experiences in the workplace. The main arguments are summarised in this section.

This thesis builds on the notion that a broader conceptualisation of loneliness in work is needed in order to better understand the potential antecedents and

outcomes (at the individual, organisational, and societal levels). Loneliness in the specific context of work has attracted limited attention; the core research areas concerning loneliness in work are summarised in the following:

- Managerial loneliness (Gabriel et al., 2021; Mueller and Lovell, 2013; Silard and Wright, 2022; Wright, 2015; Zumaeta, 2019)
- The impact of loneliness on an employee's intention to leave an organisation (Ertosun and Erdil, 2012; Kaymaz et al., 2014; Meyer et al., 2002)
- Loneliness in work during the Covid-19 pandemic (Ozcelik et al., 2020)
- The relationship between loneliness in work and job performance (Ozcelik and Barsade, 2018; Sîrbu and Dumbravă, 2019)
- Remote work and loneliness in work (Bollestad et al., 2022; Walz et al., 2023; Wax et al., 2022)
- Workplace relationships and loneliness in work (Lam and Lau, 2012).

The commonality throughout research on loneliness in work is that a universally negative definition of loneliness is employed pertaining to the social psychology perspective (see sections 1.2.1 and 1.2.2). This has been identified as a research gap; this research aims to contribute to the literature by exploring a conceptualisation of loneliness as both a social and psychological phenomenon, and therefore, individuals' experiences of loneliness can be explored through the use of the work-related psychosocial factors which are free from positive or negative connotation (see section 1.2.3) (Leka and Jain, 2019).

Further, in order to understand the interaction between the antecedents of loneliness in work, loneliness in work itself, and the outcomes of loneliness in work, empirical testing is required. To date, whilst two conceptual models of loneliness (Perlman and Peplau, 1998; Lim et al., 2018), and one conceptual model of loneliness in work (Wright and Silard, 2021) exist, there is little research that empirically tests these models. This is pivotal to support or reject the hypothesised relationships in the model and is, therefore, a fundamental research gap that has been identified.

Furthermore, the area of policy and practice in relation to loneliness in work is a key focus. Government guidance for organisations exists (DCMS, 2023); however, the effective dissemination of this information to the necessary individuals in organisations is questioned (see section 1.3.1). The rapid increase in flexible and hybrid working practices (see section 1.3.2) has meant that organisations have had to adapt and challenges and debates around mandating a hybrid work policy (i.e., all employees must be on-site for two days every week) or leaving this to the discretion of the line manager; challenges that are pertinent in UK-based organisations (Wyatt, 2024). The impact of flexible policies, alongside mental health and well-being policies on loneliness in work has been identified as a research gap.

Overall, this thesis builds on the previous literature by firstly conceptualising loneliness in work more broadly (see chapter four), before integrating the perspectives into a revised process model of loneliness in work (see chapter five). By understanding the antecedents of loneliness in work, suggestions to improve organisational policies and practices can be levelled to help lower levels of loneliness in the workplace (see chapter six). The proposed benefit of this at the individual level is improved employee well-being, and at the organisational level is improved job performance.

## **1.5 Thesis Structure**

Following the current introductory chapter, this thesis is structured in a further six chapters; the content of each chapter is summarised below:

- Chapter Two: this chapter is comprised of a comprehensive literature review. The theoretical underpinnings which guide this thesis are presented, and key concepts are discussed.
- Chapter Three: the research design and methodology used to support the three studies in this mixed methods research is presented in this chapter.

- Chapter Four: the results and findings of the first study are presented in this chapter. Results are based upon a qualitative research design and interpretive phenomenological analysis (henceforth, IPA). Loneliness in work is conceptualised through an exploration of participants' experiences of the potential antecedents of loneliness in work (i.e., the work-related psychosocial factors and the predictors of desire for social relations at work), and a revised conceptual model of loneliness in work is proposed.
- Chapter Five: the results and findings of the second study are presented in this chapter. Results are based upon a quantitative research design and a path analysis (structural equation modelling, SEM) to empirically test the revised process model of loneliness in work.
- Chapter Six: the results and findings of the third study are presented in this chapter. Results are based upon a qualitative research design and thematic analysis (henceforth, TA). Key policies and practices to tackle the antecedents of loneliness in work that are currently implemented by UK-based organisations are explored and reported.
- Chapter Seven: this chapter integrates the findings of the two qualitative studies and one quantitative study. General conclusions are presented, and directions of future research are discussed.



## Chapter 2: Literature Review

### 2.1 Introduction

As summarised in chapter one, loneliness is “increasingly recognised as the next critical public health issue” (Lim et al., 2020: 793); a trend that has been correlated with other emerging societal and global trends, the most significant of which is digitalisation, and the resultant changes this has brought to the UK work environment (i.e., increased remote and hybrid working) (Azzahra et al., 2022; Murgea, 2023; Patulny, 2022). Whilst some of the general individual health and well-being outcomes of loneliness are recognised (as summarised in section 1.1), research in which the specific antecedents of loneliness in work are isolated and explored is in its infancy. Despite the marked increase of research on the phenomenon of loneliness in work over the past few years, further research is needed to increase the comprehension of the processes that occur in the lead up to an employee experiencing loneliness in work (Gerstein and Tesser, 1987). A specific area of increased understanding is needed in relation to how organisations can extend their contribution to reducing employees’ experiences of loneliness in work through revised organisational policies and practices. Furthermore, as highlighted in section 1.1, the consequence of the current understanding of loneliness in work could be partially responsible for increasing sickness absence levels in the UK (CIPD, 2023; ONS, 2022); loneliness is estimated to cost UK employers £2.5 billion per year (Bryan et al., 2024; New Economics Foundation, 2017).

This chapter presents three conceptual models of loneliness in work and summarises the current view in the literature of the potential antecedents and outcomes of loneliness in work. The literature on the relationship between loneliness in work and employee well-being (individual outcome), as well as the relationship between loneliness in work and job performance (organisational

outcome) is summarised. Finally, the responsibilities that UK organisations have in preventing and dealing with loneliness in work are outlined.

## **2.2 Loneliness in work**

The social science examination of loneliness can be traced back as far as Stoddard's (1932) volume entitled *Lonely America*. In the following years and after World War II, a small number of publications on observations of loneliness during wartime experiences were published (Perlman and Peplau, 1998), and "available bibliographies list only a dozen or so psychologically orientated, English language publications on loneliness prior to 1960" (Perlman and Peplau, 1998: 572). From the 1970s onwards, Perlman and Peplau (1981) report a significant increase in publications on loneliness, with 170 appearing in the 1970s, and almost 650 appearing between 1980 and the middle of the year 1996; this reflects the increased interest in the phenomenon of loneliness. When analysing the broader research on loneliness, it becomes evident that the focus is on the more vulnerable groups in society; there are numerous examples of studies investigating loneliness in the elderly population (Domènech-Abella et al., 2017; Donaldson and Watson, 1996; Golden et al., 2009), amongst those with disabilities (Çagan and Ünsal, 2014; Macdonald et al., 2018), and amongst the homeless (Bertram et al., 2021; Rokach, 2004).

However, as previously noted in chapter one, despite relatively extensive literature on the phenomenon of loneliness, "the issue of assessing worker loneliness is not well researched" (Wright et al., 2006: 59). Where research on workplace loneliness can be found, it is more conceptually orientated (Lim et al., 2020; Wright and Silard, 2021; Sullivan and Bendell, 2023), or it is focused upon specific groups of workers including: small business owners (Gumbert and Boyd, 1984); managers (i.e., loneliness arising due to the worker's position in the organisational hierarchy) (Wright, 2012); medical personnel (Karcz et al., 2022); and military veterans (Leslie et al., 2020). Furthermore, some scholars have pointed to a difficulty in concluding from studies whether individuals are lonely

at work, “or whether the loneliness stems from other facets of life” (Wright et al., 2006: 61).

Lam and Lau’s (2012) study explores the reasons behind feelings of loneliness at work in more depth. There are three key reasons for individual experiences of loneliness in work which are highlighted: the increased use of the internet and virtual platforms meaning that individuals have fewer opportunities for face-to-face interactions; the competitiveness of workplaces meaning that genuine social connections are difficult to develop and maintain; and that workplace loneliness “is a result of a competitive and uncooperative organizational climate” (Lam and Lau, 2012: 4266). Murtza and Rasheed (2022) further this line of argument; they contend that competitive climates in private organisations act against the fundamental human requirements of belonging and connectedness with others in a work scenario by creating envy. This results in a lack of personal satisfaction; social connectedness and feelings of belonging are essential components of Maslow’s (1943) hierarchy of needs; without fulfilling these two factors, employees will never be able to reach the ultimate goal of self-actualisation.

### **2.3 Conceptual models of loneliness and loneliness in work**

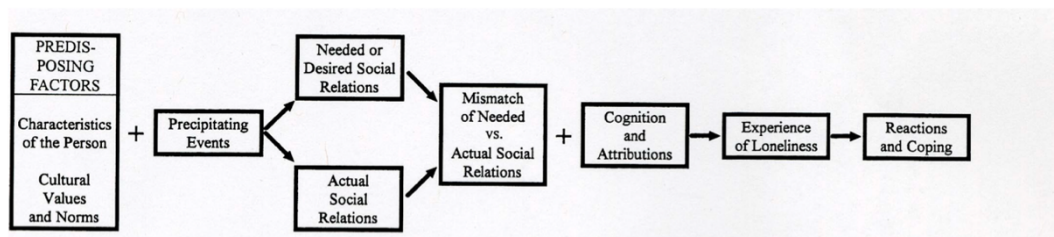
There are three key conceptual models of loneliness that have furthered a conceptualisation of the phenomenon at hand. Perlman and Peplau’s (1998) model for understanding loneliness and Lim and colleagues’ (2018) conceptual model of loneliness both aim to conceptualise loneliness in a general context. The third model, Wright and Silard’s (2021) process model of loneliness in work, deals with the work-specific context. The three models are discussed in the following.

#### **2.3.1 Perlman and Peplau’s (1998) conceptual model of loneliness**

Central to Perlman and Peplau’s conceptualisation of loneliness is the understanding that “loneliness occurs when there is a significant mismatch

between a person’s actual social relationships and his or her desired social relations” (1998: 572). There are two theories in how this discrepancy is conceptualised, the social needs perspective and the cognitive discrepancy model (Perlman and Peplau, 1998). The social needs perspective dictates that there are fundamental human social needs that have to be met, and when these needs are not met, loneliness will be experienced (Perlman and Peplau, 1998). This is accounted for in the conceptual model by two components: ‘needed or desired social relations’ and the ‘actual social relations’. The cognitive discrepancy model proposes that individuals have expectations or desires for their social relations, and whether this is matched in reality, or not, will determine whether loneliness is experienced (Perlman and Peplau, 1998). The cognitive discrepancy model is accounted for in the model by ‘the mismatch of needed versus actual social relations’ (Perlman and Peplau, 1998).

**Figure 1. Perlman and Peplau’s (1998) conceptual model of loneliness**



In their model, Perlman and Peplau (1981) recognise that there are predisposing factors that may influence and increase an individual’s risk of experiencing loneliness. These predisposing factors include nationality differences, socioeconomic background, gender, health status (i.e., differences in those who are disabled versus those who are non-disabled), and age, amongst other factors (Perlman and Peplau, 1981). Further “the onset of loneliness is often initiated by a precipitating event, usually a change in a person’s actual or desired social relationships” (Perlman and Peplau, 1998: 573). Precipitating events include the death of a family member or friend, divorce, and relocating, amongst others. An individual’s perception of their situation versus that of their peers or important social connections is critical in determining how they will evaluate their

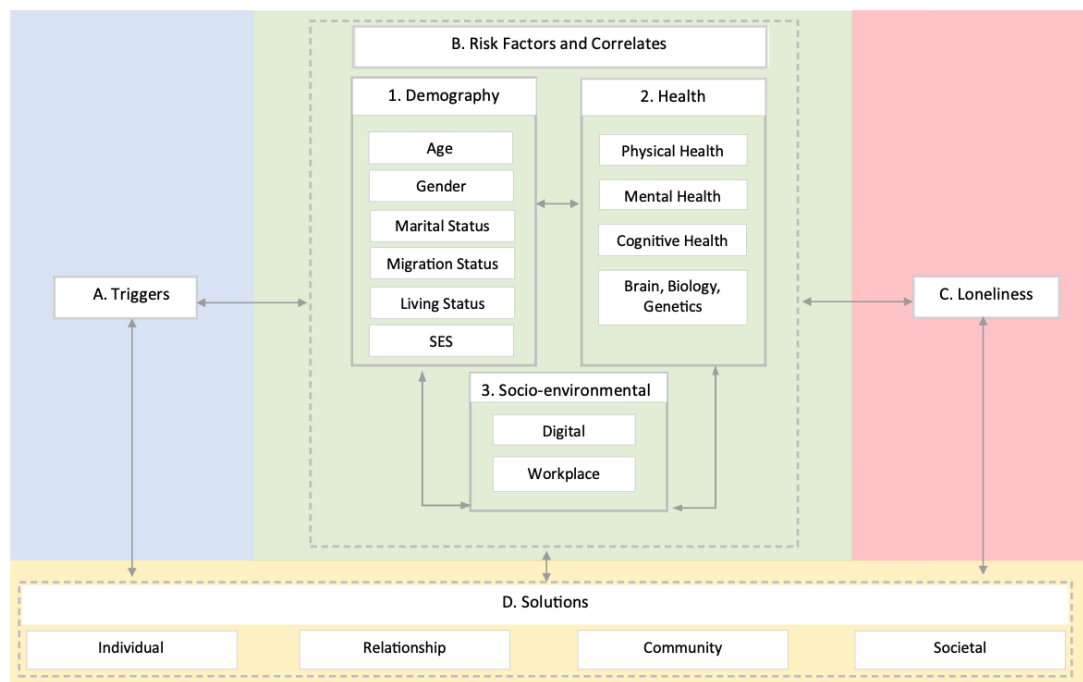
situation; this is accounted for in the model by the ‘cognitions and attributions’ element. The combined cognitive process and individual sensemaking of all of the factors in the model will determine whether an individual will experience loneliness, and if they do, its intensity. The final element of the model is ‘reactions and coping’; once an individual experiences loneliness, they need to be able to find a coping strategy or mechanism in order to overcome loneliness. Depending on the root cause of an individual’s experience of loneliness, strategies could include the individual seeking external counselling support (Chung et al., 2020), or finding ways to increase their social contact through governmental, societal, or organisational initiatives (Masi et al., 2011).

Overall, Perlman and Peplau’s model provides a useful starting point to understand the interaction between predisposing factors, precipitating events and ensuing cognitive processes that can lead to an individual experiencing loneliness.

### **2.3.2 Lim and colleagues’ (2018) conceptual model of loneliness**

Lim and colleagues’ (2018) conceptualisation of loneliness extends Perlman and Peplau’s (1998) conceptualisation through a broader conceptualisation of the risk factors of loneliness, and by including potential solutions (i.e., to help an individual overcome an experience of loneliness) within the model which stem from the individual and societal levels.

**Figure 2. Lim and colleagues' (2018) conceptual model of loneliness**



“In section A of the model, the term trigger refers to either a significant life event or life stage transition which precedes and initiates the development of problematic loneliness in an individual” (Lim et al., 2018: 794); this has the same meaning as the term ‘precipitating events’ used by Perlman and Peplau (1981). Importantly, “triggers do not directly lead to loneliness because every individual holds a level of risk of experiencing problematic loneliness” (Lim et al., 2018: 795). Section B of the model summarises a non-exhaustive list of the potential risk factors and correlates of loneliness. The risk factors and correlates are presented in three distinct factor groups: demography, health, and the socio-environment. “Different correlates and risk factors can be more relevant for one person but not another” (Lim et al., 2018: 795), supporting the notion of the subjectivity of loneliness discussed in chapter 1.2.1 (Rosedale, 2007; Rolheiser, 1979; Tzouvara et al., 2015). Section C presents loneliness as a consequence of the interaction between sections A and B, an individual will make sense of their experiences, and their subjective thought process will determine how and when loneliness becomes a problem for the individual (Lim et al., 2018). Section D illustrates potential solutions to prevent loneliness and also to mitigate loneliness once an experience has occurred; “solutions targeting loneliness should be relevant for the unique experience of the person in order for these to

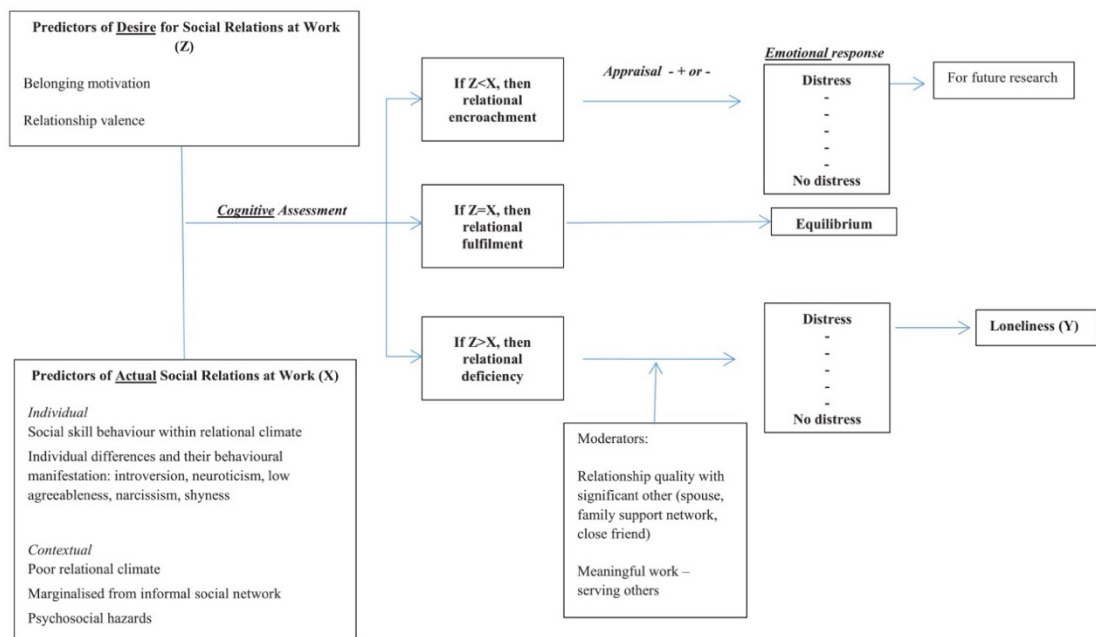
be effective” (Lim et al., 2018: 801). Potential solutions include relationship-focused interventions designed to provide opportunities for social interaction, and community-based solutions (i.e., social prescribing to improve the issues seen in primary care in the National Health Service (henceforth, NHS)).

The potential for the workplace to impact individuals’ experiences of loneliness in work is recognised in this model; the workplace is a socio-environmental risk factor (Lim et al., 2018). Lim and colleagues extend the position that “employees who report higher levels of loneliness when compared with those who report lower levels of loneliness, are also more likely to have poorer job performance” (2018: 800), as well as lower levels of well-being. Overall, Lim and colleagues’ (2018) model extends the conceptual understanding of loneliness in work in two fundamental ways: firstly, through the conceptual development in the risk factors and correlates that may influence loneliness in work; and secondly, by highlighting the interaction of potential solutions for experiences of loneliness which are focused on both the prevention of loneliness, as well as the mitigation of loneliness once it has been experienced by an individual.

### **2.3.3 Wright and Silard’s (2021) process model of workplace loneliness**

The third conceptual model presented in this chapter was developed by Wright and Silard (2021) and it extends both Perlman and Peplau’s (1998) conceptualisation and Lim and colleagues’ (2018) conceptualisation of loneliness by its focus on the work context. Wright (2004) acknowledges that “loneliness research tends to focus on personal characteristics as the primary determinant of the experience, and largely ignores the workplace as a trigger” (2004: 2) which led to the development of the process model of workplace loneliness.

**Figure 3. Wright and Silard’s (2021) process model of workplace loneliness**



The model synthesises the most recent theorising from the psychosocial perspective; relational and situational mechanisms that may generate individual experiences of workplace loneliness are presented. Whilst it is acknowledged that “loneliness is an inherently subjective and individual experience that evolves from cognitive, emotional, and behavioural elements rooted in the need to meaningfully connect with others” (Wright and Silard, 2021: 1064), the model is based upon a universal and negatively connotated definition of loneliness that is magnified in social contexts, indicates an unsatisfying relational life, and implies a desire for connection. The model relies on the negatively connotated component of the work-related psychosocial factors (Cox, 1993; Cox et al., 2000), namely, the work-related psychosocial hazards with the “potential to cause harm to individual health and safety as well as other adverse organisational outcomes such as sickness absence, reduced productivity or human error” (Leka et al., 2017: 1) (see section 1.2.3). The concept of the work-related psychosocial hazards has traditionally been used in the study of employees’ mental health and well-being (Beutel et al., 2017; Perlman and Peplau, 1984), with a particular focus on risks and negative implications. For example, studies have drawn parallels between the work-related psychosocial



hazards and cardiovascular disease (Everson-Rose and Lewis, 2005), depression (Leka et al., 2017; Netterstrøm et al., 2008), and musculoskeletal pain (Freimann et al., 2016) - all factors which create an adverse work environment.

Besides psychosocial hazards, Wright and Silard's (2021) model relies on two further social dimensions – namely, a poor relational climate and the marginalisation of an individual from informal social networks – as predictors of actual social relations at work. If these combined hazards are experienced by an individual, relational deficiency (i.e., a negative deficit whereby an individual's desire for relations at work is greater than the actual social relations at work they experience) could occur, dependent on the individual's process emotional sensemaking (see section 2.3.2.1). Wright and Silard (2021) suggest in their conceptualisation of loneliness in work, that the extent of relational deficiency (i.e., workplace loneliness) experienced by an individual is influenced by two moderating factors (the quality of relationships with colleagues, and meaningful work) (Wright and Silard, 2021). Two further categories – relational encroachment (where an individual's actual social relations at work exceed their desire for social relations at work) and relational fulfilment (where an individual's desire for social relations at work meets their actual social relations at work) – are also mapped in the process model; however, it is relational deficiency that results in the emotional response of negative loneliness (Wright and Silard, 2021).

Overall, by summarising the contributions from the psychosocial perspective to date, Wright and Silard's (2021) model has significantly increased the current understanding of individuals' experiences of loneliness in work as both a psychological and social process, thereby contributing to develop an under-explored area of management research. Where Wright and Silard's (2021) model differs to Lim and colleagues' (2018) model is that it does not take into account the potential solutions to prevent and/or mitigate individual experiences of loneliness in the work context.

## **2.4 Sensemaking**

As noted above, sensemaking is a fundamental component of all three conceptual models of loneliness (Lim et al., 2018; Perlman and Peplau, 1998; Wright and Silard, 2021). Humans “are motivated to make meaning of the information and context around them” (Wrzesniewski et al., 2003), and “the concept of sensemaking provides a means of analysing the social processes of meaning construction” (Konlechner et al., 2019: 708). Sensemaking, a term developed by Weick (1995) has a simple meaning; that is, “the making of sense” (1995: 4). “Sensemaking allows individuals to “interpret their environment in and through interactions with others, constructing accounts that allow them to comprehend the world” (Maitlis, 2005: 21). In a work context, sensemaking is defined as “the process through which individuals and organisations give meaning to situations and rationalising action” (Nardon and Hari, 2022: 10). At work, novel stimuli such as a change of line manager or change of work environment (i.e., the rapid increase to remote work experienced during the Covid-19 pandemic) are likely to increase an individual’s conscious, reflective processing (Harris, 1994); however, all experiences in work are subject to a process of individual sensemaking. To summarise the importance of the individual sensemaking process in the conceptual models of loneliness, the interplay of individuals’ experiences and their subsequent sensemaking processes will determine whether or not the individual feels lonely at any given point in time.

## **2.5 Conceptualising loneliness in work: what are the antecedents?**

The three conceptual models of loneliness (Lim et al., 2018; Perlman and Peplau, 1998; Wright and Silard, 2021) propose different antecedents of loneliness. Similarities can be drawn particularly between Wright and Silard’s (2021) conceptualisation and Perlman and Peplau’s (1981) conceptualisation, which are based upon the social psychology definition of loneliness where loneliness is seen as a discrepancy between desired and actual social relations. Thus, two

groups of antecedents of loneliness in work are proposed: the predictors of desire for social relations at work, and the predictors of actual social relations at work. This section further explores the two groups of antecedents of loneliness in work.

### **2.5.1 Predictors of desire for social relations at work**

The first group of antecedents of loneliness in work relate to the individual; the predictors of desire for social relations at work are considered to be the first component of assessing an individual's emotional response to their social relations at work (Wright, 2009). There are two predictors of desire for social relations at work: belonging motivation and relational valence (Wright and Silard, 2021). Relational drive varies from individual to individual from the extremes of sociotrophy (close interpersonal relationships and connectedness are highly desired and rewarding) to social anhedonia (complete disinterest in relationships and an absence of belonging motivation) (Wright and Silard, 2021). Further, the complexity due to the subjectivity of loneliness is widely recognised (Rosedale, 2007; Rolheiser, 1979); "people who choose to be socially isolated might not feel lonely, and people who feel lonely might not be socially isolated" (Tzouvara et al., 2015: 330). The two key components to assessing relational drive at work – the desire for close relationships and the value placed upon belonging – are discussed in turn.

#### **2.5.1.1 The need to belong**

The need to belong is seen as a fundamental human motivation which is applicable across all humans and all cultures (Baumeister and Leary, 1995) and is defined as "a strong desire to form and maintain enduring interpersonal attachments" (Baumeister and Leary, 1995: 522). In order "to fulfil the need to belong, both quantity and quality of interaction must be satisfied" for an individual (Du et al., 2022: 6). As the need to belong is predicated on the fact that relationships are desired, interactions with new people are appealing as long as they become longer-term connections and develop into stronger relationships in the given setting (i.e., friendships that provide good social support at work)

(Baumeister and Leary, 1995). The need to belong may differ in strength and intensity from individual-to-individual meaning that people have differing minimum levels of social contact that they fundamentally desire, therefore, they cultivate possible relationships and seek out social connections to differing levels (Baumeister and Leary, 1995). Despite this, the literature argues that a baseline need to belong for all individuals can be assumed; “it should prove difficult or impossible for culture to eradicate the need to belong except perhaps for an occasional, seriously warped individual” (Baumeister and Leary, 1995: 499).

Some scholars propose that a need to belong can extend too far; “belonging can materialise in forms that satisfy the motivation to belong but threaten the healthy functioning of the individual” (Allen et al., 2021: 1134). For example, in the work context, an individual could be overworking which satisfies the need to belong at work, however this could threaten relationships with family and friends and contribute to the individual having a poor work-life balance (Allen et al., 2021). On the other hand, non-belonging is also problematic and “may stem from lack of familiarity or disconnection” (Rokach, 2012: 374), for example when moving employment role from one organisation to another. Overall, the need to belong “has an important role to play in addressing some of society’s most complex challenges, such as loneliness” (Allen et al., 2021: 1134).

#### **2.5.1.2 Relational valence**

Relational valence suggests that individuals “have a fundamental need to experience relatedness through mutual caring and feeling non-contingent value for and from others” (Wright and Silard, 2021: 7). There are two key elements of relational valence: mutual caring (the notion that friendships are very important) and feeling non-contingent value (the notion that finding relationships is rewarding). Mutual caring and friendships at work are important to some individuals and can be pivotal in nurturing supportive working environments (Chen et al., 2013; Ozbek, 2018) which is of benefit to both employees and organisations (Sias and Gallagher, 2009) through positive impacts on employee

retention and overall job performance (Chiaburu and Harrison, 2008). Thus, there are positive impacts at both the individual and organisational level of mutual caring and friendships at work.

On the other hand, individuals have different primary motivations at work and fostering strong relationships with colleagues might not be a priority (Murphy, 2021); the individual might have a low relational valence. “Some people believe that work is not the place to make friends; for others there are expectations that some (if not all) of their social needs will be met at work” (Morrison and Cooper-Thomas, 2017: 125). “A coworker friendship is one that comprises both a collegial relationship and a friendship; it may also include aspects of the hierarchy” (Morrison and Cooper-Thomas, 2017: 131). Depending on an individual’s desires at work (i.e., an intention to gain promotion over co-workers), they may not find it easy to form friendships due to their competitive nature, or that of the workplace (Apostolou and Keramari, 2020). Additionally, individuals who place a large importance on career acceleration and advancement, may have an inherently lower relationship valence due to the different priorities and goals they hold (Apostolou and Keramari, 2020). Co-worker friendships, therefore, have different characteristics to that of a social friendships or other relationships outside of work. To summarise, the literature proposes that an individuals’ sensemaking processes of work-related events will differ depending on their relational valence (i.e., their expectations of relationships and friendship at work) (Morrison and Cooper-Thomas, 2017; Murphy, 2021; Wright and Silard, 2021).

### **2.5.2 Predictors of actual social relations at work**

The second group of antecedents that are discussed relate to the work environment; an individual’s work environment has an important influence on their health (Leka and Jain, 2017; Wright, 2009). “The research surrounding loneliness tends to focus almost exclusively on personal characteristics as the primary determinant of the experience, and largely ignores the workplace as a potential trigger” (Wright, 2009: 11). The changing nature of work (as discussed

in section 1.3.2) has brought about new forms of risk that could negatively affect employee health and safety (Jain, 2021). These are mainly associated with new types of occupational hazards that have been termed psychosocial” (Leka and Kortum, 2008). The predictors of actual social relations at work are proposed as the second important group of factors in exploring the antecedents of loneliness in work (Wright and Silard, 2021). As discussed in section 2.3.3, Wright and Silard (2021) employ the work-related psychosocial hazards in their conceptual model of loneliness in work. The work-related psychosocial factors (as defined in section 1.2.3) are also discussed as a means of more broadly conceptualising subjective phenomena in the work context as they are free from positive or negative connotation.

#### **2.5.2.1 Work-related psychosocial hazards**

Loneliness in work is inherently linked to how work is designed, organised, and managed in the everyday (i.e., the psychosocial work environment). When individuals experience “negative events at work such as bullying, harassment or ostracism” (Wright and Silard, 2021: 1072) – that is, hazards – it can impair their “ability to participate effectively in the work environment and with other people in and outside of work” (Schulte et al., 2024: 500); there are serious implications for individuals’ well-being. Numerous behavioural, mental, and physical health implications associated with the work-related psychosocial hazards are reported, including absenteeism, anxiety, burnout, cardiovascular disease, cognitive impairment, depression, obesity, poor self-reported health, sickness absence, sleep disturbance, stress, suicide and suicidal ideation, and work-family conflict (Schulte et al., 2019).

These negative events at work could result in experiences of relational deficiency and, therefore, loneliness in work, depending on the individual’s sensemaking process (see section 2.4). However, it is unclear how the work-related psychosocial hazards can be effectively employed to determine whether an individual meets the category of relational fulfilment on Wright and Silard’s (2021) process model of loneliness in work. As the work-related psychosocial

hazards are negatively connotated, Wright and Silard's (2021) conceptual model cannot account for positive experiences in the workplace (i.e., the contextual factors proposed in the model will always lead to negative outcomes).

### **2.5.2.2 Work-related psychosocial factors and the JD-R model**

In order to assess relational fulfilment, the work-related psychosocial factors are proposed as an alternative in the literature, as defined in section 1.2.3. The work-related psychosocial factors conceptualise the psychosocial work environment in broader terms than the work-related psychosocial hazards; "psychosocial factors include protective psychosocial resources and psychological risk factors" (Thomas et al., 2020). Therefore, if an individual has a positive experience of a work-related psychosocial factor, which meets their inherent need to belong and their desired level of relational valence, relational fulfilment can be achieved (Wright and Silard, 2021). As the literature employs the work-related psychosocial hazards to explore loneliness in work (Cacioppo et al., 2006; Dunbar, 2014; McWhirter, 1990), the relationship between loneliness in work and the work-related psychosocial factors is under-explored.

The work-related psychosocial factors include 10 dimensions: the organisational culture and function; job content; workload and work pace; work schedule; control; the environment and equipment; interpersonal relationships at work; the role in the organisation; career development; and the home-work interface (Leka et al., 2017). The job demands resources (JD-R) model, "recognised as one of the leading job stress models" (Schaufeli and Taris, 2014: 43), can be used as a theoretical foundation to explain the relationship between the work-related psychosocial factors and their outcomes, whether that be health, organisational, positive, or negative. "According to the JD-R model, job demands are initiators of a health impairment process and job resources are initiators of a motivational process" (Demerouti and Bakker, 2011: 1). Job demands refer to aspects of the job which require sustained psychological or physical effort (i.e., workload and work pace); "whilst job demands are not necessarily negative, they may turn into job stressors" (Demerouti and Bakker, 2011: 2). Job resources are the factors that

reduce psychological or physical demands, help achieve work-related goals and stimulate personal development (Demerouti and Bakker, 2011) (i.e., interpersonal relationships at work). Thus, job resources are motivational factors and a parallel can be drawn with Hackman and Oldham's (1974) job characteristics model. The job characteristics model "suggested that five core job dimensions affect certain personal and work-related outcomes [...]; autonomy, feedback, skill variety, task identity and task significance" (Ali et al., 2013: 47). Positive participant experiences of certain work-related psychosocial factors across the five dimensions will lead to sentiments of job satisfaction through the fulfilment of intrinsic and extrinsic needs.

The interaction between job demands and job resources is an essential component of the JD-R model. "It is proposed that job resources may buffer the impact of job demands on job strain, including burnout" (Bakker and Demerouti, 2007: 314). For example, a strong relationship with a line manager can negate the impact of certain job demands, including work pressures, to some extent. The relationship between job demands and job resources is supported by Bakker and colleagues' (2005) study findings of 1,000 employees of a large institute for HE. The study "found that the combination of high demands and low job resources significantly added to the prediction of burnout exhaustion and cynicism" (Bakker et al., 2005: 317). This model helps in understanding the influence of work-related psychosocial factors and the positive or negative impact they can have on an individual's experience at work. The cyclical nature of factors is evident; for example, an individual's desire for interpersonal relationships at work varies from individual to individual at any given time and the individuals' cognitive sensemaking of these experiences are constantly evaluated (i.e., they are recurring and cyclical). Furthermore, the cyclical nature of the work-related psychosocial factors is both intra-personal (i.e., the cognitive sensemaking process takes place within the individual's mind) and interpersonal (i.e., the individuals' determination of their relational category at any given moment in time is a result of their experiences of their work relationships and their work environment). An individual's experiences in relation to different



psychosocial factors are related as the individual will cognitively assess the job demands and job resources they have experienced (i.e., the inter-personal aspect) at the same time (i.e., an individual's cognitive sensemaking processes ultimately determining whether they have had a positive or negative experience across all the work-related factors they have experienced; it is intra-personal) which adds to the complexity of understanding individuals' differing experiences of loneliness in work.

The JD-R model has experienced some criticism from scholars. Notably, the simplicity of the model is criticised because some essential components, including “emotional demands, social support from colleagues, supervisory support, and performance feedback” (Bakker and Demerouti, 2007: 311), which can affect an individual's experience at work, are not taken into account. Despite the criticism levelled against the JD-R model, it is a useful theoretical underpinning in explaining how the work-related psychosocial factors might interact with the potential outcomes of loneliness in work, which are determined by an individual's sensemaking process of their experiences.

## **2.6 Making a case for improving loneliness in work**

Having explored the conceptual models of loneliness in work, it is important to consider the potential outcomes of loneliness in work and its effects at the individual, organisational, and societal levels. Firstly, the moral case for improving loneliness in work is made which focuses on improving employee well-being. Secondly, the business case for improving loneliness in work is summarised, which focuses on improved job performance, which in turn contributes to improved organisational profitability. Finally, the responsibility of UK-based organisations in relation to tackling loneliness in work is discussed.

### **2.6.1 Employee well-being: The moral case for improving loneliness in work**

Well-being is a “summative concept that characterises the quality of working lives, including occupational safety and health aspects, and it may be a major

determinant of productivity at the individual, enterprise and societal levels” (Schulte and Vainio, 2010: 422). As identified in the introduction (see chapter one), loneliness can have serious consequences for well-being, including diminished mental health and well-being (Perlman and Peplau, 1984), depression (Cacioppo et al., 2010; Erzen and Çikrikci, 2018), heart disease (Valtorta et al., 2016), suicidal ideation (Killgore et al., 2020), and mortality (Holt-Lunstad et al., 2015; Shiovitz-Ezra and Ayalon, 2010; Sugisawa et al., 1994). Basit and Nauman’s (2023) study on loneliness in work and work-related subjective well-being using data collected from 274 employees working in Lahore, Pakistan found that an “unmet need for belongingness poses a threat to one’s well-being” (Basit and Nauman, 2023: 6) in the work context (this is consistent with the notion of relational deficiency). Basit and Neuman’s (2023) study did not, however, find specific elements of well-being that were affected or provide any suggestions to improve well-being at work.

### **2.6.2 Job performance: The business case for improving loneliness in work**

Interest in the areas of well-being that are affected by loneliness in work is increasing (Dhir et al., 2023; D’Oliviera and Persico, 2023; Erdil and Ertosun, 2011; Firoz and Chaudhary, 2022; Wright, 2005). A primary reason for this increased interest, particularly for UK-based organisations, includes the rapidly rising and costly levels of sickness absence which affect job performance and organisational productivity. The UK has just reported its highest sickness absence rates in a decade in the CIPD’s Health and Well-being at Work study where research trends in sickness absence rates and employees’ health and well-being were analysed among 918 organisations with a representative 6.5 million employees (CIPD, 2023). On average, sick days have increased by an additional 2 days per employee per annum (increasing from an average of 5.8 days to 7.8 days per employee). The previous year’s ONS data reports that 5.7 days of sickness absence per employee per year equates to an estimated 185.6 million lost working days (ONS, 2022a). In line with these statistics, 7.8 lost working days per employee per annum is estimated to therefore equate to 253.9

million lost working days per annum. The most commonly reported cause of this sickness absence by UK organisations is stress-related (67 percent), with long-term absence primarily being driven by mental health issues (63 percent), and short-term absence primarily being driven by minor illnesses (94 percent), musculoskeletal problems (45 percent), and mental ill-health (39 percent) (CIPD, 2023). The total cost of sickness absence has been estimated to cost the UK businesses and the UK economy £138 billion per annum in Vitality's Britain's Healthiest Workplace survey (Vitality, 2024). The organisational costs associated with sickness absence, as well as the evident impact upon employees' mental health and well-being highlight the necessity of including a dimension that assesses the outcomes of physical and mental well-being within the process model of loneliness in work (Lim et al., 2018) in order to gain a more holistic understanding of loneliness in work.

Job performance is conceptualised as "actions and behaviours that are under the control of employees and contribute to the realisation of organisational goals and objectives" (Deniz, 2019: 216). It is pertinent to research job performance and loneliness in work, as previous studies have found that higher levels of workplace loneliness result in lower job performance in the private hospital sector, schools in Macao (China), and two US-based organisations respectively (Deniz, 2019; Lam and Lau, 2012; Ozcelik and Barsade, 2018). If the well-being statistics and implications fail to gain the attention of UK businesses, the potential cost of the UK productivity crisis should help to garner their attention and support. Analysis has been completed that suggests that poor job performance costs UK businesses £143 billion per year with an average of 1 hour and 24 minutes being wasted per worker per day (Murray-Nevill, 2019).

In today's climate with ever increasing competition, organisations need to maintain high job performance to sustain their competitive advantage and ensure the sustainability of the organisation (Dezin, 2019). Therefore, it has been suggested that organisations need "to consider loneliness an organisational problem that needs to be tackled to help employees and improve job

performance” (Ozcelik and Barsade, 2018: 2360). Questions have been raised in terms of “how organisations can help employees alleviate their feelings of workplace loneliness?” (Ozcelik and Barsade, 2018: 2361), as well as “how can employees alleviate their own loneliness?” (Ozcelik and Barsade, 2018: 2361). These questions align with the three key goals of the latest UK Government Department for Culture, Media and Sport’s annual loneliness report (DCMS, 2023): to expand the evidence base, to reduce the stigma of loneliness, and to drive a lasting shift so that loneliness is considered in policy.

### **2.6.3 Loneliness in work: What is the organisation’s responsibility?**

“While workplace loneliness is an individual variable, it is also a property of the organisational context” (Wright, 2015: 123). The UK Government has synthesised the actions that employers can take to help tackle loneliness in five key themes (DCMS, 2021):

1. Culture and infrastructure: loneliness should be embedded into well-being practices, policies and activities in the organisation, and the organisational values should align with the key issues of concern for employees. Well-being champions can be appointed throughout the organisation to ensure that employee well-being and tackling loneliness is a core concern.
2. Management: support, guidance, and training is required to enable managers to help employees who are experiencing loneliness. Managers may require training in handling emotional and difficult conversations and knowing where to signpost employees for further support.
3. People and networks: an understanding of how people use work organisational networks whilst working remotely to tackle loneliness needs to be developed and disseminated. Staff networks are one way of doing this, for example BAME, Disability, LGBTQ+, and Neurodivergent networks.
4. Work and workplace design: the ways in which organisations can manage remote, hybrid and on-site workers effectively needs to be promoted, i.e., answering the question of how are organisations dealing with a dispersed

workforce? Considerations need to be taken in designing opportunities for online connectivity with colleagues whilst working remotely; clear communication channels are critical.

5. Wider role in the community: organisations should take action to tackle loneliness beyond their immediate workforce; how can an organisation contribute to tackling loneliness in the local community? Promoting a healthy work-life balance is one way that an organisation can help employees to increase their quality of life outside of the employment setting, and wider charity initiatives like a sponsored walk could be used bring the local community together, whilst simultaneously tackling loneliness.

This sets a foundation for the types of action that organisations can take in tackling loneliness in work; however, fundamental organisational responsibilities are yet to be mandated by government policy (DCMS, 2021).

## **2.7 Developing a framework for investigating loneliness in work**

The aim of this thesis is to build on the foundation set in the literature by directing attention to subjectivity as a key characteristic of loneliness. While acknowledging subjectivity at a conceptual level, the current managerial perspective privileges the attributional and relational dimensions of loneliness in work, which remains defined in a universalistic (and negative) fashion. As a result, attention is directed to the negative dimensions of the experience of loneliness in work at the expense of a full appreciation of wider and subjective experiences of the phenomenon; the complexity of loneliness as both social and psychological remains under-explored in a holistic sense. To address this gap and develop current thinking, this thesis uses qualitative and quantitative techniques in an exploratory sequential mixed methods framework which is organised as follows:

- Study one, presented in chapter four, introduces the notion of work-related psychosocial factors (Cox et al., 1993; Cox et al., 2000; Leka et al., 2017) to explore the psychological implications of social arrangements in

the work environment. More specifically, a qualitative study in the Higher Education (henceforth, HE) sector is conducted to address how the work-related psychosocial factors shape individuals' experiences of loneliness in work.

- Study two, presented in chapter five, is quantitative in nature and aims to empirically test the parallel mediation model of loneliness in work proposed in study one (see 4.4.1).
- Study three, presented in chapter six, aims to identify potential well-being and job performance implications of loneliness in work, through a qualitative study gaining insights from HR professionals, in order to provide specific guidance for organisations and suggestions for revisions to workplace mental health and well-being policies and flexible work policies.

The following chapter details the overall research design and methodology employed in this thesis.

## Chapter 3: Research Design and Methodology

### 3.1 Introduction

This chapter presents the research design and methodology of this thesis. The three studies have been designed to answer specific research questions which pertain to impacts at the individual, organisational, and societal levels. The first study explores loneliness in work and its interaction between individual and organisational antecedents and outcomes, through generating a broader conceptualisation of loneliness in work (chapter four), which is furthered in the second study where the empirical model of loneliness in work is tested (chapter five). The third study focuses on organisational and wider societal initiatives, policies, and practices to address the antecedents of loneliness in work in the UK (chapter six). The research design is summarised in Table 1.

**Table 1. Research Design Summary**

Study	Method	Research Questions	Research Aims
One	Qualitative	How do individuals make sense of their experiences of loneliness in work?	<ol style="list-style-type: none"> <li>1. To explore the individual sensemaking process</li> <li>2. To understand the most pertinent work-related psychosocial factors in relation to loneliness in work</li> <li>3. To propose revisions to Wright and Silard's (2021) process model of loneliness in work</li> </ol>
Two	Quantitative	How do individuals' experiences of the work-related psychosocial factors relate to feelings of loneliness in work?	<ol style="list-style-type: none"> <li>1. To empirically test the process model of loneliness in work</li> <li>2. To determine the extent of the relationships between different work-related psychosocial factors, experiences of loneliness in work, and pathways to well-being</li> </ol>
Three	Qualitative	What are the possible interventions for loneliness in work?	<ol style="list-style-type: none"> <li>1. To identify pathways to well-being</li> <li>2. To influence workplace health and well-being policies, workplace practices, the UK Government's Loneliness Strategy and Loneliness Annual Reports (DCMS, 2018)</li> </ol>

This research, aligned with the philosophical assumptions of pragmatism, uses a multistage exploratory sequential mixed methods framework. Sequential mixed methods studies involve “collecting data in an iterative process whereby the data collected in one phase contribute to the data collected in the next” (Driscoll et al., 2007: 21). There are multiple stages in this thesis (three studies), starting with a qualitative data collection and analysis (exploratory), which builds to a quantitative data collection and analysis, and another qualitative data collection and analysis (sequential) (Almalki, 2016; Fetters et al., 2013; Nastasi et al., 2007). The design, implementation, and results of each study influence the others; the quantitative data collection and analysis strand was conducted on the basis of the initial qualitative findings, and the final qualitative data collection and analysis strand which provides an in-depth analysis of the antecedents of loneliness in work, as well as the potential individual (health and well-being) and organisational (job performance) outcomes in the context of the UK working population was designed based upon the findings from the two previous studies. This research framework, with its interactive components, is often used for theory building as the “design begins qualitatively, it is best suited for exploring a phenomenon” (Creswell, 2006: 75). Furthermore, this approach was preferred due to the theoretical interdependence of the three studies, as well as the limited research on loneliness in work in the UK context.

As noted, both qualitative and quantitative methods are employed in this thesis. Thus, the general methodological approach of choice is mixed methods research, which Tashakkori and Creswell define as “research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study” (2007: 44). The mixed methods approach has become increasingly popular in research (Bergman, 2012; O’Cathain et al., 2008; Timans et al, 2019) and has established itself “as a third methodological movement over the past twenty years, complementing the existing traditions of quantitative and qualitative movements” (Hall, 2013: 71). The prevalence of mixed methods research in Human Resource Management (henceforth, HRM), synthesised by



Grimmer and Hanson (2009), indicates that 14 percent of HRM publications over a ten-year timescale (1998-2007) employed mixed methods. The approach is beneficial as the combination of research strategies broadens the analysis of the different dimensions of loneliness in work, enabling “a more complete picture of human behaviour and experience” (Morse, 2003: 189). Thus, mixed methods research is increasingly accepted and utilised in the social sciences as its impact has been demonstrated (Cameron, 2011; Doyle et al., 2009; DeCuir-Gunby, 2008).

This chapter will discuss the methodology for this thesis in further detail. The chapter begins by discussing the ontological and epistemological choices in this mixed methods research design, including both quantitative and qualitative elements. Quality criterion for qualitative research and quantitative research are presented and discussed with reference to this thesis. This is followed by an explanation of the data analysis strategy for each element. The ethical considerations taken throughout this research are presented, and finally, a reflection on quality criteria for mixed methods research as a whole are discussed alongside the researcher’s self-reflection on the integration of the research elements.

## **3.2 Research Design**

### **3.2.1 Mixed methods research**

As noted, this thesis includes two qualitative elements and one quantitative element. Qualitative data is derived from two rounds of semi-structured interviews, and the quantitative data is derived from an online survey, with both data types being integrated throughout the research process at the design, methods, interpretation, and discussion levels (Burke Johnson and Onwuegbuzie, 2004; Doyle et al., 2016).

Proponents of mixed methods, which is seen to be the third research paradigm, claim that the movement “marks the beginning of a new era in social research” (Kelle, 2006: 294). Whilst many reasons for conducting mixed methods research are identified in the literature across multiple disciplines, including “expansion, complementarity, development, completeness, compensation, corroboration/confirmation, and diversity” (Alele and Malau-Aduli, 2023: 2; Fetters et al., 2013; Ivankova and Wingo, 2018; Kelle, 2006; Malina et al., 2011; Wasti et al., 2022), there are some specific advantages of using a mixed methods approach in this research. Using the binary lens of mixed methods is seen to enhance research as the strengths of qualitative and quantitative methodologies are drawn upon (Berman, 2017). Rich, subjective insights gained through the collection and analysis of qualitative research are corroborated with standardised, generalisable data generated through quantitative inquiry (Denzin, 1970; Regnault et al., 2018). Qualitative research is suited to “describing phenomena (induction), theoretical framing (deduction), and generating explanations (abduction)” (Gillespie et al., 2024: 122), whilst quantitative research is “suited to measuring phenomena (induction), testing hypotheses (deduction), and exploring explanations (abduction)” (Gillespie et al., 2024: 122). The overarching premise for selecting a mixed methods approach is that “the combined effect is greater than the sum of the individual parts” (Creswell, 2009: 104); exploratory and confirmatory questions are addressed in the same research inquiry, thereby offsetting the weaknesses of either approach alone (Driscoll et al., 2007; Guest and Fleming, 2014; Venkatesh et al., 2013).

To summarise the contributions and advantages of mixed methods studies in this thesis: the purpose of my first exploratory qualitative study was to build a theoretical concept and framework for loneliness in work that was tested in study two, a confirmatory quantitative study. The proposed process model of workplace loneliness was tested in the quantitative study, and data was gathered from 682 participants about different aspects of the work-related psychosocial factors and potential outcomes of loneliness in work (helping with the issue of generalisability that is lacking in qualitative research) (Ulin et al., 2004). This was

followed by the third study which is qualitative in design where suggestions are presented for workplace policies in relation to loneliness in work and employees' mental health and well-being. Overall, through triangulating qualitative and quantitative data, researchers can "offer a better understanding of the links between theory and empirical findings, challenge theoretical assumptions, and develop new theory" (Östlund et al., 2011: 369), resulting in "more comprehensive and convincing evidence" (Baran and Jones, 2016: 12), and more accurate meta-inferences (Tashakkori and Teddlie, 2008; Venkatesh, 2013). In this research, the integrated findings from the three studies allows for meta-inference, where the respective weaknesses of each method are cancelled out and data is mutually validated (Hammersley, 1996; Kelle, 2006).

Whilst the advantages of mixed methods research have been articulated, it is important to recognise the distinct challenges for proponents of this type of research. Firstly, researchers must be able to cope with the demands of undertaking both qualitative and quantitative components (Almalki, 2016). This challenge was mitigated through training and resources, as well as discussions with supervisors, mentors, and colleagues. Further, mixed methods research has been criticised for the lack of adequate justification and a clear rationale for the choice of methods, as well as difficulties with the integration of qualitative and quantitative findings, with quantitative findings often occupying a higher status than qualitative findings (Kelle, 2006; Tashakkori and Teddlie, 2010). The choice of employing a mixed methods research design is in line with Venkatesh and colleagues' (2013) completeness and developmental purposes; the two most dominant purposes for conducting this type of study. By using mixed methods, the aim was to make sure a complete, holistic picture of loneliness in work is obtained (completeness), and secondly, the developed constructs and hypotheses from study one, were tested in study two (developmental). Proponents of mixed methods research, including Abowitz and Toole, note the importance of incorporating "sound methodological principles at each stage of the design process" (2010: 109), to maximise the accuracy and authenticity of the research. By employing an integrated study design and carefully designing

the research framework, it has been ensured that each stage of the mixed methods research plays an essential role in the overall thesis.

### **3.2.2 Philosophical underpinnings of research paradigms**

Scholars, in congruence with “their beliefs about the nature of reality” (Mills et al., 2006: 2), employ different philosophical assumptions to underpin their work known as paradigms. Paradigms “represent a worldview that defines, for its holder, the nature of the ‘world’, the individual’s place in it, and the range of possible relationships to that world and its parts” (Guba and Lincoln: 1994, 107). In other words, a paradigm “may be viewed as a basic set of beliefs” (Aliyu et al., 2015: 1055). Thus, a research paradigm reflects a researcher’s philosophical understanding of the world (Shan, 2022), and there are important considerations in terms of ontology, epistemology, and axiology, which will be discussed in turn.

Ontology, a term believed to have been founded by Lorhard in the 17<sup>th</sup> century (Øhrstrøm et al., 2005), refers to the philosophical question about what exists, and the nature of its existence (Effingham, 2013); it “is concerned with the entities that constitute reality, their categorization and relations” (Tsang, 2017: 14). Further, Baumgarten defines ontology as “the science of the most general and abstract predicates of anything” (Baumgarten, 1740, as cited in Mora, 1963: 36). This understanding is necessary because “we cannot meaningfully assert the existence or nonexistence of physical entities, of numbers, sets, universals or anything else, unless or until we comprehend what it means for something to exist in the most general sense” (Dale, 2002: 1). The abstract nature of questions faced by social scientists often make them more difficult to answer. In this research, whilst it can be assumed that loneliness in work exists, the nature of its existence is relatively unknown; it cannot be touched, felt, or seen directly. As Searle contends, these are observer-dependent phenomena, “whose existence depends on being treated or regarded in a certain way by human agents” (Searle, 1998: 147). Thus, it follows that social science is concerned with “understanding the complex world of lived experience from the point of view of those who live it”

(Schwandt, 1994: 118); the aim is to reach a point of *Verstehen* (to understand the meaning of the social phenomenon at hand).

This leads on to a discussion of the epistemological assumptions that underpin this research. Epistemology, a term believed to have been founded by Ferrier (1854) has the fundamental meaning of the theory of knowledge (Benton and Craib, 2011; Yulianto, 2021), that is, how we study the “nature, sources and limits of knowledge” (Markie and Folescu, 2021), and “how we come to know that which we believe we know” (Hiller, 2016: 100). Epistemology is intimately related to ontology (Hiller, 2016), thus, in order to remain logical and understandable, the epistemological assumptions of this research, which will be discussed in section 3.2.4, align with the ontological assumptions.

Finally, axiology is “recognised as an integral consideration in relation to a paradigm” (Killam, 2013: 6), and “has the meaning as a theory of desirable values or a theory of good and chosen values” (Yulianto, 2021: 159). Thus, axiology encompasses beliefs about ethics and value in research, both of which are aspects of human behaviour, and therefore, guide the researcher’s decision making (Allen and Varga, 2007; Killam, 2013).

### **3.2.3 Qualitative and quantitative research paradigms**

Qualitative research, obtained by methods including ethnographic, phenomenological, grounded theory, and case study research, is traditionally based upon constructivist or interpretivist paradigms and serves to develop theory (Glogowska, 2011). Researchers following the assumptions of the constructionist/interpretivist paradigm, hold the belief that “human beings construct knowledge as they engage with it and interpret the world” (Moon and Blackman, 2014: 1172). “Proponents of these persuasions share the goal of understanding the complex world of lived experience from the point of view of those who live it” (Schwandt, 1994: 221). In order to understand the lived experience, the constructionist/interpretivist researcher must interpret and construct a meaning around the data.

On the other hand, quantitative research, obtained by methods including surveys, longitudinal studies, and experiments, is traditionally based upon the assumptions of a positivist/post-positivist paradigm and serves to test theory (Glogowska, 2011). Positivism works on the premise that “only knowledge gained through scientific method through unprejudiced use of senses is accurate and true” (Moon and Blackman, 2014: 1171). According to Groff, positivism has experienced a “well-deserved breakdown” (Groff, 2004: 1) with criticism being levelled against the perspective because human agency is not taken into account. Humans act upon their own volition; they “use minds and bodies to exercise will and individual capacities of judgement and action” (Hiller, 2016: 102). Post-positivism takes the critique levelled against positivism into account and “is based on the premise that humans can never know reality perfectly” (Moon and Blackman, 2014: 1171). Post-positivist researchers seek to falsify statements, linked to Popper’s (1963) falsification theory, through the use of a null hypothesis and an alternative hypothesis.

#### **3.2.4 Mixed methods and a pragmatist paradigm**

The integration of qualitative and quantitative approaches is a continuing subject of debate (Bryman, 2004; Östlund et al., 2011). The paradigm wars of the late 1980s entailed “persistent philosophical confrontation between the postpositivist position and constructivist/interpretivist position” (Shan, 2022: 3); some scholars refuted the notion that quantitative and qualitative research could be effectively mixed (Hall, 2013; Maarouf, 2019). This perspective is strongly contested and whilst some scholars including Venkatesh and colleagues suggest that “if the researcher is able to overcome the cognitive and practical barriers associated with mixed methods research, he or she should undertake the research without much consideration of paradigmatic or cultural incommensurability” (2013: 22), other scholars acknowledge the importance of integrating both approaches for the purposes of social inquiry to “help researchers arrive at a more complete understanding of research problems,

develop more robust quantitative instruments and integrate several worldviews in a single research study” (Fàbregues et al., 2021: 2; Maarouf, 2019).

The philosophical underpinnings of research are important, and the pragmatist position was chosen for this research as it takes account of the philosophical foundations that motivate both qualitative and quantitative research designs. Pragmatism assumes that “both the mind-independent physical world and the constructed social and psychological world exist, and the reality is complex and multiple” (Shan, 2022: 3). Thus, pragmatism is considered ‘the philosophical partner’ of a mixed methods approach according to Denscombe (2008) and Mitchell (2018); the underlying logic of mixing methods is supported.

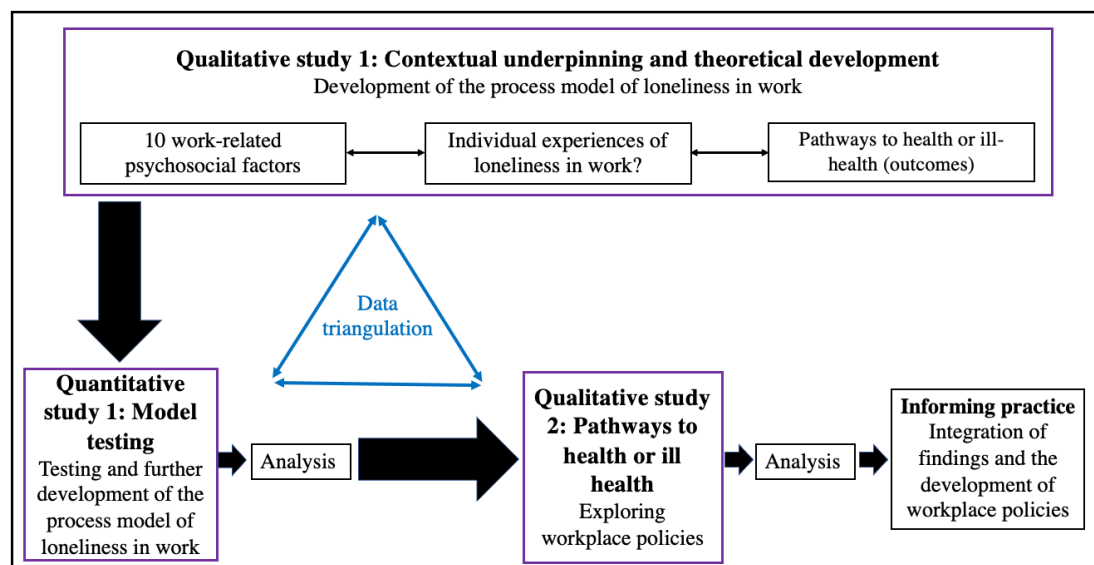
In this research, whilst recognising these long-standing philosophical issues and the fact that understanding the complexity of individuals in their entirety is impossible, the pragmatist stance helps to get as close as possible to a more complete understanding. As previously noted, existing research on loneliness has looked more broadly at experiences of loneliness in the wider vulnerable groups in society (Macdonald et al., 2021), however there is a research gap when considering how loneliness in work is conceptualised and how individuals experience loneliness in work in their everyday lives. These individual experiences of loneliness explored in this research are situated in the context of the rapid increase in remote and hybrid working. This research, therefore, does not explore a particular bounded group; instead, the interest lies in individuals’ mental constructions of their own realities in work to answer the question of whether loneliness in work exists and, if so, to determine the nature of its existence. To summarise, the chosen ontological, epistemological, and axiological assumptions within this single pragmatist paradigm stance are congruent with the research objectives and research questions.

### **3.2.5 Building a mixed methods design**

Whilst there are many mixed methods designs, this research, aligned with the philosophical assumptions of pragmatism, uses a multistage exploratory

sequential mixed methods framework, as depicted in Figure 4 (Creswell and Plano Clark, 2011). Sequential mixed methods studies involve “collecting data in an iterative process whereby the data collected in one phase contribute to the data collected in the next” (Driscoll et al., 2007: 21). The first stage of this thesis is a qualitative data collection and analysis strand, the second stage is a quantitative data collection and analysis strand (conducted on the basis of interpretivist assumptions, i.e., the initial qualitative findings), and the final stage is another qualitative data collection and analysis strand (Almalki, 2016; Fetters et al., 2013; Nastasi et al., 2007). This research framework, with its interactive components, is often used for theory building as the “design begins qualitatively, it is best suited for exploring a phenomenon” (Creswell, 2006: 75), such as the central research topic of this PhD, loneliness in work.

**Figure 4. Multistage exploratory sequential mixed methods framework**



Due to the complexity and ambivalent nature of loneliness in work, both qualitative and quantitative components of this study will need to be integrated effectively (Guetterman, 2015). Integration “can dramatically enhance the value of mixed methods research” (Fetters et al., 2013: 2135) and will occur in this research through building; the results from each data collection procedure will be used to inform the data collection approach of the next procedure (Fetters et al., 2013). In the first stage of this research, qualitative research methods have



been used to explore how individuals' experiences of the work-related psychosocial factors can lead to potential outcomes of loneliness, as well as potential outcomes of health or ill health (i.e., stress, burnout, and other mental health and well-being challenges). This enabled the development of a process model of loneliness in work (see Figure 8). The first study has, therefore, informed the data collection approach of the second study (quantitative) which will address questions regarding the magnitude of the mediation effect loneliness in work has on the individual experiences of the work-related psychosocial factors and well-being and job performance outcomes; the process model of loneliness in work will be tested. Subsequently, the third study will build upon the collected qualitative and quantitative data with the aim of providing key stakeholders with an appreciation of how the careful management of the work-related psychosocial factors can contribute to the prevention of illness and other negative outcomes, and to identify policy interventions for loneliness in work (i.e., more nuanced flexible working policies). Additionally, each study is of equal weighting; the relative importance of the findings was equal (Brannen, 2005).

### **3.3 Data sources**

#### **3.3.1 Qualitative data source: semi-structured interviews**

Study one, presented in chapter four, and study three, presented in chapter six, employed the qualitative method of semi-structured interviews which were conducted online, to explore individuals' experiences of loneliness in work (study one), and organisational policies and practices in relation to employee well-being and loneliness in work (study three). Both studies were conducted in the same way, therefore the following information is applicable to both. The rationale for this choice and the analysis procedure undertaken will be discussed in the following.

“Since the late 19<sup>th</sup> century (in journalism) and the early 20<sup>th</sup> century (in the social sciences), the conversational process of knowing has been conceptualised

under the name of interviewing” (Brinkmann, 2020: 425). Interviews “provide a useful way for researchers to learn about the world of others” (Qu and Dumay, 2011: 239) and participants can express diverse perceptions as they focus on the issues of personal resonance (Kallio et al., 2016). Interviews can be conducted face to face, via telephone, online, or via email (Opdenakker, 2006). Face-to-face interviews have been the dominant interview technique, however due to time, geographical, and financial constraints for both the researcher and the participant, online interviews are growing in popularity (Opdenakker, 2006). Conducting interviews online (with video) poses some advantages to the researcher; the researcher can see the participant and interpret their facial expressions, body language, and any other non-verbal cues (Saarijärvi and Bratt, 2021). Further, it is suggested that there could be positive effects of anonymity whereby participants disclose more in-depth, sometimes personal information than if they were in the same room as the researcher (Gergen et al., 1973).

Whilst video interviewing provides some advantages compared to other interview methods, there are also some limitations. A certain level of technological capability and internet connection is required, which may exclude some groups who do not have access to reliable technological devices, or a reliable internet connection (Saarijärvi and Bratt, 2021). Further, maintaining confidentiality can be more difficult as the researcher does not have control over who may enter the room the participant is occupying (Saarijärvi and Bratt, 2021).

Interviews can be structured in different ways, there are: structured interviews, where all the interview questions are pre-determined and there is no flexibility; semi-structured interviews, where an interview guide is used but there is some flexibility to ask further probing or follow-up questions; and, unstructured interviews, where there are not any predetermined questions (Alshenqeeti, 2014). Semi-structured interviews are based upon a semi-structured interview guide and are conducted with an individual, or with a group usually lasting a duration of 30 minutes to one-hour (Jamshed, 2014). “The flexibility and ability to probe with follow-up questions along with the dialogic nature of the interview

enables the researcher to attempt to see issues from the perspective of the interviewee to achieve a degree of empathy and understanding” (Kendall, 2008: 134). Barriball and While (1994) identified four key advantages of probing: it allows for the clarification of interesting points raised by the participant; it provides further opportunity to explore sensitive issues; valuable information can be elicited; and it can help respondents to recall additional information. In sum, semi-structured interviews allow for in-depth questioning, whilst remaining within the parameters of the research (Alshenqeeti, 2014), and were selected as the most appropriate choice for this research.

In order to elicit information from participants, a good qualitative researcher requires a certain skill set to meet Dörnyei’s (2007) two criterion of a conducting a good interview; an interview should flow naturally and be rich in detail. In order to achieve this, the interviewer should be aware of their position in relation to the research, i.e., how their ethnicity, age, nationality, gender, and status (amongst other factors) might limit and/or benefit the generation of interview data (Roulston, 2012). Qualitative researchers should also be active listeners, where they leave their own “perspective and concentrate on what the narrator has and wants to say” (Lillrank, 2012: 283). Researchers can experience difficulty in generating rapport with the participant, which results in incomprehensive answers (Morris, 2015); thus, the ability to create rapport is another key skill of a qualitative researcher (Gruber et al., 2008). Further, by inviting participants to discuss aspects of their lives and personal experiences in relation to emotionally rich phenomena, there is the potential for unanticipated disclosures to occur (Miller, 2017). Whilst ethics boards try to regulate for these eventualities to ensure the safety of both the participant and the researcher, a qualitative researcher must also be prepared and have coping strategies in the scenario of an unanticipated disclosure.

Having recognised some of the advantages and limitations of employing interviews, the data collection procedure for both studies will be presented, and the importance of each stage in assuring quality and rigour in qualitative

research. Firstly, the sample and the sample size were considered. A guiding principle for the appropriate number of interviews is to conclude interviewing when data saturation is met (Morse, 2015; Mthuli, 2021) which allows for flexibility in the design as the research progresses. A fixed predetermined sample size is not ideal in qualitative designs; instead, “the number of required subjects usually becomes obvious as the study progresses, as new categories, themes or explanations stop emerging from the data” (Marshall, 1996: 523).

In study one (see chapter four for more detail), interviews were conducted on an individual basis with a cross-section of 35 staff members at a HE Institute in the UK (see Appendix A.1 for a summary of participants). The sample size is relatively large for a qualitative study, however interview 35 was deemed to be the point where data saturation was met because employees’ experiences in different job roles had been explored and recurrent themes had emerged. The HE Institute provided a meta-case setting, within which comparisons could be drawn between the employees’ experiences of the work-related psychosocial factors and their resulting emotional responses to meet my research aim of investigating loneliness in work as a socially and psychologically shaped experience. This resulted in observable mini cases, for example between employees’ experiences in different academic departments, or across different employment types. The time-horizon of the first study was three months into the UK Government’s policy of mandatory working from home (where possible), a mandate affecting most participants in my study, which provided an especially salient setting for the study of loneliness in work. Initial participants were contacted through private networks (purposive sampling) and, in a secondary phase, via other participants’ networks (snowball sampling).

In study three, interviews were also conducted on an individual basis with a cross-section of 50 HR professionals across UK employment sectors. Again, this sample size is relatively large for a qualitative study, however, the participants’ experiences in different organisations with different employee well-being policies provided a fruitful basis of conversation and data. Interview 50 was

deemed to be the point that data saturation was met, as similar themes were recurring. The time-horizon of the third study was one month prior to the most recent general election in the UK which was held on the 4<sup>th</sup> July 2024; an event predicted to affect all participants and their respective organisations who participated in the study. Initial participants were contacted via email as they had indicated that they would be happy to participate further in the research following the second study. Additional participants were recruited through private networks (purposive sampling), and via other participants' networks (snowball sampling).

Having identified the sample and research contexts, the formulation of the semi-structured interview guides was the next crucial phase in the qualitative studies; “the quality of the interview guide effects the implementation of the interview and the analysis of the collected data” (Kallio et al., 2016: 2960). Two semi-structured interview guides were developed and were used throughout the 85 online interviews which lasted for an average duration of 30 minutes in study one, and an average of 43 minutes in study three.

To ensure quality and rigour, two pilot interviews were conducted at the beginning of both interview processes by a single interviewer. The pilot interview transcripts were reviewed by two independent parties who assumed challenger positions which helped to fine-tune the interview guides; an important step in ensuring reflexivity in qualitative research. Following the pilot interviews, the remaining interviews were then conducted by the initial interviewer which ensured consistency (Kvale and Brinkmann, 2009; Lincoln and Guba, 1985) and was advantageous in creating an intimate atmosphere, developing rapport, and ensuring a free-flowing conversation; participants were willing to recount in-depth personal experiences of loneliness in work in this private, secure environment. Notably, most of the participants in both studies were working from home; the comfort of their personal surroundings could have been a beneficial factor in their willingness to speak openly about their experiences (Miles and Huberman, 1994). All participants gave permission for the interviews to be

recorded, transcribed, and encrypted to ensure safe electronic storage. Each participant was allocated a number, known as a non-identifying variable (given chronologically in the order of the interviews) and a master list of each participant and the number they were assigned has been stored and encrypted in a separate location from the data to ensure confidentiality (Stuckey, 2014).

Overall, this is an appropriate data collection method in relation to the research questions for both studies; individuals' complex perceptions are explored and their emotional appraisal of their experiences at work, as well as the potential organisational interventions that can be employed to minimise experiences loneliness in work, and more broadly to improve employee well-being (Kallio et al., 2016).

### **3.3.2 Quantitative data source: Online survey**

Study two, presented in chapter five, employed a survey as the quantitative method of choice, specifically a standardised cross-sectional online questionnaire with closed-response questions that was designed for the purposes of this research. The rationale for this choice and the analysis procedure undertaken will be discussed in the following.

Surveys can be conducted online, via postal mail, via telephone, or in-person (Rea and Parker, 2014). In this study, an online survey was employed and was targeted at employees in the UK in any type of business organisation (i.e., private, public, sole-trader, limited liability partnership, etc.); an unrestricted sample (Van Selm and Jankowski, 2006). Responses were gathered from a total of 682 UK employees, a snapshot of the UK's working population, and in order to reach these participants, Sheehan's (2002) strategies of placing an online request on a website (in this case, LinkedIn) as well as emailing potential respondents with an explanatory letter and a hyperlink to the survey were employed. The link to the survey was available via the JISC online surveys platform (see Appendix B.1), a platform recommended and approved by the Nottingham University Business School for research purposes.

There are numerous benefits of using self-administered online questionnaires that are widely documented, which include: the ability to access a large sample in a short-time frame (it is much faster than conducting interviews and collecting other qualitative data) (Tuten, 2010; van Selm and Jankowski, 2006), an enhanced ability to present and record information in transporting responses (Stenton and Pascoe, 2004), as well as the opportunity to overcome the challenge of “capturing the attention and time of the respondents” (Boyer et al., 2001: 5), which may help to attain a better response rate, although this is contentious amongst researchers (Lefever et al., 2007). Further, the replicability of an online survey is another advantage; for instance, a survey can be replicated in one organisational setting to gain specific organisational insights, rather than across the general working population (Rea and Parker, 2014).

There are also potential limitations, and sampling bias “is generally seen as the main objection to employing online surveys” (Van Selm and Jankowski, 2006: 439). Further criticisms levelled against surveys as a data collection method are regarding “non-probability samples, coverage error, non-response error, and sampling error” (Vaske, 2011). Achieving a random sample of respondents via the internet “is problematic, if not impossible” (Van Selm and Jankowski, 2006: 439), however, in the context of this study, the data will be viewed as representative of a sub-group of the UK working population. The potential weaknesses of this method will be counteracted by a careful questionnaire design (Rea and Parker, 2014), and further, by the qualitative methods employed, an inherent advantage of mixed methods research.

There are various stages in planning a questionnaire to ensure a survey is well-designed and Regmi and colleagues (2016) denote six components that are critical to the success of an online survey: a user-friendly design and layout; a clearly identified population of potential survey participants; avoiding multiple responses; managing data properly; dealing with ethical requirements; and piloting the survey. These principles were followed in the creation and implementation of the online survey employed in study two. The instructions and

survey questions and accompanying scales were clearly explained, and the layout was simple and similar to that used in a paper questionnaire. For example, all responses to be given on the same Likert scale were grouped to minimise time expenditure for the respondent, thereby ensuring the simplest possible user experience; the questions were presented in a way that could “be understood and answered accurately by all recipients” (Dillman et al., 1999: 3) in the manner intended by the researcher. An online questionnaire was an appropriate format for the target working population as they have access to the internet and technological devices (Regmi et al., 2016). Multiple responses to the survey were not allowed, and this was also discouraged as there was no incentive provided for completing the survey; this was a case of goodwill and contribution to important research. The JISC online survey platform offered reliable data management and facilitated the transfer of the data to SPSS for data analysis, improving the reliability and validity of the study. Finally, ethical considerations were taken and included informed consent of participation; participants could not progress in the survey without providing informed consent. Additionally, participants had a right to withdraw and skip questions or return to previous questions should they wish to change their responses which plays an important role in ethically sound research. (Regmi et al., 2016).

Following the data collection procedures, the question of how the data would be analysed emerged. The data analysis strategies considered in this thesis are discussed in the following section.

### **3.4 Analysis strategies**

Following data collection, there are different data analysis strategies that can be selected. In mixed methods research, both qualitative and quantitative analyses are undertaken, and are discussed in the following.



### **3.4.1 Qualitative analyses**

Two qualitative analysis techniques were employed: in study one, IPA was conducted, and in study three, TA was used.

#### **3.4.1.1 Interpretive phenomenological analysis**

In study one, IPA was adopted due to the nature of loneliness as an emotionally laden and complex topic that requires the in-depth examination of the individual lived experience (Benner, 1994; Smith et al., 2009; Smith and Osborn, 2015). IPA, developed by Jonathan Smith and colleagues over 20 years ago (Love et al., 2020), is fundamentally “concerned with the detailed examination of personal lived experience” (Eatough and Smith, 2017: 193), and is, therefore, particularly apt at investigating a highly subjective and complex component of the human condition, such as loneliness. In van Maanen’s words, the “reward phenomenology offers are the moments of seeing-meaning or ‘in-seeing’ into ‘the heart of things’” (2007, p. 12). Critically, “in a study with an IPA approach, the advantageous elements of the study quadruple because of the bonding relationship that the approach allows for the researchers to develop with their research participants” (Alase, 2017, p. 9). IPA “draws upon the fundamental principles of phenomenology, hermeneutics and idiography” (Pietkiewicz and Smith, 2012: 362).

“Hermeneutics is the study of human cultural activity as texts with a view towards interpretation to find intended or expressed meanings” (Lavery, 2003: 24); it is the science of interpretation. Further, according to Taylor (1987), researchers following a hermeneutical position “attempt to establish a certain reading or interpretation of the meaning of social action” (Schwandt, 1994: 227). Within this position, the historicity and background of the researcher and the researched is important (Lavery, 2003). According to Heidegger (1962), our “pre-understanding is not something a person can step outside of or put aside, as it is understood as already being with us in the world” (Lavery, 2003: 24). Thus, an individual’s innate understanding of the world cannot be made explicit because they are bound by cultural, social and historical contexts (Lavery, 2003),

therefore, it is the interpretivist researcher's duty to be aware of, and to account for, these external influences in their research.

The second theoretical orientation relied upon by IPA is phenomenology, which is also heavily influenced by Heidegger's (1962) work and the concept of *Dasein* (being in the world). In IPA the researcher "brings their fore conception (prior experiences, assumptions, preconceptions) to the encounter, and cannot help but look at any new stimulus in light of their own prior experience (Smith et al., 2009: 25). Thus, researchers must take care to ensure that their own prior experiences and preconceptions are put to one side "so as not to reach a premature understanding of the phenomenon being studied" (Horrigan-Kelly et al., 2016: 4).

IPA also relies upon idiography, the "in-depth analysis of single cases and examining individual perspectives of study participants, in their unique contexts" (Pietkiewicz and Smith, 2012: 362). An IPA researcher begins by examining an individual's perspective and can make statements about individual participants following the detailed exploration of each case. It follows that important themes will be generated in the analysis, and those themes are exemplified with participants' narratives which are compared and contrasted (Pietkiewicz and Smith, 2012). Ultimately, drawing together the theoretical principles of hermeneutics, phenomenology, and idiography, the goal in IPA is "understanding human concerns, meanings, experiential learning, and practical everyday skilful comportment [...] as opposed to explanation or prediction through causal laws and formal theoretical propositions" (Benner, 1994: xiv). Thus, an IPA approach enables social scientists to develop deeper and more textured analyses through the individual lens and experience to elucidate the particular phenomenon of interest (Horrigan-Kelly et al., 2016).

Naturally, there are some criticisms levelled against IPA, one of which is the issue of bracketing which, if not adequately dealt with, could affect the reflexivity, rigour, and clarity of the research. Bracketing can result in the researcher's

preconceptions influencing and deteriorating the research quality, specifically in terms of the presentation and interpretation of the research (Beech, 1999). In order to subvert this issue, a reflexive research diary can be employed to ensure that the researcher puts aside their “repertoire of knowledge, beliefs, values and experiences in order to accurately describe participants’ life experiences” (Chan et al., 2013: 2). Despite this, the rewards offered by IPA are “the moments of seeing-meaning or ‘in-seeing’ into ‘the heart of things’” (van Manen, 2007: 12) and “in a study with an IPA approach, the advantageous elements of the study quadruple because of the bonding relationship that the approach allows for the researchers to develop with their research participants” (Alase, 2017: 9).

Each stage of the data analysis contributes to achieving good IPA in practice. IPA following three critical stages as identified by Pietkiewicz and Smith (2012):

- 1) Multiple reading and note making: an initial immersion in the data through transcription, reading, and preliminary note taking.
- 2) The transformation of notes into emergent themes: initial notes are considered in the first round of coding. Converging and diverging participant accounts are explored and coded; the emerging themes from participants’ in-depth accounts of their lived experiences are identified.
- 3) Finding relationships and grouping themes: a second coding procedure is conducted, to further develop rigorous experiential accounts leading to the interpretation of the data. Challenger positions are used at this stage to add transparency, reflexivity, clarity, and rigour to the research (Rheinhardt et al., 2019: 5).

Further, Nizza and colleagues’ (2021) propose four indicators of good IPA, as summarised in Table 2.

**Table 2. Four Quality Indicators of Good IPA (Nizza et al., 2021: 371)**

<b>Quality Indicator</b>	<b>Description</b>
Constructing a compelling narrative	A persuasive and coherent story should be told through the data analysis. The narrative is built cumulatively through carefully selected and interpreted quotes from the participants.
Developing a vigorous experiential account	A depth of analysis should be generated through a focus on the important experiential meaning of participants' accounts.
Close analytic reading of participants' words	Meaning should be given to the data and the described experience through thorough analysis and interpretation of the quoted material within the narrative.
Attending to convergence and divergence	The systematic comparison of participants' accounts should create patterns of similarity and individual idiosyncrasy.

These guidelines have been adhered to throughout study one to ensure coherent, reliable, valid, and trustworthy conclusions are drawn from the study.

#### **3.4.1.2 Thematic analysis**

The third study employs TA which can be defined as “a method for developing, analysing and interpreting patterns across a qualitative dataset, which involves systematic processes of data coding to develop themes” (Braun and Clarke, 2022: 4). TA is suitable for large datasets thanks to its structured approach which enable the identification of key themes (Nowell et al., 2017). It is also particularly useful for applied research where policy and practice are important areas of study (Braun and Clarke, 2014). The researcher’s theoretical position in relation to TA must be made clear (Braun and Clarke, 2022: 6); TA was used to “acknowledge the ways individuals make meaning of their experience, and, in turn, the ways the broader societal context impinges on those meanings” (Braun and Clarke, 2006: 81), in line with the contextualist method of TA. Both individual experiences and implications for policy and practice are of importance in study three.

TA has been criticised as “insufficient detail is often given to the reporting process and detail of analysis” (Braun and Clarke, 2006: 80), however through the clear description and use of the six phases which comprise the analytic process, this will be avoided in this research. The six phases are: “(1) dataset

familiarisation; (2) data coding; (3) initial theme generation; (4) theme development and review; (5) theme refining, defining and naming; and (6) writing up” (Braun and Clarke, 2022: 6). Firstly, in becoming familiar with the dataset from the third study, the data collected through online interviews was transcribed in the same way as in study one (see section 4.2.3), the only exception being that a new Microsoft Teams feature which produced a transcript for all the recorded interviews which was used as a starting point for the transcription. However, as detailed in section 6.2.1, the transcripts required considerable editing and the audio files were replayed at half their original speed to check for transcription accuracy, which ensured good familiarisation with the data. Following this, initial codes were generated from the data with either a semantic or latent meaning identified by the researcher. Initial themes were then suggested by grouping the initial codes. Next, themes were reviewed in relation to the dataset and classified as primary or secondary themes. Themes were then refined, defined, and named to capture their essential meaning, and finally, the findings of the study were written with representative quotes to support the key themes that were identified.

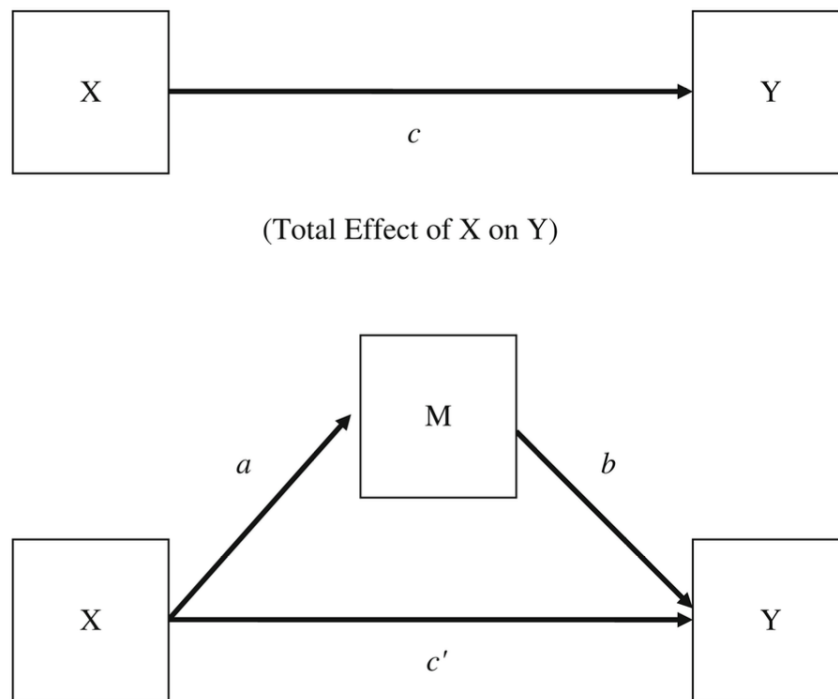
To check the validity of the findings, the same procedure as in study one was employed; findings were checked with the two research supervisors and any uncertainties or differences in opinion were discussed and a consensus was found.

### **3.4.2 Quantitative analysis**

Study two used a mediated path analysis as the main statistical technique for data analysis. Path analysis is a subset of structural equation modelling (SEM) and an extension of multiple regression, and the technique was developed by Sewall Wright in the 1920s (Lleras, 2005; Streiner, 2005). “Path analysis assesses the comparative strength of different effects on an outcome, the relationships between variables in the path model are expressed in terms of correlations and represent hypotheses proposed by the researcher” (Lleras, 2005: 25). In a mediated path analysis, “the primary hypothesis of interest is to see whether the

effect of the independent variable on the outcome can be mediated by a change in the mediating variable” (Gunzler, 2013: 392). To elucidate the meaning of mediation, a basic relational chain featured in a mediated path analysis is depicted in Figure 5.

**Figure 5. Mediation model (Fairchild and MacKinnon, 2010: 19)**



The simple mediation model depicted in Figure 5 features the independent variable (X), the dependent variable (Y), and the mediator variable (M). Path *a* represents the direct effect of the independent variable on the mediator, and path *b* represents the effect if the mediator on dependent variable (Preacher and Hayes, 2008). “The mediation model decomposes the total effect of X on Y (*c*) into two parts: the indirect effect of X on Y, quantified by *ab* (the product of *a* and *b*), and the direct effect of X on Y with the effect of the mediator removed, quantified by *c'*” (Fairchild and MacKinnon, 2010: 19).

According to Baron and Kenny’s causal steps approach (1986), there are three conditions that a variable must meet in order to function as a mediator:

1. “The variations in the level of the independent variable must significantly account for variations in the presumed mediator (i.e., path *a*).

2. Variations in the mediator significantly account for variations in the dependent variable (i.e., path  $b$ ).
3. When paths  $a$  and  $b$  are controlled, a previously significant relation between the independent and dependent variables is no longer significant (i.e., path  $c'$ )” (Baron and Kenny, 1986: 1176).

In relation to the third criteria, a complete mediation is found if path  $c'$  is of no value (i.e., zero) and partial mediation is found if path  $c'$  is reduced but it does not have to reach zero value. Further, as social psychology deals with phenomena that have multiple causes “a more realistic goal may be to seek mediators that significantly decrease path  $c'$  rather than eliminating the relation between the independent and dependent variables altogether” (Baron and Kenny, 1986: 1176). Theoretically, a mediator that significantly decreases path  $c'$  (but not to zero), indicates that the mediator is significant but not a necessary condition for an effect to occur (Baron and Kenny, 1986); there is a partial mediation effect. In terms of data analysis, a partial mediation means that the mediator mediates part of the effect of the independent variable on the outcome; this is more commonly found than a full mediation where the effect is completely (100 percent) mediated by the mediator (Baron and Kenny, 1986; Gunzler, 2013).

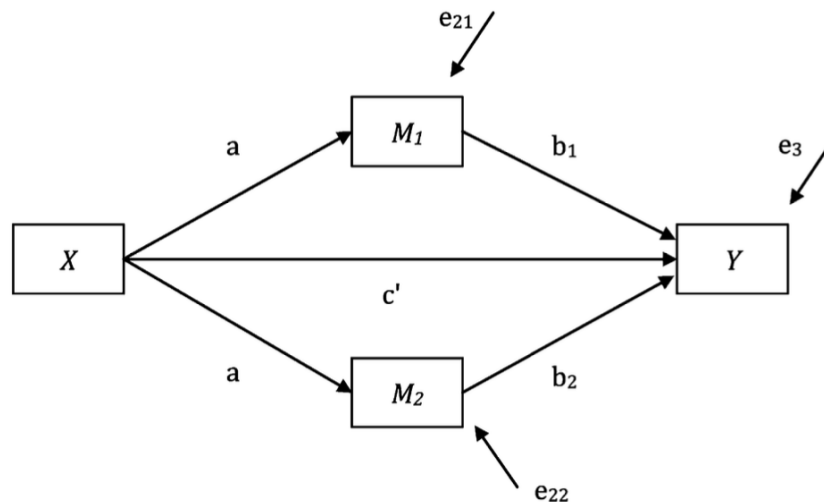
Baron and Kenny’s (1986) causal approach has been critiqued for two primary reasons. “The first flaw is the requirement that a statistically significant total effect of  $X$  (independent variable) on  $Y$  (dependent variable) is demonstrated before proceeding to test for mediation” (Krause et al., 2010: 5). Mediation might be found without a statistically significant total effect of the independent variable on the dependent variable due to the independent and dependent variables having the opposite signs (i.e., one negative and one positive), so the two effects cancel one what would have been a significant direct effect (Krause et al., 2010). Furthermore, a statistically significant mediation effect (i.e., indirect effect) can be found where only one the  $a$  or  $b$  paths are insignificant, and the  $a$ -path multiplied by the  $b$ -path is still significant (Hayes, 2013). The second flaw “relates to the requirement that mediation is demonstrated if a previously significant relationship between  $X$  (independent variable) and  $Y$  (dependent variable) is no

longer significant once M (mediator) is introduced” (Krause et al., 2010: 5). A change in significance level is a problematic requirement and it is questioned whether a small change in a p value (i.e., from a statistically significant value of .049 to an insignificant value of .051) can be indicative of mediation in the population (Krause et al., 2010). Instead of Baron and Kenny’s (1986) causal approach, resampling methods such as the bootstrapping, a non-parametric (Preacher and Hayes, 2008) and “computer-intensive resampling technique” (Alfons et al., 2022: 593) are proposed where “the set of estimates from which confidence intervals are obtained is generated by repeatedly sampling from the observed data at random and with replacement” (Krause et al., 2010: 10). By repeating the sampling thousands of times on the data set “an empirical approximation of the sampling distribution of  $ab$  is built and used to construct confidence intervals for the indirect effect” (Preacher and Hayes, 2008: 880). The confidence intervals produced by the bootstrap method provide valuable information of the likelihood of the value of the parameter (Preacher and Hayes, 2008).

If there are multiple mediators, “one approach is to consider the mediators at one time” (VanderWeele and Vansteelandt, 2014: 96) in the same mediation model, an approach first proposed by Bollen (1987). In a multiple mediation model, multiple pathways from the independent variable (X) to the dependent variable (Y) exist (Thoemmes and MacKinnon, 2010). Figure 6 depicts a multiple mediation model with two mediators.



**Figure 6. Multiple mediation model (Thoemmes and MacKinnon, 2010: 521)**



In this model, two mediating variables are considered that are both caused by the independent variable and that are both causing the outcome (i.e., the dependent variable) (Thoemmes and MacKinnon, 2010).

Overall, the most effective way of employing a mediation analysis is when using “strong prior theory and with appropriate context” (Gunzler, 2013: 394) which will determine whether a simple or multiple mediation model is required. Employing a mediated path analysis was the most suitable choice due to the strong theoretical background (see chapter two) and the flexibility of the method; “SEM allows for multiple independent and dependent variables, which may be observed or implied by the pattern of association among observed variables” (Hoyle, 2011: 333). This approach was advantageous over a traditional regression approach because “in cases where the indirect factors play an important role, regression analysis is not suitable” (Ahn, 2002: 37). This is because regression analysis cannot capture the indirect effects from relationships between factors; only direct effects are represented in regression analysis (Gunzler, 2013). On the other hand, SEM can handle complex relationships between factors, and allows the researcher to develop complex path models with mediated and indirect effects, allowing a more accurate modelling of the casual assumptions in the model (Ahn, 2002). In a study with a complex model such as this one which

includes multiple independent variables, multiple mediators, and multiple dependent variables, this is advantageous (Nunkoo and Ramkissoon, 2011).

Prior to conducting the mediated path analysis, a confirmatory factor analysis (CFA) should be employed to statistically confirm the factor structure of the set of instruments that is used (see section 5.3.1 for the instruments), thereby ensuring the validity and reliability of the latent constructs in the structural model (Hoyle, 2023). The convergent validity of the constructs can be reviewed “by estimating a measurement model in which all indicators are related to the constructs they are meant to measure and not directly to constructs they are not intended to measure” (Cheung et al., 2023: 750); the standardised factor loading should be greater than 0.5 (Hair et al. 2009) (the higher the loading, the better the convergent validity), showing that the indicators are theoretically similar (Cheung et al., 2023). To confirm the factorial structures, fit indexes should be reported including the: comparative fit index (CFI, value  $\geq .90$  indicates good fit) (Bentler, 1992), root mean square error of approximation (RMSEA, value  $\leq .06$  indicates reasonable error), standardised root mean square residual (SRMR,  $\leq .08$  indicates good fit), and the Tucker Lewis index (TLI, value  $\geq .95$  indicates good fit) (Hu and Bentler, 1999).

In some cases, a researcher might employ an exploratory factor analysis (EFA) which fundamentally differs from a CFA as it is “an exploratory or descriptive data technique to determine the appropriate number of common factors, and to ascertain which measured variables are reasonable indicators of the various latent dimensions” (Hoyle, 2023: 261) by the size of the factor loadings. EFA is generally employed at the earlier stages of scale development and validation of constructs, whereas CFA is used in the later stages, due to its focus on testing an underlying structure that has been developed through theory (Ng, 2013). A scale can be built and tested on the same sample by splitting a data set in half and conducting an EFA on one half of the data to test the underlying factor structure, followed by a CFA on the other half of the data to examine the goodness of fit of the factor model (Ng, 2013). As long as the conclusions of the split-sample EFA

and CFA analysis “support a well-defined factor model, then the researcher will be glad with the random splitting procedure” (Lorenzo-Seva, 2021: 2666); this strategy can be employed to overcome issues of poor goodness of fit during a CFA.

These fit indexes are reported in appendix B and have been used “to help assess the quality of the model” (Bentler, 1990: 245) of loneliness in work. The way this analysis approach is declined in the context of this research is described in detail in the methodology section of chapter five.

### **3.5 Ethical Considerations**

The four ethical issues in research summarised by Mason’s (1986) PAPA framework: privacy, accuracy, property, and accessibility, have been strictly adhered to in this research. The principle of privacy refers to an individual’s right of free choice of involvement in a research project, as well as the information that they can be reasonably asked to share (Young et al., 2020). Accuracy refers to the authenticity and fidelity of information, i.e., data integrity. This principle was achieved through complying with mixed methods, qualitative, and quantitative quality criteria. Property deals with the ownership of information; in this research, the use of the data has been clearly stated, and participants were provided with, and had to agree to the contents of a participant information form prior to participation in an interview or a survey. The fourth issue of accessibility denotes the information that the researcher has a right to be able to obtain, and the necessary conditions and safeguarding measures in order to collect this data.

To summarise, ethical approval in line with the University of Nottingham’s (2023) Code of Research Conduct and Research Ethics from the University’s Research Ethics Sub-Committee was sought prior to conducting all three studies in this research (approval number 202223025). This has ensured that the standards of rigorous, transparent, respectful, and honest research at the University are

maintained, and that the necessary protective measures were in place for participants. Further details on the ethical considerations that were applied in each individual study are presented in chapters four, five, and six.

### **3.6 Research Reflexivity and Quality**

This section discusses the overall quality and reflexivity in mixed methods research. In both qualitative research and quantitative research, there are certain ways to measure the robustness of the research and in this thesis, each individual study fulfils the requirements of the respective method that has been chosen. Hirose and Creswell (2023) identify six core quality criteria for mixed methods research, as summarised in the following:

1. A clear rationale for the appropriateness and use of mixed methods enquiry should be presented (see section 3.2.1).
2. Research questions and aims should be written for qualitative, quantitative, and mixed methods research (see section 3.2.1).
3. Quantitative and qualitative data should be reported individually (see chapters four, five, and six).
4. The type of mixed methods design should be named and presented diagrammatically (see section 3.2.5).
5. The integration of quantitative and qualitative studies should be presented in a joint discussion (see chapter seven).
6. The meta-inferences and value from the integration of qualitative and quantitative data should be discussed (see chapter seven).

These six principles have been adhered to, ensuring the validity and reliability of this mixed methods research.

Mixed methods research is acknowledged as an inherently reflective practice (Olaghere, 2022; Sanscartier, 2018); “reflexivity is the concept that researchers should acknowledge and disclose their selves in their research, seeking to understand their part in it, or influence on it” (Holmes, 2020: 2). The researcher must be sensitive to their cultural, political, and social context which are

important dimensions to discuss in terms of self-reflexivity. The researcher is a white British, middle-class, straight, non-disabled female with a centre-left political stance, who has had experience of education in both state and public schools, and a Russell Group University, as well as paid employment in three private organisations and one public organisation. These experiences have provided the researcher with opportunities to work and study alongside a wide cross-section of society.

Whilst the researcher has an appreciation of different educational settings, and workplaces, it was important to leave their personal experiences and associated viewpoints behind to avoid research bias; the sole focus of the study is on the participants' experiences and the data that has been generated through qualitative and quantitative methods. Whilst the challenge of remaining unbiased has been recognised, "through exploring their positionality, the novice researcher increasingly becomes aware of areas where they may have potential bias and, over time, are better able to identify these so that they may then take account of them" (Holmes, 2020: 4). Bias can occur across multiple levels: design, participant selection, data collection, measurement, and analysis (Smith and Noble, 2014).

In this thesis, the research design is based upon a comprehensive literature review; the researcher's personal beliefs did not influence the research questions or the way in which the data was collected. Participants in all three studies were recruited to meet the given study's aims and whilst internet bias did occur as participants needed online access to participate in all three studies, the majority of UK employees have internet access, so this was not deemed to be problematic. Finally, the researcher took care to ensure that the correct data analysis procedures were followed, rather than looking for participant experiences that confirmed the hypothesis, key themes were allowed to emerge from the data. Overall, care has been taken by the researcher to recognise their position in relation to the research and to limit the effects of any potential

unconscious bias to maximise the quality, reliability, and validity of this mixed methods research.

The next chapter presents the first qualitative study including the methodology, analysis and findings.

## Chapter 4: Conceptualising Loneliness in Work

### 4.1 Introduction

Loneliness in work has been conceptualised in a model by Wright and Silard (2021) which proposes various antecedents of loneliness in work (see section 2.3.3). Experiences of these antecedents, combined with an employee's cognitive interpretation of these events (i.e., their sensemaking process) (see section 2.4), will determine which relational category they occupy within the process model of loneliness in work at any given point in time (Wright and Silard, 2021). There are three proposed relational categories in the conceptual model of loneliness in work: relational deficiency (which can lead to loneliness); relational encroachment, and relational fulfilment (Wright and Silard, 2021).

The potential antecedents of loneliness in work are comprised of two distinct groups as conceptualised by Wright and Silard (2021): the predictors of desire for social relations at work and the predictors of actual social relations at work. Wright and Silard (2021) propose that the work-related psychosocial hazards are antecedents of loneliness in work, however the literature identifies the work-related psychosocial factors as a tool for measuring subjective phenomena, such as loneliness, which allows for a broader conceptualisation of the phenomenon at hand (see sections 1.2.3 and 2.5.2.2) (Leka et al., 2017). In terms of understanding the predictors of desire for social relations at work, an individual's need to belong as well as their relational valence can be explored (see section 2.5.1) (Perlman and Peplau, 1998; Wright and Silard, 2021). As discussed, there is little research that has empirically tested the process model of workplace loneliness (Wright and Silard, 2021); therefore, research is needed to identify the most pertinent antecedents of loneliness in work.

As summarised in the previous chapter, loneliness in work is an under-researched topic, despite the evidenced serious consequences it can have on

health and well-being, which in turn influence organisational performance (i.e., through increased sickness absence). In this respect, the aim of the study presented in this chapter is to explore individuals' experiences of loneliness in work, and critically any associated antecedents of these experiences. This has been undertaken through 35 semi-structured interviews with employees in the UK HE sector, and a number of key themes that emerged have been presented.

This chapter is structured in three sections. Firstly, the methodology is discussed including the data collection procedures, ethical considerations, and data analysis procedures. The next section reports the findings in order of the key themes that arose from the data analysis. The final section presents a discussion of the results of this study with a focus on conceptualising loneliness in work.

## **4.2 Method**

This study is based on 35 semi-structured interviews with employees from a UK HE Institute. The processes of data collection and data analysis are detailed in this section.

### **4.2.1 Data collection and participants**

In line with the stated research aims and research question, a qualitative interview-based study was conducted in the context of a UK-based HE institution during the Covid-19 pandemic. Data were gathered over a two-month period from June to July 2020. The time-horizon was three months into the UK Government's policy of mandatory working from home (where possible), a mandate affecting most participants in the study. This provided an especially salient setting for the study of loneliness in work.

A cross-section of 35 professionals from a UK HE Institution was interviewed using an IPA approach; the survey sample is, therefore, focused on one geographical area (East Midlands). The research participant profile is diverse and includes different groups of staff: academic staff (9); accommodation staff (3);



business school staff (8); Equality, Diversity, and Inclusion (henceforth, EDI) staff (3); sport staff (11), and SU staff (1). The sample includes a broad range of participants from different departments and across different levels in the organisational hierarchy; 12 participants have managerial responsibilities; 19 participants have roles involving a teaching or coaching component, and 32 participants have roles involving some element of desk work (see Appendix A.1 for further information on the specific job roles included in each category). The size and breadth of this sample have generated a robust dataset to ensure that the recommendations presented in this study are well-supported and are representative of the majority of staff members at the HE Institution.

The study sample was built by developing contacts within the HE Institution and the snowballing technique was the strategy that was employed. The initial participants were forthcoming in sharing the participant information sheet with colleagues which helped in reaching the total number of 35 participants. A combination of purposive and convenience sampling was, therefore, employed. The approach taken involved a series of semi-structured interviews which enabled “people’s subjective impressions of organizational life, and the stories they construct in order to make sense of the environment in which they work” (Bott and Tourish, 2016: 3) to be collected.

The key interview themes and questions were prepared in advance of the interviews and a flexible interview guide was created to provide a general structure (see Appendix A.2). Open-ended questions formed the starting point of the participant interviews which enabled the collection of participants’ “subjective impressions of organisational life, and the stories they construct in order to make sense of the environment in which they work” (Bott and Tourish, 2016: 3). The conversation remained open to any information or experience the participants wished to share; enough flexibility was allowed for new themes to emerge and for the interview discussion to progress in different ways through probing and follow-up questions (Bryman and Bell, 2015). Each interview started with the participants being asked about their role in the organisation, the first of

the work-related psychosocial factors. This was the most appropriate starting point to generate rapport with the participants, before moving on to potentially more sensitive questions regarding emotions. Following this, the participants' understanding of the term loneliness, as well as loneliness in the context of work were explored; an initial insight into their existing beliefs and knowledge of the phenomenon was generated.

The interview questions then moved on to explore the participants' experiences of the remaining nine work-related psychosocial factors, starting with their experiences of the factor (the social dimension) before moving on to discuss their feelings (the psychological dimension). Participants were asked how the organisation responded to Covid-19 to help situate their experience of work during the pandemic which was relevant due to the timeline of study one. This also ensured a flowing conversation, before leading on to more personal questions regarding feelings. The interview questions then moved on to discuss interpersonal relationships at work (i.e., how do you feel about your relationships with colleagues?), and how this had changed during the pandemic (i.e., to what extent have interpersonal relationships at work been affected by enforced remote working?). The regularity, frequency, format, who this communication was with (i.e., a senior, peer, junior or subordinate), and how the participant felt after this contact were explored. The acquired understanding of the participants' expectations and desires from their work relationships, the effects of enforced remote working upon their relationships, and how this made them feel allowed for the later interpretation of some of the subjectivities of loneliness in work.

Following the discussion of interpersonal relationships, the participants' work schedules (i.e., Have work schedules been affected by enforced remote working?), control (i.e., How much control do you have over your workload?), home-work interfaces (i.e., How do you feel about your work-life balance?), and environment and equipment (i.e., How do you feel about your remote working set-up?) were explored. These dimensions allowed for the discussion of the technological implications associated with remote working, as well as the

implications of participants' individual home circumstances (i.e., the impact of caring responsibilities for those with children or elderly relatives, in addition to space available within their home environment) on their experiences of work. A discussion of job content (i.e., To what extent have your work responsibilities been affected by the pandemic?), and workload and work pace followed (i.e., Have you experienced any additional work-related pressures?). Work pressures are often associated with stress; therefore, these dimensions were explored to see if loneliness might be a potential outcome of participants' cognitive interpretation processes of their experiences in work. Participants were then asked about the tenth factor, career development, (i.e., How do you feel about your career prospects? Has your position in the organisational hierarchy had any impact during the Covid-19 pandemic?). The participants' feelings regarding their career prospects provided an insight into their future work intentions and contributed to their overall perception of the higher education institution.

To bring the interviews to a close, participants were asked how they felt about returning to an office environment (i.e., How do you envisage a return to work in the new normal?), as well as their thoughts on how their organisation could deal with loneliness in work, should it arise (i.e., What are the necessary policies and practices the organisation could implement in relation to loneliness in work?). This provided an insight into the participants' thoughts on continued remote working, as well as suggestions to make the working environment more accessible to all employees. Finally, participants were asked if they had any further comments or observations.

The interviews ranged from 20 to 35 minutes in length and were conducted via online video platforms, due to Covid-19 pandemic restrictions. Two pilot interviews were conducted at the beginning of the interview process by a single interviewer. The pilot interview transcripts were reviewed by two independent parties (i.e., challengers) which helped to fine-tune the interview guide. The remaining interviews were then conducted by the initial interviewer which ensured consistency (Kvale and Brinkmann, 2009; Lincoln and Guba, 1985) and

was advantageous in creating an intimate atmosphere, developing rapport, and ensuring a free-flowing conversation; participants were willing to recount in-depth personal experiences of loneliness in work in this private, secure environment. Notably, all participants were working from home; the comfort of their personal surroundings could have been a beneficial factor in their willingness to speak openly about their experiences (Miles and Huberman, 1994). All participants gave permission for the interviews to be recorded, transcribed, and encrypted to ensure safe electronic storage.

#### **4.2.2 Ethics**

All data collection procedures in this study adhere to the University of Nottingham's Code of Research Conduct and Research Ethics (2023), and the Data Protection Act (The National Archives, 2018) which encompasses the General Data Protection Regulation (GDPR); all information collected has been used fairly, lawfully, and transparently. Before the interviews, participants were provided with a participant information form, a participant consent form and a research participant privacy notice. Signed consent forms (see Appendix A.3) were obtained from each participant prior to interview and are held electronically. At the beginning of each interview, the ethical guidelines were re-confirmed with the participant to ensure full understanding of the research procedures and the right to withdraw from the research at any time was noted. All personal and organisational information was removed from the interviews upon transcription (which was completed by the researcher, i.e., no professional services were involved), and audio files were deleted as soon as transcription had taken place. Transcriptions were encrypted and stored securely.

#### **4.2.3 Data analysis**

In line with the principles of IPA, the data analysis followed several stages. The first stage involved the researcher (who had conducted the 35 interviews) transcribing the participant interview data. In an attempt to avoid potential errors in transcription, which include inaccurate punctuation, speech elisions, mistyped or misinterpreted words, overlapping speech, background noises, poor

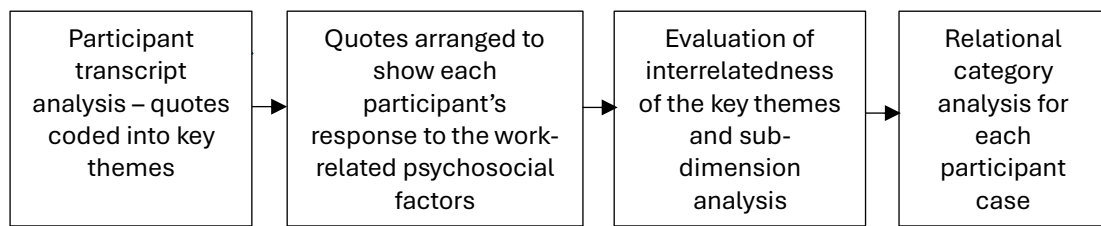
recording quality, and complications caused by potential language barriers or jargon (Easton et al., 2000; McLellan et al., 2003), the interviews were transcribed (verbatim) by the principal researcher playing the saved audio files at half the original speed and typing simultaneously. This process was instrumental in creating familiarity with the dataset; the time taken in typing and preparing each transcript allowed for reflexivity and any initial emerging themes were annotated at this early stage. The researcher kept a reflexive research diary, which aided in subverting the problem of bracketing in phenomenological research. In bracketing, as “the researcher is the primary instrument for data collection and analysis [...] the findings are mediated through this human instrument” (Chan et al., 2013: 3); thus, the researcher’s preconceptions can influence and deteriorate the research quality, specifically in the ways that the data is interpreted and presented (Beech, 1999; Horrigan-Kelly et al., 2016; Smith et al., 2009). By using a reflexive research diary, the researcher put aside their repertoire of “knowledge, beliefs, values, and experiences in order to accurately describe participants’ life experiences” (Chan et al., 2013: 2). This meant that it was possible to reach “deeper levels of reflection across all stages of qualitative research” (Tufford and Newman, 2010: 81).

Overall, the transcription process was critical, and as previously noted is a key quality criterion (Da Silva Nascimento and Steinbruch, 2019; Roulston, 2012). The transcription process marks the first step of data reduction as there are inherent decisions that must be taken by the transcriber in terms of what is, and what is not transcribed (Miles and Huberman, 1995). “Representing audible talk as written words requires reduction, interpretation and representation to make the written text readable and meaningful” (Bailey, 2008: 127); thus transcriptions “are artificial constructions from an oral to a written mode of communication” (Kvale, 1996: 163). Overall, the accuracy of a transcription has important implications for the accuracy of data analysis and the degree of dependability of the data (Stuckey, 2014), therefore, it is important to be aware of, and have methods to overcome any potential pitfalls.

Following the transcription process, the key themes in the data were identified through reading and coding the interview transcripts using NVivo version 12 software. As LeCompte explains, “because qualitative data have no initial intrinsic organisational structure or meaning by which to explain the events under study, researchers [...] must then create a structure and impose it on data” (LeCompte, 2000: 147). Through the initial coding, the researcher drew participant quotes from the raw data which were arranged into a key themes table to develop an extensive account of each participant case (see Appendix A.4 which summarises the rich participant accounts for key theme of the home-work interface). This allowed for patterns of convergence and divergence to be analysed. This stage of the analysis enabled the evaluation of the inter-relatedness of the key themes for each participant case. At this point, a level of *Gestalt* (completion) in the first stage of data analysis was attained (Love et al., 2020).

The final stage of the data analysis in study one was a second coding procedure, to further develop rigorous experiential accounts and to interpret which relational category these accounts suggested (relational deficiency, relational fulfilment, relational encroachment, or fluctuating positions) on Wright and Silard’s (2021) process model of workplace loneliness. Figure 7 depicts the data coding structure (Starks and Brown Trinidad, 2007). Psychosocial work environment sub-dimensions were identified through illustrative quotes and determined the relational category or categories within the model. Interpretations of the data were discussed with the two independent parties who assumed challenger positions and decisions regarding dual positions on the model were agreed upon; this is a reflexive research practice to assure rigour and trustworthiness (Starks and Brown Trinidad, 2007). Challenger positions add transparency, reflexivity, clarity, and rigour to research by ensuring that “all that is relevant and significant” (Rheinhardt et al., 2019: 5) to the participants’ accounts is captured, which is a strength of the research design.

**Figure 7. Coding structure: study one**



Following the second stage of coding, a compelling narrative was constructed, in line with Nizza and colleagues’ (2021) indicators of good IPA. The main themes and subthemes generated through this analysis have informed the following findings section.

### **4.3 Findings**

In presenting the findings, it is first illustrated how the participants defined loneliness in work in general terms. The three work-related psychosocial factors: interpersonal relationships at work, the organisational culture and function, and the home-work interface that emerged during the analysis as especially relevant for their experience of loneliness in work during the Covid-19 pandemic and the concurrent remote work mandate are discussed.

#### **4.3.1 Defining loneliness**

The analysis shows that all 35 participants defined loneliness negatively. One participant defined loneliness using attributional characteristics, loneliness is “only a negative [...], the negative bits of being on your own for too long, whether that’s depression or I don’t know, anxiety” (Participant 4, academic staff). Another participant referred to relational characteristics, principally feelings of separation, “I think loneliness for me is quite an emotive word [...], there’s a feeling of being disconnected from others – it’s kind of more of a state of mind and I would also connotate it negatively” (Participant 11, academic staff). The subjective characteristic of loneliness was also referred to by a different participant, “I think loneliness is more mental than your physical proximity [...] I think that depends on how you engage with people or how people engage with you or the community that you build around you and your interaction in relation

to that community” (Participant 35, other staff). The psychological dimension of loneliness was highlighted; individuals’ experiences of the social factors comprising the work environment were subjective.

Overall, the participants’ definitions correlated with the social psychology perspective of loneliness (McWhirter, 1990; Perlman and Peplau, 1981; Weiss, 1973) and appeared to corroborate Wright and Silard’s (2021) employment of a universal definition of loneliness from the deficiency perspective. Participants described a relational deficiency in their definitions of loneliness (i.e., they described a situation where their individual desire for relations at work is greater than the actual social relations at work they experience), and if they were to experience this relational deficiency, they expressed that they would experience a resulting negative emotional reaction (i.e., following their cognitive sensemaking processes). Further analysis centred on their actual experience of loneliness during the pandemic, however, revealed a different picture. More specifically, the analysis revealed that three psychosocial factors – namely interpersonal relationships at work, the organisational culture and function, and the home-work interface – were especially salient for the participants’ experiences of loneliness in work. These are presented individually below.

### **4.3.2 Experiencing loneliness**

#### **4.3.2.1 Interpersonal relationships at work**

The analysis shows that participants’ interpersonal relationships at work had experienced considerable change, particularly due to the context of the Covid-19 pandemic and the resultant shift to remote working. Further, three sub-dimensions of interpersonal relationships at work (Leka et al., 2017) were particularly important in analysing relational quality: social or physical isolation, established relationships at work, and social support.

Interview data suggest that the sudden change to online-only communication channels (most frequently *Microsoft Teams*) significantly impacted participants’



experiences in work. In some cases, the withdrawal of social and physical contact and resulting emotional impact led to relational deficiency and significant implications for loneliness in work. Participant 11 (academic staff) commented, “I did not want more online communication, I wanted a different kind of communication that is also accompanied with physical contact [...] obviously that was not possible so that was a very isolating experience when communicating with other people”. Other participants agreed and presented their own experiences of relational deficiency whilst working remotely, “it is really quite soul destroying” (Participant 25, Business School staff), and “it is a bit solitary” (Participant 18, Business School staff). Conversely, another participant’s lower preference for social and physical contact at work meant that they experienced a positive change in interpersonal relationships whilst working remotely: “I am more interesting to others than they are to me [...] I tend to find I get into conversations where I do not really want to be in them, so it is minimising that” (Participant 31, Business School staff). In this participant case, work relationships were one dimensional and relational fulfilment was met. However, in a different work context, where working in an office environment is essential, the participant may experience relational encroachment. Whilst in most participant cases work relationships were highly valued, there are examples of individuals who possess a lower desire for close relationships with colleagues and therefore, the state of social or physical isolation at work was preferred; the subjectivity of loneliness in work was evident. Thus, differences in individuals’ preferences (which have resulted in feelings of relational deficiency, as well as relational fulfilment) regarding interpersonal relationships at work were highlighted as a predictor of desire for social relations at work.

Another emerging sub-dimension was the importance of established relationships in employees meeting relational fulfilment at work. Feelings amongst employees with expansive and well-established contacts with colleagues were more neutral due to their larger networks and their more expansive organisational knowledge than those participants who were newer to the organisation with relationships that were not as strong or cemented. This

theme was particularly evident in the three participant cases who were new starters; these participants (Participants 10, 26, and 35) either started working in their roles just prior to, or during the Covid-19 pandemic. Participant 10 (sport staff) expressed, “all of the supporting human interactions are not there, and I am not garnering additional information or understanding personalities from being around people in an office space”. In addition, Participant 26 (academic staff) stated, “it seems to be a two-dimensional relationship because you tend not to immerse yourself in the small talk with people [...] it’s more two-dimensional than a rounded working relationship”. This challenge new starters faced was also recognised by existing and established staff members, “the sort of inter-human stuff is missing [...] I would not want to work only like this, and I am not sure how I would feel if I had to meet all new people in a professional context online” (Participant 24, academic staff). The effectiveness and structure of induction programmes was a predictor of actual social relations at work; this was a crucial element in the onboarding process for new staff members to prevent relational deficiency, and in turn, loneliness in work.

The influence of social support generated by team dynamics on feelings of loneliness in work was also expressed. Enforced remote working has strengthened some working relationships, but worsened others that were already strained. Participant 1 (sport staff) commented, “our relationship as a team was genuinely pressured when we were working together [...] I think it has actually given the opportunity for relationships to break down even further” due to a lack of contact and social support, thereby signalling relational deficiency. Team members were not using the video function during online meetings (potentially due to feelings of relational encroachment); therefore, body language cues, facial expressions and general participation were missing. This further breakdown of working relationships signified the heightened importance of communication and interaction in fostering and maintaining strong team dynamics and social support in a remote working environment.

Conversely, in cases where strong team dynamics and social support were in place prior to the Covid-19 pandemic, teams flourished. Participant 32 (sport staff) commented, “working with such a close-knit team is such a positive thing for me and I do think it is a massive thing for your health, mental health and well-being being surrounded by really positive and supportive people”. Participant 19 (sport staff) supported this sentiment, “I think I have felt more supported by my department and my team in lockdown than I ever did before”. Although Participant 19’s job demands changed, the social support from colleagues and management acted as a buffer and fostered positive feelings, improving their job satisfaction. Moreover, experiences of team dynamics and the relational climate were also related to how the individual views the organisational culture. Participant 24 (academic staff) summarised, “if the climate at an institution or in a particular part of the institution [...] is not very good, you are more likely to get loneliness among those people [...] simply because everybody is cross, everybody is stressed and everybody is fed up”. If this was positive prior to lockdown staff have felt well supported, however, in situations where this was an area of concern prior to the Covid-19 pandemic, it has been further exacerbated. It is evident that the experience is individualistic and the departmental culture, which is directly related to the overall organisational culture, is key.

#### **4.3.2.2 Organisational culture and function**

Organisational communication emerged as a key facet of the broader notion of organisational culture and function, in determining an individual’s actual social relations at work. The organisational culture and function sub-dimensions of appropriate support, high uncertainty, and organisational communication processes (Leka et al., 2017) were particularly helpful in framing participants’ experiences.

Participants who expressed negative accounts about the organisational culture and function commented upon the lack of appropriate support and appreciation they feel in their job roles, which is linked to a poor psychosocial safety climate (the “psychosocial safety climate refers to the organisational climate for

employee psychological safety and health” (Hall et al., 2010: 355)). “I think there has only been really tokenistic appreciation of the situations that people are in [...] I know there are some people who have been really really really stressed out” (Participant 23, academic staff). Another participant stated, “with the University as an institution, [...] I feel isolated, [...] I feel unappreciated in all that I am doing” (Participant 11, academic staff). The lack of positive feedback and reinforcement to recognise the additional work and effort that employees have exerted during this time to facilitate remote working and in some cases remote teaching, has resulted in feelings of resentment, isolation, loneliness, and disengagement. The lack of recognition and support that some participants received from their line managers resulted in a discrepancy between the individuals’ desires for social relations at work and their actual social relations at work, signifying a relational deficiency.

Further, the result of the perceived lack of support and organisational communication at crucial times led to high uncertainty causing anxiety for some employees, “the challenge is the uncertainty” (Participant 7, sport staff), affecting psychosocial safety. The quality and timeliness of the information that was provided was a concern; “when you know other countries are shutting down, you should be thinking ahead and not waiting to be told what to do [...] that is where I am critical of it” (Participant 16, academic staff). Further, insufficient communication of organisational policy changes was a cause of uncertainty and frustration for some participants in their job roles, “students that were in the period where they might be submitting their theses in the next year were given a blanket 6-month extension and students knew about that before I knew anything at all” (Participant 31, Business School staff). In some cases, crisis management processes and communication channels were unsuccessful in disseminating the necessary information, exemplifying a cause of relational deficiency.

Despite the criticisms of the organisational support and communication levelled by some participants, other accounts point to positive experiences, linked to a good psychosocial safety climate, strong communication processes, and

relational fulfilment. Participant 19 (sport staff) commented upon the organisational communication, “I think the communication has been really really strong [...] I don’t think they could have done anything more, it has been really clear and really consistent from the start”. Mental health and well-being were also discussed by some participants and the organisation’s support network was a reassuring factor, “I appreciated the counselling service getting in touch and sending an email from my counsellor” (Participant 17, accommodation staff) and “I am a mental health advocate [...] so it is nice to see that the University has taken this seriously” (Participant 21, Business School staff). The importance of mental health and well-being to maintain a good psychosocial safety climate was reiterated in some experiences of line management. Participant 12 (sport staff) commented, “there’s quite a protective mechanism that they’re trying to put an arm around people just to make them feel like they’re not forgotten about”. The quality of support was echoed by Participant 32 (sport staff), “you could not ask for a better line manager, she’s so supportive and she’s always there if you need support with any work or even personal stuff as well”. The additional contact and support mechanisms offered by some line managers during the Covid-19 pandemic was appreciated; the astute adaptation of leadership approaches met the increased needs of some employees.

Conversely, themes of self-sufficiency and self-management arose in academic staff members’ responses; “I am kind of at a certain level of seniority where I can almost manage myself” (Participant 11, academic staff) and “I have sort of stayed fairly self-contained in terms of I just get on with things” (Participant 26, academic staff). Whilst there is managerial support at this level, the academic staff members interviewed in this study expressed that they are comfortable and satisfied working without regular managerial input and support. Furthermore, longevity and having a voice suppressed more negative feelings of organisational support and communication processes, acting as a buffer, “if you had a problem, for me at least, who has been in the school for so long, [...] I would have had no problem saying to whoever needed saying to I do not think this is going to work, and I also felt that people probably listen to me at least” (Participant 24,

academic staff). Overall, the analysis indicated that an individual's belonging motivation as well as their relationship valence were accurate predictors of their desire for social relations at work, as evidenced by the difference in desired social relations at work of academic staff versus sport staff.

#### **4.3.2.3 Home-work interface**

The home-work interface has been identified as the third key dimension in explaining employees' experiences of loneliness in work this study. Our analysis identified two important sub-dimensions of the home-work interface: conflicting demands of work and home, and work-life balance (Leka et al., 2017). Work-life balance and the conflicting demands of work and home contribute to experiences of relational fulfilment, encroachment and/or deficiency through an individual's understanding and cognitive sensemaking of their actual relationships and whether this meets their intrinsic relational needs. As discussed in section 2.5.1.2, an individual's desire for social relations at work varies from person to person with some individuals placing a greater importance on friendships at work than others who may find friendships outside of work to be of greater importance. Therefore, the interplay between home and work is of significance in understanding the potential antecedents and manifestations of loneliness in work.

Conflicting demands of home and work were exemplified in the following cases: "home and work life has got murky which is not easy" (Participant 2, sport staff) and "I feel that the lines have blurred quite a lot because I am at home working" (Participant 21, Business School staff). The implications of home and work life merging were of relevance; on the one hand participants felt that they had a better sense of completing work tasks and they experienced fewer interruptions from colleagues, which in some cases led to increased productivity and relational fulfilment (i.e., the individual experienced their desired level of social contact with their colleagues to meet their relational needs). On the other hand, having the ability to work from home was also problematic because of the lack of definition of the end of the working day resulting in difficulties disconnecting

from work, affecting employees' work-life balances, and leading to relational encroachment. An inability to disconnect from work has been linked to relational deficiency, decreased job satisfaction, and feelings of burnout. Participant 4 (academic staff) stated, "it's the first time I've ever disliked doing my job [...] so couple that with low level depression or whatever, yes, it's meant that I really am struggling at the moment".

Other participants expressed the benefits of home life and work life merging because of an increase in flexibility within their working day; "you could start a bit later, finish a bit later, start a bit earlier and finish a bit earlier and, yes, I have taken advantage of that" (Participant 13, Business School staff). The greater flexibility enjoyed by some participants benefitted their work-life balance. Participant 15 commented upon the fact that despite being contracted 37.25 hours a week, their normal average working week prior to the Covid-19 pandemic was 55 to 60 hours and occasionally as high as 70 to 80 hours. The reduction to 37 to 40 hours a week during the Covid-19 pandemic had a positive impact on their mental health and well-being; "physically, mentally I am in a better place because of having a better work-life balance" (Participant 15, sport staff). The interplay of the home-work interface directly impacts an employee's work-life balance which, in this participant case, has been shown to reduce experiences of loneliness in work (i.e., relational fulfilment is met), thereby positively influencing the individual's mental health and well-being.

Additionally, remote working has benefited some participants' mental health and well-being through a reduction in experiences of loneliness in work. Importantly, depending on the individual's subjective sensemaking processes, they can experience loneliness in work when surrounded by colleagues, or when they are in a perceived state of isolation (i.e., working alone). Loneliness may occur when an individual is surrounded by others due to a perceived lack of closeness, lack involvement in a conversation, or a general emotional disconnect from the work social network (i.e., there are deficiencies at the emotional and social levels). For this reason, one participant expressed that their experience of mandatory

remote work during the pandemic reduced their feelings of loneliness in work and improved their mental health and well-being, specifically by reducing their levels of anxiety associated with working in an office environment. Participant 29 (Business School staff) explained, “prior to the virus I did get anxious being in the office, but I think being at home now I’m actually a bit more relaxed, more productive”. The participant felt more comfortable in their home environment, where they experience relational fulfilment, which has reduced their anxiety and has led to a higher rate of productivity, and, in turn, increased job satisfaction. The potential loss of flexibility that employees have gained during the Covid-19 pandemic is an area of concern for the future return to work. Participant 35 (other staff) remarked upon the change in the organisation’s flexible work policy; “the rhetoric has changed completely so it also worries me that we will lose the huge amount of flexibility that we have had in this period”. This highlights the importance of flexible working and the benefits that this can have on employees’ mental health and well-being.

In summary, the analysis shows that three work-related psychosocial factors (interpersonal relationships at work, organisational culture and function, and the home-work interface) are especially significant for the participants’ experience of loneliness in work during the Covid-19 pandemic. This suggests that individual experiences are indeed subjective, and points towards a degree of ambivalence in characterising the notion of loneliness in work. The following section discusses the findings and identifies the study’s theoretical contributions and practical implications. It also reflects on its boundary conditions and suggests avenues for future research.

#### **4.4 Discussion**

In this study, the researcher set out to examine how the work-related psychosocial factors shape an individual’s experience of loneliness in work. Overall, the findings suggest that the notion of work-related psychosocial hazards could be fruitfully expanded to incorporate the variety of individual

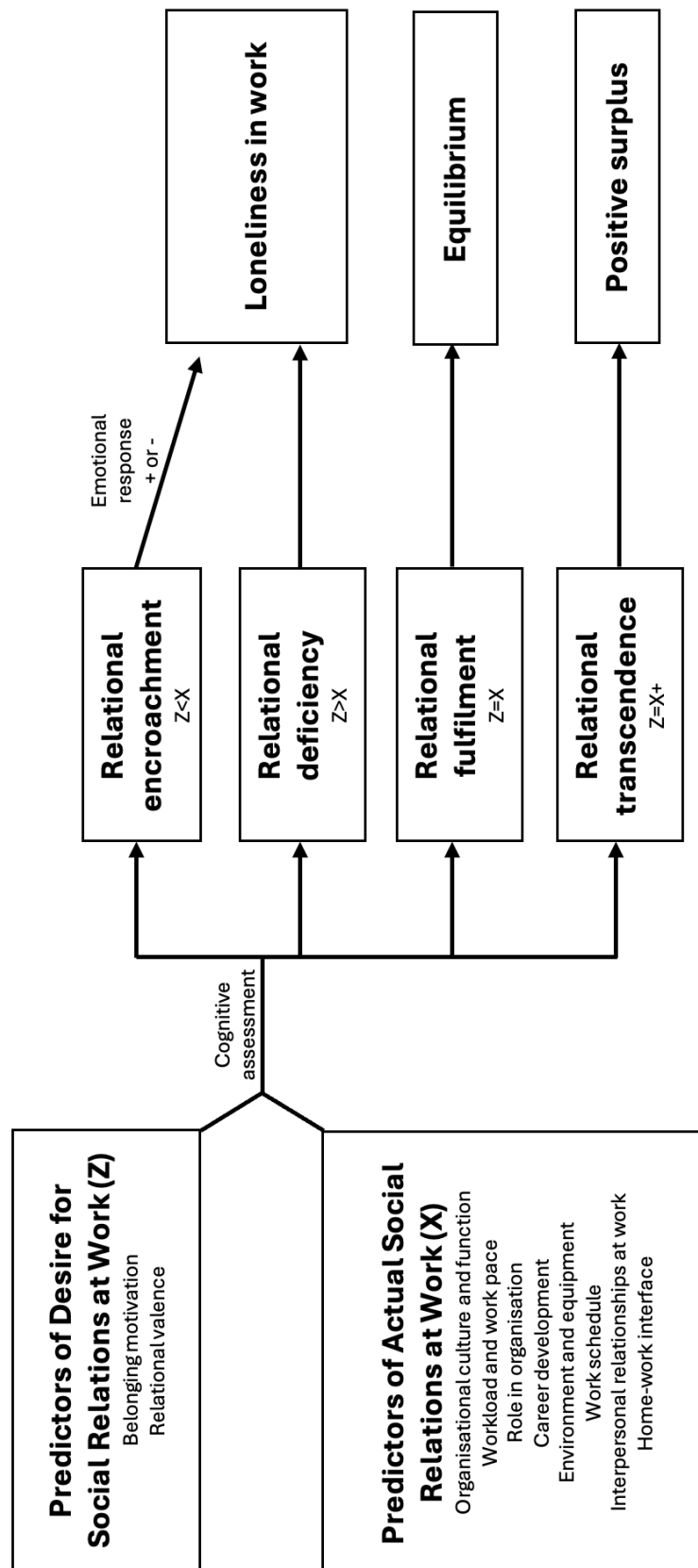


experiences revealed in the study, and the emergent ambivalence of loneliness in work. The theoretical contribution is two-fold: the psychosocial perspective of loneliness in work is developed, and the findings are presented through a refined version of Wright and Silard's (2021) model of workplace loneliness which accounts for the emergent ambivalence and emphasises the social dimension of workplace loneliness by conceptualising it as a holistic social psychological process, rather than as a simple psychological outcome.

#### **4.4.1 A modified process model of workplace loneliness**

Based on the findings presented above, Figure 8 illustrates the proposed holistic model of loneliness in work; this is a contribution of this chapter.

Figure 8. Proposed holistic model of loneliness in work



Firstly, the work-related psychosocial factors are introduced to replace the work-related psychosocial hazards as predictors of actual social relations at work. Individuals' combined experiences of a particular factor plus their inherent relationship valences which are determined by their personal characteristics (for example, academic staff were, and expressed their desire to be, more self-sufficient than sport staff), and their belonging motivations (the level of desire for interpersonal relations at work), will lead to cognitive assessments (i.e., individual sensemaking processes – see section 2.4). The way in which individuals cognitively assess their experiences of the work-related psychosocial factors will determine which relational category they meet on the model at any given point in time: they could experience relational deficiency, relational encroachment, relational fulfilment, and/or the proposed category of relational transcendence.

For example, an individual with a high need for relationship valence who experiences strong social support from their work colleagues will experience relational fulfilment (their desire for social relations meets their actual social relations). The individual's subsequent emotional response is subject to the moderating factors, which will have a greater effect in cases of relational deficiency or relational encroachment where they will act as a buffer. The outcome of the psychological interpretation process is for the individual to determine whether their overall feelings are positive, negative, or mixed. This will change given the context and experiences in work at the time of analysis.

Furthermore, in the revised model, an additional relational category is introduced, relational transcendence. Transcendence is a term that indicates the existence beyond the normal or physical level (Merton, 1968). Merton's (1968) notion of human transcendence is pivotal in understanding this term; "the man who learns in solitude and recollection, to be at peace with his own loneliness, and to prefer its reality to the illusion of merely natural companionship comes to know the invisible companionship of God" (Merton, 1968: 40). Whilst Merton (1968) takes a more religious perspective on

transcendence, which ultimately leads to inner peace; the term transcendence has been used in this thesis to indicate an individual experience that extends beyond the normal level and encompasses the processes of self-discovery and growth.

Accordingly, relational transcendence indicates that an individual has experienced positive psychological resultants of social factors within the process model of loneliness in work. This is suggested because some individuals who have previously had negative experiences of loneliness in work, have subsequently found that their time spent at work whilst physically alone and socially isolated (i.e., in a state of seclusion during the Covid-19 pandemic) has strengthened their interpersonal relationships at work, or in other cases feelings of anxiety triggered by being surrounded by people have reduced due to the change in the home-work interface. These experiences of loneliness are closely aligned with early philosophical conceptualisations of loneliness which primarily referred to positive loneliness where “a voluntary withdrawal from the daily hassles of life” (de Jong Gierveld, 1998, p. 73) allowing time for reflection, meditation, self-discovery and communication with God, which ultimately leads to finding freedom and meaning in life (Heidegger, 1962). As such, feelings extend beyond the existing category of relational fulfilment (where the desire for and attainment of relationships at work are aligned) because there is an additional spill-over benefit experienced by the individual; this can be termed relational transcendence. This contribution to the psychosocial perspective, presented through the revised model, integrates the findings and provides a broader starting point for the future studies investigating the social factors and psychological processes that predicate individual experiences of loneliness in work.

Moreover, the findings suggest that an individual can posit fluctuating positions on the model of workplace loneliness. For example, an individual with a moderate desire for relationship valence and belonging motivation sees the benefit in online meetings with colleagues whom they have pre-existing relationships with to conduct efficient business. Despite acknowledging the

increased productivity, the individual finds online meetings sterile which diminishes their job satisfaction and signals relational deficiency. Conversely, when considering the individual's experience of organisational culture and function, due to their longevity in the role and ability to challenge managerial decisions, relational fulfilment is met. Thus, it is important to be able to fully depict an individual's changing psychological perspectives when contemplating their experiences of different social factors in work. The contribution to the perspective, presented through the revised model allows for the predictors of desire and actual social relations at work to be cognitively assessed by the individual and categorised in one or multiple relational categories. This can lead to an outcome of changing positions on the model; positive, negative, and mixed experiences of loneliness may arise given the scenario or particular psychosocial factor that is being explored. This modification enables individuals to understand their experience of loneliness in work more comprehensively.

#### **4.4.2 The emergent ambivalent nature of loneliness**

The findings concerning employees' definitions of loneliness versus their experiences of loneliness in work suggest that there is a need to address the dominant perspective of loneliness in work in current management literature where negatively connotated definitions of loneliness are employed (McWhirter, 1990; Perlman and Peplau, 1981; Weiss, 1973). Existing research indicates that loneliness is often a negative experience (Everson-Rose and Lewis, 2005; Freimann et al., 2016; Netterstrøm et al., 2008), with a particular focus on the psychosocial hazards to an individual (for example, cardiovascular or musculoskeletal pain). Despite this one-sided perspective, other scholars employ a more holistic view, as evidenced by early philosophical conceptualisations of loneliness where it is viewed as a voluntary withdrawal from daily hassles of life that can lead to the attainment of higher goals, for example, self-discovery (de Jong Gierveld, 1998; Heidegger, 1962). Being isolated is a neutral state; it is an individual's psychological interpretation of this state that results in negative, positive, or mixed feelings. Thus, it is contended that definitions from the philosophical domain and the use of non-connotative

concepts, such as the work-related psychosocial factors should be integrated with the current management literature to build a more comprehensive conceptualisation of loneliness in work. As stated in chapter one, in this research, loneliness in work is conceptualised as the feeling engendered and shaped by a set of social factors that comprise the work environment and relate to both how work is organised and managed.

Through utilising this more holistic theoretical lens, the findings illustrate the ambivalent and cyclical nature of the phenomenon at hand. For example, an individual's desire for interpersonal relationships at work varies and this is because of intra-personal factors (i.e., takes place within the individual's mind) and inter-personal factors (i.e., related to relationships and the work environment). Both intra- and inter-personal factors are recurrent (i.e., cyclical in nature), and the individual's cognitive sensemaking processes of any combination of experiences at any given moment in time will determine the relational category that they experienced. For example, whilst the rapid switch to remote working, exacerbated by the Covid-19 pandemic, led to reduced feelings of anxiety and relational fulfilment for one individual, another individual in a different employment role experienced relational deficiency caused by an enforced organisational policy of online-only meetings which diminished their job satisfaction. Moreover, an individual's experience can fluctuate across or encompass multiple relational categories (for example, relational fulfilment and relational deficiency). The research findings corroborate Tzouvara and colleagues' (2015) notion of the subjectivity of loneliness and Rosedale's (2007) notion of the experience of loneliness being on a continuum from positive to negative; every individual experience and interpretation of the work-related psychosocial factors that precipitates feelings of loneliness in work is different.

#### **4.4.3 Conclusion**

To sum up, the wider contribution of this study lies in a fuller appreciation of the antecedents of loneliness in work, which are directly related to the way in which work is designed, managed and organised. Furthermore, by promoting a holistic

understanding of loneliness in work as a social psychological process, it is possible to start identifying some of the potential pathways that lead to individual and organisational outcomes such as, significantly, health or ill health (i.e., stress, burnout, and other mental health and well-being challenges). This potentially provides managers with an appreciation of how careful management of work-related psychosocial factors can contribute to prevent illness and other negative outcomes.

While this study contributes to both theory development and practice in addressing the challenge of loneliness in work, it is important to acknowledge some of its boundary conditions. The context of the Covid-19 pandemic meant that interviews were carried out via virtual platforms. Therefore, elements that are usually noticeable in face-to-face interviews (such as body language) were missing, while – on a more positive note – remote interviewing resulted in higher participation rates than originally expected. Moreover, the study is situated in the specific context of the Higher Education sector and might reflect some of its idiosyncrasies in the way that work is designed, organised, and managed. It would be worthwhile to extend the study to a variety of settings and across different job profiles through the empirical testing of the process model of loneliness in work to explore the potential salience of different psychosocial factors and their relationship with experiences of loneliness in work, employee well-being and job performance. This empirical research would shed light on individual experiences of the four relational categories to provide HR professionals and other related practitioners with greater information regarding appropriate job design in different contexts, which in turn promotes the improved mental health and well-being of employees. Further, given the purpose and focus of this study the dimensions of age, gender, living arrangements, or work arrangements (remote, hybrid, or on-site work) were not explored; however, they are recognised as relevant concerns for future research.

This study offers important insights into loneliness in work for policy makers and HR practitioners. For example, the UK Government would benefit from a more

wide-ranging and holistic understanding of loneliness. The 2021 Tackling Loneliness report targeted loneliness amongst younger people, the armed forces community, non-English speakers, and carers (Macdonald et al., 2021); however, workplace loneliness is overlooked. To enact positive change in the workplace, organisations can support employees by developing greater sensitivity towards the role that work-related psychosocial factors (i.e., antecedents of loneliness in work) play in shaping individual experiences of loneliness in work. This study identifies that meeting colleagues in an online-only capacity increases the likelihood of individuals experiencing relational deficiency, particularly in the case of new employees; the importance of well-structured induction programmes is demonstrated. Further, in order to ensure that employees' relational needs are consistently met at work, the importance of carefully designed flexible working policies has been demonstrated. Flexible work policies should consider the dimensions of work-family balance and well-being, and include the need of provision-making for employees requiring additional support (i.e., a phased return to work, or continued long-term remote working for medical reasons). When used as stated, these policies will help individuals to meet their relational needs, reducing experiences of loneliness in work, and thereby ensuring the organisation can maintain a good psychosocial safety climate for all its employees.

These are wider considerations for future research; the next step is the empirical testing of the process model of loneliness in work, which is explored in chapter five. Having built new theory based upon the qualitative findings discussed in the current chapter, the second stage of this multistage exploratory mixed methods research aims to integrate and complement the findings of the first study through a quantitative enquiry. The proposed process model of workplace loneliness from study one (see Figure 8) has been integrated with potential employee well-being and job performance outcomes and has been empirically tested.



## Chapter 5: Testing the Process Model of Loneliness in Work

### 5.1 Introduction

To date, little research has focused upon empirically testing a process model of loneliness in work; work has remained largely at the conceptual stage (Lim et al., 2018; Perlman and Peplau, 1998; Wright and Silard, 2021) (see section 2.3). As summarised in section 4.4.3, the findings from study one suggest that the negative conceptualisation of loneliness in work has resulted in a limited understanding of the complexity of social relations and the cognitive processes which lead to loneliness in work. The philosophical perspective of loneliness supports this finding, pertaining to the German notion of *Einsamkeit* (de Jong Gierveld, 1998) (see section 1.2.1); the voluntaristic nature of loneliness is critical in understanding its positive manifestations, which include time for reflection and self-discovery which ultimately leads to finding freedom (Heidegger, 1962).

Therefore, in study two, loneliness in work has been conceptualised as the feeling engendered and shaped by a set of psychosocial factors (i.e. organisational culture and function, interpersonal relationships at work, home-work interface, job content, workload and work pace, work schedule, control, environment and equipment, role in organisation, and career development) that comprise the work environment and relate to how work is organised and managed (Cox, 1993; Cox et al., 2000; Leka et al., 2017; Karanika-Murray and Biron, 2020). The two predictors of desire for social relations at work (the need to belong and relational valence) are also considered (Perlman and Peplau, 1998; Wright and Silard, 2021).

As concluded in section 4.4.3, by conceptualising loneliness in work as a psychosocial process, it is possible to start identifying some of the potential pathways that lead to various individual outcomes (i.e., the dimensions of

employee well-being, which include sleep quality, burnout or lack of burnout, and high or low stress levels, amongst other factors) and organisational outcomes (i.e., job performance). Therefore, two of the potential outcomes of loneliness that are proposed in the literature have been integrated into the revised process model of loneliness presented in section 4.4.1. Employee well-being, an individual level outcome (Dhir et al., 2023; D’Oliviera and Persico, 2023; Erdil and Ertosun, 2011; Firoz and Chaudhary, 2022; Wright, 2005) (see section 2.6.1), and job performance, an organisational level outcome (Deniz, 2019; Murray-Nevill, 2019; Ozcelik and Barsade, 2018) (see section 2.6.2) have been integrated to provide a more holistic view of both the mechanisms that can precipitate and that can arise following individuals’ experiences of loneliness in work.

In order to test both the potential antecedents and outcomes of loneliness in work, a mediation model has been employed. Mediating variables “are prominent in psychological theory and research” (MacKinnon et al., 2007: 593); they form the basis of fundamental questions in psychology (Baron and Kenny, 1986) (see section 3.4.2). “Mediators explain how external physical events take on internal psychological significance” (Baron and Kenny; 1986: 1176). Thus, in the context of the current study, it is hypothesised that the mediator, loneliness in work, explains how the external physical effects (the antecedents of loneliness in work) take on internal psychological significance through an individual’s sensemaking process (see section 2.4) (Baron and Kenny; 1986).

To summarise, it follows and builds upon the previous study (in line with the overarching aim of an exploratory sequential mixed methods study) by empirically testing the revised process model of loneliness in work (see Figure 9). It is hypothesised that loneliness in work is caused by various independent variables (the predictors of desire for social relations at work and actual social relations at work), which influences the dependent variables (employee well-being and job performance outcomes). By testing the hypothesised model, a contribution is made to enhancing the organisational understanding of the

potential antecedents, as well as the potential outcomes of loneliness in work. Thus, the research question that is answered in this chapter is: how do individuals' experiences of the work-related psychosocial factors relate to the outcomes of employee well-being and job performance through the mediator loneliness in work?

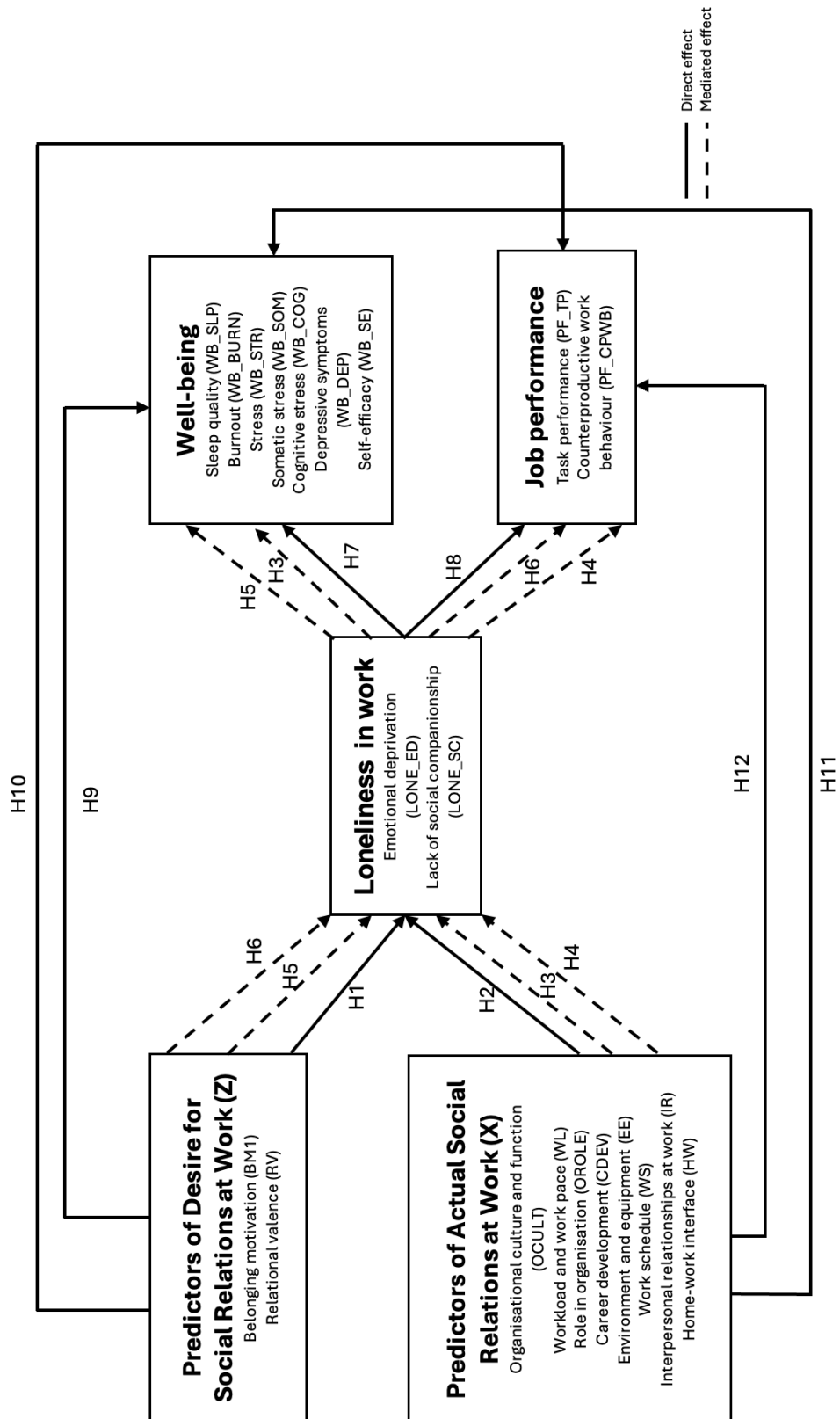
This chapter is structured in four sections. The first section presents the theoretical support for the proposed relationships between the variables in the process model of loneliness in work. The second section describes the method used to empirically test the hypotheses. The third section presents the findings of this study. The final section of this chapter discusses the main findings in relation to the hypotheses and identifies potential avenues for future research.

## **5.2 Empirical model**

Findings from the previous study indicated that the work-related psychosocial factors are useful in reaching a fuller appreciation of the antecedents of loneliness in work. By promoting a holistic understanding of loneliness in work as a social psychological process, some of the pathways that lead to individual outcomes have been identified, such as, significantly, health or ill health (i.e., stress, burnout, and other mental health and well-being challenges). As discussed in the previous chapter, there were three most salient work-related psychosocial factors that emerged in the context of HE: interpersonal relationships at work, the organisational culture and function, and the home-work interface. However, as suggested, these findings are applicable in the context of HE and are focused on the individual level. The current study aims to broaden the understanding of loneliness in work in the UK context through empirically testing the revised process model of loneliness in work, contributing at both the individual and organisational levels. The most influential antecedents and outcomes of loneliness in work across job sectors, organisational hierarchies, and work arrangements (i.e., remote, hybrid, on-site work) in the UK will be explored, thereby complementing, and building on the previous study.

Whilst relationships between the independent and the dependent variables are also shown in Figure 9, and upon which a mediation model is also predicated (as noted in section 5.2.1), the main interest of this study is in empirically testing the mediation effect of loneliness in work in the proposed model presented in Figure 9. Within the proposed model, direct relationships, also known as structural effects, are indicated by straight arrows between variables and mediation effects are indicated by dashed arrows; all relationships in the model can only go in one direction (Gunzler et al., 2013). The theoretical justification for the inclusion of each part of the revised process model of loneliness in work that has been tested in the current study has been provided in chapter two, and the hypotheses are summarised in the following sub-sections.

Figure 9. Revised and simplified process model of loneliness in work with hypothesised relationships



### **5.2.1 Loneliness in work: proposed mediation effects**

Mediation effects through loneliness in work are hypothesised in the model. It is hypothesised in the proposed model of workplace loneliness that if an individual's experiences of the antecedents in the model (i.e., the predictors of desire for social relations at work and the work-related psychosocial factors) are negative (i.e., a poor organisational culture), they could experience relational deficiency and therefore, loneliness in work (Wright and Silard, 2021), and in turn, the effect of workplace loneliness then negatively affects the employee's well-being and job performance (Deniz, 2019; Lam and Lau, 2012; Ozcelik and Barsade, 2018). Conversely, it is hypothesised that if an individual's experiences of the predictors of actual social relations at work or the work-related psychosocial factors are positive (i.e., strong interpersonal relationships at work), this could reduce negative experiences of loneliness in work (depending on the individual's cognitive sensemaking processes), mitigating experiences of loneliness and potentially leading to positive well-being and job performance outcomes.

To summarise the mediation effects in the model, two are related to the predictors of desire for work which are based upon the literature (see sections 2.5.1, 2.5.1.1, and 2.5.1.2). Hypothesis five (H5 – mediation effect) follows that the relationship between the predictors of desire for social relations at work and employee well-being is mediated by loneliness in work (mediation effect), and hypothesis six (H6 – mediation effect) follows that the relationship between predictors of desire for social relations at work and job performance is mediated by loneliness in work.

Furthermore, there are also two mediation effects that are hypothesised related to the predictors of actual social relations at work (i.e., the work-related psychosocial factors) which are also based upon the literature (see sections 2.5.2 and 2.5.2.2). Whilst there is limited research on the mediating role of loneliness in work between employees' experiences of the work-related psychosocial factors for employees (and their ensuing cognitive sensemaking

processes) and the job performance and employee well-being outcomes, there is some recognition that good relationships and team dynamics are crucial for individual and organisational health and performance (Leka and Jain, 2019). Thus, psychosocial factors (rather than psychosocial hazards) provide a nuanced basis for exploring how individuals make cognitive sense of loneliness in work because one can account for positive and negative experiences. Thus, hypothesis three (H3 – mediation effect) follows that the relationship between the predictors of actual social relations at work and employee well-being is mediated by loneliness in work; and hypothesis four (H4) follows that the relationship between the predictors of actual social relations at work and job performance is mediated by loneliness in work.

Moreover, when a mediation effect is tested, first the direct effect needs to be checked. The direct relationships between the independent variables and mediator variables, the mediator variables and the dependent variables, and the independent and dependent variables are not the main focus of this study, as noted in section 5.2. However, for a complete understanding of the hypothesised relationships, they have been depicted in Figure 9 and the relationships are summarised in Appendices B.14 and B.15.

## **5.3 Method**

### **5.3.1 Variables and measures**

The process model of loneliness in work is comprised of five categories of variables: predictors of desire for social relations at work (individual characteristics), predictors of actual social relations at work (work-related psychosocial factors), loneliness in work, employee well-being, and job performance. The variables and measures used are further discussed in the following (see Appendix B.5 for a table summary of the variables and measures).

### **5.3.1.1 Independent variables**

Ten independent variables were used in this study, and the measures for each will be presented in the following.

#### **5.3.1.1.1 Belonging motivation**

Belonging motivation was measured using Nichols and Webster's (2013) single-item need to belong scale (SIN-B). The SIN-B was constructed and validated to overcome the limitation of research settings being unable to use a 10-item Need to Belong Scale (henceforth, NTBS) (Leary, 2013) due to reasons such as impracticality, scarce resources, and avoiding the consumption of excessive participant time (Nichols and Webster, 2013). Nichols and Webster's (2013) study examining the reliability of a single-item NTBS (SIN-B) concluded that "it is a valid, reliable addition to any study regardless of the design or limited resources involved" (Nichols and Webster, 2013: 191). Nichols and Webster found that "the correlation between the SIN-B and NTBS was .65" (2013: 191) and "the measure showed good face and content validity, concurrent validity with the NTB, predictive validity and convergent and discriminant validity with other measures in the belongingness nomological network" (2013: 191). Scoring was on a five-point Likert scale from '1 = strongly disagree' to '5 = strongly agree'. Due to the evidenced reliability combined with the constraints of my survey particularly in terms of length, the SIN-B was employed (as this is a single-item scale, an internal reliability score could not be calculated).

#### **5.3.1.1.2 Relational valence**

Relational valence, the second part of assessing an individual's overall desire for social relations at work, was measured using a self-constructed scale. As noted in section 2.5.1.2, there are two key elements to be considered in a relational valence scale: mutual caring (the notion that friendships are very important) and feeling non-contingent value (the notion that finding relationships is rewarding). The two items that were created to fulfil this purpose are:

1. I find the opportunity to form close friendships at work very important.
2. I find the opportunity to have social contact at work very rewarding.



It was necessary to create a new scale as existing scales did not encompass the necessary notion of desire to form friendships; instead, the focus of scales such as Nielsen and colleagues' (2000) Workplace Friendship Scale is on actual relationships at work (the valence and desire for relationships are not explored). Therefore, this scale has been created based on Wright and Silard's (2021) conceptualisation of an individual's desire to have interpersonal relationships at work, as defined above. This scale covers the 'motivation element' of the predictors of desire, whilst the 'need element' is covered by the NTBS. Each statement was measured on a five-point Likert scale from '1 = strongly disagree' to '5 = strongly agree'. The relational valence scale is a reliable tool with a good internal reliability of .71 (2 items).

#### **5.3.1.1.3 Work-related psychosocial factors**

Seven dimensions of the work-related psychosocial factors (the organisational culture and function, workload and work pace, the role in the organisation, career development, work schedule, interpersonal relationships at work, and the home-work interface; see Appendix B.5) were measured using the Copenhagen Psychosocial Questionnaire III (henceforth, COPSOQ III), the third version of the COPSOQ (Llorens et al., 2018), and one dimension (the environment and equipment) was measured by the Importance of Work Environment Scale (IWES) (Sander et al., 2019). The definitions and sub-dimensions encompassed by each of the work-related psychosocial factors are discussed in section 1.2.3. For example, the organisational culture and function and its sub-dimensions of strong organisational values (i.e., values which align with key areas of concern for employees) and good organisational communication, are important in creating a good organisational environment (DCMS, 2021; Miller and Yu, 2003), as supported by the findings of study one (see section 4.3.2.2).

The COPSOQ III is an international instrument used to assess and improve psychosocial conditions at work. The COPSOQ III has been selected for use in this research because it comprehensively captures various elements of the work environment and health-related outcomes, whilst also accounting for recent

changes in the work environment (i.e., globalisation and digitalisation) (Burr et al., 2019). Further, the COPSOQ III is not sector specific and can be used for any employment type and any size of organisation (private or public), therefore when considering the research aim of holistically examining the under-explored phenomenon of loneliness in work in the UK through an exploration of individual experiences of the work-related psychosocial factors, it is an appropriate choice. The COPSOQ III is an existing and well-validated scale, which constitutes a more precise and reliable way of assessing the impact of the work-related psychosocial factors mediated by experiences of loneliness in work, and subsequent effects on individuals' health and well-being, and job performance (Kristensen et al., 2005; McIver and Carmines, 1981). The 32 core COPSOQ III scale items, as well as 5 from the middle version and 2 from the long version have been grouped based upon the work-related psychosocial factor that is being explored, and the groupings have been determined by the negative and positive psychosocial work environment dimensions set out by Leka and colleagues (2017). Table 3 shows that the COPSOQ III dimensions all have good internal reliabilities.

**Table 3. Internal reliability of COPSOQ III Dimensions**

<b>Dimension</b>	<b>Number of items</b>	<b>α</b>
Interpersonal relationships at work	3	.78
Organisational culture and function	6	.90
Home-work interface	2	.74
Workload and work pace	4	.78
Work schedule	4	.85
Role in organisation	2	.80
Career development	2	.78

The dimension of environment and equipment is measured by the three-item IWES (Sander et al., 2019); a scale that was created to assess individual differences in attentiveness to the work environment, and testing showed good internal reliability and validity. This has been included as the COPSOQ III items did not cover the work environment and equipment, however, alongside the Public Health England (2015) report on aspects of the physical work

environment, study one of this PhD research found that the physical work environment (particularly for those who work in a remote or hybrid fashion) could be important in experiences of loneliness in work. For example, having a dedicated workspace with the correct equipment was highlighted as a factor in overall satisfaction (health and well-being), as well as job performance. A participant in study one detailed an experience of a good physical work environment acting as a buffer for relational deficiency, therefore the inclusion of this instrument will allow for the empirical testing of this hypothesis. The IWES is a reliable tool with a very good internal reliability of .88 (3 items).

#### **5.3.1.2 Mediator variables: workplace loneliness**

Workplace loneliness has been measured using Wright and colleagues' (2006) Workplace Loneliness scale; a validated self-report measure of loneliness in work which was created due to a lack of appropriate scales for the specific context of work. For example, the UCLA Loneliness Scale, whilst commonly used in loneliness research, is unsuitable for the given context even when the precursor 'at work' is added. Wright and colleagues' instrument comprises two sub-scales, emotional deprivation (ED) and social companionship (SC) and both dimensions are proposed as having a possible mediational effect in the process model of loneliness in work. The scale was developed using two dimensions of workplace loneliness that emerged from Weiss's (1973) conceptualisation of workplace loneliness; loneliness can be social (i.e., there is a lack of a social provision) or emotional (the quality of workplace relationships is poor). This conceptualisation of loneliness was empirically tested by Wright and colleagues (2006) with a list of 90 potential items which were reduced to 60 items after an initial review. Following a pilot study in a convenience sample of psychology students and office workers, 44 of the items were removed, and the remaining 16 items were tested by administration to workers in the insurance sector (Wright et al., 2006) which was successful in verifying face validity of the scale.

The two sub-scales include eight positively worded and eight negatively worded items to reduce item polarity. Further, the instrument is designed so that

loneliness is not directly referred to in the questions as it is often seen as a “social failure” (Wright et al., 2006: 62) which could act as a deterrent to participation. The instrument has been successfully employed in other research, including Sîrbu and Dumbravă’s (2019) study examining the role of burnout and extraversion in workplace loneliness, and Deniz’s (2019) study examining the effect of workplace loneliness on hospital employees’ job performance. Scoring was on a five-point Likert scale from ‘1 = strongly disagree’ to ‘5 = strongly agree’. The internal reliability of the two dimensions of workplace loneliness is good: the emotional deprivation dimension has a very good internal reliability of .92 (9 items); and the social companionship dimension has a good internal reliability of .79 (7 items).

Wright and colleagues’ (2006) study did not ascertain whether the sub-scales of emotional deprivation and social companionship are conceptually distinct, or whether they have differing predictors and outcomes both individually and organisationally (productivity/performance), and this will be explored in this study.

### **5.3.1.3 Dependent variables**

#### **5.3.1.3.1 Employee well-being**

Employee well-being has been measured by the COPSOQ III measurement tool in this study. The COPSOQ III includes 30 self-rated health items (relating to how an individual has felt over the last four weeks). There are seven sub-scales: sleeping troubles, burnout, stress, somatic stress, cognitive stress, depressive symptoms, and self-efficacy. Scoring was on a five-point Likert scale from ‘1 = never’ to ‘5 = always’. These items, used to explore potential implications of loneliness at work on different dimensions of well-being, show good internal consistency ranging from .72 to .90 as summarised in Table 4.

**Table 4. Internal reliability of COPSOQ III well-being dimensions**

<b>Dimension</b>	<b>Number of items</b>	<b><math>\alpha</math></b>
Sleeping troubles	4	.83
Burnout	4	.90
Stress	3	.84
Somatic stress	4	.72
Cognitive stress	4	.88
Depressive symptoms	4	.82
Self-efficacy	6	.81

### **5.3.1.3.2 Job performance**

The Individual Work Performance Questionnaire (henceforth, IWPQ) has been used in other studies (Ramos-Villagrasa et al., 2019; Ai et al., 2021) where it was found that it is an adequate measure of job performance, rendering it suitable for use in this study. Scoring was on a five-point Likert scale from ‘1 = never’ to ‘5 = always’. The internal reliability of the IWPQ dimensions ranges from good to very good: the dimension of task performance has a good internal reliability of .75 (5 items); the dimension of counterproductive work behaviour has a very good internal reliability of .81 (8 items); and the dimension of contextual work performance has a good internal reliability of .72 (5 items).

### **5.3.2 Data collection and participants**

The quantitative phase of this thesis employed a standardised cross-sectional online questionnaire with closed response questions and follows the same ethics procedure as denoted in the previous chapter. The survey contained 123 questions: 15 demographic questions; single-item Need to Belong Scale (Nichols and Webster, 2013); 2-item self-created Relational Valence Scale; 68 items from the Copenhagen Psychosocial Questionnaire III (COPSOQ, 2019); 3-item Importance of Work Environment Scale (Sander et al., 2019); 16-item Workplace Loneliness Scale (Wright et al., 2006); 18-item Individual Work Performance Questionnaire (Koopmans et al., 2013). All the validated instruments have been summarised above (see section 5.3.1) and were selected based on their suitability for this research and evidence of prior validation. The

face validity of the online questionnaire was tested and discussed with two senior colleagues. The questionnaire was hosted on the JISC online surveys platform and was open for a duration of four months, from the 7<sup>th</sup> February, 2023 to the 7<sup>th</sup> June, 2023.

The target population for the questionnaire was employees working in the UK in any type of organisation (private, public, etc.), across all types of work arrangements (hybrid, remote, and on-site work), and across all job levels (senior manager, middle manager, entry level, etc.). All participants completed the same set of survey questions, designed to evaluate their experiences of the work-related psychosocial factors, loneliness in work, employee well-being, and job performance. Participants were invited to visit the JISC online survey platform where the first page provided general instructions for the study, information on the safe and confidential storage of data, as well as confirmation of participant consent (see Appendix B.3).

Initially, potential participants were contacted through the principal investigator's professional network (purposive sampling) through LinkedIn, before asking participants to share the survey with colleagues and other networks to generate further responses (snowball sampling). In this study, it is important to note that the time at which the participant completed the questionnaire is when they underwent their sensemaking processes (i.e., the score they selected on the Likert scale from one to five for each question reflected their experiences and sensemaking processes at that given moment in time) (see section 2.5.2.2).

In total, 682 questionnaires were completed and valid for use in the data analysis. Of the 682 research participants, 56.7% are female, 42.8% are male, and 0.4% identify as non-binary. The age profile of participants was as expected within the UK's working population, 5.1% of respondents were 18-24 years old, 31.1% were 25-34 years old, 18.6% were 35-44 years old, 24% were 45-54 years old, 18.8% were 55-64 years old, and 1.9% were 65 years old or over. Most

participants cohabit with a spouse or partner (51.6%), others live with family (31.4%), live alone (11.5%), or live in a flat share (5.5%).

In terms of sector, most participants work in services (20.0%), followed by education (18.7%) and financial and insurance activities (10.9%), with a further 16 sectors represented following the ONS (2023) sector classifications. Table 5 summarises the type of employment contract, employment arrangements, and frequency of days at home versus on-site for hybrid workers. The participants with the employment statuses ‘student’, ‘homemaker’, ‘unemployed’, and ‘retired’ have been included in the study (accounting for 2.9 percent of the survey sample). In the case of the ‘student’ group, this is comprised of students at the post-graduate level who work on temporary contracts in the HE sector (i.e., their primary employment status is a student, and their secondary employment status is employed on a casual/temporary contract). Those participants in the ‘homemaker’, ‘unemployed’ and ‘retired’ categories have been included in the study because they were recently (within the last 3 months) members of the UK’s working population and whilst their circumstances have since changed, they possessed the necessary knowledge to respond to the online questionnaire.

**Table 5. Descriptive statistics: study two**

<b>Employment Arrangements</b>	<b>Percentage</b>
<b><i>Employment Status</i></b>	
Employed full-time	78.2%
Employed part-time	9.5%
Self-employed	7.9%
Employed on a casual/temporary contract	1.5%
Student	1.6%
Homemaker	0.1%
Unemployed (currently looking for work)	0.3%
Retired	0.9%
<b><i>Work Arrangements</i></b>	
Fully remote work	15.0%
Fully office-based/on-site work	20.8%
Hybrid work	64.2%
<b><i>Hybrid workers' work patterns</i></b>	
4 days at home, 1 day on-site	24.6%
3 days at home, 2 days on-site	29.2%
2 days at home, 3 days on-site	27.3%
1 day at home, 4 days on-site	18.9%

### **5.3.3 Ethics**

As noted in section 3.5, ethical considerations have been taken throughout this thesis. With specific regard to the current study, the British Psychological Society (BPS) (2021) guidelines for internet-mediated research and the BPS Code of Human Research Ethics (Oates et al., 2021) have been adhered to, which include “valid consent, withdrawal, confidentiality, anonymity, fair treatment, and rights for privacy” (BPS, 2021: 8). Participants’ consent was entirely voluntary, and they were able to withdraw their participation at any point in time. All data was stored confidentially, and participants’ identities have remained anonymous. Participant information was published online at the beginning of the online questionnaire, and participants could select ‘yes’ if they were happy to consent and progress to the next stage of the research questions (see Appendix B.3). The researcher’s email address was provided should the participant have needed any further support.



### **5.3.4 Data analysis**

Data gathered in study two were analysed using several statistical analysis techniques in line with the methodological position of the research. A confirmatory factor analysis followed by a path analysis in a structural equation modelling (SEM) using Mplus version 8.10 statistical software was conducted to explore the hypothesised model. SPSS version 28 statistical software was used for collinearity analysis, and exploratory factor analysis (see section 3.4.2 for a justification).

#### **5.3.4.1 Preliminary analysis**

To check the quality of the dataset, preliminary analyses was conducted. The dataset was cleaned, items were reverse-scored where needed, missing data items were dealt with, and outliers, collinearity, reliability, validity, and item-loadings were checked. Further, the sample size adequacy was explored. Sample size recommendations for path analysis are recommended based upon various rules-of-thumb:

1. A minimum sample size of 100 or 200 participants (Boomsma, 1982)
2. 5 or 10 observations per estimated parameter in the model (Bentler and Chou, 1987)
3. 10 participant cases per variable (Nunnally, 1967)

In all cases the sample size of 682 is sufficient as it is over 200 (Boomsma, 1982), there are 123 parameters in the model which if multiplied by the five (total of 615) meets Bentler and Chou's (1987) criteria (but it does not meet the upper observation of 10 per parameter), and 19 estimated variables in the model which correlates with over 190 participants according to Nunnally's (1967) rule-of-thumb. Overall, the sample size meets two criteria in full, and the lower limit of Bentler and Chou's (1987) criteria. Rules-of-thumb for sample size are contentious as it also depends on the characteristics model that is being tested (MacCallum et al., 1999), however, in general "models based on larger samples, with more indicators per factor, and with larger factor loadings are more likely to converge properly" (Wolf et al., 2013: 915). Within the constraints of the overall

research timeframe, the sample size achieved is acceptable for the purposes of this study.

#### **5.3.4.2 Measurement models review**

The raw dataset was cleaned for import into SPSS version 28 statistical software. All variables were given a new name, all participants were given an ID number to make it easier to review analysis at a later stage, and two participants who indicated they did not consent to participate in the study were removed from the dataset. Next, any items that needed reverse-scoring were reverse-scored; any necessary items were recoded, so that all the items are worded positively in the dataset (see Appendix B.4 for a list of reverse-scored items). Variable labels and value labels were added, and then the frequencies and descriptives were checked. A new 'random50' variable was created to compute a cross-validation analysis (Mondo et al., 2021). Following this, any missing data items where participants had missed answering a question in the online questionnaire were recoded to -99, in order that these cases were excluded from the data analysis. Finally, correlations between six variables from the dataset were checked, and the values generated matched those generated in the earlier frequencies and descriptives test, so the output was correct. The text file for use in Mplus was then saved.

Outliers were checked using frequency histograms, which showed moderate deviation from normality, but this was considered non-problematic. Item collinearity for all items was visually checked using a polychoric correlation matrix. Correlations ranged from .077 to .758, which is below the .80 threshold for collinearity (Dormann et al., 2012).

The reliability and validity of the scales was checked to ensure that the hypothesised items would be accurately measured. A CFA was conducted for this purpose, which highlighted the need for an EFA because the reliability scores were low for the work-related psychosocial factors (independent variables) measured using the COPSOQ III. In order to do this, it was necessary to create a

'random50' variable for cross-validation analysis. As the sample was large enough to enable the data to be split (Osborne and Fitzpatrick, 2012), an EFA was carried out on half the dataset, before a CFA was then conducted on the other half of the data set. During the EFA, small coefficients below .4 were suppressed. The results showed seven items that cross-loaded over the eight work-related psychosocial factors measured by the COPSOQ III; Appendix B.7 summarises these findings. These seven items were removed from the analysis, and critically, the modifications to the dimensions also made sense theoretically; the work-related psychosocial factors capture what they are intended to for the purposes of the study.

A CFA was then carried out on the other half of the 'random50' dataset, completing the cross-validation analysis, and Appendix B.8 summarises the results. A further nine low loading items (and the single remaining item from the job content scale) were removed (as summarised in Appendix B.9). The CFA model five as shown in Appendix B.8 has been used in the subsequent path analysis due to good reliability statistics (CFI .933; SRMR .053; RMSEA .045). Eight work-related psychosocial factors and the two predictors of actual social relations at work are included in this CFA model. Following the CFA for the independent variables, a CFA for the mediation variables was completed (as summarised in Appendix B.10). Finally, a CFA for the dependent variables was completed (as summarised in B.11).

After completing the CFAs, the last stage of the analysis was carried out; a robust maximum likelihood estimation was used to calculate the path coefficients in the parallel mediation path analysis model. Maximum likelihood estimation "allows us to examine complex models" (Grapentine, 2000: 20) which is imperative in this study given the number of variables and parameters in the model. The mediated path analysis was run with and without bootstrapping.

## 5.4 Findings

In this section, the results are presented; the proposed hypotheses were empirically tested through a parallel mediation path analysis.

### 5.4.1 Model evaluation: mediation effect

In this sub-section, the model of proposed relationships is empirically tested. Mediation effects have been calculated in SEM for this purpose. In a mediation model, there are certain conditions that have to be met. Firstly, the independent (exogenous) variables must affect the mediating variable, and secondly the mediating variables must affect the dependent (endogenous) variables. Both conditions have been tested on a large scale (but reported on a smaller scale due to the size of the model and number of correlations at hand) by calculating the Pearson's correlation matrix. In this example, the correlation matrix between the work-related psychosocial factor, organisational culture and function, the two mediator variables, lack of social companionship and emotional deprivation, and the dependent variable, burnout, have been calculated. As evidenced in Table 6, the independent variable, organisational culture and function, is correlated with the first mediator emotional deprivation, the second mediator, lack of social companionship, and the well-being instrument, burnout. At this stage, the potential mediator roles of both emotional deprivation and lack of social companionship are achieved.

**Table 6. Correlation matrix**

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. OCULT	3.72	0.78	1			
2. LONE_ED	2.07	0.78	-.508*	1		
3. LONE_SC	2.23	0.76	-.381*	.633*	1	
4. WB_BURN	2.92	0.87	.377*	-.424*	-.209*	1

*M* and *SD* are used to represent mean and standard deviation, respectively. One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

To test for mediation, the direct, indirect, and total effects were calculated, and the bootstrapped confidence intervals (CIs) were estimated (10,000 bootstraps). “Mediation occurs if the effect of the independent variable on the dependent variable is reduced when the mediator is included (i.e., the regression coefficient is smaller for  $c'$  than  $c$ , preferably  $c'$  being non-significant” (Burger et al., 2013: 4). Furthermore, for a mediation effect to be found, the value of the indirect effect needs to be estimated. In the presented analysis, the indirect effect has been estimated “by computing 95% confidence intervals using 10,000 bootstrap samples” (Burger et al., 2014: 5). “Confidence intervals in which both lower and upper bound are either positive or negative (i.e., the confidence interval does not contain zero) are considered significant” (Burger et al., 2013: 4). Overall, for a mediation effect to occur there can be a significant indirect effect and either a significant or a non-significant direct effect (Galindo-Domínguez and Bezanilla, 2021). Table 7 presents the standardised coefficients for the mediation analysis. The results have been presented in this way due to the size of the model being too large to present in a figure. In the reporting of the indirect effects, the values outside the brackets correspond to the significance value, and the values inside the brackets correspond to the 95% confidence intervals after 10,000 bootstraps. One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

## Table 7. Indirect effects

The following abbreviations are used in the indirect effects tables below (as depicted in Figure 9):

- OCULT: organisational culture and function
- WL: workload and work pace
- OROLE: role in organisation
- CDEV: career development
- EE: environment and equipment
- WS: work schedule
- IR: interpersonal relationships at work
- HW: home-work interface
- RV: relational valence
- BM1: belonging motivation
- LONE\_ED: emotional deprivation
- LONE\_SC: lack of social companionship
- WB\_SLP: sleep quality
- WB\_BURN: burnout
- WB\_STR: stress
- WB\_SOM: somatic stress
- WB\_COG: cognitive stress
- WB\_DEP: depressive symptoms
- WB\_SE: self-efficacy
- PF\_TP: task performance
- PF\_CPWB: counterproductive work behaviour

**Table 7.1. Mediation effects between the organisational culture and function and the outcomes**

<b>OCULT</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c')	0.034	<b>0.115*</b>	0.081	<b>0.097**</b>	0.096	0.078	0.033	0.042	<b>0.144*</b>
Indirect effect LONE_ED	<b>0.027*</b> (.004-.061)	<b>0.050*</b> (.025-.084)	<b>0.046*</b> (.022-.081)	<b>0.035*</b> (.016-.062)	<b>0.048*</b> (.022-.084)	<b>0.069*</b> (.039-.110)	0.008 (-.007-.024)	0.000 (-.019-.020)	<b>0.062*</b> (.034-.100)
Indirect effect LONE_SC	0.004 (-.005-.023)	-0.004 (-.021-.002)	-0.002 (-.017-.006)	-0.004 (-.019-.002)	-0.004 (-.021-.003)	-0.002 (-.015-.005)	.005 (-.001-.019)	.005 (-.000-.019)	-0.018 (-.046-.001)
Total effect (c)	0.065	<b>0.160*</b>	<b>0.125*</b>	<b>0.127*</b>	<b>0.140*</b>	<b>0.146*</b>	0.046	0.047	<b>0.189*</b>

**Table 7.2. Mediation effects between the workload and work pace and the outcomes**

<b>WL</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c)	0.038	<b>0.120*</b>	0.080	<b>0.076**</b>	-0.019	-0.039	-0.028	<b>0.163*</b>	<b>0.093**</b>
Indirect effect LONE_ED	0.003 (-.007-.020)	0.006 (-.014-.029)	0.005 (-.013-.027)	0.004 (-.010-.020)	0.006 (-.013-.030)	0.008 (-.020-.039)	0.001 (-.002-.009)	0.000 (-.005-.005)	0.007 (-.018-.036)
Indirect effect LONE_SC	0.000 (-.008-.006)	0.000 (-.005-.007)	0.000 (-.004-.006)	0.000 (-.005-.007)	0.000 (-.005- .007)	0.000 (-.004-.005)	0.000 (-.007-.005)	0.000 (-.008-.006)	0.000 (-.018-.018)
Total effect (c)	0.041	<b>0.125*</b>	<b>0.086**</b>	<b>0.080**</b>	-0.013	-0.031	-0.028	<b>0.163*</b>	<b>0.091**</b>

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

**Table 7.3. Mediation effects between the role in the organisation and the outcomes**

<b>OROLE</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c')	0.056	-0.034	-0.027	-0.020	-0.045	-0.012	<b>-0.062*</b>	<b>-0.062**</b>	-0.048
Indirect effect LONE_ED	-0.006 (-.018-.000)	0.010 (-.025-.001)	-0.010 (-.023-.001)	-0.007 (.019-.000)	-0.010 (-.025-.000)	-0.014 (-.033-.001)	-0.002 (-.008-.001)	0.000 (-.005-.005)	-0.013 (-.029-.001)
Indirect effect LONE_SC	-0.001 (-.011-.002)	-0.002 (-.001-.009)	0.001 (-.002-.007)	0.001 (-.001-.009)	0.001 (-.001-.010)	0.001 (-.002-.007)	-0.002 (-.009-.001)	-0.002 (-.009-.001)	-0.007 (-.003-.019)
Total effect (c)	0.049	-0.043	-0.036	-0.026	-0.053	-0.026	<b>-0.066*</b>	<b>-0.064*</b>	<b>-0.054**</b>

**Table 7.4. Mediation effects between career development and the outcomes**

<b>CDEV</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c')	<b>0.174*</b>	<b>0.142*</b>	<b>0.108*</b>	<b>0.165*</b>	<b>0.216*</b>	<b>0.143*</b>	<b>0.073*</b>	<b>0.061*</b>	0.038
Indirect effect LONE_ED	<b>0.012*</b> (.002-.031)	<b>0.023*</b> (.009-.042)	<b>0.021*</b> (.007-.040)	<b>0.016*</b> (.006-.030)	<b>0.022*</b> (.008-.042)	0.032 (.012-.056)	0.003 (-.003-.013)	0.000 (-.009-.009)	<b>0.028*</b> (.011-.051)
Indirect effect LONE_SC	0.003 (-.005-.016)	-0.004 (-.016-.002)	-0.002 (-.012-.006)	-0.003 (-.013-.002)	-0.003 (-.015-.003)	-0.001 (-.010-.005)	0.004 (-.001-.014)	0.005 (.000-.015)	<b>-0.016*</b> (-.033-.005)
Total effect (c)	<b>0.189*</b>	<b>0.160*</b>	<b>0.127*</b>	<b>0.177*</b>	<b>0.235*</b>	<b>0.173*</b>	<b>0.081*</b>	<b>0.066*</b>	0.051

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .



**Table 7.5. Mediation effects between the environment and equipment and the outcomes**

<b>EE</b>	WB_SLP	WB_BURN	WB_STR	WB_SOM	WB_COG	WB_DEP	WB_SE	PF_TP	PF_CPWB
Direct effect (c)	0.028	-0.009	0.020	-0.075	-0.030	0.007	0.032	0.054	0.028
Indirect effect LONE_ED	-0.009 (-.030-.000)	-0.016 (-.040-.000)	-0.015 (-.037-.000)	-0.011 (.028-.000)	-0.016* (-.040-.000)	-0.023 (-.053-.001)	-0.002 (-.012-.001)	0.000 (-.008-.007)	-0.020 (-.048-.001)
Indirect effect LONE_SC	-0.002 (-.016-.002)	-0.002 (-.001-.014)	0.001 (-.003-.011)	0.002 (-.001-.013)	0.002 (-.002-.015)	0.001 (-.002-.010)	-0.002 (-.012-.001)	-0.003 (-.012-.001)	0.009 (-.005-.030)
Total effect (c)	0.017	-0.022	0.006	<b>-0.084**</b>	-0.043	-0.015	-0.027	0.051	0.016

**Table 7.6. Mediation effects between the work schedule and the outcomes**

<b>WS</b>	WB_SLP	WB_BURN	WB_STR	WB_SOM	WB_COG	WB_DEP	WB_SE	PF_TP	PF_CPWB
Direct effect (c)	-0.038	0.045	-0.011	0.030	-0.023	0.023	0.083*	0.008	-0.016
Indirect effect LONE_ED	0.005 (-.002-.019)	0.008 (-.006-.026)	0.008 (-.006-.024)	0.006 (-.004-.019)	0.008 (-.006-.026)	0.012 (-.010-.035)	0.001 (-.001-.009)	0.000 (-.005-.005)	0.010 (-.008-.032)
Indirect effect LONE_SC	0.000 (-.009-.002)	-0.001 (-.002-.008)	0.000 (-.002-.006)	0.000 (-.002-.007)	0.000 (-.002-.008)	0.000 (-.002-.006)	-0.001 (-.007-.002)	0.001 (-.007-.003)	0.002 (-.010-.017)
Total effect (c)	-0.033	0.054	-0.003	0.036	-0.015	0.035	<b>0.083*</b>	0.008	-0.003

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

**Table 7.7. Mediation effects between the interpersonal relationships at work and the outcomes**

<b>IR</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c')	0.046	<b>-0.071*</b>	-0.050	-0.760	-0.067	<b>-0.111**</b>	<b>0.077**</b>	0.051	-0.029
Indirect effect LONE_ED	<b>0.058*</b> (.008-.113)	<b>0.107*</b> (.067-.154)	<b>0.099*</b> (.057-.151)	<b>0.075*</b> (.040-.115)	<b>0.104*</b> (.058-.162)	<b>0.150*</b> (.103-.206)	0.016 (-.015-.049)	0.000 (-.040-.042)	<b>0.134*</b> (.090-.190)
Indirect effect LONE_SC	0.022 (-.037-.082)	-0.027 (-.076-.019)	-0.010 (-.063-.041)	-0.023 (-.069-.020)	-0.022 (-.076-.029)	-0.010 (-.057-.034)	0.028 (-.007-.070)	<b>.032*</b> ( <b>-0.004-.073</b> )	<b>-0.104*</b> ( <b>-0.162- -.056</b> )
Total effect (c)	<b>0.126**</b>	0.010	0.040	-0.024	0.015	0.030	<b>0.121*</b>	<b>0.083**</b>	0.002

**Table 7.8. Mediation effects between the home-work interface and the outcomes**

<b>HW</b>	<b>WB_SLP</b>	<b>WB_BURN</b>	<b>WB_STR</b>	<b>WB_SOM</b>	<b>WB_COG</b>	<b>WB_DEP</b>	<b>WB_SE</b>	<b>PF_TP</b>	<b>PF_CPWB</b>
Direct effect (c')	<b>0.090**</b>	<b>0.326*</b>	<b>0.328*</b>	<b>0.138*</b>	<b>0.231*</b>	<b>0.235*</b>	0.040	<b>0.109*</b>	<b>0.167*</b>
Indirect effect LONE_ED	<b>0.021*</b> (.003-.047)	<b>0.038*</b> (.019-.065)	<b>0.035*</b> (.016-.063)	<b>0.027*</b> (.011-.049)	<b>0.037*</b> (.017-.066)	<b>0.054*</b> (.029-.087)	0.006 (-.005-.020)	0.000 (-.015-.016)	<b>0.048*</b> (.026-.077)
Indirect effect LONE_SC	0.002 (-.002-.016)	-0.003 (-.014-.001)	-0.001 (-.011-.004)	-0.002 (-.012-.002)	-0.002 (-.014-.002)	-0.001 (-.010-.003)	.003 (-.001-.012)	0.003 (-.001-.013)	-0.010 (-.030-.004)
Total effect (c)	<b>0.113*</b>	<b>0.362*</b>	<b>0.362*</b>	<b>-0.163*</b>	<b>-0.266*</b>	<b>-0.288*</b>	<b>0.048**</b>	<b>0.112*</b>	<b>-0.205*</b>

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

**Table 7.9. Mediation effects between relational valence and the outcomes**

<b>RV</b>	WB_SLP	WB_BURN	WB_STR	WB_SOM	WB_COG	WB_DEP	WB_SE	PF_TP	PF_CPWB
Direct effect (c)	-0.022	-0.048	0.001	0.023	-0.011	-0.032	-0.011	0.003	-0.057
Indirect effect LONE_ED	<b>0.013*</b> (.002-.036)	<b>0.024*</b> (.008-.048)	<b>0.022*</b> (.007-.047)	<b>-0.017*</b> (-.005-.036)	<b>0.023*</b> (.008-.049)	<b>0.034*</b> (.011-.064)	0.004 (-.003-.014)	0.000 (-.009-.011)	<b>0.030*</b> (.010-.058)
Indirect effect LONE_SC	0.011 (-.018-.040)	-0.013 (-.037-.009)	-0.005 (-.031-.020)	-0.011 (-.034-.010)	-0.011 (-.038-.014)	-0.005 (-.027-.017)	0.014 (-.003-.034)	.015 (-.002-.037)	-0.050 (-.083-.025)
Total effect (c)	0.002	-0.037	0.019	<b>0.029*</b>	0.002	-0.003	0.006	0.018	<b>-0.077**</b>

**Table 7.10. Mediation effects between belonging motivation and the outcomes**

<b>BM1</b>	WB_SLP	WB_BURN	WB_STR	WB_SOM	WB_COG	WB_DEP	WB_SE	PF_TP	PF_CPWB
Direct effect (c)	0.020	-0.018	<b>-0.101*</b>	-0.045	-0.061	-0.053	0.000	-0.030	-0.052
Indirect effect LONE_ED	0.000 (-.010-.011)	0.000 (-.016-.018)	0.000 (-.016-.016)	0.000 (-.013-.012)	0.000 (-.016-.018)	0.000 (-.023-.024)	0.000 (-.004-.004)	0.000 (-.004-.003)	0.000 (.021-.022)
Indirect effect LONE_SC	0.000 (-.009-.003)	0.001 (-.002-.008)	0.000 (-.002-.007)	0.000 (-.002-.008)	0.000 (-.002-.009)	0.000 (-.002-.006)	-0.001 (-.008-.003)	-0.001 (-.008-.003)	0.002 (-.011-.017)
Total effect (c)	0.020	-0.018	-0.100	-0.044	-0.061	-0.053	-0.001	-0.030	-0.050

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$

For the completeness of information, tables summarising the 'a' path and 'b' path coefficients (i.e., which are multiplied to give the indirect effects) in the mediation model are presented in appendices B.14 and B.15.

According to the discussed criteria for a mediation effect to be found (Burger et al., 2014), there are several mediation effects that are confirmed in the model. For example, it is suggested that emotional deprivation has a mediational role in the model in the relationship between organisational culture and function and depressive symptoms (H3). The *a* path  $-.189^*$  multiplied by the *b* path  $-.367^*$  gives the indirect effect which equals  $.069$  with a lower-level confidence interval (LL) of  $.039$  and an upper-level confidence interval (UL) of  $.110$  (i.e., the CIs do not pass through zero, so the indirect effect is significant). A partial mediation effect is suggested as the reduction in the relationship between organisational culture and function and depressive symptoms when emotional deprivation is included is small ( $c = .146^*$ ,  $c' = .078$ ). On the other hand, it is indicated that a lack of social companionship does not have a mediational role between organisational culture and function and depressive symptoms ( $\beta = -.002$ ) because the confidence interval is insignificant as it passes through zero; LL =  $-.015$ ; UL =  $.005$ .

Overall, whilst both mediators do have some mediation effect in the model, the mediator emotional deprivation plays a larger a mediational role than the mediator, a lack of social companionship. Emotional deprivation has a significant mediation effect, either with a significant direct effect and significant indirect effect, or just a significant indirect effect, between five antecedents of loneliness in work (four of the work-related psychosocial factors and one predictor of desire for social relations at work) and seven outcomes of loneliness in work (six well-being outcomes and one job performance outcome) (H3, H4, H5, and H6), as summarised in Table 8 below.

**Table 8. Summary of partially supported hypotheses through the mediator, emotional deprivation**

Hypotheses	Partial mediation effects through the mediator, $\beta$ emotional deprivation	95% CIs [LL, UL]
H3. The relationship between the predictors of actual social relations at work and employee well-being is mediated by loneliness in work	Organisational culture and function and:	
	- Sleep quality	.027 [ .004, .061]
	- Burnout	.050 [ .025, .084]
	- Stress	.046 [ .022, .081]
	- Somatic stress	.035 [ .016, .062]
	- Cognitive stress	.048 [ .022, .084]
	- Depressive symptoms	.069 [ .039, .110]
	Career development and:	
	- Sleep quality	.012 [ .002, .031]
	- Burnout	.023 [ .009, .042]
	- Stress	.021 [ .007, .040]
	- Somatic stress	.016 [ .006, .030]
	- Cognitive stress	.022 [ .008, .042]

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<p>H3. The relationship between the predictors of actual social relations at work and employee well-being is mediated by loneliness in work</p>	<p>Interpersonal relationships at work and:</p> <ul style="list-style-type: none"> <li>- Sleep quality</li> <li>- Burnout</li> <li>- Stress</li> <li>- Somatic stress</li> <li>- Cognitive stress</li> <li>- Depressive symptoms</li> </ul> <p>Home-work interface and:</p> <ul style="list-style-type: none"> <li>- Sleep quality</li> <li>- Burnout</li> <li>- Stress</li> <li>- Somatic stress</li> <li>- Cognitive stress</li> <li>- Depressive symptoms</li> </ul>	<p>.058</p> <p>.107</p> <p>.099</p> <p>.075</p> <p>.104</p> <p>.150</p> <p>.021</p> <p>.038</p> <p>.035</p> <p>.027</p> <p>.037</p> <p>.054</p>	<p>[.008, .113]</p> <p>[.067, .154]</p> <p>[.057, .151]</p> <p>[.040, .115]</p> <p>[.058, .162]</p> <p>[.103, .206]</p> <p>[.003, .047]</p> <p>[.019, .065]</p> <p>[.016, .063]</p> <p>[.011, .049]</p> <p>[.017, .066]</p> <p>[.029, .087]</p>
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H4. The relationship between the predictors of actual social relations at work and job performance is mediated by loneliness in work.	Organisational culture and function and:		
	- Counterproductive work behaviour	.062	[.034, .100]
	Career development and:		
	- Counterproductive work behaviour	.028	[.011, .051]
	Interpersonal relationships at work and:		
	- Counterproductive work behaviour	.134	[.090, .190]
	Home-work interface and:		
H5. The relationship between the predictors of desire for social relations at work and employee well-being is mediated by loneliness in work.	Relational valence and:		
	- Sleep quality	.013	[.002, .036]
	- Burnout	.024	[.008, .048]
	- Stress	.035	[.016, .063]
	- Somatic stress	-.017	[.005, .036]
	- Cognitive stress	.023	[.008, .049]
	- Depressive symptoms	.034	[.011, .064]

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H6. The relationship between the predictors of desire for social relations at work and job performance is mediated by loneliness in work	Relational valence and: - Counterproductive work behaviour	.030	[.010, .058]
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The second mediator in the model, a lack of social companionship, has a significant mediation effect, with a significant indirect effect, between two antecedents of loneliness in work (two of the work-related psychosocial factors) and two outcomes of loneliness in work (two job performance outcomes) (H4), as summarised in table 9 below. Hypotheses 3, 5, and 6 are not upheld through the mediator, a lack of social companionship, as discussed in section 5.5.

**Table 9. Summary of partially supported hypotheses through the mediator, a lack of social companionship**

Hypothesis	Partial mediation effects through the mediator, a lack of social companionship	$\beta$	95% CIs [LL, UL]
H4. The relationship between the predictors of actual social relations at work and job performance is mediated by loneliness in work.	Career development and:		
	- Counterproductive work behaviour	-.016	[-.033, -.005]
	Interpersonal relationships at work and:		
	- Task performance	.032	[.004, .073]
	- Counterproductive work behaviour	-.104	[-.162, -.056]

In summary, the four mediation hypotheses are all partially satisfied: H3 (the relationship between the predictors of actual social relations at work and employee well-being is mediated by loneliness in work), H4 (the relationship between the predictors of actual social relations at work and job performance is mediated by loneliness in work), H5 (the relationship between the predictors of desire for social relations at work and employee well-being is mediated by loneliness in work), and H6 (the relationship between predictors of desire for social relations at work and job performance is mediated by loneliness in work).

The overall mediation model presented is just-identified, as is common with mediation models due to the nature of having strong theory-driven a-priori theses (Muthen, 2018). This means that the model fit statistics (RMSEA, CFI, TLI, SRMR) are not available, and therefore, have not been reported.

## **5.5 Discussion**

This chapter explored the work-related psychosocial factors and their relationship with well-being and job performance outcomes through the two loneliness in work mediators. Five factors were suggested as potential explanatory elements in the relationship between loneliness in work and well-being and performance outcomes: the organisational culture and function, interpersonal relationships at work, the home-work interface, career development, and relational valence.

### **5.5.1 Emotional deprivation: the most significant mediator of loneliness in work**

Overall, the findings suggest that the loneliness in work mediator, emotional deprivation, explains the relationships in the model better than the mediator, a lack of social companionship (see Tables 8 and 9). As noted, in section 5.3.1.2, Wright and colleagues' (2006) study did not ascertain whether the sub-scales of emotional deprivation and social companionship are conceptually distinct, or

whether they have differing predictors and outcomes both individually and organisationally (productivity/performance). The results of this study suggest that emotional deprivation and social companionship are two conceptually distinct dimensions. Furthermore, the results also suggest that the dimension, emotional deprivation, has different predictors and outcomes to the dimension, a lack of social companionship (see Tables 8 and 9). It is recommended that future research focuses on the dimension of emotional deprivation in studying loneliness at work because this dimension provides a better explanation of how the antecedents of loneliness in work influence the potential outcomes. In order to assess how organisations deal with emotional deprivation in the workplace, it is suggested that the most salient antecedents of loneliness in work and emotional demands are the best starting point (i.e., the organisational culture and function, the home-work interface, interpersonal relationships at work, career development, and relational valence). The inclusion of a lack of social companionship as a dimension is questioned; it only has three significant mediation effects in the overall model (of a possible 90); therefore, it is suggested that employing emotional deprivation as the sole dimension of loneliness in work is sufficient.

### **5.5.2 Interpersonal relationships at work**

There are significant positive mediation effects of good interpersonal relationships through the mediator emotional deprivation on sleep quality, burnout, stress, somatic stress, cognitive stress, and depressive symptoms, as well as counterproductive work behaviour (see Table 8). Furthermore, there are significant positive mediation effects of good interpersonal relationships through the mediator a lack of social companionship and the two job performance outcomes of task performance and counterproductive work behaviour (see Table 9). Managerial support and support from colleagues are key in reducing both emotional deprivation and a lack of social companionship. This is a key area for organisations to focus on, particularly in the current organisational climate where many employees are working in a hybrid or remote fashion (64.2% hybrid workers and 15% remote workers as indicated by the demographic statistics of

this study, see section 5.3.2). Management competency and training is encompassed within this dimension, and it is critical that managers are receiving appropriate training in order to support employees working on-site as well as remotely (see section 1.3.2) (Caligiuri et al., 2020; DCMS, 2021; Henke et al., 2022; Jain, 2021).

### **5.5.3 Organisational culture and function**

There are significant positive mediation effects of good organisational culture and function through the mediator emotional deprivation on sleep quality, burnout, stress, somatic stress, cognitive stress, and depressive symptoms, as well as counterproductive work behaviour, as well as through the mediator a lack of social companionship on task performance (see Tables 8 and 9). This supports the notion that loneliness is a product of the organisational context (Wright, 2015) (see section 2.6.3). Organisational culture encompasses organisational communication processes, the psychosocial safety climate, clear organisational objectives and appropriate support for problem solving and personal development (see section 1.2.3) (Leka et al., 2017). These dimensions are, therefore, crucial in managing individuals' experiences of loneliness in work and are encompassed within the UK Government's actions to help employers tackle loneliness under the culture and infrastructure action (see section 2.6.3) (DCMS, 2021); loneliness should be embedded into well-being practices, policies and activities in the organisation and organisational values should align with the key issues of concern for employees.

### **5.5.4 Home-work interface**

There are significant positive mediation effects of a good home-work interface through the mediator emotional deprivation on sleep quality, burnout, stress, somatic stress, cognitive stress, depressive symptoms, and counterproductive work behaviour (see Table 8). The home-work interface encompasses work-life balance, and supportive organisational policies (i.e., hybrid and remote work policies) (Leka et al., 2017) and is recognised as an important way in which organisations can help employees to increase their quality of life outside the

employment setting (DCMS, 2021). Depending on the individual, it may be that they satisfy their a larger proportion of their inherent need for friendship (i.e., relational valence) outside of work rather than in work; therefore, the individual may require a lower level of social interaction and have a lower relational valence in work, compared to when they are in their home environment. For other individuals, they may exhibit a higher desire for strong relations at work and not place such a great level of importance on friendship outside of the work environment. It is important to understand this nuance when exploring individuals' experiences of loneliness in work and, therefore, the responsibility the organisation has to ensure that employees can maintain a positive work-life balance. This highlights the importance of the way in which remote and hybrid working policies are designed to encompass the wide-ranging needs of employees within any given organisation.

Moreover, the relationship between increased remote and hybrid work arrangements and work-life balance is reported to be in the employee's favour (Vyas, 2022) as these work arrangements correlate with a reduction in commuting time and therefore more time in the home environment; a finding that also correlates with study one (see section 4.3.2.3). Organisations must, therefore, pay careful attention to remote and hybrid working policies and their effect on the home-work interface, and work-life balance when considering the future of hybrid work within their organisation (i.e., mandating a full return to on-site work is likely to have a negative impact on the home-work interface).

#### **5.5.5 Career Development**

There are significant positive mediation effects of career development through the mediator emotional deprivation on sleep quality, burnout, stress, somatic stress, cognitive stress, and counterproductive work behaviour (see Table 8). Career development encompasses career prospects, job security, and reward (Leka et al., 2017). In the literature, career development has been associated with managerial loneliness (Gabriel et al., 2021; Mueller and Lovell, 2013; Silard and Wright, 2022; Wright, 2015; Zumaeta, 2019); however, the positive effects

that a promotion and advancement in an individual's career that have been found in this study are under-researched. It is suggested that promotion and career advancement may correlate with increased self-esteem, pride, and financial security (and reduced feelings of loneliness in work).

#### **5.5.6 Predictors of desire for social relations at work**

The individually focused predictors of desire for social relations at work, comprised of the two dimensions, the need to belong and relational valence, have contrasting significance in the empirically tested process model of loneliness in work. The need to belong does not have a significant relationship with either mediator of loneliness in work. On the other hand, there is a significant positive mediation effect of high relational valence through the mediator emotional deprivation on sleep quality, burnout, stress, somatic stress, cognitive stress, depressive symptoms, and counterproductive work behaviour (see Tables 8 and 9).

Whilst this finding demonstrates that an understanding of the relational valence at the individual level is important, it is suggested that, overall, a greater focus needs to be placed at the organisational level for positive interventions to support positive experiences of the work-related psychosocial factors. Primarily, this is for the reason that it is more difficult for an organisation to impact relational valence (it is an inherent human belief or concern); therefore, an approach that is focused on organisational-level interventions could be more impactful. Taking this approach and dealing with the work-related psychosocial factors (i.e., the actual social relations at work instead of the predictors of desire for social relations at work), rather than targeting the outcomes (i.e., once loneliness has occurred) is seen as a preferential way forward. This, in turn, should help at the wider societal level with lowering sickness absence and the consequential knock-on benefits to society. This could be achieved through further guidance for organisations in the UK Government's annual loneliness strategy, however, a new strategy for dissemination and implementation of this guidance is required.

### **5.5.7 Limitations and next steps**

A number of limitations can be identified from this study. As previously indicated, it is not ideal to have to split a sample to conduct an EFA on half of the dataset, and a CFA on the other half of the dataset. It was possible to do this thanks to the sample size and it was a necessary stage in the analysis due to the unreliability of the COPSOQ III dimensions in their measurement of the work-related psychosocial factors. In a future study, it would be advisable to use a different measurement tool for the work-related psychosocial factors. Despite this limitation, the outcomes of the EFA and CFA were acceptable for the purposes of this study.

In terms of research interest, the self-created relational valence scale that was developed for the purposes of this study proved to be a good measure of the dimension. Again, as previously noted, it is not ideal to use a self-created scale when testing a model, however there were no validated measures that accurately captured relational valence. The self-created scale can be used in future research in studies where predictors of social desire are being measured.

The most significant limitation of this study was the size of the model being tested; it is so large that it cannot be presented in diagrammatic format. The number of parameters in the model is 123 which added complexity to the analysis and the presentation of the findings. It also meant that a large sample size was needed. Future research could assess the work-related psychosocial factors individually in the mediation model, for example taking interpersonal relationships at work as a single independent variable in the model. This would be much simpler to analyse and present.

These limitations, as well as the contributions of this study, alongside the other two studies presented in this thesis, will be discussed in the final chapter (see chapter seven). The following chapter (chapter six) builds upon the findings of the current study through an exploration of the organisational policies and practices UK organisations are using to improve employees' experiences in work,



specifically in relation to the most influential work-related psychosocial factors found in the current study (i.e., in line with the principals of a multistage exploratory sequential mixed methods study). By exploring the policies and practices that are most influential, and the subsequent impact on employees' experiences of loneliness within the organisation, a more in-depth understanding of the organisational context of loneliness in work will be provided, as well as the role the organisation plays in the wider societal goals around the UK Government's annual loneliness strategy (DCMS, 2018; DCMS, 2023). Thus, the thesis has moved from a focus on the individual levels in chapters one and two, to a focus on the organisational and societal levels in chapter three.

## **Chapter 6: Integrating the Process Model of Loneliness in Work with Business Needs**

### **6.1 Introduction**

This chapter reports the findings of the third study which is focused on the possible interventions for loneliness in work at the organisational and societal levels. In this study, pathways to well-being in work are identified through focusing on the four most salient work-related psychosocial factors (i.e., antecedents of loneliness in work that the organisation can impact) that were identified in studies one and two (i.e., interpersonal relationships at work, the organisational culture and function, the home-work interface, and career development), and the impactful workplace health and well-being policies and practices that UK-based organisations are currently employing and/or would like to be able to employ in the future. For this reason, this chapter largely focuses on employee well-being; the aim is to identify ways in which the antecedents of loneliness in work can be effectively managed before an individual reaches a point of experiencing relational deficiency, and therefore, loneliness in work. This is in contrast to retrospectively trying to help an employee once they have had a negative experience of loneliness in work. This is a positive approach for organisations to take, that will improve employees' experiences in work and help in reducing experiences of loneliness in work amongst the UK workforce.

As discussed in section 1.3.1, there are three ways in which the UK Government aims to tackle loneliness (DCMS, 2018). The first is through reducing the stigma of loneliness; the second is by driving a lasting shift so that it is considered in policymaking; and the third is by improving the evidence base (DCMS, 2018). The UK Government's most recent annual loneliness report highlights the role of organisations in meeting these three goals, and tackling loneliness (i.e., the societal and organisational level intersect) (DCMS, 2023). The potential positive impact that organisations can have on reducing employees' experiences of

loneliness in work is supported by Lim and colleagues' (2018) conceptual understanding of loneliness. Lim and colleagues (2018) propose that the potential solutions to loneliness include relationship-focused interventions designed to provide opportunities for social interaction. These relationship-focused interventions can be provided in the workplace, and the importance of good line management (a sub-dimension of the interpersonal relationships at work factor) is intrinsically linked to this, which has been identified in studies one and two (see sections 4.3.2.1 and 5.5.2). Ways in which organisations can promote strong working relationships, collaboration, and good line management through policy and practice will be explored in this study.

Furthermore, studies one and two identified the importance of a good home-work interface (see 4.3.2.3 and 5.5.4), of which a good work-life balance is a key dimension. Organisations have an important role to play in ensuring that employees have a good-work-life balance through flexible working policies, which are pivotal for single-parent families, dual-earner couples, and employees with caring responsibilities (Bernard and Phillips, 2007; Masuda et al., 2012) in order that employees' relational needs both in their workplaces and in their home environments can be met. The usability of these policies is also essential for employees; whilst a policy may exist, employees must have the autonomy and ability to work flexibly; "the perceived usability of flexible work schedules may be a possible underlying mechanism of flexible work arrangements that has the potential to impact employee attitudes" (Hayman, 2009: 328). The usability of flexible work policies is linked to managerial support. Bernard and Phillips' (2007) study found that flexible policies were "far less important than informal support from colleagues and a sympathetic manager in the workplace" (2007: 139) which is linked to the work-related psychosocial factor, interpersonal relationships at work.

Moreover, organisations have a responsibility, alongside the standard Employee Assistance Programmes (henceforth, EAPs), to encourage employees to take lunch breaks and stay active, which can help employees to maintain a good

work-life balance (Cvenkel, 2021). Organisations can also aid work-life balance by focusing on employees' productivity and outputs rather than the number of hours they work (Collewet and Sauermann, 2017). This is pivotal in ensuring a good work-life balance for employees, whilst also maintaining the need for strong organisational performance. The current context of increased remote and hybrid working in the UK, is coupled with some organisational uncertainty around flexible work policies and practices (see section 1.3.2). The ways in which UK organisations are dealing with remote, hybrid and on-site work policies will be explored in this study.

The organisational culture and function has also been identified as an important factor in determining experiences of loneliness in work in studies one and two (see sections and 4.3.2.2 and 5.5.3). The organisational values are a key sub-dimension of this factor, which should align with the key issues of concern for employees (DCMS, 2021; Miller and Yu, 2003). Organisations, through a strong culture programme and clear organisational values, should establish social norms that encourage organisational members towards the kinds of behaviour that will lead to a climate of trust, belonging and mutual respect (Wright, 2005). Organisational values such as 'we care' and 'family values' have been employed (Participant 13) in order to encourage positive behaviours in order to create a good organisational climate which are discussed further in section 6.3.1.3. Well-being champions are highlighted by the UK Government as a good way of ensuring that employee well-being is monitored within an organisation (DCMS, 2021), however, other ways of achieving this aim, including through relevant organisational policies and practices are under-researched.

Career development is the fourth antecedent of loneliness in work that proved to be significant in study two (see section 5.5.5); however, this was not one of the most significant antecedents in study one. Job security, career prospects, and reward are key dimensions of career development (Leka et al., 2017). Employees value positive recognition for good work performance which can lead to a reduction in experiences of loneliness in work (Oljemark, 2023). This is directly

related to the dimension of interpersonal relationships at work, and specifically managerial support, because there is a requirement for managers who can recognise and reward employees' contributions (Oljemark, 2023). Furthermore, good job security and career prospects are important in reducing the likelihood of an employee experiencing loneliness and subsequent mental health and well-being challenges (Matthews et al., 2018).

Thus, it follows that the aim of the study presented in this chapter is to explore potential organisational policies and practices that are related to the four work-related psychosocial factors of particular interest (i.e., interpersonal relationships at work, the organisational culture and function, career development, and the home-work interface). This will enable suggestions of how the antecedents of loneliness in work can be managed in order to work towards preventing negative experiences of loneliness in work, rather than having to retrospectively deal with negative well-being and job performance consequences of loneliness in work. This has been undertaken through 50 semi-structured interviews with HR professionals in UK-based organisations, and a number of key themes that emerged alongside suggestions for organisational policy and practice are presented in this chapter.

This chapter is structured in three sections. Firstly, the methodology is discussed including the data collection procedures, ethical considerations, and data analysis procedures. The next section reports the findings in order of the key themes that arose from the data analysis. The final section presents a discussion of the results of this study with a focus on organisational interventions, practices and policies, to prevent experiences of loneliness in work, thereby improving employee well-being and job performance.

## **6.2 Method**

This study is based on 50 semi-structured interviews with HR professionals from different UK-based organisations. The processes of data collection and data analysis are detailed in this section.

### **6.2.1 Data collection and participants**

In line with the stated research aims and research question, a qualitative interview-based study was conducted in the context of a UK-based organisations. Data were gathered over a three-month period from March to May, 2024. The time-horizon was two years after the end of the majority of legal Covid-19 restrictions (ONS, 2022*b*), and two months prior to the most recent UK General Election which was held on the 4<sup>th</sup> July, 2024. This provided an especially salient setting for the study of organisational policies and practices with relation to loneliness in work and employee well-being.

A cross-section of 50 HR professionals from UK-based organisations was interviewed using a semi-structured interview guide. To summarise the participant profile of study three, the 50 participants are all from different UK-based organisations; the gender split was 17 male participants and 33 female participants; and in terms of job level, 21 work at a director level, 11 work at a senior manager level, 11 work at a middle manager level, and 7 work at an entry level. The job sectors are also summarised: 11 participants work in other service activities; 8 work in wholesale and retail trade motor repair; 8 work in human, health and social work activities; 6 work in transportation and storage; 4 work in public administration and defence; 3 work in education; 3 work in information and communication; 2 work in the professional, scientific and technical sector; 2 work in manufacturing; 1 works in construction; 1 works in financial and insurance activities; and 1 works in water supply, sewerage and waste. The size and breadth of this sample have generated a robust dataset to ensure that the recommendations presented in this study are well-supported and are representative of a cross-section of HR professionals working in UK-based organisations.

The study sample was built with one key selection criteria: participants must work in the HR department of a UK-based organisation (i.e., the key stakeholder group). Furthermore, participants were only selected if they had a confirmed understanding of their organisation's policies and practices in relation to work arrangements (i.e., remote, hybrid and on-site work), the organisational culture, interpersonal relationships at work, work-life balance, career development, and employee well-being. The pre-existing knowledge of the participants was determined in the pre-interview contact which took place via email or LinkedIn. The potential participants were provided with an overview of the aims of the study and the knowledge base that would be required to answer the questions (i.e., participant screening took place to ensure suitability for the study). Participants' job titles include but are not limited to: 'HR Director', 'Chief People Officer', 'Head of HR', 'Deputy HR Director', 'HR Business Partner', 'HR Manager', 'HR Advisor', and 'HR Graduate'. Invitations to participate in the current study were sent via email from March 2024 to May 2024.

Initially, invitations were only sent to individuals who had participated in study two who had indicated that they would be willing to participate further in future studies (a total of 22 participants). Due to the aims of this study and the interest in exploring a wide range of organisational policies and practices, additional participants were invited to participate, of which 28 accepted and five were unable to participate within the researcher's time frame. These participants were identified through the researcher's network (i.e., purposive sampling) and invitations to participate were sent via LinkedIn and then via email. Following each interview, the participants were asked if they could recommend any other potential participants which led to a further four recommendations and participants (i.e., snowball sampling was employed). The final interview with the fiftieth participant was held on the 21<sup>st</sup> May, 2024.

In order to facilitate participation in the interviews, the participant's preferred online platform was utilised; 48 interviews were conducted on Microsoft Teams, and 2 interviews were conducted on Zoom. The approach taken involved a series

of semi-structured interviews which enabled the clarification of interesting points raised by the participants, and opportunities to explore potentially sensitive issues including loneliness in work and employee well-being (Barriball and While, 1994). The key interview questions were prepared in a flexible structure in advance of the interviews (see Appendix C.1) which was used as a general guide for the interviews. Open-ended questions formed the starting point of the participant interviews which enabled the researcher to explore participants' thoughts, beliefs, and feelings about organisational policies and practices in relation to the four work-related psychosocial factors of interest, and loneliness in work (DeKonckheere and Vaughn, 2019). As in study one, the conversation remained open to any experiences or information that the participants wanted to share which allowed for the discussion to progress in different directions and for new themes to emerge (Bryman and Bell, 2015).

Every interview started with participants being asked about their role in the organisation and the key tasks they undertake; an open-ended question to generate rapport. Following this, the mental health and well-being focuses within the participants' organisations were discussed. The participants were then asked about experiences of loneliness in work within their organisation. More specifically, participants were asked whether they had personal experiences of loneliness in work or whether they knew of any colleagues who may have had experiences of loneliness in work. If so, participants were asked to elaborate on these experiences and the organisational policies and practices that are in place to deal with loneliness in work. On the other hand, if participants did not have first-hand or second-hand experience of loneliness in work, they were asked to give their general thoughts and opinions on the topic. Participants were also asked whether they were aware of the UK Government's annual loneliness strategy.

Following the general overview of the organisation's well-being framework, and the understanding of loneliness in work, the interviews progressed to explore the four most salient work-related psychosocial factors found in study two (i.e., the



home-work interface, interpersonal relationships at work, the organisational culture and function, and career development). The work-related psychosocial factors presented in the following were discussed in any order to suit the flow of the conversation; this was possible through the choice of using semi-structured interviews. The factor of interpersonal relationships at work was explored by asking questions about how the organisation supports good interpersonal relationships at work, how this might differ across the different types of work arrangements (i.e., remote, hybrid and on-site work), as well as the most frequent challenges associated with interpersonal relationships at work that arise within the organisation. This involved a discussion about manager competencies and manager training across the different managerial levels (i.e., first-time line manager, middle manager, and senior manager). The participant's overall opinion on how the organisation could improve interpersonal relationships at work was also explored.

The second work-related psychosocial factor, the organisational culture and function, was explored by asking participants about how the organisation communicates, practices and maintains or upholds its values. The last part of this question was key; upholding and maintaining organisational values is very different to communicating them on an ad hoc basis; therefore, the ongoing strategy as well as the initial implementation of the organisational values was explored. Furthermore, the way in which large organisational decisions are communicated to employees was explored, as well as any differences for those working remotely or in a hybrid fashion.

The third work-related psychosocial factor, the home-work interface was explored through a discussion regarding how the organisation promotes a healthy work-life balance. Further questions were asked around the organisation's flexible work policy, and good examples of this in practice, as well as how those with family and caring responsibilities are considered and helped to manage any potential work-family conflicts. The home-work assessment (DSE

check) was also discussed, together with the support the organisation provides to employees where gaps are identified.

The final work-related psychosocial factor explored in this study, career development, was explored through a discussion concerning the continuing professional development (CPD) that the organisation provides and encourages employees to undertake. Additionally, other training available to employees was explored, including how organisations have used the UK Government's apprenticeship levy.

After exploring the four work-related psychosocial factors and relevant organisational policies and practices in more depth, questions about job performance and how it is managed in the organisation were asked. Differences between managing and monitoring performance for employees working remotely, on-site, or in a hybrid fashion were discussed, as well as how employees are recognised for excellent work. Participants were asked for their opinions on the importance of employee recognition within the organisation.

To bring the interviews to a close, participants were asked about their thoughts on the future of work. This included conversations around what participants felt their organisations did well in relation to looking after employees' mental health and well-being, as well as any potential room for improvement. Additionally, participants were asked to comment on the main challenge they see towards employee well-being over the next five years, and how they feel the UK Government could help organisations in terms of improving employees' mental health and well-being. How participants envisaged work arrangements evolving within their organisation (i.e., a return to on-site work, or a continuation of remote or hybrid work) was also explored. Finally, participants were asked if they had any further comments or observations, and whether they could recommend any further HR professionals who might have been willing to participate in this study.

The interviews ranged from 29 minutes to 56 minutes in length, with the average length of the interviews in this study being 43 minutes. The interviews were all conducted online, due to the availability of the participants and the success of online interviews in study one (see chapter four). One pilot interview was conducted at the beginning of the interview process by a single interviewer. The pilot interview transcript was reviewed by two independent parties which helped in the fine-tuning of the interview guide. The main revision that was made, following the pilot and subsequent challenger process, was in the ordering of the questions in the interview guide to ensure the most logical flow of the conversations; however, as noted this was subject to change due to the nature of semi-structured interviews and the progression of the conversation in the moment.

The remaining interviews were then conducted, as in study one, which ensured consistency and was advantageous in creating a suitable atmosphere, developing rapport with participants and having a free-flowing conversation (Kvale and Brinkmann, 2009; Lincoln and Guba, 1985). Most of the participants were working from home when they participated in the interviews, which (as in study one), could have been a beneficial factor in their willingness to share information and have a candid conversation about aspects their organisation does well and aspects that could be improved upon in relation to the given topic (Miles and Huberman, 1994). The participants gave their permission for the interviews to be recorded, transcribed and encrypted in line with the ethical guidelines (as set out in sections 3.5 and 6.2.2).

### **6.2.2 Ethics**

All data collection procedures in this study adhere to the University of Nottingham's Code of Research Conduct and Research Ethics (2023), and the Data Protection Act 2018 which encompasses the General Data Protection Regulation (GDPR); all information collected has been used fairly, lawfully, and transparently. The participants in this study received a participant information form (see Appendix C.2), a participant consent form (see Appendix C.3), and a

research participant privacy notice (see Appendix C.4), prior to all online interviews. The online interview could not take place until the researcher had received a signed participant consent form. Prior to every interview commencing, the ethical guidelines were re-confirmed with the participants. Every participant was reminded of their right to withdraw from the study at any time, as well as the confidentiality, anonymity, and data protection guidelines being followed by the researcher. An opportunity was given for the participant to ask any questions. Following the interviews, all of the personal and organisational information was removed from upon transcription (which was completed by the researcher, i.e., no professional services were involved), and audio files were deleted as soon as the transcription had taken place. Transcriptions were encrypted and stored securely.

### **6.2.3 Analysis**

In line with the principles of TA, the data gathered in study three were analysed following several stages: dataset familiarisation; data coding; initial theme generation; theme development and review; theme refining, defining and naming; and writing up (Braun and Clarke, 2022). A hybrid deductive/inductive TA approach has been used in this study which is a TA approach that can be used in mixed methods research processes (Proudfoot, 2022). This approach comprises both the deductive (i.e., top down) element, “the application of an explicit theoretical framework developed through engagement with the literature” (Proudfoot, 2022: 308), as well as an inductive (i.e., bottom up) element which “entails the generation of themes from the data” (Proudfoot, 2022: 308). This approach is helpful within a coherent pragmatist stance as emphasis is placed on the complementary mixed methods employed in this thesis (i.e., the studies and their respective findings are effectively integrated) (Mertens et al., 2016; Proudfoot, 2022).

The first stage, data familiarisation, involved the researcher (who had conducted the 50 interviews) transcribing the participant interview data. The interviews were mainly recorded using the Microsoft Teams record and auto-transcribe tool (a

total of 48 interviews). The two interviews conducted via Zoom, due to participants expressing a preference of this alternative online video conferencing software, were also audio recorded and automatically transcribed using the Microsoft Teams tool on the researcher's second computer which was situated within the same room. The transcription files that were generated automatically within the Microsoft Teams software required considerable editing. The transcripts were found to be inaccurate, particularly when a participant had a strong regional accent, and the formatting was problematic. Thus, in an attempt to overcome the errors in the transcriptions, considerable editing and a thorough check of the transcripts was completed by the researcher who listened to all 50 transcripts with the playback of the recording at half its original speed to allow for sufficient time to make the necessary edits. A benefit of this lengthy transcription process was the researcher's increased familiarity with the dataset, as well as ensuring the accuracy of the transcription. The time taken in preparing the transcripts allowed the researcher to have time for reflection and to keep a reflexive research diary, in which any thoughts, ideas, and initial impressions were noted following the typing and editing process for each participant interview. The transcription process undertaken in study three is in line with Braun and Clarke's (2006) first phase of good TA (i.e., dataset familiarisation).

The second stage of good TA is data coding (Braun and Clarke, 2006) which was undertaken using NVivo version 14 software. As in chapter four (see section 4.2.3), a data structure has to be imposed on qualitative data because it does not have an "initial intrinsic organisational structure" (LeCompte, 2000: 147). Through the initial coding, the researcher employed seven theory-led deductive codes from the revised process model of loneliness in work presented in chapter five. The seven deductive codes, which were pre-set, are comprised of the four work-related psychosocial factors (i.e., the home-work interface, interpersonal relationships at work, the organisational culture and function, and career development), loneliness in work, employee well-being, and job performance. Alongside the deductive codes, there were 28 inductive codes that were used which emerged through the coding process: workload; social impact; physical

health; mental health; men's health; counselling; living alone watch group; induction/onboarding; manager training; manager responsibilities; manager competencies; managing different generations in the workplace; hybrid work; flexible work arrangements; helping mothers to return to the workforce; generational differences; key challenges; stigma of loneliness; policy versus guidance; financial well-being; government responsibility; employees with caring responsibilities; artificial intelligence (henceforth, AI); flexibility versus return on investment; the aging workforce; connectivity; attractiveness of the organisation to young employees; and, employer versus employee responsibility. The inductive codes were created in an ongoing process which continued until the fiftieth transcript had been read. This meant that the earlier transcripts were read through again to ensure that any codes from the full set of 35 had not been missed; therefore, the analysis was circular (Swain, 2018).

The third stage of good TA is initial theme generation (Braun and Clarke, 2006). A theme is "a pattern that captures something significant or interesting about the data and/or the research question" (Maguire and Delahunt, 2017: 3356). This process was informed by the literature (see chapter two), as well as the first two stages of good TA. The codes were examined to see if they fitted together into a theme, for example, financial well-being, employee well-being, physical health, mental health, men's health, and counselling, were collated into the theme of employee well-being in UK-based organisations. At the end of this stage of the data analysis, "the codes had been organised into broader themes that seemed to say something specific about the research question" (Maguire and Delahunt, 2017: 3356), as summarised in Table 10.

**Table 10. Initial theme generation: study three**

<b>Main themes</b>	<b>Sub-themes</b>
<b>Employee well-being in UK-based organisations</b>	Employee well-being; financial well-being; physical health; mental health; men’s health; and counselling
<b>Loneliness in work from the organisational perspective</b>	Loneliness in work; stigma of loneliness; living alone watch group; social impact; organisational culture and function; and job performance
<b>Work arrangements and the role of organisational policies</b>	Hybrid work; workload; induction/onboarding; the home-work interface; career development; job performance; and policy versus guidance
<b>The pivotal role of the manager</b>	Manager responsibilities; managerial training; managerial competencies; managing different generations in the workplace; and interpersonal relationships at work;
<b>The UK Government’s responsibilities</b>	Employees with caring responsibilities; flexible work arrangements; helping mothers to return to the workforce; government responsibility; and employer versus employee responsibility
<b>Future challenges to employee well-being</b>	Key challenges; AI; flexibility versus return on investment; the aging workforce; connectivity; and the attractiveness of the organisation to young employees

The fourth stage of good TA is theme development and review (Braun and Clarke, 2006). The data relevant to each theme that had been coded in NVivo version 14, as identified in the previous stage were reviewed, modified, and developed (Maguire and Delahunt, 2017). The data associated with each theme was re-read and the consideration was given to the coding (i.e., whether the data supported the proposed theme) (Maguire and Delahunt, 2017). For example, the coherence of the themes, the data supporting the themes, any potential overlaps between the themes and whether there are any sub-themes were considered (Maguire and Delahunt, 2017). Additionally, two researchers assuming challenger positions (i.e., supervisors) reviewed the emergent themes and the coding of the data, and a consensus was reached following this discussion. Following this review, it was felt that the themes were coherent and conceptually distinct from each other.

The fifth stage of good TA is theme refining, defining, and naming (Braun and Clarke, 2006) where the researcher should “identify the essence of what each theme is about” (Braun and Clarke, 2006: 92). The final thematic table presented in Table 10 illustrates the relationships between the themes and sub-themes that have been identified in this study.



**Table 11. Final thematic table: study three**

<b>Main themes</b>	<b>Sub-themes</b>	<b>Description</b>
<b>Employee well-being in UK-based organisations</b>	What constitutes employee well-being	General understanding of employee well-being – mental health, physical health, gendered health
	Financial well-being as a sub-dimension	Integrating financial well-being as a sub-dimension of employee well-being
	What is being done	Organisational initiatives, policies, and practices in place to improve employee well-being
<b>Loneliness in work from the organisational perspective</b>	Organisational awareness of loneliness in work	General understanding of loneliness in work within the organisation
	What is being done	Organisational initiatives in place to deal with loneliness in work
<b>Work arrangements and the role of organisational policies</b>	What remote and hybrid work policies exist	General understanding of policies related to work arrangements (i.e., remote, hybrid, on-site work)
	Outcomes of organisational policies and practices	The impact of the organisational policies and practices on work-life balance, employee well-being and job performance
<b>The pivotal role of the manager</b>	Managerial responsibility and competency as an employee well-being issue	General understanding of managers' responsibilities within organisations in relation to employee well-being
	Organisational responsibility in training managers	The current training programmes available to managers
<b>The UK Government's responsibilities</b>	What is currently being addressed	Government-led policies and practices in place to help both organisations and employees in terms of work arrangements (flexible work, part-time work), loneliness in work, employee well-being, and job performance
	What needs to be addressed	Areas that represent a challenge in terms of work arrangements, loneliness in work, employee well-being, and job performance
<b>Future challenges to employee well-being</b>	What the key challenges to employee well-being are	The key challenges towards employee well-being that organisations are facing
	What can be done	The suggested actions that can be taken in employee well-being issues

The sixth, and final, stage of good TA is reporting the findings (Braun and Clarke, 2006). The main themes and sub-themes summarised in Table 10 have informed the content of the findings section. The analysis is enriched in the following chapter by the inclusion of illustrative direct participant quotes.

## **6.3 Findings**

This section presents the results from the participant interviews.

### **6.3.1 Loneliness in work from the organisational perspective**

The exploration of HR professionals' thoughts on the topic of loneliness in work generated interesting responses. Some participants noted that they think loneliness in work "is definitely more prevalent during and post-Covid" (Participant 19), which they have linked to the work arrangements of employees (i.e., remote, hybrid, or on-site work) (Participants 19, 22, 23, 24, 25, and 26). Participant 19 commented, "post-Covid, we are still typically working from home about four days a week on average. We are encouraging people to come into the office more, but people are quite resistant now, people have sort of built their lives". On the other hand, some employees do want to work from home, with one example being an employee who lived alone in a flat who wanted to return to work in the office as they found working from home incredibly isolating and lonely (Participant 20). Challenges with flexible work policies, encompassed by the work-related psychosocial factor, the home-work interface, have been associated with loneliness in work, which will be explored further in this section.

#### **6.3.1.1 Loneliness in work: organisational awareness of at-risk groups**

When participants were asked if they think loneliness in work occurs within their organisation, there were mixed responses. On the one hand, some participants acknowledged that it is likely some individuals experience loneliness in work; however, they would not go as far to say that "it is a theme that runs across the organisation" (Participant 21). On the other hand, participants linked experiences of loneliness in work with certain groups or categories of workers.

The groups that were highlighted where loneliness in work could be more prevalent include: graduate and early career employees; employees with caring responsibilities; employees living alone; nurses providing at-home care; fully remote workers; employees with disabilities; employees in the transport sector; night workers; and senior managers (Participants 1, 4, 9, 12, 15, 21, 26, 27, 33, 34, 37, 38, 44, and 48).

It is suggested that loneliness in work may be more prevalent in senior managers; “you become lonelier the more you move up the business; one of the feedback areas was from the leadership team that they felt lonely” (Participant 13). Participant 13 attributes to the antecedent of interpersonal relationships in work (i.e., an unmet relational need exists):

“I probably would say there's more loneliness in the top levels of our business than the bottom [...] you can have a conversation with anyone, can't you, when you're at the bottom, you don't have to worry about who you're talking to and who you confide in. As you go up it's more difficult” (Participant 13).

Another participant commented:

“I think for senior leaders, I've absolutely heard it, and I think particularly where you might have, say my Managing Director (MD) is the only female MD in her population. Those MD roles have grown massively. They're huge compared to what they were before, and they don't really have a close network of support; therefore, I've spoken to my MD confidentially that it can be quite a lonely role. So, I think where we've created functional roles within the organisation, they can feel quite lonely because they don't always have a natural team in the structure” (Participant 34).

Whilst these experiences of leader loneliness in work have been attributed to being unsure who to confide in when working in a leadership position, as well as the increased scope of leadership roles, solutions in the form of organisational policies and practices to this perceived issue of leader loneliness were unknown.

In relation to loneliness in work being experienced by those who have caring responsibilities outside of work, linked to the dimension of the home-work interface, one organisation has introduced a carer's passport. A carer's passport means that "you can write out the things you think you need as a carer and then you take them and agree them with your manager so, if you do need to dash off because your dad has had a fall, for example, then it's pre-arranged in effect" (Participant 26). Whilst this helps with the immediate issue a carer may face in an emergency, it does not help with their experiences of loneliness in work. Participant 26 continues, that loneliness experienced by employees with caring responsibilities seems to be driven by several reasons:

"actually, their own life is quite lonely because they are restricted by their caring responsibilities, and then when they're coming to work, quite often carer and part-time, or carer and alternative work patterns go together, and so perhaps they're missing out on some of the social aspects of work" (Participant 26).

Therefore, there is the question of how to integrate all employees in social activities despite their working patterns, thereby improving their interpersonal relationships at work with the aim of helping employees attain relational fulfilment. One organisation allows for this integration and socialisation between employees by allowing employees to expense a journey once a month that is not for a client journey (Participant 47); however, in the case of employees with caring responsibilities it is possible that social events outside of traditional working hours might not be suitable. Another organisation made sure that all of their employee initiatives throughout the year were run virtually and they experienced "a reasonable amount of engagement" (Participant 40) by running the initiatives in this way.

Another group that is highlighted as a risk group for experiencing loneliness in work is graduates who are new to the organisation. With increased remote working, "vicarious learning and feeling on their own about problem solving is a theme that is coming through" (Participant 26) amongst graduate employees. If entry-level employees experience struggles with vicarious learning, this could

hamper their career progression opportunities in the short-term which is linked to the antecedent of career development. Graduate employees are often “less skilled and less familiar with navigating the work environment and unless some interaction is offered, then they can feel isolated and lonely because they’re not sure how to get support or how to interact with others” (Participant 33). If a graduate’s line manager or colleagues work remotely, then a clear communication strategy or pre-booked meetings are needed with time to check-in and ask questions (i.e., linked to the antecedent of interpersonal relationships at work); not having this can cause stress and concern (Participant 12). Participant 38 works in a graduate position and their experience echoes this sentiment; “especially early on, I found myself a bit lonely in the sense that I felt a bit lost because there was not someone I could reach out to in person” (Participant 38). This is linked to ongoing debates around flexible work arrangements and the ideal balance between the number of days working remotely, and the number of days working on-site. In summary, a consensus has not been met, and policy and practices vary from organisation to organisation (as discussed further in section 6.3.3).

Nurses providing at-home care services have also been highlighted as a group who may experience an increased prevalence of loneliness in work (Participant 44), which is primarily linked to the antecedents of the home-work interface and interpersonal relationships at work.

“We talk about loneliness quite a bit and how you combat it and ways around it because we have about 250 nurses who are in their cars going out to see patients and because of some of the commutes, they can actually maybe spend half of the day in the car on their own rather than being with the patients” (Participant 44).

The organisation has experimented with different ways of trying to overcome loneliness associated with this type of job and has recently introduced podcasts which the nurses can listen to in their cars on their commute between patients (Participant 44). The topics of the podcasts range from leaders presenting on a topic of interest by doing a fireside chat, to nurses talking about what they

experience in their jobs in a question and answer (Q&A) format (Participant 44). This is an innovative way of increasing contact and communication with the aim of aiding employees to feel relationally fulfilled, through a connection to the wider business, in what can otherwise be an isolating and lonely job (Participant 44).

### **6.3.2 Loneliness in work: organisational action to improve employee well-being**

Whilst organisations have an awareness of the groups who could be most at risk of experiencing workplace loneliness (as discussed in section 6.3.1.1), it is also important to explore the actions that organisations take in trying to prevent experiences of loneliness in work from occurring. When asked this question, participants provided details of their organisation's employee well-being policies and practices. These policies and practices, whilst on the surface-level are designed to improve employee well-being, are actually more complex. The well-being policies are linked to the most salient antecedents of loneliness in work that were identified in studies one and two.

Organisations recognise that “well-being is part of your custodial responsibilities, your pastoral responsibilities as a good employer” (Participant 7), and there is an emerging perception that a greater focus has been placed upon employee well-being following the Covid-19 pandemic; “the world that we've found ourselves in since then has increased the dynamism of health and well-being at work dramatically” (Participant 44). Employee well-being “is so many things and part of that is are you healthy?, are you happy at work?, so there's that holistic approach” (Participant 11). The subjectivity of individuals' experiences at work (and employees' resultant well-being outcomes) more widely is recognised. For example, a one-size-fits all approach to well-being might not be the most successful approach for an organisation to take when considering neurodiversity and inclusivity in the workplace; instead, “it is about understanding what works on an individual basis rather than having a blanket approach” (Participant 50). This reinforces that a policy or practice designed to

improve an antecedent of loneliness in work (and therefore, employee well-being) may be successful for some employees, but not for all employees.

Subjectivity and an understanding of the nuance of the individual experience in work is required in order to ensure that organisational policies and practices have the desired effects in improving employees' experiences of the work-related psychosocial factors, and thereby reducing loneliness in work. The ways in which organisations have worked to tackle the antecedents of loneliness in work are summarised in the following sub-sections and include having a data-driven well-being plan, creating a good organisational culture, supporting flexible work arrangements, and focusing on managerial support and competency.

#### **6.3.2.1 Loneliness in work: organisational action - well-being plan**

An organisation's well-being plan should aim "to cover financial as well as physical aspects" (Participant 11) whereby employees can seek financial advice, legal advice, as well as physical and mental health support. Organisations' plans and packages vary, and the role of Mental Health First Aiders (henceforth, MHFAs), Employee Assistance Programmes (henceforth, EAPs), Well-being Champions (henceforth, WCs), on-site counselling services, well-being applications, and the importance of financial well-being in relation to reducing negative experiences of loneliness in work are discussed in this section.

In some cases, participants expressed that the well-being policies and practices within the organisation were informed by an annual staff survey (Participants 3, 4, 21, 23, and 24) which meant that they could be tailored to ensure that the support with which employees were being provided was relevant and helpful. As part of these well-being plans, a common approach within the organisations in which the participants in this study are employed, is to appoint MHFAs to provide support alongside EAPs (Participants 8, 10, 13, 15, 21, 23, 33, 34, 43, 44, and 46) which helps with "intervention in the psychological safety piece" (Participant 33). EAPs, whilst not mandatory, help organisations to meet their statutory duties to protect employees' well-being and they provide services including legal advice,

financial advice, counselling, and crisis intervention. MHFAs are seen as a useful approach and provide a listening ear where needed; one organisation sends every line manager on a MHFA course to increase their awareness of the factors that can influence employee well-being:

“if you want someone to bring their true authentic self to work and you want 100 percent, you’ve got to take the 100 percent of it all. The worries you've got at home don't just stop the minute you come in the door at work, and equally so whatever worries you've got at work don't just stop the minute you switch off the computer” (Participant 44).

The holistic nature of potential experiences of loneliness in work is recognised; stressors from both an individual’s home and work environment can contribute to negative experiences of loneliness in work; therefore, organisational policies and practices must take factors that may be occurring outside the workplace into account (i.e., providing support should an employee be caring for an unwell relative). On top of EAPs and MHFAs, some organisations also appoint WCs (Participants 12, 18, and 43). WCs “are there to keep well-being at the top of the agenda and to act as a signpost so, if anybody has got a problem and they don't want to talk to their boss or to HR, they can talk to a WC who can help to navigate them in the right direction” (Participant 18).

In response to mental health challenges faced by employees (and as part of the organisation’s well-being plan), a potential negative outcome of an experience of loneliness in work, some organisations have made investments in on-site or online counselling services (Participants 3, 13, 15, 26, 30, and 35). In the case of one organisation, an on-site counselling service was initially introduced because employees who needed counselling support could not get access to this via the NHS due to the waiting times (Participant 3). This organisation is “funding probably about £10,000 a month for eight counsellors at the different sites and they are now seen as an integral resource that teams are relying upon” (Participant 3). The importance of these counselling services has been demonstrated as “at the last count, the counsellors think they’ve probably prevented about 15 suicides in the last two and a half years” and “it’s the face-



to-face contact that is making the difference [...]; the ability to relate to someone in person is key for the frontline teams” (Participant 3). Following an employee attending a series of counselling appointments, their organisation needs to follow up with coaching for the employee, “to change their mindset otherwise sometimes they can end up spiralling back to where they were originally, and it can be a recurring cycle; the key is to break those cycles” (Participant 30). Overall, counselling services are regarded as an important component of some organisations’ employee well-being offerings, which is important in managing the most serious consequence (i.e., suicidal ideation) of a negative experience of loneliness in work.

Furthermore, various applications (henceforth, apps) have been introduced by organisations with the aim of improving employees’ well-being: YuLife (Participant 3), PAM Assist (Participant 8), and Peppy Digital Health (Participant 23). YuLife, one of the health and well-being apps discussed in the interviews, has a 70 percent take-up rate within the organisation (Participant 3). The app encourages both physical and mental activity, which is aimed at improving the antecedent of the home-work interface, and specifically the sub-dimension of work-life balance. The organisation has found that “something fairly simple like that is actually having a bigger impact and bigger connection with people than anticipated at the start” (Participant 3), helping to decrease experiences of loneliness in work, and demonstrating a wider social impact linked to the suggested dimension of social well-being. On the other hand, for some HR professionals, these applications are seen as gimmicky (Participant 37) and a fad with “an app for this and an app for that” (Participant 7). Instead of these apps, the following opinion was expressed:

“Well-being as a really holistic thing about the person, and do they feel connected to the organisation, do they feel well-treated, well-respected, do they feel listened to, do they feel involved, is there space for their personal health and their physical health and their financial well-being, are they in a good financial state; so, it is quite a holistic thing” (Participant 7).

It is suggested that an app cannot replace the basic principles of respect, connection, and involvement within an organisation; however, it may go some way to reducing the frequency of employees' experiencing loneliness in work.

Moreover, whilst the traditional aspects of mental health and physical health were discussed in relation to organisations' well-being plans, the dimension of financial well-being was proposed as an area that requires greater attention. Whether or not an individual is in a good financial state can impact their well-being; there is a direct correlation (Participants 4, 7, 10, 11, 14, 20, 26, 31, 33, 35, 43, and 44). A poor financial situation (i.e., struggles associated with the cost-of-living crisis) can lead to loneliness, and this is an example of where loneliness may be present in both the home and work environment. Naturally, an individual's work-life and home-life interact, and financial struggles related to poor financial compensation or poor management of finances in the home environment can lead to negative consequences including an inability to socialise with friends, which in turn can lead to relational deficiency, isolation, and loneliness. Therefore, the question of how organisations can support their employees with practical financial tools and knowledge arose (Participant 10). This correlates with wider societal issues and organisational performance and profitability struggles because the pay increases that some organisations have been able to give their employees, if at all, are not in line with inflation. Participant 43 said "we gave a three percent pay rise this year across the board, which is pretty good but not that good: it's still not enough to cover inflation". Additionally, Participant 43 commented on the lack of government support available to employers, "I feel like government policy is lacking to support employers generally [...] I think more state support is required". Overall, financial well-being is considered as an important sub-dimension of employee well-being which could have a negative impact on loneliness in work.

Further to the inclusion of financial well-being in organisational well-being plans, one participant also introduced the idea of social well-being which they believe is the answer to supporting people with mental well-being challenges in the

workplace (Participant 33). Participant 33 explains this notion of social well-being which pertains to improved interpersonal relationships at work:

“I think enabling people to have a community and an environment where they have support mechanisms and social mechanisms around them, so a good manager who is looking out for their well-being, teams that are also looking out for the individuals who are caring and compassionate and will be that listening voice. I think that if you get all of that, and also a vibrant social working environment too because that can enable people to thrive and work positively and that social cohesion is right in a workplace, I would like to think that’s a lot of the well-being challenge done” (Participant 33).

The principal of social well-being is to lend a listening ear to the individual in need, and this can be achieved through a good line manager who takes an interest and the time to understand an employee’s challenges or worries. A social intervention in the workplace where support mechanisms are available, which could include counselling or a buddy system, could help an individual who was previously struggling with relational deficiency, to instead experience relational fulfilment. This sub-dimension of well-being should be considered by organisations in order to complement the mental, physical, and financial well-being sub-dimensions. This provides organisations with a more comprehensive picture of the areas that organisational policies and practices should be designed to positively impact, which will help in preventing employees experiencing loneliness in work, thereby improving employee well-being.

#### **6.3.2.2 Loneliness in work: organisational action - organisational values and culture**

In addition to organisational well-being plans, the organisational culture and function has been found to be a salient antecedent of loneliness in work. One participant expressed that their organisation is “trying to be very purposeful with real kind of clarity on being here for good, not just being here to make money, but here for the right reasons, and that then translates into the strategy in terms of how we want to support employees” (Participant 14). Participant 18 shared an

example from their organisation of a time when the organisational values did not resonate with employees and the challenges associated with this:

“About 15 years ago where the firm employed a consultant to come up with values and there was consultancy, they did all the usual stuff, and they came up with bright, bold and world class, which were not words that anybody used and in a matter of days, it became white, bald, and middle class, so an absolute classic in how not to do it” (Participants 18).

In order for organisational values to be successful, they need to resonate with employees and at the organisational level, they should also be woven through all of the organisation’s HR processes, for example through the way in which performance is managed and employees are hired (Participants 1, 21, 22, and 23). One organisation employed ‘family values’ (Participant 13) whereby all employees were encouraged to look out for one another which “was a value that really stood out to everybody” (Participant 13) and encouraged good interpersonal relationships at work. However, the challenges associated with designing and implementing this organisational value were apparent as the family value allowed the organisation “to accept mediocrity, accept poor performance because if it’s someone in your family, you’re not necessarily going to address” (Participant 13) the problem. The organisation chose to redesign their values for this reason, moving to a ‘we care’ value which encompasses employee well-being as well as diversity and inclusion (i.e., helping employees to belong) (Participant 13).

Organisational values should be role modelled from the top of the organisation:

"if the CEO doesn't role model it, and the executive committee and the board members and then down into first line of management right the way through, and even individuals, if they don't role model it, people will go, oh you know, those values on the wall” (Participant 31).

If organisational values are not enacted, (i.e., just painted on the office walls), they will not have the desired organisational outcomes (Participant 26). A practical example of this concerns managers role modelling behaviour around finishing work on time which “is the biggest way of promoting work-life balance”

(Participant 22). A manager finishing work on time, thereby demonstrating that other employees can do the same, is the biggest way of fostering an organisational culture that promotes a good work-life balance (Participant 22). Overall, there is also the underlying fact that organisations do need to be profitable in order to run as Participant 19 explains, “we do have a really strong culture, a caring and nurturing culture but we are also obviously you know a commercial entity and therefore you know finding that balance is really important” (Participant 19). There is a balance that needs to be struck between meeting the organisational performance objectives but doing this in a way which is not to the detriment of employees’ experiences in work which could result in loneliness in work (i.e., when the organisational culture and function is poor) as well as poor employee well-being.

To summarise, the organisational culture and values are considered as highly important in most organisations in the current study, and it is, therefore, a fundamental component of their organisational policies and practices. Clear and consistently enacted organisational values (from the leaders of the organisation) are key in maintaining a good organisational culture and function, and in turn promoting good interpersonal relationships at work, which helps to prevent employees experiencing loneliness in work.

### **6.3.2.3 Loneliness in work: organisational action - the home-work interface**

The home-work interface has been found to be a salient antecedent of loneliness in work in this thesis. Flexible work policies and work arrangements (which include remote work, hybrid work, and on-site work in any given combination), as well as work-life balance are sub-dimensions of this antecedent which are discussed in this section.

Organisations have taken varying approaches since the Covid-19 pandemic; there is no agreed, universal approach that is being taken to ongoing remote and hybrid working arrangements in UK organisations. Flexible work is seen as being advantageous where it is appropriate because “it allows people the opportunity

to manage their other work pressures, life pressures, so they will probably be the best version of themselves” (Participant 1). By reducing potential an individual’s potential stressors both at work and at home, this can help to reduce negative experiences of loneliness in work. Whilst employees report positive benefits of remote and hybrid work on their work-life balance, there are challenges presented for the organisation in designing flexible work policies.

Multiple participants expressed that flexible work policies are “something we’ve struggled with” (Participant 2) as an organisation (Participant 7). One of the reasons presented for not allowing employees (where their jobs would allow) to work in a completely remote fashion is because of

“staff that work inside care homes or other frontline services who don't have that flexibility so, then they feel even more isolated because they think we still have to do our nine to five, we still have to physically be in the office or place of work, but everyone else seems to have a lot more flexibility” (Participant 2).

Moreover, if Participant 7’s organisation were to go fully remote, they “think that the connection to the company, the connection to the values and the culture could begin to evaporate away”; therefore, it is not seen as an ideal solution as it will negatively impact interpersonal relationships at work and the organisational culture and function, which could result in increased loneliness in work (Participants 8, 12, 18, 20, 26, and 48). For this reason, some organisations have chosen to mandate a certain number of days per week where employees must work on-site. This can be in the form of team anchor days, “days when they come in together and are connected, and hopefully the team can agree on those, but ultimately the manager has to make a decision” (Participant 7). Where there is a shortage of skills, employees want to work remotely, and it makes no difference to the employees’ job performance (i.e., IT), remote working will be allowed; a pragmatic approach is taken despite the overarching preference for hybrid working arrangements (Participant 7).

The same belief about retaining talent through a continuation of hybrid working arrangements is held within Participant 45's organisation; "we do not believe we can dictate that everybody is back in three or four days a week because we believe we will lose some of our best talent if we dictate that" (Participant 45). For employees who can work flexibly the organisation stipulated 'Team Chooseday' whereby the team agrees on one day per week they will all work on-site, and (Company Name) Wednesday, meaning that all employees will be on-site on Wednesdays (Participant 45). Having some sort of manager and leadership impetus to come work on-site is seen as important in helping employees to understand "there is real value in their work connections" (Participant 43). Therefore, a consideration of the needs of different groups of workers and the way in which the organisation can best manage interpersonal relationships at work and the organisational culture and function is taken, which can help to prevent employees experiencing loneliness in work, whilst at the same time maintaining focus on the necessary organisational profitability and performance.

Furthermore, HR systems can be used in identifying potential experiences of loneliness in work, as well as other well-being issues. Participant 20 explained how, within their organisation, the HR systems that are utilised provided warnings for cases where employees might be overworking (i.e., they have a poor work-life balance which could lead to loneliness in work). This is something that the organisation "tends to see signs of loneliness in, is with people overly volunteering for overtime to the point where they actually flag for us as an organisation, are you getting enough rest" (Participant 20). Once this alert is generated, a welfare conversation is coordinated with the employee to understand the reason for their desire to work more hours, as it could be for financial reasons, or there might be other underlying causes that need further investigation, so that the relevant support can be provided for the employee. This demonstrates the importance of organisations utilising their data in identifying employees who could be at risk of, or who are experiencing loneliness in work.

#### **6.3.2.4 Loneliness in work: organisational action - the role of the manager**

Interpersonal relationships at work have been found to be a salient antecedent of loneliness in work in this thesis, and in the current study the sub-dimension of managerial support and competency has been found to be particularly important in preventing experiences of loneliness in work. As Participant 18 expresses, for managers “number one is know your people, straight as simple as that” (Participant 18). If a manager understands an employee by knowing their family situation, their hobbies and interests, their normal behaviour, and their behaviour when they are under stress, they will be able to identify when something is not right and what they need in those circumstances (Participants 10 and 18). Thus, managers arguably play the most crucial role in supporting employees in an organisation. A personal anecdote from Participant 17 supports this notion:

“I was talking to a General Practitioner (henceforth, GP) years ago, and he was telling me that 80 percent of the people that came into his surgery presented on a mental health issue that was work-related and most of them were to do with a relationship with a line manager. He said what I want to be able to do is not write them a prescription for an antidepressant or try and put them on a waiting list for Cognitive Behavioural Therapy, I want to write them a prescription for a better boss” (Participant 17).

This evidences the potential consequences for an employee should they experience poor managerial support, which could lead to loneliness in work and negative well-being outcomes, including depressive symptoms. In order to enable managers to be effective people leaders, one key issue that has been levied at the organisational level lies in job crafting and design:

“One of the big things we talk about is poor leadership or poor line management capability, but anywhere I've worked, most of that is driven by the fact that we do not give line managers time in their day to actually do that, we tell them they have to do it, but we don't sort of quantify that or allow them that space in the working day, we fill it with the operational tasks.” (Participant 11)



Time needs to be allocated for managers to fulfil people leadership tasks, enabling them to be effective people leaders (i.e., promoting good interpersonal relationships at work). Sub-sections 6.3.2.4.1 and 6.3.2.4.2 discuss the actions organisations need to take and the responsibility organisations have, in ensuring that managers have the necessary competencies and access to training programmes to undertake their jobs to the best of their ability.

#### **6.3.2.4.1 Managerial responsibility and competency**

Managing employees across remote, hybrid, and on-site work environments presents a wide range of challenges for people currently working in managerial positions. Firstly, it is a skill to pick up on cues and body language through online video conferencing tools which takes time to develop. It is possible that employees can actively mask their true emotions, as the following example suggests:

“I've got a colleague, he's actually off with well-being issues at the moment, he's effectively had a mental breakdown and it's a combination of factors but is that ultimately about loneliness, I don't know. It might be loneliness in your thoughts. I know he's got a wife who has got a serious medical condition and he's helping to support her through that, I think he's got a big impostor syndrome issue, he feels he's not good enough and then he has a quite a busy work environment, quite a challenging environment. I think lots of things have crashed together which makes him feel quite lonely and isolated in his thoughts and I think he had suicidal thoughts, so it is quite serious. He is also a very sunny character – I think people have a mask” (Participant 7).

This is an extreme example of the way in which employees can mask their true feelings and well-being struggles, which can occur in face-to-face settings as well as remotely; however, it is maintained that it is even harder for managers to truly assess an employee's well-being in a remote work setting. This supports the notion of the importance of on-site working and team days, as discussed in section 6.3.2.3.

Secondly, another important competency for managers is the ability to have positive conversations as well as the more difficult conversations. Participant 19 expressed:

“one of the things that I've found in in my career is that it's really easy to assume people are going to struggle with having a difficult conversation when performance isn't good. I actually find that line managers also find it really difficult to praise people and have the good conversations as well” (Participant 19).

This feeds into having an appropriate reward and recognition strategy which is easy for managers to follow and enact. For example, thanks can be expressed for good work via a team meeting (Participant 1), via applications like High Five and Kudos (Participant 30), via organisational initiatives like an award for the ‘star performer of the month’ (Participant 43), or an initiative where points are given for good performance, and once an employee has amassed enough points they can exchange them for company merchandise (Participant 38). These recognition tools enable managers to praise employees in an effective and meaningful way (which could act as a buffer for employees experiencing other stressors in the workplace); therefore, organisational policies and practices are combined with managerial competencies.

Finally, the need for compassionate leadership (rather than empathetic leadership) was discussed. Participant 30 said, “I want leaders to become more compassionate leaders, and I want us to lose that throwaway society. If you think back to when our parents were in work, they had a job and they had a job for life” (Participant 30). During that time, people would undoubtedly face life challenges, but managers and organisations supported their employees. “Now what happens is somebody’s having a problem, whether that’s in work or out of work, it’s impacting on their productivity, all of a sudden they’re put on a performance improvement plan and they’re being pushed out of the door, that’s not supporting somebody” (Participant 30). The difference between compassionate leadership and empathetic leadership is summarised by Participant 11:

“Empathy isn't always a good thing actually, show compassion. I think there is a difference in well-being between those two things. That I would suggest you hold because empathy isn't always a good thing, because you can go a bit too native, a bit too attached, whereas showing compassion and understanding is important and then you can go on and find a solution” (Participant 11).

In summary, the manager does not want to become so native to the employee's problem that it then affects them; instead, showing compassion and understanding in the workload given to the employee as well as in general interactions and check-ins, is seen as more important. In summary, managers are crucial in ensuring good interpersonal relationships at work and need to have a certain level of competency and emotional understanding in order to perform their people management well; there is evidence to suggest that having a good manager reduces the likelihood of an employee experiencing loneliness in work and negative well-being outcomes.

#### **6.3.2.4.2 Managerial training: an organisational responsibility**

Whilst the necessary managerial competencies and skills have been discussed, a nature versus nurture debate is said to exist in terms of whether an individual possesses the qualities to be a good manager (Participants 31 and 41). Participant 31's answer to the nature versus nurture debate is that:

“it is always both to that question, which is you have to have some fundamental, rudimental personality traits which includes a genuine authentic concern for individuals' and individuals' well-being for any of the training to take hold and be sustainable and work. So, training is like the icing on the cake almost. The cake's got to be there, you know, those traits and desires have to be there in the first place and then training will just mould them to make them more effective, to make them more efficient, and give the individual confidence they're doing the right things” (Participant 31).

Furthermore, a distinction is made between the type of managerial role and the competencies that are required; “if it is about managing a process and

transacting, I think it can be trainable to some point” (Participant 44), whereas there are people that have inherent, natural leadership skills for managing people. Therefore, an organisation is responsible for not only selecting the right employees for managerial positions, but also providing the relevant training to increase their knowledge and give managers confidence to undertake their jobs.

Managerial training should be tailored to the particular job level. The first group is the first line manager group where confidence building should be a key element of the training (Participant 29). The second group is middle managers, and the third group is senior managers (Participant 29). An effective training strategy is articulated by Participant 7:

“There are different trainings for different levels and at different stages, so when you go from being an individual contributor to a line manager for the first time there's an introduction to being a people manager, and then after that obviously as your leadership gets more senior there are other programmes, so there's a global leadership programme for more senior managers so that's the top 200 which is about introducing more strategic skill sets. But the bit in the middle about how to be an ongoing really good effective people manager, is the bit that we're actually reviewing at the moment” (Participant 7).

A clear training programme for managers not only instils confidence but also assures employees of potential routes for career progression, which is essential in retaining high quality employees. A theme emerged of organisations reviewing their middle manager training programmes, which coincides with a time of increased hybrid and remote work (Participants 4, 8, 22, and 43).

In terms of more specific examples of organisational policies and practices related to managerial training, one of the participants from a larger organisation discussed the Promise Academy within their organisation (Participant 9). Managers embark “on a 12-month programme of doing different leadership skills in terms of management skills and they're going on to do a mentoring and coaching qualification as part of that” (Participant 9) which helps to provide

managers with the skills that they need in their jobs, thereby improving interpersonal relationships at work through the sub-dimension of managerial support. Furthermore, the role of coaching and mentoring for new managers was discussed. This involves mentors who are experienced managers sharing their experiences and advice with newer managers; Participant 10 said “we do learning groups of first line managers when they come into line management, they can come together and talk about what they do and share their experience” (Participant 10). There is a view that managerial training is also related to the organisational culture; “it comes back to culture because I think when you've grown up in a culture where managers have that individual connection with every single person in their team, your role models do it, you're more likely to do it yourself” (Participant 10). The antecedents of interpersonal relationships at work and the organisational culture and function interact.

Alongside manager training, the organisation also has a responsibility to create the right organisational environment and culture for employees to admit and voice that they are struggling and that they need additional support (Participant 44). When this open organisational environment is created, and managers are trained to act “when they see someone not behaving like themselves” (Participant 44), the relevant questions can be asked; does the employee “just need a bit of time out, do they need pointing in the direction of a MHFA, or in the direction of occupational health” (Participant 44). Therefore, the importance of the organisational culture and function as an antecedent of loneliness in work, alongside interpersonal relationships at work cannot be understated.

### **6.3.3 The UK Government’s responsibilities: annual loneliness reports**

Having discussed action being taken at the organisational level to reduce the frequency of employees experiencing loneliness in work, it is also of pivotal importance to explore the UK Government’s responsibilities. The UK Government’s loneliness strategy and annual loneliness reports have not reached HR professionals in 49 of the 50 UK-based organisations represented in this study. Whilst participants were interested to hear about the strategy and

guidance for organisations, further work is needed to disseminate the strategy more widely. The one participant who was aware of the UK Government's annual loneliness strategy volunteers as a Samaritan. Participant 10 expressed that, "loneliness is such a frequent topic, so it was probably slightly more at the front of my mind because of that and the connection back to work and helping people feel that they belong" (Participant 10). Overall, the UK Government has a responsibility to ensure that the loneliness strategy and annual loneliness reports are disseminated throughout society, especially reaching the organisational level which could have large positive impacts on loneliness in work.

#### **6.3.3.1 Government responsibility: areas that need to be addressed**

One of the overwhelming responses from participants when asked what the government needs to do in relation to improving loneliness in work is funding critical health services (Participants 4, 8, 10, 25, 30, 43, and 49). Participant 4 said, "I think they could help fund some of the services that go behind supporting employees, so that's signposting, a counselling service. I think if you're waiting for it to be funded through the NHS it's a 6 to 9 month waiting list" (Participant 4). The waiting lists are too long so the individual either has to seek help through their organisation, if there is a MHFA, an EAP, or a counselling service that is provided. A criticism levelled against the government is the fact that funding is given to a project for 10 years, like the Connection Coalition, and then the funding is retracted.

"Longevity is such an issue because like with anything, it takes time to build up that trust between workers and volunteers and members of the public and you just get a good group and it's all lovely and then unless the group self-sustains itself, once the funding goes, then it's really difficult and it's really challenging to get funding for people" (Participant 5).

The consistency of funding for societal initiatives targeting loneliness needs to be reviewed by the current government to enable work to continue once the foundations have been laid.

Another area of concern is bringing economically inactive people back into the workforce, which should improve their self-esteem and well-being, as well as the country's productivity (Participant 8). More specifically, a call has been made to help mothers return to the workforce (Participants 29 and 31), helping them to meet the category of relational fulfilment by providing opportunities for interaction in the workplace (i.e., reducing the potential for negative experiences of loneliness in work). Whilst it is acknowledged that job shares and part-time work involve some additional costs compared to hiring one employee for a full-time position, the government should look at providing some incentive to minimise this cost to employers (Participants 29 and 31). Participant 29 summarises this notion:

As a mum myself the three-day week is the beautiful one, that's the great work-life balance for me to do mummy stuff as well as work. The problem with job shares is that is employers are paying obviously National Insurance costs, pension costs and everything else for two people, so giving some relief with that.

This solution of job-sharing overcomes the issue with the growing number of employment laws that are “seen as fluffy, touchy-feely initiatives” (Participant 15) with a suggestion that would benefit both mothers, and organisations if the government could provide relief with any additional employment costs.

Participants also expressed that restrictions around the way in which the apprenticeship levy can be spent are constraining (Participants 9, 21 and 23). Where the UK Government could help is “if they were to loosen some of the apprenticeship levy spend, so we could use that, to accelerate and enhance things like our Mental Health First Aiders or counselling support or those kinds of things” (Participant 21). Overall, there is a desire to be able to use the apprenticeship levy in other ways to meet critical business needs.

#### **6.3.4 Future challenges to loneliness in work and employee well-being**

Alongside the UK Government's responsibilities in helping organisations to improve employees' experiences of the potential antecedents of loneliness in

work, the participants expressed a variety of key challenges in relation to loneliness in work and employee well-being that they think will be relevant over the next five years. These challenges are: AI; connectivity; mental health; physical health; the aging workforce; the attractiveness of the organisation to younger people; and work-life balance.

Connectivity arose as a key future challenge, and specifically the fact that hybrid working does present a challenge for being socially connected (Participant 7) which can lead to relational deficiency, and therefore, loneliness in work. When employees are established workers, they have connection points and are still socially connected through their networks. “If we go to fully remote or it goes increasingly remote, I think that connection to the company, the connection to values and culture can begin to evaporate away” (Participant 7). “There's probably a sweet spot that says I'm connected, I'm involved, I'm socially connected not just work-based connected, I feel people are listening and the creative input” (Participant 7), and that is what needs to be ascertained within organisations. Connectivity is crucial in positively impacting the four most salient antecedents of loneliness in work identified in this thesis (career development, maintaining good interpersonal relationships at work, fostering a strong organisational culture and function, and promoting a good home-work interface) which in turn creates excitement, enjoyment, and a buzz from being in the workplace (Participant 7).

Mental health and physical health were also raised as key challenges related to work arrangements, loneliness in work, and employee well-being over the next five years. With regard to mental health, “it's really easy to fake it on the screen” (Participant 2) which presents a huge challenge for managers. There is a fine balance in finding a happy medium between the type of work arrangements (i.e., remote, hybrid, or on-site work) for the employee and the organisation. Participant 8 said, “I can see that if there's too much of a push to go back to the office, we're going to see more stress and mental health conditions coming to the fore” (Participant 8). Furthermore, where mental health issues are disclosed by



an employee, the manager needs to have the necessary competencies to deal with the disclosure. Participant 19 stated, “I think there are some organisations, some line managers for example that are fearful as soon as someone says I've got some mental health issues” (Participant 19). Therefore, the way in which these individuals should be supported needs to be acknowledged by the organisation and accepted as part of the core organisational values. At the same time, there is also a concern that “some people use labels because they think it's going to get them a bit of an easier life versus other people who still don't feel confident or comfortable to actually declare what is going on for them because of stigma” (Participant 20); it is important to have some way of ensuring that support is reaching the correct recipients to work towards preventing experiences of loneliness in work and negative well-being outcomes at the individual level.

The potential future challenge of AI on employees' experiences of loneliness in work and subsequent negative well-being outcomes was articulated by the participants in the current study (Participants 8, 14, and 17). Participant 8 advocates that if AI is used in an intelligent way, we can “make people's work smarter by using AI so they can focus on what's important, and free up time for their work-life balance” (Participant 8), allowing the individual to meet relational fulfilment both in work and in their home environment. On the other hand, the more terrifying side of AI is Participant 17's the view that:

“the compound effect of this generative AI quadrupling in its capability in five years' time, is going to eat away so many jobs, and disrupt so many jobs that employees are going to be really questioning how and where they can add value and worrying about their shelf life in a whole range of knowledge-based jobs” (Participant 17).

The fear is that the AI tools that are currently available are the equivalent of the calculator, and the capability of AI is rapidly going to expand; it should be seen as “an existential opportunity and threat” (Participant 17). AI could be both an opportunity and a challenge; the full extent of its powers are unknown at this point in time.

Overall, participants articulated varying challenges that they see towards loneliness in work and employee well-being over the next five years, some of which can be dealt with at the organisational level (i.e., connectivity, attractiveness of the organisation to younger people), but many of which will require intervention at the government (i.e., societal) level (i.e., the aging workforce, AI, mental health, physical health, and work-life balance).

## **6.4 Discussion**

In this study, the researcher set out to examine the organisational and societal interventions and pathways to combat loneliness in work which should simultaneously improve employee well-being. Organisational policies and practices have been explored that are targeted at the four most salient antecedents of loneliness in work which were identified in studies one and two. Furthermore, the UK Government's responsibilities have been discussed, to gain a broader understanding of the ways the impacts this has on loneliness in work, and the ways in which employee well-being can be supported. Overall, the findings suggest that organisations are struggling to find a happy medium between the number of days employees should work remotely and on-site which has important ramifications for the antecedent of the home-work interface (i.e., the subdimensions of flexible work arrangements and work-life balance). Furthermore, the role of managers in organisations is critical in minimising employees' experiences of loneliness in work and supporting employee well-being (i.e., the antecedent of interpersonal relationships at work). There are calls for the government to take action in disseminating its loneliness strategy and annual loneliness reports more widely, as well as specifically points of action in relation to the way in which organisations can use the apprenticeship levy, to increase funding and reducing waiting list times for critical NHS services (i.e., mental health support and counselling), to improve long-term planning of funding for societal initiatives (i.e., the Campaign to End Loneliness), and to review ways in which mothers can be helped to return to the workforce (i.e., by supporting organisations with additional costs for employing part-time employees). The theoretical contribution, therefore, lies in a wider appreciation

of the organisational and governmental policies and practices that have been developed and still need to be developed to work towards preventing negative experiences of the antecedents of loneliness in work, thereby improving employee well-being.

#### **6.4.1 Loneliness in work and the fundamentals of employee well-being**

Based on the findings of the current study, there are certain fundamentals of employee well-being. Firstly, the findings of this study suggest that a negative experience of loneliness in work can affect any one of the four dimensions of employee well-being: physical well-being; mental well-being; financial well-being; and social well-being. Whilst physical well-being and mental well-being are discussed more frequently in the literature (Cacioppo et al., 2010; Erzen and Çikrikci, 2018; Perlman and Peplau, 1984; Valtorta et al., 2016), financial well-being is a subject that has garnered increasing attention, which is linked to the current cost-of-living crisis. Some employers have recognised their responsibility in the financial well-being area and are providing workshops and other informative events to help employees in managing their finances. Moreover, social well-being has been proposed as an important fourth dimension of employee well-being (i.e., helping individuals to attain relational fulfilment); it is important to have a community and environment where individuals look out for one another, whether that be managers and colleagues at work (i.e., interpersonal relationships at work), or friends and family outside of work. Therefore, it is suggested that the CIPD's (2024a) definition of employee well-being could be fruitfully expanded: employers have a fundamental duty of care for the *mental, physical, financial, and social* health, safety, and welfare of their workers. This revised definition highlights the consequences that a negative experience of loneliness in work can have on multiple dimensions of employee well-being, reinforcing the responsibility organisations have for the well-being of their employees.

#### **6.4.2 The role of organisational policy and practice in preventing loneliness**

In this section, the findings of the current study are integrated with the UK Government's tackling loneliness strategy (DCMS, 2021). Whilst 49 of the 50 organisations represented in this study were not aware of the government's loneliness strategy and annual loneliness reports, the organisations are undertaking measures designed to tackle the most salient antecedents of loneliness in work found in studies one and two, thereby supporting employee well-being. The importance of well-being at work is high on UK organisations' agendas because of the rapidly rising levels of sickness absence in the UK (CIPD, 2023; Vitality, 2024); however, loneliness in work is a lesser discussed phenomenon. When asked, many participants in this study expressed an appreciation of loneliness in work, believing that it is more prevalent post-pandemic (see section 6.3.1). The various measures that have been taken by the UK-based organisations represented by the participants in this study pertain to the five themes the UK Government proposes in its tackling loneliness strategy (DCMS, 2021): the culture and infrastructure, management, people and networks, work and workplace design, and the wider role in the community.

The first theme proposed by the UK Government is related to the organisational culture and infrastructure (DCMS, 2021). The organisational values should reflect the way in which employees are supported at work and align with key areas of concern for employees in order to be most successful (DCMS, 2021). This can be through values like 'we care' which are carefully crafted and designed and then enacted and role modelled from the top of the organisation (i.e., the CEO).

The second theme proposed by the UK Government is related to management (DCMS, 2021). A good manager is of crucial importance in recognising when an employee may need additional support, but also through their responsibility of having career conversations, and understanding their employees' development plans and career goals. As Harvey and colleagues (2022) denote, "leaders are important for role modelling and engaging and managers are important for

embedding and reinforcing” (2022: 19). Managers have an important role in embedding and reinforcing the cultural values which include dimensions such as a culture of trust and respect, and a culture of finishing work on-time, thereby promoting a good work-life balance for employees. Due to the importance of good quality management, organisations have a responsibility to ensure that their managers receive the appropriate training so that they are well-equipped to undertake their jobs. Whilst some organisations mandate training for managers before they can assume a managerial position, others train managers on the job. The most successful managerial training programmes discussed in this study have been designed to support employees in three distinct managerial groups: first time managers, middle managers, and senior managers. In this way, the material covered is more closely related to the challenges the managers may come across and have to deal with in their respective positions.

The third theme proposed by the UK Government is related to people and networks. (DCMS, 2021). This is an area which requires further work, highlighted by the fact that only one of the 50 participants in the study were aware of the UK Government’s tackling loneliness strategy and annual loneliness reports. This is despite the fact that the HR professionals that participated in this study read around their subject and have networks of a considerable size across different job sectors, and different levels in the organisational hierarchy. The participants in this study did not refer to the importance of staff networks within their organisations in promoting employee well-being, despite this being listed as a key factor in the government’s guidelines to tackle loneliness.

The fourth theme proposed by the UK Government is related to work and workplace design which includes an organisation’s remote, hybrid, and on-site work policies (DCMS, 2021). Moreover, organisational policy and practice around work arrangements (i.e., remote, hybrid and on-site work) has the power to both positively and negatively impact an employee’s experience of loneliness in work and subsequently their well-being, depending on their individual circumstances. This supports the findings of study one where employees expressed different

preferences to either work on-site or remotely for various reasons, which included family and caring responsibilities as well as a need or desire to interact with colleagues in-person which supported employees' mental health (see section 4.3.2.1). Legislation in relation to employees' rights to request flexible work changed in April 2024; employees no longer need 26 weeks' continuous service before they can make a flexible work request (Faragher, 2024; Gov.UK, 2024). Instead, employees have the right to request flexible work arrangements from day one and they are eligible to make two flexible working requests within a 12-month period (Gov.UK, 2024). This has led to some cause for concern amongst HR professionals that the power balance is swinging more in favour of the employee than the organisation. Moreover, organisations are requesting support from the UK Government to help give mothers the opportunity to return to the workforce. This could be in the form of a subsidy or an exemption for additional costs associated with employing part-time employees (i.e., two employees are hired in what would otherwise be one full-time employee's job, so National Insurance Costs, pension costs, amongst others, are higher).

The fifth theme proposed by the UK Government is the organisation's wider role in the community (DCMS, 2021). Promoting a healthy work-life balance is encompassed within this theme, and the organisational culture, embedded and enacted by managers, has been found as a crucial way of doing this. Additionally, applications to promote a good work-life balance including YuLife, PAM Assist, and Digital Health as well as organisational initiatives like 'Moving Through May' have been discussed, although the scale of their impact on reducing negative experiences of loneliness in work and improving employee well-being has been questioned by some participants in this study.

### **6.4.3 Conclusion**

This study has highlighted the organisational policies and practices, as well as the government policies that help in dealing with the work-related antecedents loneliness in work, and improving employee well-being, as well as job performance. The next important step is to ensure that this information and

research is disseminated effectively to the participants in this study, in order that work can be continued within their organisations to improve experiences of the four most salient work-related psychosocial factors (i.e., antecedents), lowering the frequency of negative experiences of loneliness in work, and improving employee well-being.

Whilst this study contributes to the knowledge of organisational and governmental practice and policy, it is important to acknowledge some of its boundary conditions. As discussed, interviews were carried out via virtual platforms; therefore, elements that are usually noticeable in face-to-face interviews (such as body language) were missing, while – on a more positive note – remote interviewing resulted in higher participation rates than originally expected. Moreover, the participants who engaged with the call for research participants for this study, were likely to be interested in employee well-being and generally expressed a strong desire to make continuous improvements in their organisation. In this way, it is possible that the participants in this study were more engaged in the area of employee well-being with a greater knowledge and desire to carry out more organisational initiatives than may be the case in the general population of HR workers.

This study offers important insights into loneliness in work and employee well-being for policy makers and HR practitioners. The findings of this study support the notion that to enact positive change in the workplace, organisations can support employees by developing greater sensitivity towards the role that the four work-related psychosocial factors of interpersonal relationships at work, the organisational culture and function, career development, and work-life balance, play in shaping individual experiences of loneliness in work. Specific policies that shape an employee's experience of these work-related psychosocial factors include flexible work policies, organisational values, and training policies and practices; these three policy areas have been identified as the most important for organisations in this study.

The wider considerations for future research having built new theory based upon the qualitative findings discussed in the study one, revised and empirically tested the process model of loneliness in work in chapter two, and identified key organisational and governmental policies and practices that positively impact employee well-being in the current chapter, are discussed in chapter seven. The findings of all three studies from this multistage exploratory mixed methods research have been integrated and analysed.



## **Chapter 7: Conclusions and future directions**

### **7.1 Introduction**

This final chapter reviews the key findings and conclusions outlined in the previous chapters and examines them with a view to the wider relevant literature and the process model of loneliness in work that has been empirically tested in this thesis. The strengths and limitations of this research are also discussed and future avenues for research and action at the organisational and governmental levels are proposed.

The main purpose of this thesis was twofold. Firstly, this research seeks to more broadly conceptualise loneliness in work (presented in chapter four), by strengthening the theoretical links between loneliness in work, its potential antecedents, and its potential outcomes both at the individual and organisational levels (presented in chapter five). The two conceptual models of loneliness (Perlman and Peplau, 1998; Lim et al., 2018), and the conceptual model of loneliness in work (Wright and Silard, 2021) guided the initial understanding of loneliness in work in this thesis. Work-related psychosocial factors were employed rather than work-related psychosocial hazards throughout this thesis (Leka et al., 2017), to allow for a broader conceptualisation of loneliness in work. In this research, loneliness in work is conceptualised as the feeling engendered and shaped by a set of social factors that comprise the work environment and relate to both how work is organised and managed. This broader conceptualisation enabled the new relational category of relational transcendence to emerge in study one (see section 4.4). Whilst relational transcendence does not lead to experiences of loneliness in work, it is helpful in understanding the mechanisms that can lead to optimal employee well-being and high job performance.

Secondly, this thesis pursues a better understanding of the organisational and governmental policies and practices that positively impact loneliness in work, thereby improving individuals' experiences in the workplace. The key issue guiding this interest is the existence of the UK Government's loneliness strategy and annual loneliness reports (DCMS, 2021) which have acquired limited attention from UK-based organisations. Although challenges across the individual, organisational, and societal levels related to employees' well-being are recognised (and specifically related to the sub-dimensions of mental, physical, financial, and social well-being) the UK Government's loneliness strategy remains relatively unknown and unutilised (Basit and Nauman, 2023; Deniz, 2019; Dhir et al., 2023; D'Oliviera and Persico, 2023; Erdil and Ertosun, 2011; Firoz and Chaudhary, 2022; Schulte and Vainio, 2010; Wright, 2005).

The empirical stage was largely exploratory and included both qualitative and quantitative techniques in an overall exploratory sequential mixed methods approach, as discussed in chapter three. This process followed a sequential time orientation: the results of the first qualitative phase informed the quantitative phase, with the results of the two previous studies then enriching the final qualitative phase. As discussed, the studies were designed considering different levels of analysis: the individual, organisational, and governmental (societal) levels. As the three studies were designed to be complementary to one another (see section 3.2.5), it follows that the aim of this final chapter is to integrate the key findings. The findings are, therefore, discussed in relation to the research aims and the proposed integrated process model of loneliness in work in the UK context. This chapter also includes a discussion of the strengths and limitations of this research, as well as recommendations for future research and organisational and governmental interventions (i.e., policies and practices).

This chapter is structured in four main sections. The first section (7.2) summarises the findings related to the three research questions posed in this thesis: how do individuals make sense of their experiences of loneliness in work (study one); how do individuals' experiences of the work-related psychosocial

factors relate to feelings of loneliness in work (study two); and what are the possible interventions for loneliness in work (study three)? The findings are summarised in an integrated process model of loneliness in work (see Figure 10). The second section (7.3) discusses the main theoretical contributions of this thesis and the implications for future research. The third section (7.4) discusses the implications for policy and practice; potential interventions are discussed at the organisational level (see section 7.4.1), as well as the governmental level (see section 7.4.2). Finally, the fourth section (7.5) discusses the overall strengths and limitations of this research.

## **7.2 Conceptualising loneliness in work: integrated discussion of the findings**

The challenges associated with loneliness in work in the UK context, particularly sickness absence at the organisational level (Bryan et al., 2024; New Economics Foundation, 2017), and negative implications for employee well-being at the individual level (Cacioppo et al., 2010; Erzen and Çikrikci, 2018; Killgore et al., 2020; Perlman and Peplau, 1984; Shiovitz-Ezra and Ayalon, 2010; Sugisawa et al., 1994; Valtorta et al., 2016), are increasingly salient due to global technological advancements and digitalisation, and their major impact on how work is designed, managed, and organised (i.e., the rapid increase in remote and hybrid working) (EC, 2022; EESC, 2017; ILO, 2022; OECD, 2019). The UK Government has published a loneliness strategy (DCMS, 2018) and subsequent annual loneliness reports (DCMS, 2023), containing relevant and helpful information for organisations; however, this information has not been effectively communicated to organisations (i.e., there is a very poor awareness of the existence of these documents and the guidance available to UK-based organisations). This contextual understanding underscores the importance of researching loneliness in work, as well as trying to raise awareness in the UK context.

Conceptualisations of loneliness in work in the literature have focused on the use of the work-related psychosocial hazards as a means of exploring individuals' experiences of loneliness (see section 1.2.2) (Lim and colleagues, 2018; Wright and Silard, 2021), and importantly, there is little research that has empirically tested these conceptualisations. In order to explore a broader understanding of the mechanisms that can lead to loneliness in work, Perlman and Peplau's (1981) notion of 'precipitating events' that can lead to loneliness has been fruitfully explored in a revised conceptual model of loneliness through the use of the work-related psychosocial factors (Leka et al., 2017) which do not inherently hold positive or negative connotations (Rugulies, 2019) (see sections 1.2.3 and 2.5.2.1). This broader understanding, explored in the context of the HE sector in study one, highlights the importance of the organisational culture and function, interpersonal relationships at work, and the home-work interface as the three most salient antecedents of loneliness in work (see section 4.3.2).

Further, individuals' experiences of these antecedents, and their cognitive sensemaking processes (see section 2.5.2.2) determines the relational category an employee experiences at any given point in time: relational deficiency; relational encroachment; relational fulfilment; or relational transcendence. This is depicted in Figure 8 by the 'individual sensemaking processes' box between the antecedents of loneliness in work and the two dimensions of loneliness in work. Relational deficiency (and potentially relational encroachment) is the relational category that can lead to negative experiences of loneliness in work, whereas relational fulfilment and relational transcendence can lead to positive experiences, in line with De Jong Gierveld's (1998) philosophical conceptualisation of loneliness where meaning and freedom can be found in life (see section 1.2.1). These positions within the process model of loneliness in work can fluctuate based upon an employee's experiences at any given time in their work environment (see section 4.4.1).

Following the development in the understanding of the mechanisms that affect employees' experiences of loneliness in work, the revised process model of

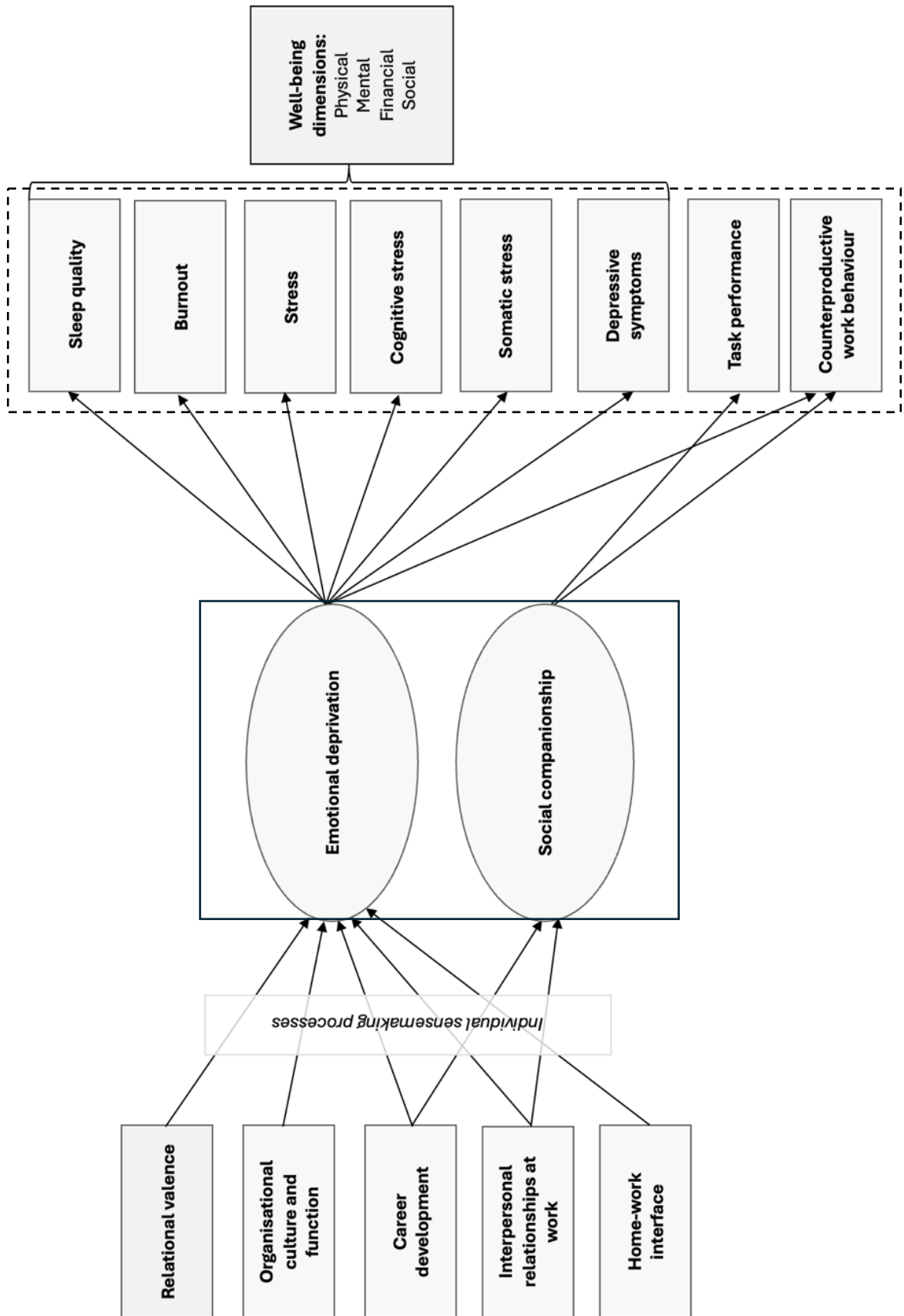
loneliness in work was tested in study two (see chapter five). A parallel mediation model was tested (see section 5.4) with two dimensions of loneliness in work (i.e., the mediators – depicted in the centre of Figure 10), ten work-related psychosocial factors, and two predictors of actual social relations at work (i.e., the antecedents of loneliness in work – depicted on the left-hand side of Figure 10), and the seven well-being dimensions and three job performance outcomes (i.e., the outcomes of loneliness in work – depicted on the right-hand side of Figure 10). Emotional deprivation was found to be the most significant mediator of loneliness in work between five antecedents of loneliness in work (four of the work-related psychosocial factors and one predictor of desire for social relations at work) and seven outcomes of loneliness in work (six well-being outcomes and one job performance outcome) (see section 5.4). A lack of social companionship had a significant mediation effect between two antecedents of loneliness in work (two of the work-related psychosocial factors) and two outcomes of loneliness in work (two job performance outcomes) (see section 5.4). The outcomes interact with each other, for example an increase in stress can be experienced alongside poor sleep quality. This is depicted in Figure 10 by the dotted lines around the outcomes of loneliness in work.

These findings built on those from study one; three of the four most salient work-related psychosocial factors in study two were also the most salient work-related psychosocial factors in study one. This study also highlighted the importance of organisational factors in predicting employees' experiences of loneliness in work, where individual factors have previously been seen to be more important (i.e., an individual with a high relational valence that is not met may be more likely to be lonely than an individual with a low relational valence), it has been demonstrated that organisational factors are of crucial importance. Thus, the notion is supported that organisations have a key responsibility in ensuring positive employee well-being, which also provides a spillover benefit to the organisation of improved job performance.

The third study synthesises the responsibility of UK-based organisations and the UK Government in designing, implementing, and embedding appropriate policies and practices to address the antecedents of loneliness in work, thereby supporting employee well-being and job performance (see chapter six). A key finding that emerged is that there are four dimensions of employee well-being that organisations, as well as the UK Government, need to consider in their policy making and practices: employees' physical, mental, financial, and social well-being (see section 6.3.1.2). The integrated process model of loneliness in work is presented in Figure 10.

It is important to note that employees' experiences outside of work will bear an impact on their experiences of loneliness in work; individual sensemaking processes encompass a holistic view of an individual's life at any given moment in time (see section 2.4). Thus, if an individual experiences challenges in their personal life, for example they have responsibilities to care for an elderly relative, this could result in a small issue at work (i.e., one of the antecedents of loneliness in work) causing more substantial negative impacts on their feelings of loneliness in work than another individual who does not face the same challenges in their personal life (i.e., it is dependent on the individual's sensemaking processes). The negative impact on loneliness in work described in this scenario could lead to a deterioration in both the employee's well-being and job performance. This is linked to the reason why certain groups have been highlighted as having characteristics which could mean that they are more predisposed to experiences of loneliness in work (DCMS, 2018). In the same way, an individual with strong family support and a strong social network outside of work may come to work with a lower relational valence in the workplace and, therefore, this may act as a buffer for negative experiences of the antecedents of loneliness in work, should they be experienced. Whilst all three studies in this thesis have been designed to explore loneliness in the specific context of work, this appreciation and understanding is necessary due to the holistic nature of the phenomenon at hand.

Figure 10. Integrated model of loneliness in work



Overall, this integrated model has been developed through the findings of the two qualitative studies and one quantitative study in this thesis and provides a nuanced basis for exploring an individual's experience of loneliness in work. A broader understanding of the key antecedents of loneliness in work as well as the way the four relational categories that an employee might experience emerged in study one. Study two empirically tested, and further narrowed down the most salient antecedents of loneliness in work (i.e., four work-related psychosocial factors and one predictor of actual social relations at work), as well as the most important outcomes for employee well-being and job performance. Whilst relational valence is a salient antecedent of loneliness in work attributed to the individual level (i.e., the individual has control of their desire for relationships at work which cannot be influenced by external factors), there are four antecedents which can only be influenced at the organisational level (i.e., the organisational power in influencing loneliness in work has been demonstrated). Thus, the understanding of the four most salient work-related psychosocial factors in the UK context is pivotal for UK-based organisations and the UK Government alike to enable improvements in employee well-being and job performance. The third study highlighted the four dimensions of employee well-being, through an exploration of organisational policy and practice, and the UK Government's policies and guidelines related to loneliness in work. These policies and practices are external to the proposed integrated model of loneliness and, therefore, are discussed further in section 7.4.

### **7.3 Theoretical contributions and implications for future research**

The main theoretical contribution made in this thesis is the integrated and empirically tested process model of loneliness in work, presented in Figure 10. Within this model, loneliness in work is conceptualised as the feeling engendered and shaped by a set of social factors that comprise the work environment and relate to both how work is organised and managed. This contribution meets both theoretical contribution criterion of originality and utility



in research (Corley and Gioia, 2011). An original insight into the phenomenon of loneliness in work in the UK context is provided, which has a utility in the design of relevant policies and practices at the organisational and governmental levels with the aim of improving employee well-being and job performance (Corley and Gioia, 2011).

Furthermore, an important theoretical contribution is related to the role of individual characteristics (i.e., predictors of desire) versus organisational factors (i.e., the predictors of actual social relations at work) in determining employees' experiences of loneliness in work. The literature largely focuses on the role of individual characteristics in an individual's experiences of loneliness, for example, loneliness can be experienced because of: an individual's shyness (Michaela et al., 1982); introversion (Hawkins-Elder et al., 2017); lack of quality social relationships with close friends (Cacioppo et al., 2006; Dunbar, 2014; McWhirter, 1990); and an individual's struggle to join a network and connect with others (Cacioppo et al., 2015). The reasons suggested in the literature pertain to the individual being the cause of their experiences of loneliness. This thesis makes an important contribution in extending the understanding of the antecedents of loneliness in work, moving beyond the individual level (which is encompassed by the antecedent, relational valence). The pivotal role that organisational factors have to play in employees' experiences of loneliness in work has been highlighted (see chapters five and six), thereby building upon Lim and Lau's (2018) conceptualisation of loneliness where two socio-environmental factors, 'digital' and 'workplace' were identified as potential antecedents of loneliness in work (see section 2.3.2). From this research, the 'workplace' has been expanded to encompass the four most salient work-related psychosocial factors, as summarised in Figure 10.

Additionally, a theoretical contribution is made in terms of utility of measurement tools (Corley and Gioia, 2011). Wright and colleagues' (2006) study did not ascertain whether the sub-scales of emotional deprivation and social companionship were conceptually distinct, or whether they have differing

predictors and outcomes both individually and organisationally (productivity/performance). This is a key theoretical contribution in this study. The two sub-scales (i.e., emotional deprivation and a lack of social companionship) were found to be conceptually distinct from one another, and emotional deprivation was found to be the more significant mediator of loneliness in work of the two sub-dimensions (see section 5.5.1). They also have differing predictors and outcomes. Emotional deprivation has a significant mediation effect between five antecedents of loneliness in work (the organisational culture and function, career development, interpersonal relationships at work, the home-work interface, and relational valence) and seven outcomes of loneliness in work (sleep quality, burnout, stress, somatic stress, cognitive stress, depressive symptoms, and counterproductive work behaviour). A lack of social companionship has a significant mediation effect between two antecedents of loneliness in work (career development and interpersonal relationships at work), and two outcomes of loneliness in work (counterproductive work behaviour and task performance). A lack of social companionship did not have a significant mediation effect between the antecedents of loneliness in work and any of the seven well-being outcomes. Overall, it is suggested that the emotional dimension sub-scale provides a more nuanced basis for empirically testing individuals' experiences of loneliness in work; therefore, future studies could employ the sole sub-scale of emotional deprivation if considerations of survey length are an issue.

With regard to future research, the impact of the three main types of work arrangements (i.e., remote, hybrid, and on-site work) in relation to employees' experiences of loneliness in work should be explored (see section 6.3.3). UK legislation in relation to flexible work has seen major revisions in 2023 and 2024, with employees now able to request the right to flexible work from the first day of employment in their job (Faragher, 2024; Gov.UK, 2024). This legislation is expected to improve employee well-being, reduce turnover and increase productivity in UK businesses (Gov.UK, 2023). Whilst there are benefits to remote work, across studies one and three, there is a consensus that hybrid work with a

certain minimum on-site presence should be encouraged. This is because of the benefits associated with knowledge sharing, vicarious learning for early career employees, the ability to check employees' well-being in person and judge their body language and facial cues, developing more well-rounded three-dimensional relationships with colleagues, and minimising online fatigue, are all associated, amongst other factors, with working on-site. Whilst productivity may be lower on the days employees do work on-site because they spend more time communicating with colleagues, the positive effects that this can have for the time spent working remotely are beneficial. Study three highlighted the ongoing struggles that HR professionals have communicated and that organisations are facing in designing hybrid working policies (see section 6.3.3.1); therefore, this is a key area of future research to explore ways in which these policies can be developed to improve employee well-being, whilst recognising the need for organisational performance and profitability.

#### **7.4 Implications for practice**

The implications for practice will be discussed in relation to the findings from the three studies comprising this thesis. In the literature, loneliness has been researched at the general population level, with specific interest having been paid to loneliness in older people, those with disabilities, and younger people (Hsieh and Hawkey, 2018; Kalil et al., 2010; Macdonald et al., 2021; Ortiz-Ospina and Roser, 2020; Sugisawa et al., 1994). Whilst these groups also comprise part of the UK's working population, the working population also encompasses workers with wider age ranges and other protected characteristics that have not been researched in the literature in as much detail. For this reason, this thesis has identified the need to explore loneliness in work across the UK's working population, regardless of any protected characteristics. Thus, in this thesis loneliness in work has been studied through the lens of employment which encompasses organisational health and safety policies and practices, as well as the psychosocial work environment.

UK-based organisations and the UK Government both have instrumental roles in ensuring employees' experiences of the work-related psychosocial factors are positive, leading to fewer experiences of loneliness in work, improved employee well-being and improved job performance. The design of organisational level interventions should take the premise of the JD-R model into account in which job resources can buffer the impact of job demands (Bakker and Demerouti, 2007). For example, good interpersonal relationships at work, including a supportive line manager, may buffer a large workload and higher work pace for some employees. It follows that a line manager knowing their employees and understanding what makes them satisfied and happy is pivotal to ensuring that the support given to the employee has the desired effect as a job resource (see section 2.5.2.2). It is important to note the cyclical nature of job demands and job resources; an individuals' experiences of the different psychosocial factors will be related, as at any given moment in time an individual will cognitively assess (i.e., through their sensemaking processes) the combination of job demands and job resources they have experienced, ultimately determining whether they have had an overarching positive or negative experience which impacts loneliness in work and the subsequent employee well-being and job performance outcomes. In the following, the key findings in relation to implications for practice at the organisational and governmental levels are discussed.

#### **7.4.1 The quality of management with remote and hybrid work arrangements**

The findings across all three studies in this thesis have demonstrated the importance of the work-related psychosocial factor, interpersonal relationships at work, as an antecedent of loneliness in work with a specific focus on supervisor support and manager competency (see sections 4.3.2.1, 5.5.2, and 6.3.4). Linked to this is the importance of the managerial selection process (at the organisational level) to ensure that suitable and competent employees are selected for managerial positions, as well as a comprehensive managerial training programme to equip managers with the necessary knowledge and skills.

Whilst it is acknowledged in the literature that “supervisors have a well-established role at the workplace and their actions can influence the well-being of employees” (Stoica et al., 2014: 104), the role of the manager in relation to loneliness in work is under researched. Two relevant studies have been identified, one of which is in the context of the nursing profession, where four factors focused on the managerial level were found to reduce employees’ experiences of loneliness in work: a manager should communicate frequently; maintain social interactions with employees; instil trust as a leader; and ensure that the work employees undertake is meaningful (Arslan et al., 2020). The second relevant study explored evidence-based managerial interventions to combat employee loneliness, and the findings indicate that a manager should: foster relationship building; support employees as their work contexts evolve; and fortify a people-focused organisational culture (Sullivan and Bendell, 2023). The two studies evidence that a combination of managerial quality (i.e., good communication skills and fostering relationships), as well as an employee’s work environment are perceived to be important. This thesis supports these findings; however, there are additional factors that have been identified as important. For example, managerial competencies (see section 6.3.4.1), specifically in relation to managing employees working across remote, hybrid and on-site work settings, as well as managerial training programmes (see section 6.3.4.2), are crucial in supporting employees at work.

Studies one and three highlighted the importance of managerial competencies and hiring the right person for leadership roles, not just based upon an employee’s technical capabilities in their job, but also their leadership and managerial skills. A manager has to know their people; an understanding of the employee as a person outside of work as well as in work is important (Pokorny, 2013). A manager’s relationship and understanding of an employee should enable them to identify when the employee may be under stress, masking burnout or when something is not quite right, to intervene as quickly as possible before a problem escalates (Williams and Shaw, 2024). On the positive side, by

understanding their employees, managers can provide appropriate recognition and have meaningful career discussions with their employees, which has been found to be an important work-related psychosocial factor in employees' experiences of loneliness in work in this thesis.

Some managers have found their roles more challenging in a remote work environment, which has been associated with the lack of training in how to manage employees in a remote work environment (Caligiuri et al., 2020; Henke et al., 2022; Jain, 2021; Powell et al., 2004). The CIPD (2024b) has published a people manager guide to support hybrid working which includes 8 key factors: developing a hybrid working model; maintaining effective communication; clarifying employees' roles and responsibilities; engaging in appropriate performance management; providing employees with the support they need; facilitating networking; checking in on well-being; and being aware of conflict management. Whilst these areas have been identified, it is the organisation's responsibility to ensure that managers have the opportunity to attend training so that they can be as effective as possible in their managerial positions. Despite managerial challenges associated with remote work, job performance and productivity results suggest that working from home is effective (Hickman and Robison, 2020), challenging the notion that remote work is less productive.

Moreover, whilst managers face challenges in relation to work arrangements (i.e., remote, hybrid, and on-site work), there is also the challenge of managing different generations in the workplace. Generational differences are currently observable in the UK work context and there is a view that Generation Z (born between 1996 and 2010) have a different work ethic and perception of what work should look like compared to Generation X (born between 1965 and 1980) (see section 6.3.6). Generation Z place value on work-life balance, and value salary less than every other generation, opting for more interesting work that pays less than a boring job that pays more (Gomez et al., 2024). The nuances of the different generations and individuals' career goals are linked to the importance

of a manager knowing the people in their team, so that they can provide support that is relevant and appropriate to the individual (Pokorny, 2013).

Whilst managers play an important role in supporting their employees which can reduce employees' experiences of loneliness in work, managers themselves are not free from experiencing loneliness in work (Gabriel et al., 2021; Mueller and Lovell, 2013; Silard and Wright, 2022; Wright, 2015; Zumaeta, 2019). Succession to top leadership positions "is necessarily isolating in that it separates leaders from others (who now directly report to them) and leaves them without peers" (Kets de Vries, 1989: 6). Conversely, other scholars argue that managers experience less loneliness than other groups within the organisational hierarchy, and the highest rate of loneliness is experienced by those in entry-level positions (Bell et al., 1990; Page and Cole, 1991). Those in top managerial positions are usually well connected in their work relationships, which could result in reduced sentiments of loneliness. Wright's empirical study of loneliness in managers and non-managers found that "managers were no more or no less lonely than their non-manager counterparts, either in work or more generally" (Wright, 2012: 57). This thesis provides evidence to support the notion that leader loneliness exists (see section 6.3.2.2); therefore, it is important for an organisation to consider how they ensure managers are well-supported, so that they are in the best position to support their team.

To further the point in relation to manager well-being in organisations, organisations have a responsibility in terms of job crafting and design to ensure that a manager has enough hours set aside in their workload for managing their team (Sherf et al., 2019). This includes responsibilities such as one-to-one meetings, performance reviews, team briefings, and catch-ups, as well as more social opportunities such as a team lunch to foster good relationships with colleagues (see section 6.3.4). This is a key area for future research, specifically identifying the amount of time a manager should be allocated to spend on managing their team versus on operational tasks.

#### **7.4.2 The future of work and required government action**

Loneliness in work is an important topic of discussion because of its potential negative consequences for employee well-being and job performance (Deniz, 2019; Lam and Lau, 2012; Ozcelik and Barsade, 2018), as well as the rapidly rising and costly levels of sickness absence in the UK (CIPD, 2023; ONS, 2022a). The three studies in this thesis have highlighted the key antecedents to tackle loneliness in work (i.e., by improving the work-related psychosocial factors, this should minimise the number of employees experiencing loneliness in work) and provided further detail on how to go about these improvements (i.e., line managers as a key mechanism). Organisational and governmental responsibilities (i.e., providing the appropriate training for managers, and the UK Government ensuring that critical NHS services can be readily accessed) can be identified through these studies, which will help in minimising negative experiences of loneliness in work for UK employees.

Despite the evident need for the UK Government's loneliness strategy (DCMS, 2018) and the annual loneliness reports (DCMS, 2023), study three found that there is an overall lack of dissemination of these publications through to organisations and HR professionals, and therefore, the potential positive policies, practices, and initiatives that could be implemented in organisations are underutilised in the UK context. Whilst organisations have developed initiatives to improve employees' work-life balance and clear organisational values to promote a good organisational culture, they could benefit from the range of ideas available in the UK Government's reports (DCMS, 2021). Case studies of organisations who take loneliness in work into account in their policies and practices could be developed and integrated within the annual loneliness report to help other organisations to understand the best ways in which to reduce negative experiences of loneliness in work, thereby improving employees' well-being and job performance.



Future iterations of the UK Government's annual loneliness report need to focus on the challenges associated with work arrangements (i.e., remote, hybrid, and on-site) work. It would be pertinent to suggest that the All-Party Parliamentary Group on Tackling Loneliness and Connected Communities, (should it remain in existence under the new Labour Government) could work on integrating this into government policy and acting as the bridge between the UK Government and UK-based organisations for knowledge sharing. It is of crucial importance that a communication mechanism is developed which ensures that work completed at the UK Government level is filtered down to the organisational level, so that it can have the desired positive impacts. Formerly, this was one of the aims of both the Connection Coalition and The Campaign to End Loneliness; however, the government funding was removed for both entities earlier in 2024 (Campaign to End Loneliness, 2024; The Jo Cox Foundation, 2024). Thus, the question remains as to how guidance from the UK Government can be effectively communicated to organisations at a time (as at the 7<sup>th</sup> August, 2024) when a new Minister for Loneliness is yet to be appointed in the Government. This constitutes a key challenge for the new Labour Government.

Furthermore, future research should focus upon the key future challenges over the next five years in relation to loneliness in work and potential negative outcomes for employee well-being that have been identified by HR professionals in study three. These challenges include AI, connectivity, the aging workforce, work-life balance, and the mental and physical health of employees (see section 6.3.6). The identified areas need to be integrated effectively into future iterations of the UK Government's annual loneliness report, as well as into organisational policies and practices.

## **7.5 Strengths and limitations of this research**

The strengths and limitations associated with the three individual studies have been discussed in their respective chapters; however, across the integrated thesis, some additional strengths and limitations deserve further discussion.

A key strength of this research is its exploratory sequential mixed methods research design which has resulted in the development of theoretical and practical implications for organisations, as well as the UK Government. The integration of qualitative and quantitative studies has enabled progress to be made in understanding the antecedents and outcomes of loneliness in work, and the implications for policy and practice. Previous studies have conceptualised loneliness using the work-related psychosocial hazards and a deficiency perspective; however, using the work-related psychosocial factors has allowed for the ambivalent nature of loneliness in some work situations to be highlighted. The two qualitative analysis techniques (IPA and TA) employed in this thesis require interpretation by the researcher; therefore, it is imperative that the researcher aims to avoid research bias and the ways in which this was achieved have been discussed in section 3.6.

The influence of the Covid-19 pandemic on this thesis presented both advantages and disadvantages. The first study was completed during the Covid-19 pandemic and a large participant sample (35 participants) was available due to the UK Government's mandate of remote work where possible, combined with employees' desire to participate in what they viewed as an interesting research project. The disadvantage throughout this research process has been that loneliness in work is often linked to experiences during the Covid-19 pandemic and, therefore, it is not given the attention it deserves. There is a prevailing assumption that levels of loneliness in work must be lower today than they were during the Covid-19 pandemic. This is not the case; levels of loneliness reported in the UK remain as high as they were during the Covid-19 pandemic (ONS, 2024b).

Moreover, the HE sector which was the focus of the first study has idiosyncrasies in the way that work is designed, organised, and managed; therefore, it was possible that the most salient work-related psychosocial factors that emerged in the HE context, would not be the most salient in other employment sectors or

contexts. Therefore, the second and third studies were extended to a variety of settings, and across different job profiles to explore the salience of the work-related psychosocial factors and their relationship with experiences of loneliness in work, employee well-being and job performance. This has provided a broad picture of loneliness in work in the UK.

Additionally, an empirically tested process model of loneliness in work has been presented. Whilst this is the greatest strength of this thesis, in integrating and testing the findings from study one, there were some challenges associated with the implementation of the quantitative study. One participant reported issues with the JISC online surveys platform, and therefore, they were not able to participate in the study. This was reported on one isolated occasion, and the root cause of the issue could not be found. Secondly, during the data analysis stage, a challenge was presented due to the use of the COPSOQ III scale in measuring experiences of the work-related psychosocial factors. This was overcome by splitting the data set in half to run an EFA followed by a CFA, and whilst not desirable, this is an acceptable strategy to overcome issues of poor goodness of fit during a CFA (Lorenzo-Seva, 2021; Ng, 2013). For this reason, in future studies, it is recommended that a different measurement tool (or measurement tools) is found for the measurement of the work-related psychosocial factors. Finally, due to the number of parameters in the model (123 parameters), it is not possible to present a figure showing the mediation effects within the model. This has been overcome through the use of tables summarising the findings; however, in future studies, the use of fewer parameters would be advisable to aid the presentation of the results.

Additionally, it is important to note that the studies were all cross-sectional in design meaning that cause and effect relationships and the analysis of behaviour over time cannot be established. It would be beneficial to conduct longitudinal studies in the future to understand how employees' experiences of loneliness in work vary over time depending upon their experiences of the work-related psychosocial factors. As noted, the first study was conducted during the Covid-

19 pandemic and the third study was conducted two months prior to the UK General Election. The time at which this thesis has been completed constitutes a challenge in framing the new Labour Government's (elected on the 4<sup>th</sup> July, 2024) position in terms of policies and practices aimed at the organisational level to tackle loneliness in work. Thus, it has been difficult to gain clarity regarding the future of government-led initiatives (i.e., annual loneliness reports) and job positions (i.e., the Minister for Loneliness). All information presented in this thesis is correct at the time of writing (7<sup>th</sup> August, 2024). Further clarity of the UK Government's position will enable suggestions for policy and practice, including the key issues to be tackled by the new Minister for Loneliness (should this position be continued).

## **7.6 Conclusion**

Loneliness in work is a subjective phenomenon (Perlman and Peplau, 1981; Tzouvara et al., 2015) experienced by employees in different ways at any given moment in time. Greater attention should be directed to experiences of loneliness in work due to its potential negative impacts on employee well-being and job performance (Deniz, 2019; Lam and Lau, 2012; Ozcelik and Barsade, 2018). This thesis has found that the work-related psychosocial factors provide a nuanced basis for exploring individuals' experiences of loneliness in work, allowing for both positive and negative outcomes. An employee's predictors of desire for social relations at work also have a role to play in the sensemaking process of their experiences of the work-related psychosocial factors, determining whether they experience relational deficiency, relational encroachment, relational fulfilment, or relational transcendence at work; experiences of loneliness vary on a scale from negative to positive (Moustakas, 1961; Rosedale, 2007). Negative experiences are of concern for UK-based organisations and the UK Government, due to rising sickness absence amongst the workforce (CIPD, 2023; ONS, 2022), amongst other factors.

Levels of loneliness in work have not changed in the UK, despite the publication of a Government loneliness strategy (DCMS, 2018) and various commitments from different UK Government departments to work towards societal improvements (DCMS, 2023). The communication of the strategy and annual reports to UK-based organisations has not been successful and remains a key challenge for the new Labour Government. The most important areas to address that have arisen throughout the three studies in this thesis are: interpersonal relationships at work; the organisational culture and function; career development; and the home-work interface. By implementing policies and practices pertaining to these four work-related psychosocial factors, including managerial training programmes, a strong set of organisational values, positive work-life balance initiatives (including exercise initiatives, summer working hours, and applications designed to increase physical and mental activity), as well as fair workloads for managers (managed through good job crafting and design), organisations can work to prevent employees experiencing loneliness in work. This is the ultimate goal, as the prevention of loneliness in work is a much better solution than having to retrospectively try and improve an employee's experience of loneliness once they have suffered. Both organisations and the UK Government have important roles in creating the necessary conditions for this to happen.

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## Appendices

### Appendix A. Study one: design process

#### Appendix A.1. Summary of research participants

General Participant Profile Category	Job Title	Managerial Responsibilities	Desk-based Role	Teaching or Coaching Role
Academic 1	Assistant Professor	-	Yes	Yes
Academic 2	Assistant Professor	-	Yes	Yes
Academic 3	Assistant Professor	-	Yes	Yes
Academic 4	Associate Professor	Yes	Yes	Yes
Academic 5	Associate Professor	Yes	Yes	Yes
Academic 6	Associate Professor	Yes	Yes	Yes
Academic 7	Post-doctoral Researcher	-	Yes	Yes
Academic 8	Professor	Yes	Yes	Yes
Academic 9	Professor	-	Yes	Yes
Accommodation Staff 1	Head of Division	Yes	Yes	-
Accommodation Staff 2	Resident Tutor	-	-	-
Accommodation Staff 3	Resident Tutor	-	-	-
Business School Staff 1	Administrative Assistant	-	Yes	-
Business School Staff 2	Administrative Assistant	-	Yes	-
Business School Staff 3	Administrative Assistant	-	Yes	-
Business School Staff 4	Departmental Manager	Yes	Yes	-
Business School Staff 5	Departmental Manager	Yes	Yes	-
Business School Staff 6	Professional Staff	-	Yes	Yes
Business School Staff 7	Professional Staff	-	Yes	-
Business School Staff 8	Professional Staff	-	Yes	-
Other Staff 1	EDI Specialist	Yes	Yes	Yes
Other Staff 2	EDI Specialist	-	Yes	-
Other Staff 3	HR Coordinator	-	Yes	-
Sport Staff 1	Departmental Coordinator	-	Yes	Yes
Sport Staff 2	Departmental Manager	Yes	Yes	-
Sport Staff 3	Departmental Manager	Yes	Yes	-
Sport Staff 4	Sport Coach	-	-	Yes
Sport Staff 5	Sport Head Coach	Yes	Yes	Yes
Sport Staff 6	Sport Officer	-	Yes	Yes
Sport Staff 7	Sport Officer	-	Yes	Yes
Sport Staff 8	Sport Officer	-	Yes	Yes
Sport Staff 9	Sport Officer	-	Yes	-
Sport Staff 10	Sport Officer	Yes	Yes	Yes
Sport Staff 11	Sport Officer	-	Yes	Yes
Students' Union Staff 1	Receptionist	-	Yes	-

## Appendix A.2. Semi-structured interview guide

### Study One Structured Interview Guide

- Start recording – all information to be safely stored on NVivo
- Ethics and participant information sheet agreement
- Outline project and confirm understanding

**What is your role in the organisation?** (psychosocial factor one)

**Topics to discuss:**

**1. The person's perspective on loneliness at work during the Covid-19 pandemic**

- What does the participant understand the term loneliness to mean, both generally and at work?
- What are the participant's negative associations of loneliness?
- What are the participant's positive associations of loneliness?
- Explore factors including:
  - The transition to working at home
  - Virtual interactions
  - Commute

**2. Work-related psychosocial factors**

- **Organisational culture (organisational culture and function).**
  - How has the organisation responded to Covid-19?
- **Interpersonal relationships (interpersonal relationships at work).**
  - What contact has the participant had with colleagues and how has this changed? Explore:
    - Regularity/Frequency (before Covid-19, during Covid-19)
    - Format
    - Senior, peer, junior, subordinate
    - How does the participant feel after this contact?
  - Has the organisation taken any steps to encourage and facilitate the maintenance of relationships with colleagues?
  - Competitiveness – does the participant feel that genuine workplace relationships are easy or difficult to maintain?
    - To what extent have more human relationships been affected?
    - Have conversations centred on the business topic being discussed versus a more general discussion about personal circumstances – increase or decrease in personal discussions?
- **Work-life balance (home-work interface./work schedule).**
  - How has the participant's work-life balance been affected?



- What steps has the organisation taken to encourage a healthier work-life balance?
  - **Employee engagement**
    - Does the participant feel more or less engaged with the organisation as a result of working from home or being furloughed?
      - What is driving that feeling?
  - **Job satisfaction/Impact on role (job content).**
    - To what extent have the participant's responsibilities (their role profile) been affected?
      - How does the participant feel about this?
  - **Performance management**
    - Does the participant perceive that their output has increased, decreased or remained the same?
    - Does the participant think the quality of work they have produced has changed in any way?
  - **Work related pressures (workload and work pace./environment and equipment.)**
    - Decision making in relation to Covid-19 – has the participant experienced any additional work-related pressures?
    - What impact has this had?
    - Has the participant's position in the organisational hierarchy impacted their feelings of loneliness?
- 3. How should the employer deal with loneliness at work?**
- What are the necessary policies and practices the organisation should implement in relation to loneliness at work?
  - How does the participant envisage a return to work in the 'new normal'?

## Appendix A.3: Participant consent form



UNITED KINGDOM · CHINA · MALAYSIA

### **NOTTINGHAM UNIVERSITY BUSINESS SCHOOL PRE-APPROVED TEMPLATE: UNDERGRADUATE, MASTERS, AND MBA STUDENT PROJECTS INVOLVING INTERVIEWS**

Nottingham University Business School's Research Ethics Committee (REC) has approved the following research protocol for use as part of student research projects. Any student projects that meet the conditions below and which follow the protocol set out need not apply for further ethical approval. The responsibility for ensuring that the project meets the conditions and uses the protocol that has been pre-approved rests with the student carrying out the research and the supervisor/module coordinator as appropriate.

Student projects which do not fit the conditions of this or one of the other pre-approved protocols may still be undertaken but will need individual ethical approval from the School REC before the project starts. This takes an average of two weeks, so you should factor in this time into your project planning.

This protocol can be used for projects with the following characteristics:

#### **Permitted Methods:**

Interviews or focus groups with research participants conducted with the aim of collecting data for a student project.

A participant information form (template attached as annex 1) must be completed and given to each research participant in advance of the interview and a copy left with them afterwards. You should translate the participant information form into the appropriate language if research participants are not fluent in English. You must store the data securely (password protection for electronic files) and anonymise the data as much as possible.

You must follow the guidance notes on ethical research in the latest version of the course handbook (reproduced as annex 2).

The research may not:

- Involve payment or other compensation to interviewees
- Involve the data being used for any other purpose not specified in the consent form

#### **Permitted Topics:**

This approval only covers research on non-sensitive topics. Topics considered sensitive include sexuality, drug use, illegal activities, and any other personal topics with the potential to cause offence or upset. If your research is commercially sensitive, you must complete a confidentiality agreement.



### Permitted Research Participants:

This approval does not cover the participation of the following groups:

- NHS staff or patients
- Children (under 18s)
- Adults with learning disabilities whose ability to consent is impaired

### Information for Participants

Thank you for agreeing to participate in the project. Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question or questions at any time and without giving a reason.

This information sheet is designed to give you full details of the project, its goals, and what you will be asked to do as part of the research. If you have any questions that are not answered by this information sheet, please ask.

### What is the project title?

The experience of loneliness at work during the Covid-19 pandemic: a study in the Higher Education Sector.

### Who is carrying out the project?

Student: Fiona Frost  
Supervisor: Simona Spedale Latimer

### What is the project about?

This project aims to explore sentiments of both negative and positive loneliness of employees at the Higher Education Institution (*anonymised*) during the Covid-19 pandemic. The notion of loneliness will be interpreted through participants' perspectives of work-related psychosocial factors. These psychosocial factors include how the organisational culture and the participants' interpersonal relationships at work affect their feelings of loneliness. This research aims to provide new practical information for employers concerning the effects of a pandemic amongst workers in the Higher Education Sector.

### Who is being asked to take part, and why?

A cross section of employees at a Higher Education Institution (*anonymised*) are being asked to participate. This is because the focus of the research is the Higher Education Sector; it is a company-based dissertation at the Higher Education Institution (*anonymised*).

### What will participants be asked to do?

The participants will be asked to comment on the way in which their job role has evolved and changed during the Covid-19 pandemic, with a particular focus on loneliness. Topic areas are as follows:

- The understanding of the term loneliness as well as work-related loneliness.
- Sentiments of positive loneliness and/or negative loneliness at work during the Covid-19 pandemic.
- Conducting work and research from a remote location.
- The impacts of the move to online communication and online learning.
- The impacts of work-related psychosocial factors on sentiments of positive and/or negative loneliness. The work-related psychosocial factors which will

be discussed are: the organisational culture, interpersonal relationships at work, the home-work interface, job content, control, career development, role in organisation, work schedule, workload and work pace, and the environment and equipment.

- How should employers deal with loneliness at work?
- Feelings about returning to work in the 'new normal'.
- Suggestions for the facilitation of work in the Higher Education sector moving forwards.

#### **What will happen to the information I provide?**

Interviews will be conducted via an agreed online platform (MS Teams, Skype, Zoom) with the participant. The interviews will be voice-recorded to allow a transcript to be typed post-interview. All data will be stored securely on NVivo (version 12), and voice recordings and participant agreements will be saved and encrypted to ensure compliance with the *General Data Protection Regulation*. The data will be anonymised and retained for a maximum of 5 years. Information gathered from the interviews will be used anonymously – each participant will be referred to as participant and the respective interview number (for example, Participant 1, Participant 2, and so forth). Direct quotes from participant interviews will be used.

#### **What will be the outputs or outcomes?**

A 12,000 to 15,000 word assignment will be written using the information gained from participant interviews. There is a possibility that this MSc research will be extended into a PhD commencing in February 2021. In the case of further research, the results of this MSc study will be used in the first study of the PhD research, as well as any future publications, book chapters, or conference presentations.

#### **Contact details**

Fiona Frost, [lixff6@nottingham.ac.uk](mailto:lixff6@nottingham.ac.uk)

Supervisor: Simona Spedale Latimer, 0115 8466216, [lizssl@nottingham.ac.uk](mailto:lizssl@nottingham.ac.uk),  
Nottingham University Business School, Jubilee Campus, Nottingham, NG8 1BB.

#### **Complaints and governance procedure:**

If you wish to complain about the way in which the research is being conducted or have any concerns about the research then in the first instance please contact the supervisor or the School's Research Ethics Officer:

Dr Christopher Carter  
Nottingham University Business School  
Jubilee Campus  
Nottingham NG8 1BB  
Phone: +44 (0)115 846 6062  
Email: [christopher.carter@nottingham.ac.uk](mailto:christopher.carter@nottingham.ac.uk)

**Participant signature:** \_\_\_\_\_

## Appendix A.4. Rich participant data: home-work interface

<b>Participant 1</b>	“I think it has changed; I think officers just work a little bit too much anyway.”
<b>Participant 2</b>	“Oh yes. I’m never at home normally – my alarm goes at 4:45am, I’m on the courts for 6:30am, meet the coaches we plan the session and normally I’m home late because I do evening coaching slots too. I’m out the house before 6am (between 5:30-6:00am) and I’m back home around 19:30 or 20:00. I’m never at home, and now I’m always at home which is just bonkers.” “you’ve got no deadline to catch the train, or to get in the car, so you actually merge the two. Home and work life has got murky which isn’t easy.”
<b>Participant 3</b>	“In terms of work life balance, what I have found is that I’ve made better use of looking at things, so I’m able to do some yoga during the day and I do that on the television on YouTube and I would never have been able to have done that if I was going to work.” “Having a bit more time at home without constant things going on that happen in the office, I’ve been able to read up and I feel a little bit more knowledgeable about certain things.”
<b>Participant 4</b>	“I’ve worked more than I’ve ever worked in my life I think. Yes, 100 percent. The reason I took a week off last week is that I was just burned out and I’ve got close to burn out before like doing research stuff, but I’ve never got anywhere near that doing admin and organisational stuff”
<b>Participant 6</b>	“If I was perhaps on my own I would be feeling it more, but I found the benefit of it because I was able to slow down and do other things.” “my work-life balance has gone out of skew, so I obviously do more leisure, more sport almost to a manic level because we’re all shut down and weren’t able to do it, the focus became more on keeping fit, using the opportunity to keep fit and that type of thing. So, that has caused a problem in terms of work because I’m having to get my mind back into that structure and that’s a bit stressful.”
<b>Participant 7</b>	“I think for me working from home has been again as I said, there’s been pros and cons from it.” “I think at the start there was a fear particularly that there wouldn’t be enough meetings and you’d be sat around twiddling your thumbs” “But in terms of then balancing it, those meetings are starting to creep back in and actually now I’d argue that there’s almost more meetings and I remember one of our recent staff newsletters was they’re trying to get us to have “Teams free Fridays”” “I would say work-life balance for me, I’m quite lucky, I do a lot of running so I’m able to get out. Being able to just go out for a run from your home say at 11 in the middle of the day you’ve got that flexibility and I think if you’re structured with that then there is some real positives to the remote working, I think you’ve just got to manage your diary though and make sure you don’t get overwhelmed in terms of back to back to back meetings, I think they do really take their toll maybe even more so than they do in person. I think you’ve really got to concentrate, listen to everything and without the actual fatigue of just staring at multiple screens for a long period of time as well so yes.”
<b>Participant 8</b>	“I think in some ways yes because you don’t always come in every day so there’s always been, you’re kind of used to working from home some of the time.” “I think it initially, it really did impact on it and that was principally because we had to change from face to face for a module that I was teaching, 2 modules in fact, but in particular the MBA module – I had a block of an MBA module that I was teaching part of which is like a week’s worth of teaching so I was teaching 2 and a half days and a colleague was teaching 2 and a half days and trying just to plan the logistics of that to make sure everyone could join the different video conferences at the right time, they all knew what the activities were in advance of the session, making it clear what you expect people to do in terms of groupwork took a hell of a lot of thinking through. It was really quite stressful – both myself and my colleague were working basically all the time through weekends and stuff so initially it had really quite a big impact. Probably a bit less so now in terms of work life balance because we’re into the dissertation period but I’ve still got a lot of dissertation students to supervise – but it’s a bit more similar in terms of what it’s like normally in the summer period. At the moment not that different in terms of work life balance I would say.”
<b>Participant 9</b>	“I found surprisingly I think and possibly different to other people, but my work-life balance has been better. Having said that, like I say May and June is much easier to manage anyway but I have no commute, I have lavish lunches which I don’t have in the office, so I get leftovers – it’s not a soggy sandwich anymore which is good! It means I’ve put on weight – but I can manage my time a little bit better. So, working from home is not a problem so long as it’s not all the time, I couldn’t do this as a job year in year out, but it has its benefits definitely.”
<b>Participant 10</b>	“so, I’ve actually set myself up in his office and I go out to work every day and I come back from work every day. I think that’s really vital in that process so I’m not working on their kitchen table and in each other’s way and I’m not winding them up but also there’s a start and end point to the day.” “It’s a lifestyle choice working in sport, not a job and I love it so for me I think I’m lucky in the sense I don’t have children, so I don’t have to try and balance the home-schooling, the work, the guilt that’s associated with a lot of people and a lot of my friends around doing a poor job at everything. What I do find, however, is that where I may end the day at 17:30 I walk in the next day and my colleagues who’ve got children have started their day at 8:30 and they’re sending emails until 00:30 and I then walk into a huge amount of work that’s come in overnight which isn’t something that we’re used to because typically people will work, even if they work a bit late, they’re not sending emails – ‘could you just do this by tomorrow morning’ and you’re kind of like ‘it was tomorrow morning when you sent it!’ So, I think it’s the work-life balance, is balancing everybody else’s work life balance with my expectations of what a working day is.”
<b>Participant 11</b>	“It’s been a huge adjustment – I like to quote that I read somewhere, “it’s not working from home, it’s living at work.” The kind of boundaries and the kind of commute to work as a decompression chamber where you have a clear cut off point, coming home from work, I’m at home now – that’s completely gone. I feel I’m working

	<p>much more than before; I feel it's kind of creeping into my private space quite literally I'm sitting here in my house and sitting at a desk where I usually do other things and that's part of the whole scenario of working from home, but that's also part because the workload is much much higher now, so I've got to work longer. So yes, not working from home but living at work. I feel a little bit like that."</p>
Participant 12	<p>Yes, a little bit. I'm having to be quite structured with myself so get up, don't work in my pyjamas all day – get up, get showered, get dressed, have a coffee and then I have blocks of time, so I think I am being more organised and more focused working from home. I make sure that I go out for a walk once a day and that I have time away from the computer screen, phone screen, tv – I read or go and do some gardening or something where I'm not looking at something digital.</p>
Participant 13	<p>If anything, I've been busier than normal because there's been more of a focus on the university's external profile and they've realised that it's really key if we're going to attract students in this new world then we need to have a strong... so anybody who works in an externally facing role like me, or marketing, or communication – suddenly there's been this sort of 'oh, we realise how important your work is', so I've actually had... so my working day has been pretty much what it was before. The only thing I'd say that is different is that obviously working from home you've just got that bit more flexibility so you could start a bit later, finish a bit later, start a bit earlier and finish a bit earlier – and, yes, I've taken advantage of that.</p>
Participant 14	<p>"I think in UoN Sport they've been very flexible – like make sure you're looking after your own well-being. If you need a 10-minute break then just take one and get a cup of tea so I think generally I just manage it by how I'm feeling"</p>
Participant 15	<p>"Honestly, it's been amazing! So, the one thing that I would say, and I think a lot of my colleagues would say it as well – I'm probably one of the worst for work-life balance by a long way. I would probably work, you know contracted 37.25 hours, I'd probably say my average week is 55-60 and then some weeks would jump up to 70-80 and yes, I'd have the rare week when I'm down at 45 hours. Since working from home, generally I've had a much better work-life balance, I don't have the commute in and out, obviously there's not as much sport going on which is one of the reasons why it's so reduced. I would probably say that my average week is literally around 37-40 hours which means that I have taken more time to work out, do stuff and like take care of me so physically I think I'm in a better place, mentally I'm probably in a better place because of having a better work life balance. So, I think working definitely took its toll, but I also don't know because everyone's like hang on would you continue to work from home if everyone was allowed to be? Well, there's also a pushback on that which is well if sport's happening normally then I have to be around all the sports that are happening normally so actually yes it's been great working from home but there's a bit part missing which is my job is circulated around sport, sport's not happening so working from home is possible. When sport starts to happen again and people start to visit campus, and again you have to do travel well none of that can be done from home, so that throws a totally different loop in terms of your work practice."</p>
Participant 16	<p>"In terms of the amount of work load itself has increased simply because the quantity of work has increased given all the changes that are being implemented."          "So, I think the workload has increased and as I was saying before we started the interview, I think I have not felt – I do feel tired and I feel tired simply because I've not had a proper break and a proper break means where you... so not working weekends, not working evenings beyond a certain point simply because I know if I do that, I'll break down. So, when you're working in a normal before March – so if you felt you were having an intense week even if you were working the evenings or the weekends, you could take a break, so you could even take 4 or 5 days off during the week if you were not teaching. This is usefulness of an academic's job where you have a lot of flexibility but because of the current situation, you know you won't get a break like that. So, what I've done is just make sure I don't overload myself and just basically work. Even though I don't work weekends, it doesn't mean that I'm not thinking about work, so I think that's why I feel more tired. So, I'm conscious of it but there's only so much you can do so I hope this eventually goes away."</p>
Participant 19	<p>"So, there's bits that are positive like I love doing my workout in the morning now and then it's done for the day, and I love actually having like a lunch break and baking and cooking and just having a bit more time rather than having to just grab something from the cafe or whatever. But there's definitely negatives as well when you don't necessarily switch off as easily because you've got all the equipment to do everything kind of next to you."</p>
Participant 21	<p>"I think that the lines have blurred quite a lot because I'm at home working. Yeah so I used to pride myself on being able to shut my laptop at the end of the day and then go home rather than kind of get stressed about stuff. I'm kind of conscious in that respect that I don't kind of take work problems home with me because that's not good for you. But yes, my commute is literally down the stairs now, so I just switch on my laptop whenever I get up, so quite often I've... I think most days I am working over my hours just because I'm not hurriedly trying to finish any emails, and I know the bus is coming."          "I think it's giving me a better sense of getting things completed, so I feel less time pressure, but when I say time pressure, that mean time from home stuff, so like rushing to get the bus or rushing to do badminton or rushing because I'm meeting my friends. Yes, I just kind of open and close my laptop whenever I reach the dining room, so yes, I'm trying to think if I'm finding that a negative or a positive thing. I think positive in the fact that I feel that I can end when I've completed stuff but maybe negative from the fact that I'm technically working extra hours. Yeah, I think there's both positive and negative things there."</p>
Participant 23	<p>"Well, you have to understand that I'm at a particular stage in my career, so I'm 61, I work part-time for all various reasons, I have a lot of other priorities, I'm always juggling stuff. But actually, I have 3 kids and it's, I've always done this – I've always been spinning a lot of plates, and my home life is every bit as important as my work life so I never, I pretty much never sacrifice home for work. So, it's been great – I can do all these different things at once."</p>
Participant 25	<p>"that crossover of contexts is something that I've been thinking about with my research looking at the imposter phenomenon. You used to be able to compartmentalise your work, so I'd go somewhere and do my work and</p>

	<p>then I'd come home and that was it – there was no encroachment of my work on my home life apart from my time. But now, <b>there's this overlap of contexts.</b>"</p> <p>"it's those periods of down time that we're just not necessarily either fitting into our days and making a conscious effort to get up and do something else or we're just not doing it because it's back-to-back meetings or work activity. And I know that other people have said the same thing – they've had so many meetings that they're just not getting to their actual work. <b>So that actual work is now getting done at other times so weekends and evenings</b> and those sorts of things, so I do think that work-life balance has been... I think over the time – <b>if we were to do this for a long time, I think there would be an opportunity to develop a conscious habit of doing those things</b> but I think at the moment it's been crisis mode, and personally I haven't got out of that habit of 'oh, this needs to be done and needs to be done now because our circumstances have shifted' and I'll just keep banging stuff into my day and then I have to do work on the weekends."</p>
<b>Participant 28</b>	" <b>I've done more than what I've ever done I think to be honest.</b> "
<b>Participant 29</b>	" <b>So, you can't not kind of disconnect yourself from work because you see</b> it – it's right there, and so because of that as well, it is also difficult to log off. So normally we leave work sometimes at 5:30 to get the bus – if you don't need to get a bus, you don't need to do anything, I can end up working longer. So, there have been times where I've worked 10pm or late into the night or I've worked on the weekends sometimes as well."
<b>Participant 31</b>	"Oh, it's been a balance in my favour – in the favour of the life balance" "I suppose it was never – the balance was never terrible for me; I think that's where I went into where I am on the progression scale at the university. <b>I've kept where I am, that was an intentional thing because I don't want to have a bad work life balance and I see the further you go up the more intrusive it is, until you get to a certain level, and you just start shoving work around and then you have to manage things,</b> and I don't think I'm much of a manager."
<b>Participant 32</b>	"Yes, it's balancing the positives with the negatives with people isn't it so for me, <b>it is nice that life is a lot more relaxed</b> – I'm not rushing to drop them off at nursery to then travel to work and then pick them up again. You know, the nursery where they go at the minute is a 5 minute walk from where I live so it's a lot more relaxed and I've got to spend a lot more time with them so it was almost like an extended bit of maternity leave at the end so it's lovely and <b>I'm very lucky that who I work with and my new line manager has 2 kids herself so she understands it so if I need to take an hour off here and there to look after them.</b> " " <b>it's definitely worked in my favour 100 percent for having a better work-life balance.</b> It's been really nice to get that extra time with the kids and with the family, especially obviously when the weather's nice you can spend that little bit of time outside with them and I guess that then helps you when you've got to sit down for kind of 3 or 4 hours at a desk to actually get a big bit of work done that you can then go and have lunch with the family. So <b>that has been a massive positive for me</b> and I think even moving forward when things start to go back to normality, I think, as an office we won't be there 100 percent of the time."
<b>Participant 33</b>	" <b>Truth be told, I've found it quite good.</b> I think that's probably because – so I get the bus to and from work so that is obviously been taken out of the equation so I feel like I've been given much more time so what I do when I finish work for the day <b>I tend to go for either a run or a walk and then that sort of separates the end of work if that makes sense and the start of the evening</b> or whatever it's going to be. So that's kind of how I've done it, and I've found that that's been fine. I think <b>also I have a separate space that I can work in, so this is a random room that's now been turned into an office</b> – it's really a desk in an empty room so I think that also helps."
<b>Participant 34</b>	"No significant change to be honest" " <b>our job as a lecturer – we can achieve work-life balance relatively easily,</b> whereas others would need to go to an office every day. So naturally, for this job it's easier to achieve work-life balance, but during our staying at home 24/7, it's getting a bit more difficult but it's still manageable so I'm not complaining about it."
<b>Participant 35</b>	"So, when I first started what we were getting told was you work, you need to agree your work hours – you work 8-4, if you work late you or you have to do an event in the evening you don't get time back in lieu – like all of that, you work until the job is done because this is the level you're working at. And then, lockdown's happened and flexible working that we were – oh gosh we don't know, we can't have flexible working, you can't do all your hours in 4 days and take a Friday off- <b>now it's been like as long as you work your hours it's fine, as long as we can speak to you when we need to, it's fine.</b> The rhetoric has changed completely so it also worries me that <b>we will lose some of the... the huge amount of flexibility that we've had in this period – it concerns me that we'll lose that when we go back into a physical space.</b> "

## Appendix B. Study two: design process

### Appendix B.1. Link to online survey

<https://nottingham.onlinesurveys.ac.uk/phd-study-2>

### Appendix B.2. Study Two Hypotheses

Hypothesis	Description
H1	The predictors of desire for social relations at work are positively associated with loneliness in work (direct relationship)
H2	The predictors of actual social relations at work are positively associated with loneliness in work (direct relationship)
H3	The relationship between the predictors of actual social relations at work and employee well-being is mediated by loneliness in work (mediation effect)
H4	The relationship between the predictors of actual social relations at work and job performance is mediated by loneliness in work (mediation effect)
H5	The relationship between the predictors of desire for social relations at work and employee well-being is mediated by loneliness in work (mediation effect)
H6	The relationship between predictors of desire for social relations at work and job performance is mediated by loneliness in work (mediation effect)
H7	Loneliness in work is negatively associated with employee well-being (direct relationship)
H8	Loneliness in work is negatively associated with job performance (direct relationship)
H9	The predictors of desire for social relations at work are positively associated with well-being (direct relationship)
H10	The predictors of desire for social relations at work are positively associated with job performance (direct relationship)
H11	The predictors of actual social relations at work are positively associated with employee well-being (direct relationship)
H12	The predictors of actual social relations at work are positively associated with job performance (direct relationship)



## Appendix B.3. Participant information



# UK Work Environment and Well-being Study

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## Page 1: Welcome!

You are invited to participate in a study examining the impact of work settings on experiences of loneliness in work, with a particular focus on developing pathways to well-being.

This study examines the experiences of different employees across the UK and their perceptions of their relationships at work, their work environment, and their workload, amongst other factors.

The study is being conducted by Fiona Frost, a PhD student at the Nottingham University Business School, and is supervised by Dr Aditya Jain and Dr Simona Spedale. This questionnaire consists of 29 questions and should take 15 minutes to complete.

Participation is voluntary, the identity of participants will remain confidential in all project outputs, and data collected will be stored in accordance with data protection laws.

If you have any queries regarding the survey, please contact Fiona Frost at [lixff6@nottingham.ac.uk](mailto:lixff6@nottingham.ac.uk).

Thank you for your support.

### 1. Do you consent to participating in this study? \* Required

- Yes, I consent.
- No, I do not consent.

## Appendix B.4. Survey items and sources

Dimension	Items	Source
Need to belong	- I have a strong need to belong at work.	Single item need to belong scale (SIN-B)
Relational valence	- I find the opportunity to form close friendships at work very important. - I find the opportunity to have social contact at work very rewarding.	Self-created relational valence scale
Interpersonal relationships at work	- Is there a good atmosphere between you and your colleagues? - How often do you get help and support from your colleagues, if needed? - How often do you get help and support from your immediate supervisor, if needed?	COPSOQ III (Llorens et al., 2018)
Organisational culture and function	- At your place of work, are you informed well in advance concerning for example important decisions, changes or plans for the future? - Do you receive all the information you need in order to do your work well? - Is your work recognised and appreciated by the management? - To what extent would you say that your immediate supervisor is good at work planning? - To what extent would you say that your immediate supervisor is good at solving conflicts? - Does the management trust the employees to do their work well? - Can the employees trust the information that comes from the management? - Are conflicts resolved in a fair way?	COPSOQ III (Llorens et al., 2018)
Home-work interface	- Do you feel that you work drains so much of your energy that it has a negative effect on your private life? - Do you feel that your work takes so much of your time that it has a negative effect on your private life? - Are there times when you need to be at work and at home at the same time?	COPSOQ III (Llorens et al., 2018)
Job content	- Can you use your skills or expertise in your work? - Is your work meaningful? - How pleased are you with your job as a whole, everything taken into consideration?	COPSOQ III (Llorens et al., 2018)
Workload and work pace	- How often do you not have time to complete all your work tasks? - Do you get behind with your work? - Do you have to work very fast? - Do you work at a high pace throughout the day? - Is the work distributed fairly?	COPSOQ III (Llorens et al., 2018)
Work schedule	- Can you decide when to take a break? - Can you take holidays more or less when you wish? - Can you leave your work to have a chat with a colleague?	COPSOQ III (Llorens et al., 2018)

	- If you have some private business, is it possible for you to leave your place of work for half an hour without special permission?	
Control	- Do you have a large degree of influence on the decisions concerning your work? - Are you worried about being transferred to another job against your will? - Do you have any influence on how you do your work?	COPSOQ III (Llorens et al., 2018)
Environment and equipment	- My physical work environment is important to me. - My physical work environment affects how I work. - Where I work is important to me.	Importance of Work Environment Scale (IWES) (Sander et al., 2019)
Role in organisation	- Do you have to deal with other people's personal problems as part of your work? - Is your work emotionally demanding? - Does your work have clear objectives? - Are contradictory demands placed on you at work?*- Do you sometimes have to do things which ought to have been done in a different way?	COPSOQ III (Llorens et al., 2018)
Career development	- Do you have the possibility of learning new things through your work? - Are you worried about becoming unemployed? - Are you worried about it being difficult for you to find another job if you became unemployed? - Are there good prospects in your job?	COPSOQ III (Llorens et al., 2018)
Emotional deprivation	- I often feel abandoned by my co-workers when I am under pressure at work. - I often feel alienated from my co-workers. - I feel myself withdrawing from the people I work with. - I often feel emotionally distant from the people I work with. - I feel satisfied with the relationships I have at work. - There is a sense of camaraderie in my workplace. - I often feel isolated when I am with my co-workers. - I often feel disconnected from others at work. - I experience a general sense of emptiness when I am at work.	Workplace Loneliness scale (Wright et al., 2006)
Lack of social companionship	- I have social companionship/fellowship at work. - I feel included in the social aspects of work. - There is someone at work I can talk to about my day-to-day work problems if I need to. - There is no-one at work I can share my personal thoughts with if I want to. - I have someone at work I can spend time with on my breaks if I want to. - I feel part of a group of friends at work. - There are people at work who take the trouble to listen to me.	Workplace Loneliness scale (Wright et al., 2006)
Sleep quality	In general, during the last four weeks how often have you...: - slept badly and restlessly? - found it hard to go to sleep? - woken up too early and not been able to get back to sleep?	COPSOQ III (Llorens et al., 2018)

	- woken up several times and found it difficult to get back to sleep?	
Burnout	In general, during the last four weeks how often have you...: - felt worn out? - been physically exhausted? - been emotionally exhausted? - felt tired?	COPSOQ III (Llorens et al., 2018)
Stress	In general, during the last four weeks how often have you...: - had problems relaxing? - been irritable? - been tense?	COPSOQ III (Llorens et al., 2018)
Somatic stress	In general, during the last four weeks how often have you...: - had stomach ache? - had a headache? - had tensions in various muscles? - had palpitations?	COPSOQ III (Llorens et al., 2018)
Cognitive stress	In general, during the last four weeks how often have you...: - had problems concentrating? - found it difficult to think clearly? - had difficulty in taking decisions? - had difficulty remembering?	COPSOQ III (Llorens et al., 2018)
Depressive symptoms	In general, during the last four weeks how often have you...: - felt sad? - lacked self-confidence? - had a bad conscience or felt guilty? - lacked interest in everyday things?	COPSOQ III (Llorens et al., 2018)
Self-efficacy	How well do these descriptions fit you as a person?: - I am always able to solve difficult problems, if I try hard enough. - If people work against me, I find a way of achieving what I want. - It is easy for me to stick to my plans and meet my objectives. - I feel confident that I can handle unexpected events. - When I have a problem, I can usually find several ways of solving it. - Regardless of what happens, I usually manage.	COPSOQ III (Llorens et al., 2018)
Task performance	- I managed to plan my work so that it was done on time. - My planning was optimal. - I kept in mind the results that I had to achieve. - I was able to separate main issues from side issues at work. - I was able to perform my work well with minimal time and effort.	IWPQ (2013)
Contextual work performance	- I took on extra responsibilities. - I started new tasks myself, when my old ones were finished. - I took on challenging work tasks, when available. - I worked at keeping my job knowledge up to date. - I worked at keeping my job skills up to date.	IWPQ (2013)

	<ul style="list-style-type: none"> <li>- I came up with creative solutions to new problems.</li> <li>- I kept looking for new challenges in my job.</li> <li>- I actively participated in work meetings.</li> </ul>	
Counterproductive work behaviour	<ul style="list-style-type: none"> <li>- I complained about unimportant matters at work.</li> <li>- I made problems greater than they were at work.</li> <li>- I focused on the negative aspects of a work situation, instead of on the positive aspects.</li> <li>- I spoke with colleagues about the negative aspects of my work.</li> <li>- I spoke with people from outside the organisation about the negative aspects of my work.</li> </ul>	IWPQ (2013)

### Appendix B.5. Reverse scored items (5.3.3)

Dimension	Items
Well-being	WB2 to WB24
Performance	PF14-PF18
Workplace loneliness	LONE5, LONE6, LONE10-LONE12, LONE14-LONE16
Workload and work pace	WL1-WL4
Role in organisation	OROLE1, OROLE2, OROLE4, OROLE5
Career development	CDEV2, CDEV3
Home-work interface	HW1-HW3

### Appendix B.6. Variables and measures table

Variable	Measure	Full scale	Items included	$\alpha$
Predictors of desire for social relationships at work (independent variables)	1. Belonging motivation	1	1	N/A
	2. Relational valence	2	2	.71
Predictors of actual social relations (independent variables)	1. Organisational culture and function	8	6 a	.90
	2. Workload and work pace	5	4 b	.78
	3. Role in organisation	5	2 c	.80
	4. Career development	4	2 d	.78
	5. Environment and equipment	3	3	.88
	6. Work schedule	4	4	.85
	7. Interpersonal relationships at work	3	3	.78
	8. Home-work interface	3	2 e	.74
	9. Job content	3	0 f	N/A
	10. Control	3	0 g	N/A

Loneliness in work (mediator variables)				
1. Lack of social companionship	1. Workplace loneliness scale	7	7	.79
2. Emotional deprivation	2. Workplace loneliness scale	9	9	.92
Well-being (dependent variables)				
1. Sleeping problems	1. COPSOQ III	4	4	.83
2. Stress	2. COPSOQ III	4	4	.84
3. Burnout	3. COPSOQ III	3	3	.90
4. Somatic Stress	4. COPSOQ III	4	4	.72
5. Cognitive Stress	5. COPSOQ III	4	4	.88
6. Depressive Symptoms	6. COPSOQ III	4	4	.82
7. Self-efficacy	7. COPSOQ III	6	6	.81
Job performance (dependent variables)				
1. Task performance	1. Individual Work Performance Questionnaire (IWPQ)	5	5	.75
2. Contextual performance	2. IWPQ	8	0 h	.72
3. Lack of counterproductive work behaviour	3. IWPQ	5	5	.81
<b>Notes:</b>				
<i>a The scale includes 8 items but after a CFA, 6 items were retained</i>				
<i>b The scale includes 5 items but after an EFA on half of the dataset, 4 items were retained</i>				
<i>c The scale includes 5 items but after an EFA on half of the dataset followed by a CFA, 2 items were retained</i>				
<i>d The scale includes 4 items but after an EFA on half of the dataset, 2 items were retained</i>				
<i>e The scale includes 3 items but after a CFA, 2 items were retained</i>				
<i>f The three items from the job content scale were not included following an EFA on half of the dataset</i>				
<i>g The three items from the job control scale were not included following a CFA</i>				
<i>h The eight items from the contextual performance scale were not included following a CFA</i>				

## Appendix B.7. Scoring system

OCULT	High score = good culture
WL	High score = good work management
OROLE	High score = good clarity
CDEV	High score = high potential
EE	High score = good environment/resources
WS	High score = good schedule
IR	High score = good relationships
HW	High score = good work-life balance
RV	High score = high desire for relationships
BM1	High score = high desire to belong
LONE_ED	High score = high loneliness
LONE_SC	High score = high loneliness
WB_SLP	High score = lack of sleep problems (i.e., high well-being)
WB_BURN	High score = lack of burnout (i.e., high well-being)
WB_STR	High score = lack of stress (i.e., high well-being)
WB_SOM	High score = lack of somatic stress (i.e., high well-being)
WB_COG	High score = lack of cognitive stress (i.e., high well-being)
WB_DEP	High score = lack of depressive symptoms (i.e., high well-being)
WB_SE	High score = high self-efficacy (i.e., high well-being)
PF_TP	High score = high performance
PF_CPWB	High score = lack of counterproductive work behaviour (i.e., high performance)

**Table B.8. Items removed during the EFA**

Item	Item loading	Cross-loading on
WL5	-.572	OCULT
CON1	.553	OCULT
CON2	loading <.4	Low loading
CON3	.563	OCULT
OROLE3	-.498	OCULT
CDEV1	.453	OCULT
CDEV4	.510	OCULT

### Appendix B.9. CFA for independent variables

Model		Chi square	Degrees of freedom	CFI	RMSEA	SRMR
1	11 factors (prior to EFA)	3455.145	805	0.804	0.071	0.089
2	10 factors (post EFA) -Remove WL5, CON1, CON2, CON3, OROLE3, CDEV1, CDEV4	2264.671	630	0.851	0.069	0.065
3	10 factors -Remove HW3	2190.018	595	0.853	0.071	0.065
4	9 factors -Remove JC scale	1858.850	428	0.861	0.072	0.060
5	9 factors -Remove OCULT4, OCULT5, OROLE4, OROLE5	900.223	263	0.933	0.053	0.045
4	8 factors (remove HWI)	798.423	325	0.932	0.055	0.044

**Table B.10. Items removed during the CFA for independent variables**

Item	Estimate	Reason for removal
WL1	0.221	$R^2 < .5$
WL2	0.265	$R^2 < .5$
HW3	0.161	$R^2 < .5$
JC1	0.404	$R^2 < .5$
JC2	0.471	$R^2 < .5$
JC3	0.656	Single item from scale remaining
OROLE4	0.499	$R^2 < .5$
OROLE5	0.280	$R^2 < .5$
OCULT4	0.354	$R^2 < .5$
OCULT5	0.379	$R^2 < .5$

### Appendix B.11. CFA for mediator variables

Model		Chi square	Degrees of freedom	CFI	RMSEA	SRMR
1	2 factors	682.424	103	0.908	0.092	0.054
2	1 factor	1418.829	104	0.791	0.138	0.085



### Appendix B.12. CFA for dependent variables

Model		Chi square	Degrees of freedom	CFI	RMSEA	SRMR
1	10 factors	3004.118	1081	0.863	0.057	0.056
2	9 factors - Remove PF_CXT scale	1760.518	666	0.911	0.051	0.054

### Appendix B.13. Items removed during the CFA for dependent variables

Item	Estimate	Reason for removal
PF6	0.205	$R^2 < .5$
PF7	0.211	$R^2 < .5$
PF8	0.490	$R^2 < .5$
PF9	0.442	$R^2 < .5$
PF10	0.460	$R^2 < .5$
PF11	0.495	$R^2 < .5$
PF12	0.593	Single item from scale remaining
PF13	0.205	$R^2 < .5$

### Appendix B.14. Direct paths 1: Independent to mediating variables

'a' paths	LONE_ED	LONE_SC
OCULT	<b>-0.189*</b>	<b>-0.078**</b>
WL	-0.022	0.003
OROLE	0.039	0.029
CDEV	<b>-0.086*</b>	<b>-0.071**</b>
EE	0.061	0.039
WS	-0.032	0.009
IR	<b>-0.410*</b>	<b>-0.463*</b>
HW	<b>-0.146*</b>	-0.044
RV	<b>-0.093*</b>	<b>-0.221*</b>
BM1	0.000	0.010

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

### Appendix B.15. Direct paths 2: Mediating to outcome variables

'b' paths	WB_SLP	WB_BURN	WB_STR	WB_SOM	WB_COG	WB_DEP	WB_SE	PF_TP	PF_CPWB
Total effect LONE_ED	<b>-0.142**</b>	<b>-0.262*</b>	<b>-0.243*</b>	<b>-0.184*</b>	<b>-0.253*</b>	<b>-0.367*</b>	-0.040	0.000	<b>-0.328*</b>
Total effect LONE_SC	-0.048	0.057	0.022	0.049	0.048	0.040	-0.061	-0.068	<b>0.224*</b>

One asterisk (\*) denotes a significance of  $p < 0.01$ , and two asterisks (\*\*) denote a significance of  $p < 0.05$ .

## Appendix C. Study three: design process

### Appendix C.1: Semi-structured interview guide

#### Study Three Semi-Structured Interview Guide

- Run through study information
- Recap ethical guidelines
- Verbally confirm participant consent (as well as receipt of electronic consent form)

#### **Loneliness in work:** *encompasses well-being and loneliness.*

1. What aspects (if any) in relation to mental health and well-being are a focus within your organisation?
2. Are you aware of any cases in the company where employees have experienced loneliness in work?
  - a. Does the company have any procedure in place to deal with loneliness in work?
  - b. Is the organisation aware of the UK Government's annual loneliness strategy/ the Campaign to End Loneliness?
3. How are new starters supported in their role and integrated into the company?
  - a. Are any additional support measures in place for apprentices or graduates in the company?
4. What do you believe would be the best way to improve loneliness in work (*general*)?

#### **Home-work interface:** *questions on work-life balance, work-family conflict.*

1. How does your company promote a healthy work-life balance?
  - a. What is the company's flexible work policy and are there any good examples of this in practice?
  - b. How are those with family or caring responsibilities helped to manage any potential work-family conflicts?
  - c. Is a home working assessment carried out? If so, what does it incorporate?
    - i. What support does the organisation provide where gaps are identified?

#### **Interpersonal relationships at work:** *questions on good atmosphere between individual and colleagues and support received from colleagues and line manager.*

2. How does your organisation support good interpersonal relationships at work?
  - a. How, if at all, does this differ across the 3 types of work arrangements (remote, hybrid, office-based work)?
  - b. What are the most frequent challenges in your organisation when managing interpersonal relationships at work (this could be for HR professionals, managers etc.)?
  - c. How could interpersonal relationships at work be improved in your company?

#### **Organisational culture and function:** *questions on being well-informed about future changes/decisions, recognition from management, having the necessary information*

*to complete the job well, manager that is good at work planning and solving conflicts, organisational trust.*

3. How does your organisation communicate, practice, and maintain its values?
4. How are company decisions communicated to employees?
  - a. How are employees kept well-informed when working remotely or in a hybrid fashion?
5. What training do managers receive in managing conflicts?

**Career development:** *questions on learning new things at work and having good prospects in the job.*

1. How does your organisation encourage continuing professional development (CPD)?
2. What training is available for employees looking to learn new skills (i.e., apprenticeship levy utilisation)?

**Job performance (CPWB):** *questions on making problems greater than they are at work, complaining about unimportant matters at work, focusing and speaking about negative aspects of the job.*

3. How is job performance monitored/managed in the company?
  - a. Are there any differences between this for the 3 types of work arrangements (remote, hybrid and in-person)?
4. How are employees recognised for excellent work?
  - a. How important is employee recognition within the organisation?

**Future of work:**

5. What do you think your organisation does well in relation to employees' mental health and well-being?
  - a. What do you see as the main challenge towards employee well-being over the next five years (*general*)?
  - b. How could the UK Government help organisations in terms of mental health and well-being activities or policies (*general*)?
6. How do you envisage work arrangements evolving in your company (i.e., return to office-based work, continuation of hybrid work)?

## Appendix C.2. Information for research participants



### Information for Research Participants

Thank you for agreeing to participate in the research project. Your participation in this research is voluntary, and you may change your mind about being involved in the research at any time, and without giving a reason.

This information sheet is designed to give you full details of the research project, its goals, the research team, the research funder, and what you will be asked to do as part of the research. If you have any questions that are not answered by this information sheet, please ask.

This research has been reviewed and given favourable opinion by the Nottingham University Business School Research Ethics Committee.

What is the research project called?

Employee well-being and the work environment

Who is carrying out the research?

Student: Fiona Frost  
Supervisors: Simona Spedale and Aditya Jain

What is the research about?

This research aims to explore possible interventions to improve an employee's work environment and their work arrangements, leading to benefits for their well-being and job performance. This is the third study of doctoral research; study one (qualitative) found that three factors are particularly important for employees at work (the home-work interface, the organisational culture and function, and interpersonal relationships at work), and study two (quantitative) confirmed these findings. This study will therefore focus on these three factors, along with a discussion around the future of work related to the three work arrangements (remote, hybrid, and office-based work) to discover the best ways to improve employee well-being at work.

What groups of people have been asked to take part, and why?

A cross-section of individuals who participated in the second study of this PhD research have been asked to participate. All participants in study three work in the area of Human Resources and as the focus is on employee well-being, are seen as the group of individuals best suited to participate.

What will research participants be asked to do?

The research participants will be asked to participate in a 30-minute online interview (via MS Teams, or an alternative online platform as agreed). The interview questions will cover six dimensions: interpersonal relationships at work, the organisational culture and function, the home-work interface, job performance, the future of work, and loneliness in work. The key thread throughout will be a focus on employee well-being, and discussion around the impact different work arrangements. Research participants will be asked to discuss any best practices and suggestions for future improvements based upon their experiences and observations in their current employment role.

What will happen to the information I provide?

The information provided will be recorded and transcribed by the principal interviewer (PhD researcher) and will be stored for no longer than 20 years. All information will be safely stored and encrypted. Data will be analysed using the software package NVivo (version 14). Participants and their organisations will remain anonymous; all participants will be referred to as Participant 1, Participant 2, and so on. Direct quotes may be used by the researcher in their PhD thesis and any future publications.

What will be the outputs of the research?

The principal output of this research is a PhD thesis. Following submission of the PhD thesis, the researcher plans to submit conference papers and presentations, peer-reviewed publications, and may consider writing book chapters. The researcher will be happy to provide an executive summary of the outputs, at the participant's request.

**Contact details:**

Researcher: Fiona Frost, lixff6@nottingham.ac.uk

Supervisors: Dr Simona Spedale, liass6@exmail.nottingham.ac.uk

Prof Aditya Jain, lwzakj@exmail.nottingham.ac.uk

**Complaint procedure**

If you wish to complain about the way in which the research is being conducted or have any concerns about the research, then in the first instance please contact the Fiona Frost.

Or contact the School's Research Ethics Officer:

Gerardus Lucas

Nottingham University Business School

Jubilee Campus

Nottingham NG8 1BB

Phone: 0115 9515278

Email: gerardus.lucas@nottingham.ac.uk

### Appendix C.3. Participant consent form



#### Nottingham University Business School Participant Consent Form

**Name of Study:** Employee well-being and the work environment

**Name of Researcher:** Fiona Frost

**Name of Participant:**

By signing this form, I confirm that (please initial the boxes):	Initials
I have read and understood the Participant Information Sheet, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	
I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions, and I can withdraw from the study at any time, without having to give a reason.	
Taking part in this study involves an interview completed by the participant that will be recorded using video which will later be transcribed as text. The recording will then be destroyed, and the text will be kept as an encrypted file.	
Personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.	
My words can be quoted in publications, reports, web pages and other research outputs.	
I give permission for the de-identified (anonymised) data that I provide to be used for future research and learning.	

**I agree to take part in the study:**

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

For participants unable to sign their name, mark the box instead of signing.

**Fiona Frost**  
Researcher's name

**Fiona Frost**  
Signature

**22.03.24**  
Date

## **Appendix C.4. Research participant privacy notice**

### **Research participant privacy notice**

#### **Privacy information for Research Participants**

For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit:

<https://www.nottingham.ac.uk/utilities/privacy.aspx>.

#### **Why we collect your personal data**

We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning. Specific purposes for data collection on this occasion are for the third study of the researcher's PhD examining employee well-being and the work environment.

#### **Legal basis for processing your personal data under GDPR**

The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject.

#### **How long we keep your data**

The University may store your data for up to 25 years and for a period of no less than 7 years after the research project finishes. The researchers who gathered or processed the data may also store the data indefinitely and reuse it in future research. Measures to safeguard your stored data include encrypting transcripts, using the pseudonyms Participant 1, Participant 2, etc., and ensuring the anonymisation of data.

#### **Who we share your data with**

Anonymous extracts of your data may be disclosed in published works that are posted online for use by the scientific community. Your data may move with the researcher who collected your data to another institution in the future.