

**Unveiling Dynamics: Examining the Gendered Association
Between Shifting Work Patterns, Labour Market Changes,
and Maternity Leave on Mental Health and Wellbeing.**

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DPhil Sociology

Trinity 2025

Word Count: 53,000

Acknowledgements

First and foremost, I would like to express my deepest gratitude to my supervisor, Professor Man-Yee Kan, for her unwavering guidance, support, and encouragement throughout this journey. Her insightful feedback, patience, and belief in my work have been invaluable to my development as a researcher.

I would also like to extend my sincere thanks to the faculty and staff at the Department of Sociology, who have offered their expertise and resources to help me grow academically. Special thanks to Professor Jennifer Dowd and Dr Lindsay Richards, whose knowledge and constructive suggestions have greatly influenced my research.

I am immensely grateful to my friends, whose support and encouragement have been a constant source of strength throughout this journey. Paola, Humeyra, and Salma, thank you for your laughter, kindness, and ability to keep me grounded. You've made the challenging days so much more bearable, and I truly appreciate every moment of companionship we've shared.

A heartfelt thank you goes to my parents and my partner, Omar, for their endless patience, love, and understanding, especially during the most challenging moments of this process. To Abu and Ammi, your constant encouragement has fuelled my determination to complete this thesis. A special note to Abu: Even though you are not here with me

anymore, you continued to be my beacon of hope. To Omar, I could not have done this without you.

Finally, I would like to acknowledge my fellow PhD colleagues for their camaraderie and support. The discussions, shared experiences, and mutual encouragement have made this journey more rewarding and less lonely.

This thesis is a culmination of the support and encouragement of all the individuals mentioned above, and for that, I am truly grateful.

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Main Abstract

This thesis investigates how shifting work patterns, labour market changes, and maternity leave policies relate to individuals' mental health and subjective well-being (SWB) in the UK. It asks how these institutional and life-course changes interact with caregiving responsibilities and social role expectations, with particular attention to whether and how associations differ by gender. Addressing key gaps in existing research, the thesis explores the underexamined relational effects of flexible working within households, the gendered mental health impacts of crisis labour during the COVID-19 pandemic, and the short- and medium-term well-being consequences of maternity leave duration. By bringing these strands together, the thesis contributes to ongoing debates about the promises and limitations of work-family policy in promoting equitable well-being.

The first paper investigates the individual and relational effects of flexible working arrangements—specifically flexitime and teleworking—on parental subjective well-being (SWB) in the UK. Drawing on longitudinal data, the study explores how transitions into these working patterns are associated with changes in life, health, and leisure time satisfaction among mothers and fathers. A key contribution is the paper's focus on cross-partner dynamics within heterosexual couples, a dimension often overlooked in work-family research. The findings reveal that flexitime is associated with greater leisure time satisfaction for mothers but reduced health satisfaction for fathers. In contrast, teleworking enhances mothers' health satisfaction and boosts fathers' leisure

time satisfaction. On a relational level, mothers' teleworking corresponds with lower life satisfaction in fathers, while fathers' use of flexitime is linked to increased leisure time satisfaction in mothers. These results highlight the gendered and uneven consequences of flexible working, shaped by household roles and societal expectations.

The second paper examines the mental health impact of the COVID-19 pandemic on UK keyworkers across three infection peaks: April 2020, November 2020, and January 2021. Using data from Understanding Society's COVID-19 survey, it contributes to existing literature by comparing mental health outcomes between keyworkers and non-keyworkers, while also exploring differences by gender and work sector. The findings show that keyworkers experienced higher psychological distress than non-keyworkers during the first two peaks. Gender-specific analysis reveals that during the first peak, female non-keyworkers experienced the highest levels of distress, while in the second peak, male keyworkers were the most affected. Sectoral analysis indicates that health and social care (HSC) workers reported better well-being than non-HSC workers, with female non-HSC workers experiencing the worst outcomes, highlighting the compounding effects of gender and sector on psychological well-being. Overall, the results point to a clear need for targeted mental health support that addresses both gendered vulnerabilities and sector-specific risks.

The third chapter examines how the duration of maternity leave influences mothers' subjective well-being upon returning to paid work in the UK. Using data from Understanding Society, my research assesses both short- and medium-term associations,

providing new quantitative insight into an underexplored area of British policy research. The findings reveal nuanced associations across different well-being domains. In the short term, longer leave (especially the maximum duration of 10-12 months) is linked to higher satisfaction with leisure time, while the association with life satisfaction follows a U-shaped pattern, peaking at moderate leave lengths (4–6 months). In contrast, job satisfaction declines as leave duration increases, suggesting growing difficulty with workplace reintegration. In the medium term, these trends largely persist, although the positive association with leisure time satisfaction fades. The negative effects are partly driven by financial strain and weakened career progression, especially for first-time mothers, who appear more vulnerable to work-life conflict. Overall, the study highlights the dual impact of maternity leave: while it facilitates short-term rest and caregiving, it may hinder medium-term well-being through professional and financial trade-offs.

Introductory Chapter: Unveiling Dynamics: Examining the Gendered Association Between Shifting Work Patterns, Labour Market Changes, and Maternity Leave on Mental Health and Wellbeing.

Introduction

In recent decades, there has been a global shift towards recognising subjective well-being (SWB) and mental health as central to societal and economic progress. Traditional metrics like Gross Domestic Product (GDP) and productivity are increasingly regarded as insufficient for capturing the full breadth of societal welfare. Instead, mental health and SWB have emerged as critical indicators of human development (Helliwell, Layard, & Sachs, 2023). The World Health Organisation (WHO) reports that depression, anxiety, and other mental health conditions are now among the leading causes of disability worldwide, affecting over one billion people (WHO, 2022). These conditions not only pose public health challenges but also result in significant economic consequences, with the WHO estimating a \$1 trillion annual loss in global productivity (WHO, 2021). As such, international initiatives like the United Nations' Sustainable Development Goals (SDGs) have placed mental health at the forefront of global policy, with Goal 3 specifically aiming to ensure healthy lives and promote well-being for all (United Nations, 2020).

A critical area of focus within this broader dialogue is the role that workplace environments play in shaping both physical and mental health. Employers and policymakers have recognised that mental health is not only a personal issue but also a key determinant of organisational success and economic productivity. Countries across Europe, for example, have introduced workplace mental health policies, such as flexible working arrangements, designed to alleviate stress, reduce burnout, and address mental

health stigma (Baker, 2021; Hupkau & Petrongolo, 2020). The WHO's Mental Health in the Workplace guidelines and the OECD's Fit Mind, Fit Job report underscore the importance of fostering healthier work environments to support mental well-being (OECD, 2015). These initiatives reflect a broader recognition that productive workplaces must prioritise mental health as part of a holistic approach to societal progress.

In addition to workplace reforms, there is increasing recognition of the gendered dimensions of mental health and well-being, particularly in the context of evolving work patterns and labour market changes. Women are disproportionately affected by mental health issues, such as anxiety and depression, which are often exacerbated by caregiving roles and structural inequalities within the labour market (Chandola et al., 2022). The COVID-19 pandemic, in particular, exacerbated these disparities, heightening caregiving demands and reinforcing gender inequalities in both unpaid domestic labour and paid employment. During the pandemic, women were especially vulnerable to stress, anxiety, and burnout as they navigated the dual responsibilities of essential work and intensified caregiving duties (Fawcett Society, 2020). Structural barriers, including the gender pay gap, limited access to senior roles, and reduced opportunities for professional advancement, further eroded women's well-being during this period (Adams-Prassl et al., 2020). These dynamics have prompted targeted policy interventions, such as flexible working, paid maternity leave, and shared parental leave, aimed at redistributing caregiving responsibilities and supporting women's mental well-being (Olivetti & Petrongolo, 2017).

In the UK, mental health and well-being have increasingly been recognised as integral to societal progress, prompting a series of reforms across various sectors. With more than one in four adults in the UK experiencing mental health problems each year, equating to approximately 17 million people, there has been an urgent need for policy reforms (Mental Health Foundation, 2022). These efforts have led to initiatives such as the Mental Health at Work Commitment, which encourages employers to adopt proactive measures to support mental health, reduce stress, and create healthier work environments. For working parents and caregivers, policies like the UK's Flexible Working Regulations, first introduced in 2003 and expanded in subsequent years, have provided employees with the right to request flexible working arrangements, including part-time hours, job-sharing, and teleworking (Lewis & Humbert, 2010). Despite the popularity of flexible working (58% of UK workers express a preference for flexible schedules), the uptake of these policies reveals gendered disparities, as women disproportionately make use of these arrangements. This, in turn, can unintentionally reinforce traditional caregiving roles and deepen gendered divisions of labour within the home (Adams & Berg, 2017).

Nonetheless, significant challenges persist in fully addressing workplace mental health and well-being. For instance, only 44% of UK employees believe their organisation takes sufficient action to address mental health concerns, and nearly one in five workers have experienced workplace discrimination due to a mental health condition (Mind, 2021). The gendered dimensions of these challenges are particularly pronounced, with women, who are more likely to be primary caregivers, reporting higher levels of stress, anxiety, and depression compared to men. Research also shows that women are

twice as likely as men to experience mental health conditions such as anxiety and depression, a disparity exacerbated by the uneven distribution of caregiving duties (Women's Health Network, 2022). Furthermore, women often face career penalties when they utilise flexible working arrangements, as these are still associated with reduced career progression opportunities and slower salary growth (Haynes, 2021). As a result, policies designed to support well-being may inadvertently perpetuate gender disparities in the workplace.

The transition to motherhood further compounds the mental health and career challenges women face. While UK law entitles eligible mothers to up to 52 weeks of maternity leave, only 39 weeks are covered by statutory maternity pay (SMP), which is capped at a flat rate of £184.03 per week or 90% of the mother's average weekly earnings, whichever is lower (GOV.UK, 2024). These financial constraints, particularly for low-income households, often force mothers to return to work prematurely, before they are physically or emotionally ready. Upon returning to work, women frequently encounter career stagnation or penalties, particularly concerning promotions and salary growth (Chandola et al., 2022). Research by Joyce and Xu (2019) indicates that women earn an average of 20% less than men within a decade of childbirth, as career interruptions widen the gender pay gap. This "motherhood penalty" exacerbates the mental health struggles that women face as they attempt to balance career aspirations with caregiving responsibilities (Budig & England, 2021).

The COVID-19 pandemic further disrupted the mental health and well-being landscape in the UK, amplifying existing inequalities and introducing new challenges. Lockdowns, social distancing measures, and widespread uncertainty caused a surge in mental health issues, with many individuals reporting heightened levels of anxiety, depression, and stress (Mental Health Foundation, 2021). Key workers, particularly those in healthcare and social care sectors, faced disproportionate exposure to the virus, alongside inadequate personal protective equipment (PPE), further exacerbating their mental health strain (Fancourt et al., 2021). Financial uncertainty due to furloughs, reduced hours, and job losses contributed to these pressures, with 35% of UK residents citing financial concerns as a significant source of stress during the pandemic (Mental Health Foundation, 2021).

Women were particularly affected during the pandemic, as they were more likely to take on additional caregiving responsibilities due to school closures and heightened domestic demands. This exacerbated the gendered inequalities in mental health, as many women experienced increased stress, anxiety, and burnout while attempting to manage both professional and caregiving roles (Women's Budget Group, 2020).

In line with global trends, the UK has made strides in integrating mental health and well-being into its national policy frameworks. Initiatives such as the Measuring National Well-being Programme, launched in 2010, track indicators such as health, relationships, and personal security, and are used alongside economic data to inform public policy (Office for National Statistics, 2019). Despite these advances, the interplay

between shifting work patterns, labour market changes, and maternity leave policies remains critical to understanding how mental health and well-being can be more effectively supported, particularly for women. As work patterns evolve, driven by technological advancements, the post-pandemic context, and societal shifts, further research is needed to examine how these changes impact mental health, with particular attention to gendered experiences in the workforce.

In light of evolving work patterns, labour market shifts, and changing workplace policies, the central aim of my research is to investigate their implications for mental health and well-being in the UK, with a particular focus on gender dynamics. Each of the three empirical chapters that comprise this thesis contributes to this overarching objective through distinct yet interconnected perspectives.

The first chapter examines how transitions to flexible working arrangements—specifically flexitime and teleworking—are associated with parental subjective well-being (SWB). It offers a novel contribution by analysing the cross-partner dimension, exploring how one partner's shift to flexible working affects the well-being of the other in heterosexual couples. This chapter extends existing literature by moving beyond individual-level analyses to consider the relational and gendered implications of flexible work within households.

The second chapter focuses on the mental health impacts of the COVID-19 pandemic on UK key workers, with particular attention to gender and sectoral

differences. Drawing on longitudinal data, it assesses how key worker status is linked to mental health decline during successive infection peaks, comparing experiences across genders and key sectors such as health, social care, transportation, and retail. This chapter contributes to the literature by offering a nuanced, intersectional account of how occupational roles and gender intersect to shape mental health outcomes during public health crises.

The third chapter explores the relationship between maternity leave duration and mothers' SWB upon returning to work, addressing both short- and medium-term effects. This chapter advances the literature by offering a comprehensive quantitative analysis of how leave length shapes maternal well-being during the post-return transition, a dimension that has received limited attention in prior UK-based research.

Together, these chapters build a comprehensive picture of how evolving structural and institutional conditions in the UK labour market—such as the expansion of flexible working, the design of maternity leave policies, and the unprecedented pressures of the COVID-19 pandemic—shape mental health and well-being through a gendered lens. By integrating analyses across different policy domains, life stages, and sectors, the thesis demonstrates how gender continues to mediate individuals' exposure to both the risks and benefits of changing work environments. In doing so, it provides a nuanced, evidence-based foundation for informing labour market policies that not only promote mental health but also address persistent gender disparities and support the development of more equitable and inclusive workplaces.

This chapter aims to outline the motivation behind this thesis, explore the conceptualisation of key terms, specifically subjective well-being and mental health, discuss the theoretical framework that underpins my research, and provide an overview of the following chapters. Each chapter's structure will be presented, including its research questions, literature review, methodology, and conclusions.

In the next section, I will examine the concepts of subjective well-being (SWB) and mental health as they are applied throughout the thesis.

Conceptualisation of Well-being and Mental Health

In this thesis, well-being and mental health are understood as multi-dimensional constructs that reflect subjective and objective experiences of individuals in their personal and professional lives. These constructs are particularly salient when investigating the intersections between work, caregiving responsibilities, and gender, as addressed across the three chapters on flexible working, key workers during the COVID-19 pandemic, and maternity leave.

Well-being

Well-being is conceptualised primarily as subjective well-being (SWB), which refers to individuals' evaluations of their life satisfaction and emotional experiences.

Diener et al. (1985) define SWB as comprising three key components: life satisfaction (a

cognitive evaluation of one's overall life), positive affect (the presence of positive moods and emotions), and negative affect (the presence of negative moods). This framework has since become foundational in psychological and sociological studies on quality of life (Dolan, Peasgood & White, 2008; OECD, 2013). This thesis focuses on cognitive dimensions of SWB and adopts the following components:

Life Satisfaction: This is a global evaluation of one's quality of life, based on personal criteria, encompassing satisfaction with different domains such as work, family, and health (Diener et al., 1985; Helliwell & Putnam, 2004).

Job Satisfaction: Job satisfaction refers to how content individuals are with their work, particularly in terms of autonomy, workload, and work-life balance (Clark, 1997; Green, 2011). It is a core component of SWB among working adults and has been linked to both productivity and mental health outcomes (Judge et al., 2001).

Health and Leisure Satisfaction: Satisfaction with one's physical and mental health, as well as leisure time, forms another important domain of well-being. For working parents, especially mothers, leisure time is strongly associated with psychological recovery and overall life balance (Mattingly & Bianchi, 2003; Bittman & Wajcman, 2000).

Mental Health

Mental health in this thesis is conceptualised as the psychological and emotional state of individuals that affects their capacity to function in everyday life and cope with stress. While distinct from well-being, it is closely related; positive mental health supports higher SWB, while poor mental health can erode it (Keyes, 2002; WHO, 2013). This thesis draws on psychological and public health frameworks to define four key dimensions of mental health:

Stress: Stress is conceptualised as a psychological response to demands that exceed an individual's perceived ability to cope (Lazarus & Folkman, 1984). It is especially relevant in the context of work–family conflict and high-intensity caregiving roles (Greenhaus & Beutell, 1985).

Anxiety: Anxiety refers to a state of heightened worry or unease in response to anticipated threats or uncertainty and is a common response to life transitions such as childbirth or job strain (Spielberger, 1972; McLeod, 2010).

Depression: Depression is defined as a prolonged emotional state of sadness and disinterest, and it can severely impair day-to-day functioning (American Psychiatric Association, 2013). Postnatal depression, in particular, has been studied extensively in relation to maternal well-being and leave duration (O'Hara & McCabe, 2013).

Burnout: Burnout is a state of emotional, mental, and physical exhaustion caused by prolonged stress, particularly in work settings (Maslach, Schaufeli & Leiter, 2001). It

is especially common in sectors with high emotional demands or among parents balancing caregiving and paid work (Demerouti et al., 2001).

Together, these conceptualisations of well-being and mental health provide the analytical foundation for this thesis and help to illuminate how broader social structures, including gender norms, employment conditions, and policy frameworks, shape individual experiences.

Theoretical Framework

This thesis adopts an interdisciplinary theoretical framework that integrates gender theories with models of work and well-being. This framework enables a comprehensive and nuanced analysis of how gendered norms, policy structures, and social expectations intersect with shifting work patterns and maternity leave policies to shape women's mental health, particularly for those balancing caregiving responsibilities with professional roles in a changing labour market.

A foundational strand of this framework is Social Role Theory (Eagly, 1987), which posits that socially constructed gender roles influence behaviour in both the public and private spheres. Traditional role expectations continue to position women as primary caregivers and men as main breadwinners, sustaining a gendered division of labour. Although policies like shared parental leave aim to redistribute care, the uptake remains limited, and women continue to shoulder the majority of domestic responsibilities. These

enduring norms create heightened work-life conflict and psychological strain, especially during transitional periods such as maternity leave and the return to work.

Complementing this, Doing Gender theory (West & Zimmerman, 1987) underscores that gender is not simply a role, but an ongoing social performance enacted through everyday interactions. This perspective helps explain how women continue to "do" caregiving even when formal work arrangements (such as flexible working) theoretically allow for a more equitable division of labour. It draws attention to how workplace and household expectations reinforce gendered behaviours, making it difficult for women to deviate from normative caregiving scripts without social or professional costs.

The Demand-Control-Support Model (Karasek & Theorell, 1992) provides a psychosocial lens for examining how workplace conditions influence mental health. It emphasises that well-being is shaped by the balance between job demands, individual control, and social support. This model is especially relevant during periods of workplace disruption, such as the COVID-19 pandemic, when women, particularly in frontline roles, faced high demands and limited autonomy. Although flexible working can increase perceived control, its mental health benefits depend on the presence of adequate institutional and interpersonal support.

The concept of the "second shift" (Hochschild & Machung, 1989) is also central to this framework, describing how women often undertake a disproportionate share of unpaid domestic labour after completing their paid workday. Even when flexible working policies are available, they may not alleviate the caregiving burden but instead reposition

it, intensifying the emotional and physical demands on mothers and contributing to role strain and chronic fatigue.

To further unpack these tensions, the thesis also draws on Role Strain Theory (Goode, 1960) and Role Accumulation Theory (Sieber, 1974). While Role Strain Theory highlights the stress and diminished well-being that can arise when multiple social roles conflict, Role Accumulation Theory offers a more optimistic view, suggesting that fulfilling multiple roles can enhance well-being by providing diverse sources of meaning and identity. Together, these contrasting perspectives help illuminate the complex and sometimes contradictory outcomes of maternity leave and flexible working—where increased autonomy and institutional support may offer benefits, yet overlapping responsibilities can still result in overload.

Work-Family Conflict Theory (Greenhaus & Beutell, 1985) further elucidates the psychological tension that arises when the expectations of work and family are incompatible. In contexts where maternity leave or flexible work policies exist but are poorly supported or culturally stigmatised, women may struggle to fully integrate their roles, experiencing elevated stress in the absence of meaningful accommodation from employers or partners.

To understand the long-term career implications of maternity leave, the thesis draws on Human Capital Theory (Becker, 1964), which links skills acquisition and work experience to earnings potential and career progression. From this perspective, extended breaks from employment can impede professional development, contributing to wage penalties and diminished self-efficacy. These setbacks may, in turn, erode psychological

well-being, particularly when combined with increased caregiving responsibilities and limited opportunities for re-entry support.

At the individual level, Stress and Coping Theory (Lazarus & Folkman, 1984) offers insight into how people manage stressors arising from work-family conflict. The theory distinguishes between problem-focused and emotion-focused coping strategies and emphasises that coping success depends not only on individual traits but also on broader social and structural supports. This helps explain the variation in mental health outcomes among mothers navigating similar demands.

To assess how these experiences evolve, Set Point Theory (Diener et al., 2006) is employed to explore whether changes in well-being linked to maternity leave and work arrangements are temporary or enduring. Understanding whether mothers return to baseline well-being or experience lasting shifts is vital for evaluating the long-term impact of policy and workplace conditions.

Finally, the thesis draws on Family Systems Theory, particularly the concepts of spillover and interdependence (Westman, 2001), to analyse how one individual's work experiences can affect the mental health of other family members. Emotional states, time constraints, and stress can transfer across household members, especially in dual-earner families. This relational lens is particularly relevant in Chapter 1, which examines how one partner's adoption of flexible working arrangements may influence the well-being of the other.

Together, these theoretical perspectives provide a robust, multidimensional framework for analysing the gendered mental health outcomes of maternity leave and flexible working. They highlight how individual experiences are shaped by structural inequality, gendered social norms, and workplace cultures. By combining gender theories with psychosocial and economic models, the framework supports a holistic understanding of how women manage the intersection of work and caregiving in an evolving labour market.

Having established the theoretical underpinnings of the thesis, the next section outlines the structure and focus of each empirical chapter.

Chapter Outlines

Chapter 1: Individual and Cross-Partner Transitions to Flexitime and Teleworking and Cognitive SWB

This chapter explores the association between flexible working arrangements, specifically flexitime and teleworking, and the cognitive dimensions of subjective well-being (SWB) among British parents. As policy discourse increasingly frames flexible working as a solution to work-life conflict, it is crucial to understand not only the individual effects of such arrangements but also their implications within households. This chapter uniquely addresses the understudied area of cross-partner effects, examining

how one partner's use of flexible working influences the other's well-being, particularly within heterosexual relationships where caregiving remains gendered.

The main research questions addressed are:

1. How do individual transitions to flexitime and teleworking influence the SWB of mothers and fathers, particularly regarding life, health, and leisure satisfaction?
2. What is the impact of one partner's transition to flexible working on the SWB of the other partner, and how do gendered expectations shape these outcomes?

To address these questions, the chapter draws on several theoretical frameworks including the Demand-Control-Support Model (Karasek & Theorell, 1992), Work-Family Border Theory (Clark, 2000), and the Resource-Based Theory of Work-Life Balance (Hobfoll, 1989). These frameworks highlight the role of autonomy in shaping individuals' capacity to balance paid work and caregiving responsibilities, with flexitime and teleworking offering new forms of control over time and place of work. Yet, these arrangements may have gendered consequences: while women may experience greater well-being in certain domains, flexible work can also reinforce traditional caregiving roles and increase domestic pressures.

Using longitudinal data from *Understanding Society* (2009–2019), this study analyses a sample of employed parents aged 18–55. Fixed effects ordered logit models are employed to assess how transitions into flexitime and teleworking affect respondents'

life satisfaction, health satisfaction, and leisure time satisfaction. A sub-sample of heterosexual couples is used to analyse cross-partner effects.

Findings show that mothers transitioning to flexitime are positively associated with greater leisure time satisfaction. The added schedule control helps reduce time pressure and supports better work-life balance, especially for those in stable or higher-status jobs (Wheatley, 2017; Chung & Booker, 2023). However, the benefits may not be equally shared; women in lower-paid or precarious roles may not experience the same gains (Chung et al., 2022).

For fathers, flexitime is linked to reduced health satisfaction. This may reflect overwork, as men often use flexible hours to intensify work for career advancement, reinforcing traditional gender norms around male productivity and success (Putnam et al., 2013; Lott & Chung, 2016). Some evidence suggests that flexitime can benefit partners: fathers' use of flexitime improves mothers' leisure satisfaction, likely by supporting a more balanced division of domestic labour (Langner, 2017; Kasperska et al., 2023).

For mothers, teleworking improves health satisfaction, likely by removing commuting stress and allowing more time for recovery and self-care (Tavares, 2021). The time saved can be used for rest or health-promoting activities, which are often limited by the demands of work and caregiving (Bianchi & Milkie, 2010).

For fathers, teleworking improves leisure time satisfaction, possibly due to fewer domestic demands and access to dedicated workspaces. Unlike mothers, fathers are less

likely to experience the same level of boundary-blurring between professional and caregiving roles (Glass & Noonan, 2016; Pabilonia & Vernon, 2021).

Cross-partner effects are generally weak, though mothers' teleworking reduces fathers' life satisfaction, potentially due to shifts in household dynamics or increased work demands (Grönlund & Öun, 2018). Conversely, fathers' flexitime appears to support mothers' leisure time satisfaction (Langner, 2017).

Overall, the findings reveal that flexible working affects mothers and fathers differently, shaped by workplace norms and gendered expectations at home. While flexibility can enhance well-being, it can also reinforce inequalities, especially when caregiving roles remain unevenly distributed.

Chapter 2: Keyworkers' Mental Health During the COVID-19 Infection

Peaks: Mapping the Role of Gender and Sector Differences

The COVID-19 pandemic, which began in late 2019, had widespread effects on public health, the economy, and societal structures. In the UK, keyworkers, essential personnel in healthcare, social care, retail, transportation, and emergency services, faced unique challenges, including heightened virus exposure, increased workloads, and elevated risks of poor mental health (Fancourt et al., 2021; Niedzwiedz et al., 2021). While research has predominantly focused on healthcare workers (Serrano-Ripoll et al.,

2020; Shen et al., 2020), the mental health impacts on non-healthcare keyworkers and gender differences within these impacts, remain underexplored.

This chapter examines the mental health outcomes of keyworkers across various UK sectors, focusing on gendered experiences during three critical COVID-19 infection peaks: May 2020, November 2020, and January 2021. Using longitudinal data from the UK Household Longitudinal Study (UKHLS) and its COVID-19 Survey, the study evaluates how keyworker status, gender, and sectoral differences shaped mental health trajectories (Benzeval et al., 2020; Pierce et al., 2020).

The main research questions addressed are:

1. How were keyworkers' mental health affected during COVID-19 infection peaks compared to non-keyworkers?
2. How do mental health outcomes vary between male and female keyworkers?
3. How do sectoral differences shape the mental health outcomes of keyworkers? (Comparing health and social care (HSC) keyworkers to non-HSC keyworkers)

Existing literature on pandemics, such as Ebola and SARS, highlights significant mental health challenges for healthcare workers, including anxiety, depression, and PTSD (Brooks et al., 2018; Holmes et al., 2020). Similarly, COVID-19 led to a global rise in mental health issues, particularly for key workers (World Health Organization, 2020).

Early studies focused on healthcare workers, overlooking other key sectors (Fancourt et al., 2020; Moreno et al., 2020). Key workers in retail, transportation, and social care faced high workloads, lack of PPE, and limited public recognition, exacerbating their mental health challenges (Chandola et al., 2022; Van der Velden et al., 2021).

Gender disparities played a critical role, with women disproportionately affected by the dual pressures of paid work and caregiving (Wenham et al., 2020; Collins et al., 2021). Women keyworkers experienced heightened stress due to increased caregiving responsibilities during lockdowns and school closures (Power, 2020).

Using data from the UKHLS Main and COVID-19 Surveys (May 2020, November 2020, January 2021), this study includes individuals who remained employed during the observation period. Fixed effects models were used to account for pre-pandemic mental health baselines, providing a robust analysis of mental health changes during the infection peaks.

Findings showed that while psychological distress increased across the population, keyworkers were disproportionately impacted, especially during the second infection peak in November 2020, possibly due to heightened virus exposure, increased workloads, and PPE shortages (Ayling et al., 2021)

Gender moderated these outcomes. During the first infection peak, female non-keyworkers reported the highest distress levels, likely due to increased domestic responsibilities and job insecurity (Chung et al., 2021; Fancourt et al., 2021). In contrast,

female keyworkers fared slightly better, potentially owing to job stability and continued access to childcare services (Niedzwiedz et al., 2021). By the second peak, male keyworkers reported the poorest mental health outcomes, likely reflecting the unsafe working conditions common in the sectors they were concentrated in—such as transport and public-facing roles—and compounded by gendered norms that discourage help-seeking (Pierce et al., 2020; Wright et al., 2021).

Sectoral differences were also evident. Non-health and social care (non-HSC) keyworkers experienced greater increases in psychological distress than health and social care (HSC) workers, with female non-HSC keyworkers most affected (Benzeval et al., 2020; Witteveen & Velthorst, 2020). The relative lack of public recognition and inadequate institutional support may have contributed to these disparities (Kinman et al., 2020).

The second wave posed the greatest mental health strain across groups. However, pre-existing high distress levels among some groups, particularly HSC workers, may have resulted in ceiling effects that limited the extent of observable increases (Serrano-Ripoll et al., 2020).

Methodological limitations included missing data, smaller sample sizes, and the need to collapse sector categories, all of which reduced analytical precision and sector-specific insight (Benzeval et al., 2020).

Despite these constraints, the findings emphasised the need for targeted mental health support, equitable distribution of safety resources, and gender-sensitive family

policies. Future research should explore household-level dynamics and the long-term mental health effects of keywork during crises.

Chapter 3: Exploring the Short- and Medium-Term Association Between Maternity Leave Duration and Mothers' Subjective Well-being Upon Returning to Work: A Study from the UK

This chapter investigates how the duration of maternity leave influences mothers' subjective well-being (SWB) upon their return to paid work in the UK. While prior research has focused extensively on the effects of maternity leave on child outcomes and women's labour market participation, there is limited quantitative evidence on its psychological impact on mothers, especially within the British context. Drawing on nationally representative longitudinal data from Understanding Society (2009–2019), this chapter examines the association between maternity leave length and three cognitive aspects of well-being: life satisfaction, job satisfaction, and satisfaction with leisure time.

The chapter draws on competing theoretical frameworks to interpret the findings. Role Accumulation Theory and Stress-and-Coping Theory suggest that longer leave supports maternal adjustment and well-being by providing recovery time and fostering attachment (Marks, 1977; Lazarus & Folkman, 1984; Hyde et al., 1995). In contrast, Human Capital Theory and Signalling Theory argue that extended absence from the labour market can hinder career progression and reduce perceived commitment, which in turn may lower confidence and earnings potential (Becker, 1985; Spence, 1973). Social

Role Theory and Work–Family Conflict Theory further contend that long leave durations may reinforce traditional caregiving roles and heighten domestic strain by entrenching gendered divisions of labour (Eagly & Wood, 2012; Greenhaus & Beutell, 1985).

Using ordered logit regression models, the analysis evaluates both short- and medium-term outcomes. Maternity leave length is grouped into four categories (1–3, 4–6, 7–9, and 10–12 months), allowing for the examination of non-linear associations. Extensive control variables are included, along with auxiliary analyses that explore financial satisfaction and differences between first-time and experienced mothers (Chung & van der Horst, 2018; Sullivan & Lewis, 2001).

The findings reveal that in the short term, longer maternity leave—especially the maximum duration of 10–12 months—is associated with higher leisure time satisfaction, likely due to reduced time pressures and increased opportunities for rest and caregiving (Bakker & Demerouti, 2007). However, leave duration shows a U-shaped association with life satisfaction, peaking at moderate lengths (4–6 months), and is consistently linked to lower job satisfaction as leave extends. These patterns may reflect concerns about professional reintegration, identity strain, and weakened workplace attachment (Buzzanell & Liu, 2005; Aisenbrey, Evertsson & Grunow, 2009), with job satisfaction showing the most robust and persistent negative association with longer leave (Houston & Marks, 2003).

In the medium term, the positive association with leisure time satisfaction fades, while the negative associations with life and job satisfaction persist, albeit more weakly.

Financial satisfaction appears to mediate some of these medium-term effects, suggesting that stalled income growth and reduced financial security may play a role (Waldfogel, 1998; Gregg et al., 2005). First-time mothers experience these negative associations more acutely than experienced mothers, indicating greater vulnerability to work–life disruption during initial transitions to parenthood (McGovern et al., 2007).

While the analysis is limited by potential reverse causality, sample attrition, and missing data on key variables, such as access to paternity leave and flexible working, the study provides valuable insights into the complex relationship between leave duration and maternal well-being. It highlights the dual nature of extended maternity leave: while offering clear short-term benefits for rest and caregiving, prolonged leave may lead to declines in life and job satisfaction, particularly in the absence of adequate workplace support.

These findings have direct policy implications. To effectively support maternal well-being, it is not enough to simply guarantee access to maternity leave. Employers and policymakers must also work to enhance maternity pay, reduce the financial penalties of taking longer leave, improve structured reintegration into the workplace, and promote gender equity by expanding paternity leave and encouraging shared caregiving responsibilities.

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**Empirical Chapter 1: Individual and Cross-Partner
Transitions to Flexitime and Teleworking and Cognitive
Subjective Well-being**

Abstract

Previous theoretical and empirical research has supported the expansion of flexible working arrangements, linking them to improvements in individual and, particularly parental, subjective well-being. Building on this, the current study examines how transitions to flexitime and teleworking, either by parents themselves or their partners, influence parental well-being. The cross-partner analysis is a key contribution of my study, shedding light on the relational dynamics of work–family balance. Measures of cognitive subjective well-being include satisfaction with life overall, satisfaction with the amount of leisure time, and satisfaction with health. Ordered logit longitudinal models are estimated using Understanding Society data from 2009 to 2019. The findings show that flexible working affects mothers and fathers in distinct ways. For mothers, adopting flexitime enhances leisure time satisfaction, while teleworking is associated with higher health satisfaction likely due to reduction in commuting-related stress ((Tavares, 2017). On the other hand, fathers benefit from teleworking through greater leisure time satisfaction, but flexitime is linked to lower health satisfaction, likely due to overwork. Cross-partner effects are modest: fathers' use of flexitime is associated with higher leisure time satisfaction for mothers, likely by supporting a more equitable division of domestic labour (Langner, 2017), while mothers' teleworking slightly lowers fathers' life satisfaction, potentially due to shifts in household dynamics. These patterns underscore how gendered roles continue to shape the well-being impacts of flexible working.

Introduction

In the past decade, subjective well-being, relating to one's feelings and evaluations about one's life (Diener et al., 2018), has become a key indicator of individual and societal welfare¹ and thus an integral component of the British governmental policy agenda (House of Commons, 2018). A critical factor in undermining general and domain-specific subjective well-being is the work-life conflict resulting from individuals' inability to balance work and non-work domains. Given childcare responsibilities, parents, especially mothers, are most likely to experience conflict (Schober, 2013). Recognising these patterns, scholars and the British government have proposed adopting flexible working arrangements, which may grant work-life balance by facilitating individuals in simultaneously fulfilling work and non-work commitments (House of Commons, 2018). The current paper investigates the impact of transitioning to flexible working arrangements on the general and domain-specific subjective well-being of parents. It focuses on flexitime, which refers to an individual's ability to alter the timing of paid work, and teleworking, which encompasses working outside of the regular work premises, usually from home (Wheatley, 2017). These two arrangements mostly remain unexplored by prior research on the impact of flexible working on individuals' life trajectories. Moreover, the current study adds to the existing literature by evaluating whether, in heterosexual families, one partner's adoption of flexitime or teleworking is associated with changes to the other partner's subjective well-being

¹ According to the World Happiness Report 2015 of the United Nations, happier and more satisfied people are generally more likely to be healthy, productive and interactive, which benefits the society as a whole, i.e. higher economic productivity, stronger social insurance, greater social resilience to natural calamities, and greater mutual care (Helliwell et al., 2015)

Theoretical literature presents conflicting arguments about parents' transitions to flexitime and teleworking and their subjective well-being. On the one hand, the autonomy that workplace and work hour flexibility grant their users is linked with the ability to undertake time-inflexible domestic tasks, experience low levels of commuting-related stress, and partake in leisure activities, all of which positively influence subjective well-being (Song & Gao, 2019). In contrast, the use of these flexible working arrangements may reinforce women's caregiving role within the family and lead to an increase in their domestic burden. Furthermore, users of flexibility are also likely to experience discriminatory attitudes from employers (Chung & Booker, 2023), manifested in lower career advancement opportunities and pay rises (Chung, 2020).

Some prior studies show that flexibly working mothers are more likely to experience workplace discrimination than fathers, given assumed differences in the purpose behind men's and women's uptake of flexible working arrangements (Lott & Chung, 2016). Women usually use flexitime and teleworking to engage with childcare, while career advancement goals typically drive men's use (Chung & Horst, 2018). Thus, employers may view flexibly working women negatively while flexibly working men positively when measuring work commitment. However, an opposing perspective holds that their ability to conform to gender-role expectations and finish domestic tasks whilst sustaining employment through working flexibly improves mothers' self-perception of well-being. On the contrary, the work intensification which flexibly working fathers may experience can increase their stress levels, reduce their leisure time, and thus negatively impact their subjective well-being (Chandola et al., 2019). Overall, empirical findings on

the gendered impact of flexitime and teleworking on cognitive well-being are mixed, creating the need for further exploration, which this paper aims to fulfil.

In terms of cross-partner effects, previous studies ranging from over two decades have established that a husband's/male partner's employment patterns can impact his wife's/female partner's life trajectory and vice versa (Greenhaus et al., 1989; Parasuraman et al., 1992; Westman & Etzion, 1995; Hodges & Budig, 2010, Killewald, 2013, Lundberg & Rose, 2000; Lyonette & Crompton, 2014; Killewald & Garcia-Mangano, 2016; Bredtmann et al., 2017). To date, only one study engages with the cross-partner dimension of flexible work to analyse couples' wages in Germany (Langner, 2017). By acknowledging existing gaps, my research will study the outcome of one partner's move to flexitime and teleworking on the other partner's self-reported well-being.

Moreover, previous quantitative research on the association between flexitime and teleworking and subjective well-being has used cross-sectional analyses, which have allowed selection and omitted variable biases to impact findings. The current study aims to remove these biases by taking a longitudinal approach.

In this article, making mothers and fathers my unit of analysis, I aim to address all the above-mentioned empirical and methodological gaps surrounding transitions to flexitime and teleworking and their influence on subjective well-being. I will exploit British household data from Understanding Society to answer the following questions:

(1) Does mothers' and fathers' transition to flexitime or teleworking impact their subjective well-being levels?

(2) Does one partner's transition to flexitime or teleworking impact the subjective well-being levels of the other partner? Does this impact differ by gender?

I will, firstly, engage with the definitions of flexitime and teleworking, as well as the concept of subjective well-being and its underpinnings. Secondly, previous theoretical and empirical research lending insight into the relationship between working flexibly and subjective well-being will be discussed and then considered for the empirical design of the current study. Taking a longitudinal approach, this study will utilise fixed effects ordered logit models to answer the above research questions, thus accounting for selection bias to some extent.

Flexitime and Teleworking: Definitions and Growth Within the British Labour Market

The umbrella term, flexible working arrangements, is used to describe work arrangements "which suit an employee's needs" (U.K. Government Equalities Office, 2019). Broad definitions of workplace flexibility may encompass leave options (e.g. maternity/paternity) and flexibility in work contracts. Nevertheless, my paper restricts this definition to having the ability to alter the time, place and duration of paid work to fit individual needs. Thus, flexible working arrangements include part-time working,

working term-time only, job sharing, flexi-time, working a compressed week, working annualised and remote working (Wooden et al., 2009).

In the past, most research has engaged with the outcomes that part-time produces on women's/mothers' lives and careers because most British working women are likely to transition to part-time work at some point, especially after childbirth (Lyonette, 2015). While acknowledging the significance and the use of part-time work within the British labour market, this article diverges from previous studies by exploring two emerging flexible working arrangements: flexitime and teleworking. Flexitime is strictly defined as having the ability to change work timing (that is, to alternate the starting and ending times) and to fluctuate the number of hours worked per day or week (Chung & Horst, 2017). In a broader sense, flexitime can also include the following: annualised hours, where 'working hours' are not defined per day or week but calculated throughout the year, and compressed hours, where workers maintain their working hours, usually full-time but work fewer days. This article will conform to the strict definition of flexitime. Teleworking typically entails working outside regular work premises, typically from home (Wheatley, 2017).

In recognition of their countless benefits to individual and societal welfare, the access and use of flexible working arrangements have grown in the British labour market over the last decades. Accounting for these changes are legislative measures taken from 2002 when employees with young or disabled children were granted the right to request flexible working arrangements from their employers. In 2007, this right was extended to

carers of dependent adults and, in 2009, to parents of older children. The most recent flexibility legislation, in 2014, enabled all employees with 26 weeks or more of service to request flexible working arrangements (The Flexible Working Regulations, 2014). Employers are required to handle these requests reasonably. Further developments have also surfaced with the introduction of a bill in the British parliament in 2019, which propositions that flexible working should be made the default position for all employees. This bill is currently under review.

Following these governmental endeavours to extend access to flexible working arrangements to a broad population in the U.K., employers and organisations within the British labour market have also promoted workplace flexibility. The Eurobarometer survey from 2018 shows that 80% of respondents in the U.K. had access to flexible working arrangements (including part-time work), compared with the EU average of 67% (Eurobarometer, 2018). However, further measures need to be taken to increase access to flexibility, create friendly work environments for flexible workers, and encourage the use of all flexible working arrangements, especially flexitime and teleworking, among a broader population, especially parents.

Current usage of flexitime and teleworking may be filtered through many factors, including gender, occupational status, income, work sector and work status. While workplace support offered to parents is gender-neutral in its design, fathers' usage rates of flexible working arrangements generally tend to be different from those of mothers in the U.K. (Moran & Koslowski, 2018). Accounting for this pattern is the prevalence of

gender norms in British society, where fathers continue to resume the role of ‘instrumental economic providers’ while mothers are classified as expressive parents with childcare responsibilities (Gatrell et al., 2014). Within this context, work-life balance is a more significant concern for mothers (Hampson, 2018), and thus, they may be more likely to take flexitime and teleworking. However, opposing perspectives argue that fathers’ uptake of these arrangements is also significant, although their motivation often stems from a desire to increase work hours and achieve wage premiums (Grawitch et al., 2010).

Another determinant of parents’ use of flexitime and teleworking is their access to these arrangements, often contingent upon occupational status (Wheatley, 2017). Higher-status jobs are more likely to offer employees autonomy over their work routines because employers want to evade the risk of losing managerial and professional workers who want to combine work and family demands (Langner, 2017). Thus, the users of flexitime and teleworking are mostly working higher or middle-tier jobs than lower-tier jobs.

Furthermore, the use of flexitime and teleworking is also mediated by the work sector. The public sector in the U.K. is generally more motivated by ideals such as work-life balance and employee well-being. Thus, flexibility provisions within this sector are high, and attitudes towards flexible workers tend to be less discriminatory than those exhibited by private sectors. Thus, parents working in public sector organisations are more likely to adopt flexitime and teleworking.

Subjective Well-being: Concept and Measurement

Subjective well-being refers to people's cognitive and affective appraisals and evaluations of their lives (Diener et al., 2018). It grew in significance through scholarly acknowledgement that measures of economic resources were insufficient indicators of individual and societal welfare (Stiglitz et al., 2009). Self-reported well-being had to be considered (Steptoe et al., 2014), and thus, two elements of subjective well-being were developed that captured different aspects of life: cognitive and affective components (Bücker et al., 2018). The cognitive components consist of life satisfaction and satisfaction with other life domains like job, health, marriage, and leisure time (Diener et al., 2013).

On the other hand, the affective component comprises two sub-components: positive effect, which relates to positive emotions like happiness and pride, and negative effect, which relates to negative emotions like anger, sorrow, and worry. Responses from the affective component are primarily derived from the emotional state in the past week or month. Usually, these measures utilise a response scale either ranging from 'completely dissatisfied' to "completely satisfied" (bipolar) or from 'not at all satisfied' to 'completely satisfied'. Using 11-point (0 to 10) response scales has become common, but some studies use shorter scales.

From a policy perspective, it is argued that the cognitive component is a better measure of subjective well-being as it is more stable over time (Diener et al., 2018). The

current research focuses on the cognitive component; it engages with overall satisfaction with life and domain-specific satisfaction relating to health and a given amount of leisure time.

Flexible Working Arrangements and Subjective Well-being

Among Parents

Individual Transitions

Theoretical models exploring the relationship between flexible working arrangements, such as flexitime and teleworking, and subjective well-being centre on the concept of autonomy, defined as employees' discretion over when and where they work (Glavin & Schieman, 2012). The demand-control-support (DCS) model (Karasek & Theorell, 1992) posits that individuals have finite resources, such as time, attention, and energy, that must be allocated across competing demands from work and home. By increasing autonomy, flexitime and teleworking can help employees balance paid labour with domestic responsibilities, supporting work-life balance (Laurijssen & Glorieux, 2013). These dynamics are especially pertinent for parents, particularly mothers, who continue to bear a disproportionate share of childcare and household labour (Hokke et al., 2020).

Building on the DCS framework, flexibility enactment theory (Kossek et al., 2005) and work-family border theory (Clark, 2000) further stress the importance of

autonomy in managing the boundaries between work and home. These theories suggest that employees' ability to control where and when they work critically shapes how they distribute their time and energy across both domains (Lin et al., 2015). This is especially relevant in contexts like Britain, where access to affordable childcare remains limited, increasing the value of flexible work arrangements (Grönlund, 2007).

Recent scholarship emphasises gender as a key mediator in the relationship between flexible working and subjective well-being (Gregory et al., 2013). In Britain and elsewhere, traditional gender norms persist: fathers are more likely to prioritise paid work, while mothers continue to take primary responsibility for domestic and caregiving tasks (Minnotte et al., 2016). As a result, the motivations and outcomes of flexible working often diverge by gender. For mothers, flexitime and teleworking may be used to better juggle work and caregiving responsibilities (Grönlund & Öun, 2018), while for fathers, these arrangements may facilitate longer working hours, career progression, and income gains (Glass & Noonan, 2016). Although flexibility can allow mothers to remain in full-time employment, it may also increase the total volume of their responsibilities. For fathers, increased work effort may heighten stress and reduce involvement in the home, potentially leading to burnout (Lott & Chung, 2016).

Another perspective draws attention to the stigma surrounding flexible working for women. Those who utilise flexitime or teleworking are sometimes viewed as less committed by colleagues and employers, facing reduced career opportunities and increased workplace discrimination (Williams et al., 2013). In contrast, men who work

flexibly are less likely to encounter such stigma, as their use of flexibility is often interpreted as career-driven rather than care-related (Kasperska et al., 2023). The flexibility stigma can have negative implications for both work and personal spheres, like well-being (Hampson, 2018). Moreover, flexible work may entrench traditional gender divisions, especially in dual-earner households, by reinforcing the notion that caregiving and housework are primarily women's responsibilities.

Importantly, the effects of flexitime and teleworking are not uniform. While both arrangements offer schedule control, their consequences for work-life boundaries and well-being may differ significantly. Flexitime tends to allow clearer delineation between professional and domestic roles, while teleworking may blur these boundaries, increasing the risk of role conflict, especially for women (Chung & Booker, 2023; Kim, 2020).

Flexitime

Flexitime allows mothers to adjust their work schedules to accommodate time-sensitive domestic responsibilities, such as mealtimes and school pick-ups (Grönlund, 2018). The conventional '9 to 5' workday often increases stress among mothers, pushing them to consider reducing their working hours or even leaving the labour market. Flexitime offers a sustainable work-life balance, enabling women to maintain full-time work commitments while managing caregiving responsibilities (Chung & van der Lippe, 2020). By providing greater control over their working hours, flexitime can reduce work-related stress and time pressure, allowing women to participate more fully in both

professional and domestic spheres. In turn, this increased autonomy and reduced strain may contribute positively to women's subjective well-being by alleviating conflicts between paid and unpaid labour.

Nonetheless, some scholars highlight that such arrangements may inadvertently reinforce traditional gender roles, further grounding the expectation that mothers bear the lion's share of household and childcare responsibilities (Fodor et al., 2022). Moreover, workplace stigma surrounding flexitime remains a significant barrier, particularly for women. Women who take advantage of flexible working arrangements often face discrimination and limited career progression, as they may be perceived as less committed to their jobs (Williams et al., 2013). This perception can lead to dissatisfaction in both work and personal domains (Hampson, 2018).

For fathers, Beckmann et al.'s (2017) modified moral-hazard model suggests that flexitime arrangements may lead employees to increase their work effort. Many men use this flexibility to work more intensively, often pursuing career advancement and income premiums (Glass & Noonan, 2016). While this additional effort may offer financial benefits which can enhance well-being, it can also contribute to stress and anxiety by intensifying work-life conflict (Lott & Chung, 2016). Alternatively, if fathers adjust their work schedules to accommodate domestic responsibilities, they may encounter discriminatory attitudes from employers and colleagues due to gendered workplace expectations, which can take a toll on their mental health (Davies & Frink, 2014).

Theoretical discussions on the association between flexitime and fathers' well-being are mixed.

Another dimension to consider is the variation across different measures of subjective well-being. This study addresses three measures: overall life satisfaction, satisfaction with leisure time, and health satisfaction. Regarding leisure time satisfaction, flexitime may allow employees to restructure their working hours, enabling them to dedicate time to leisure activities or personal interests. From the perspective of the Resource-Based Theory of Work-Life Balance (Hobfoll, 1989), flexitime can facilitate the replenishment of psychological resources through increased leisure time, thus enhancing satisfaction in this domain. However, gender role expectations and unequal domestic division of labour may play a role in limiting how much leisure time mothers, compared to fathers, can reclaim from using flexitime arrangements (Grönlund & Öun, 2018).

For health satisfaction, flexitime's role is linked to its potential to reduce work-related stress and physical fatigue by allowing employees to better align their work schedules with their physiological needs and caregiving responsibilities. The Effort-Recovery Model (Meijman & Mulder, 1998) explains that sufficient opportunities for recovery, such as taking breaks or adjusting work hours to reduce commuting stress, can improve health outcomes.

For overall life satisfaction, the effect of flexitime is shaped by how well it aligns with broader life goals and values. The Self-Determination Theory (Deci & Ryan, 1985) posits that fulfilling intrinsic needs for autonomy, competence, and relatedness enhances overall life satisfaction. While flexitime satisfies the need for autonomy, its broader impact depends on whether it also supports relatedness (e.g., quality family time) and competence (e.g., professional achievement). For mothers, the dual burden of professional and domestic responsibilities may limit the perceived life satisfaction benefits of flexitime, even if it offers advantages in specific domains like health or leisure (Kim et al., 2019). Fathers, on the other hand, are more likely to experience benefits to overall life satisfaction as flexitime may allow them to meet professional goals without substantial domestic role expectations (Wheatley, 2017).

Some empirical research shows that overall, flexitime benefits users. Hokke et al. (2020) report that flexitime reduces work-related fatigue and burnout, thereby improving both mental and physical well-being.

However, the benefits of flexible working are not evenly distributed, as they are shaped by gendered norms. For instance, Kim et al. (2019), using data from the US General Social Survey, find that while men tend to benefit from schedule control, women are more likely to experience increased work-family conflict. Similarly, Yucel and Fan (2022) demonstrate that women's well-being gains from flexitime depend on both occupational class and their partner's gender ideology. In addition, Lu et al. (2023), drawing on British panel data from 2010 to 2021, show that individuals from higher

occupational classes, particularly men, derive significantly greater mental health benefits from high work autonomy compared to those from lower occupational classes and women.

Analysing specific well-being indicators, Wheatley (2017) notes that while flexitime enhances life and leisure time satisfaction for men, it can be associated with lower life satisfaction among women, possibly due to heightened role expectations. Conversely, Li and Wang (2021), using UK Household Longitudinal Study (UKHLS) data, find that flexitime use is positively associated with leisure time satisfaction among women. Furthermore, Wang et al. (2022), using data from 3677 British adults found that control over schedule is associated with lower or healthier allostatic load in women.

Based on these findings, I hypothesise:

H1: Fathers' transition to flexitime is positively associated with their health satisfaction, leisure time satisfaction, and overall life satisfaction.

H2: Mothers' transition to flexitime is positively associated with their health satisfaction and leisure time satisfaction, but negatively associated with their overall life satisfaction

Teleworking

Teleworking is often associated with improved well-being due to reduced commuting time, greater schedule flexibility, and increased autonomy. It allows individuals to manage their work schedules more efficiently, facilitating better work-life balance and greater engagement in personal, social, and leisure activities (Tavares, 2017). However, its benefits are not universally experienced. While some scholars highlight its potential to reduce stress and enhance well-being (Tietze & Musson, 2002), others argue that it can blur the boundaries between paid and unpaid work, particularly for women, leading to negative well-being outcomes.

For mothers, teleworking presents both opportunities and challenges. While it offers greater flexibility to balance work and family responsibilities, it can also exacerbate role overload. The expectation that women will perform unpaid domestic labour during working hours often leads to increased stress and fatigue, counteracting the benefits of flexible work arrangements (Lu & Zhang, 2023). Fathers, by contrast, are more likely to benefit from teleworking, as they face fewer expectations to take on additional caregiving responsibilities. They are less likely to experience work-family conflict and can use the time saved from commuting for leisure, improving their overall well-being (Glass & Noonan, 2016; Sullivan & Lewis, 2001). As a result, the well-being gains associated with teleworking are not equally distributed, with men often experiencing greater benefits while women, particularly those in caregiving roles, are more likely to struggle with increased demands at home (Craig & Churchill, 2021).

Another dimension to consider is the variation across different measures of subjective well-being.

The extent to which teleworkers experience increased leisure time satisfaction depends on gender and household dynamics. Fathers tend to benefit more from work-life integration, as they are less likely to be interrupted during work hours and often have dedicated home offices (Pabilonia & Vernon, 2021). This allows them to invest time saved from commuting into leisure activities, enhancing their well-being. In contrast, women often experience greater role conflict, as teleworking increases their exposure to unpaid domestic labour and caregiving responsibilities. Leisure time is frequently interrupted by household duties, leading to lower leisure time satisfaction (Wheatley, 2017).

While teleworking can support better health outcomes by reducing commuting stress, enhancing autonomy, and facilitating greater opportunities for self-care (Xue et al., 2023), these benefits are not equally distributed. Men are generally more successful at maintaining work-life boundaries while working from home, allowing them to capitalise on teleworking's health-related advantages such as improved sleep, more time for physical activity, and reduced travel-related fatigue (Chung & van der Lippe, 2020). In contrast, women, particularly mothers, often face heightened expectations to perform unpaid domestic labour during telework hours. This dual burden reduces their ability to engage in restorative activities and exacerbates stress and fatigue, ultimately diminishing

the health satisfaction gains associated with teleworking (Chung & van der Lippe, 2020; Eurofound, 2020).

In terms of overall life satisfaction, the same gendered dynamics persist. For men, teleworking is consistently linked to greater life satisfaction, as it provides more autonomy over work schedules without significantly increasing household responsibilities (Chung & van der Lippe, 2020). In contrast, for women, particularly mothers, teleworking can create a “double burden,” increasing unpaid domestic labour while also exposing them to heightened workplace expectations of constant availability (Craig & Churchill, 2021). The resulting role overload can lead to a decline in life satisfaction (Chung et al., 2021). Nevertheless, in households where caregiving responsibilities are more evenly distributed and where workplaces encourage healthy work-life boundaries, teleworking can improve women’s life satisfaction by reducing commuting stress and providing more control over work schedules (Moen et al., 2013).

Empirical studies indicate that teleworking is associated with increased schedule flexibility and autonomy, which can enhance subjective well-being. Hilbrecht et al. (2014), analysing data from the 2010 Canadian General Social Survey, found that longer commuting times correlate with lower overall life satisfaction and heightened time pressure, suggesting that eliminating commutes through teleworking could improve well-being.

Exploring gendered dynamics, however, Song and Gao (2020) found that teleworking men experienced higher levels of enjoyment at work and better overall well-being, whereas this effect was not evident for women. Furthermore, Wheatley (2017) reported that women are more likely to experience role conflict due to teleworking, leading to lower leisure time satisfaction compared to men. In terms of health satisfaction, Giménez-Nadal et al. (2020), using the American Time Use Survey, observed that male teleworkers reported significantly lower levels of stress, pain, and tiredness compared to their commuting counterparts, a pattern not observed among female teleworkers.

Based on these findings, I hypothesise:

H3: Fathers' transition to telework is positively associated with their health satisfaction, leisure time satisfaction, and overall life satisfaction

H4: Mothers' transition to telework is negatively associated with their health satisfaction, leisure time satisfaction, and overall life satisfaction

Cross-partner Transitions

Within heterosexual, dual-earner households, partners' work patterns can influence each other's lives (Greenhaus et al., 1989; Parasuraman et al., 1992; Westman

& Etzion, 1995; Hodges & Budig, 2010; Killewald, 2013; Lundberg & Rose, 2000; Lyonette & Crompton, 2014; Killewald & Garcia-Manglano, 2015; Bredtmann et al., 2017). Despite these conclusions, prior studies have not investigated whether husbands' work flexibility creates an impact on wives' well-being and self-perfection and vice versa. Thus, I aspire to explicate the effect of cross-partner use of flexitime and teleworking.

Insight from the previous sections of this paper, which established the mediating role of gender in the relationship between individuals' use of flexitime and teleworking and their well-being outcomes, holds in the cross-partner context as well. As female partners' flexibility may allow them to comply with gender role expectations and bear most of the household responsibilities, male partners may see this as an opportunity to decrease their participation in the latter. Thus, men may experience a reduction in their levels and more time for leisure activities, which may reflect on their general and domain-specific well-being levels (Killewald, 2013). Furthermore, men can also increase the time they spend in paid employment, for which they are through career mobility opportunities and wage premiums. As a result, fathers may secure greater bargaining power within the household, delegating more time to themselves to distress (Maume, 2015).

On the other hand, in dual-earner households, fathers' uptake of flexible working arrangements can be driven by advancing career goals through working more intensely, in which case, they are likely to decrease their role in domestic responsibilities,

increasing mothers' burden. In some cases, mothers might even need to decrease the time they spend in paid employment to make time for household tasks. Unfairness in the domestic division of labour, combined with mothers' awareness that they shoulder a disproportionate share of childrearing responsibilities and experience unmet expectations regarding fathers' involvement, can lead to heightened stress, anxiety, and frustration. The additional burden of compensating for caregiving gaps further intensifies their mental and emotional strain (Milkie et al., 2002). Moreover, shifts in housework dynamics can negatively impact mothers' career progression and limit their access to leisure time (Cha, 2010).

Cross-partner effects of flexibility can also differ across flexitime and teleworking (Chung & Booker, 2023). For instance, in households where fathers use flexitime, they can delegate time-inflexible domestic tasks to themselves, thus lending support to mothers (Langner, 2017). In such a case, the division of labour can be more egalitarian, from which mothers' careers and well-being can benefit. On the contrary, most previous research suggests that fathers' use of teleworking can be detrimental to mothers. Despite being at home, fathers are often unlikely to increase their involvement in domestic activities due to entrenched gender role expectations, which can leave mothers feeling frustrated and stressed (Shockley et al., 2021; Craig & Churchill, 2021). Building on this, fathers may use the time saved from commuting for leisure activities rather than redistributing household responsibilities more equally (Del Boca et al., 2020; Lyttelton et al., 2021).

Thus, the current study engages with the following hypotheses:

H5a: Mothers' transition to flexitime is positively associated with fathers' leisure time, health, and life satisfaction.

H5b: Fathers' transition to flexitime is positively associated with mothers' leisure time, health, and life satisfaction.

H6a: Mothers' transition to teleworking is positively associated with fathers' leisure time, health, and life satisfaction.

H6b: Fathers' transition to teleworking is negatively associated with mothers' leisure time, health, and life satisfaction.

Data and Method

Data and sample

This article uses data from Understanding Society, an ongoing panel study started in 2009, which interviews around 40,000 British households annually to explore economic and social changes in Britain at societal, household, and individual levels. The study is representative of the U.K. population as it covers people of all ages and socio-economic backgrounds and contains information on the employment patterns of

individuals and married/cohabitating partners, which is necessary for my analysis. Data on individuals' availability and use of flexible working arrangements are present in alternate waves (2, 4, 6, 8, 10) of Understanding Society. The longitudinal nature of the study allows researchers to explore within-individual changes over the life course, which lies at the centre of my empirical framework. Lastly, the study's individual and household-level demographic attributes serve as key control variables for the empirical analyses in this article.

My analytical sample comprises parents who stay in paid employment throughout the observation period; those who took parental leave are not included. Moreover, only those respondents who work for more than one hour a week are included, while self-employed individuals are omitted. Respondents' age is restricted to 18-55, which is working age in the U.K. A sub-sample is drawn for cross-partner analyses, which comprises only heterosexual married/cohabitating mothers and fathers whose partners' data is also present in the dataset. Furthermore, the sub-sample is restricted to only those respondents whose partners also stay in paid employment throughout the observation period.

Dependent Variables

In the Understanding Society dataset, variables measure overall and domain-specific cognitive well-being. To strengthen my findings, my analysis engages with both types of variables. Overall cognitive well-being is measured by the following question

about life satisfaction: “How dissatisfied or satisfied are you with your life overall?”.

Similarly, domain-specific dimensions are measured by the following questions: “How dissatisfied or satisfied are you with your health?” and “How dissatisfied or satisfied are you with your amount of leisure time?”. Response categories for all three questions range from 1-7, with 1 denoting ‘Completely dissatisfied’, 2 ‘Mostly dissatisfied’, 3 ‘Somewhat dissatisfied’, 4 ‘Neither satisfied nor dissatisfied’, 5 ‘Somewhat satisfied’, 6 ‘Mostly satisfied’ and 7 ‘Completely satisfied’.

As very few respondents were present in the first two response categories, I merged categories 1 and 2 and 6 and 7, creating a five-category variable to denote life satisfaction. The new response categories were: 1 ‘Very dissatisfied’, 2 ‘Somewhat dissatisfied’, 3 ‘Neither satisfied nor dissatisfied’, 4 ‘Somewhat satisfied’, 5 ‘Very satisfied’.

Independent Variables

The two main independent variables in this study are flexitime and teleworking. As mentioned above, flexitime encompasses three flexible working arrangements, flexitime, working a compressed week, and working annualised hours. In the Understanding Society dataset, individual binary variables represent the three arrangements. Using these variables, I create a new dummy variable called ‘flexitime’ which takes the value ‘1’ when individuals use one, two or all three of the arrangements above, and the value ‘0’ if they do not use any of them². Chung & Horst’s (2017) study

² Differences might be observed depending on the number of arrangements used under the flexitime umbrella, however, analysing that is beyond the scope of this research.

inspired this operationalisation approach, which used cross-sectional methods to explore the relationship between flexitime and women's likelihood to stay in the labour market post-childbirth.

The second independent variable in this article, teleworking, is operationalised in the Understanding Society dataset by a binary variable that takes the value '1' if the respondent uses teleworking and '0' if they do not. I retain this operationalisation in my models.

Control variables

To strengthen the validity of my analysis, I also include a set of control variables. Use of other flexible working arrangements, like part-time work and term-time work, are included as a binary variable in my model, taking the value '1' in case the respondent does avail them and the value '0' otherwise. Other binary control variables include a change in current employment, which takes the value '1' if the respondent has changed their employer since the last wave and '0' if they have not. I also control for long-term illness status with a variable which equals '0' if the respondent has no long-term illness and '1' if they do. Similarly, whether an individual works for the private or the public sector is also controlled. The categorical control variables in my analysis are the number of children, marital status, number of children in the household across different age groups, and sector of employment.

As my unit of analysis is parents, the reference category for the variable ‘number of children’ is ‘having one child’, with the other two categories being ‘having two children’ and ‘having three or more children’. The categories for marital status are ‘never married/single’ (reference category: denoted by 0), ‘married/cohabitating’ (denoted by 1), and ‘divorced/widowed/separated’ (denoted by 2). The variable sector of employment has three categories: ‘routine’ as the reference category, ‘intermediate’ denoted by ‘1’, and ‘managerial or professional’ denoted by 2. Lastly, my models also control for two continuous variables: age, household income, and the number of work hours.

In the cross-partner models, I also control for some spousal/partner characteristics, including spousal use of other flexible working arrangements and spousal employment sector and health status. Furthermore, marital status is not controlled for in the cross-partner model as the sample selected only contains heterosexual married/cohabiting couples.

Adding the variables mentioned above to my analyses will improve the robustness of my findings by controlling for confounding factors in the relationship between the use of flexitime and teleworking and life satisfaction (Allen et al., 2013).

Analytical Strategy

Using a balanced panel, my empirical analysis applies fixed-effects ordered logit models to estimate the impact that their own or their spouse’s/partner’s transition to flexitime or teleworking has on mothers’ and fathers’ well-being (Berge & Houle, 2016).

Each individual serves as their own control, and thus, confounding effects arising from unobserved time-constant variables relating to both the independent and dependent variables, such as religiosity, lifestyle preferences and family values, are removed (Zhou & Kan, 2018). Using this approach lowers the vulnerability of my models to omitted-variable bias and selection bias, creating great confidence in the robustness of my conclusions (Zhou & Kan, 2018).

In the first part of my analysis, I evaluate the odds of reporting higher subjective well-being levels among mothers and fathers following their transition to using flexitime and teleworking, whilst the second part engages with the cross-partner effects of these transitions. In both cases, relevant time-varying variables are controlled for, including income, use of other flexible working arrangements, changes in employment, and the number of children.

Additionally, in cross-partner models, the spouse's/partner's characteristics are also controlled for. The following equation defines both models:

$$\log\left(\frac{Y_{ijt}}{1 - Y_{ijt}}\right) = \mu_{it} + \beta Flexwork_{it} + \gamma Z_{it} + \theta\vartheta_i + \varepsilon_i$$

where Y_{ijt} is the cumulative probability of being in a cognitive, subjective well-being category j or higher for individual i at time t . $Flexwork_{it}$ is the vector of my time-varying predictor, which in this case is either the individual's or their spouse's/partner's uptake of flexitime/ teleworking. Z_{it} is the vector of time-varying control variables. ϑ_i is

a vector of time-invariant predictors. ε_i is the combined effects of all time-constant unobservable factors, with a fixed value for each respondent.

Additional Analyses

To further investigate spousal dynamics, I examine changes in subjective well-being indicators for mothers and fathers across three distinct scenarios: when both partners adopt identical flexible working arrangements, when partners use different flexible working arrangements, and when only one partner adopts flexitime or teleworking and the other doesn't use either arrangement. Detailed results from these analyses can be found in the appendix (Tables A3-A6).

Additionally, I utilise cross-sectional models to explore correlations between individual and cross-partner use of flexitime and teleworking and cognitive aspects of subjective well-being. These models provide preliminary insights into the strength and directionality of the associations between flexible working practices and well-being. See Tables A7 and A8 in the attached appendix.

Finally, to assess the robustness of my findings, I employ linear fixed-effects models (see Appendix Tables A9 and A10). The estimates from these models serve to validate the main empirical findings discussed in this paper.

Descriptive Statistics

Table 1 presents the weighted summary statistics for key variables in the present study. My total sample in Wave 2 (2010-11) is 4,225, reducing to 2,474 in Wave 10 (2018- 19). Overall usage of flexitime is seen to increase slightly between Waves 4 to 6. However, the proportion of women who use flexitime remains relatively stable across the waves, while men's usage increases between waves 8 and 10. The overall usage of teleworking also grows across the waves (from 9% in Wave 2 to 10% in Wave 10). Similar patterns are seen across the sample for men, for which the proportion of usage increases from 14% to 19% across waves, and the sample for women, for which the proportion of usage grows from 6% to 12%. These developments are likely to be driven by a growth in access to flexible working arrangements and encouraging work environments which promote and sustain flexibility (Wheatley, 2017).

| | | | | | | | | | | | | | | | |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|-----|------|------|-----|------|
| Neither satisfied or dissatisfied | | | 12% | 14% | 14% | 14% | 12% | 12% | 14% | 14% | 14% | 14% | 13% | 12% | 13% |
| Somewhat satisfied | 25% | 25% | 25% | 24% | 24% | 24% | 28% | 28% | 27% | 27% | 26% | 27% | 27% | 28% | 27% |
| Very satisfied | 24% | 22% | 25% | 23% | 23% | 25% | 25% | 24% | 25% | 26% | 26% | 27% | 26% | 25% | 26% |
| Satisfaction with Health | | | | | | | | | | | | | | | |
| Very dissatisfied | 7% | 5% | 7% | 17% | 15% | 18% | 11% | 10% | 12% | 6% | 6% | 6% | 6% | 7% | 6% |
| Somewhat dissatisfied | 14% | 5% | 14% | 12% | 13% | 12% | 13% | 13% | 12% | 13% | 14% | 12% | 15% | 14% | 15% |
| Neither satisfied or dissatisfied | 7% | 8% | 7% | 7% | 7% | 8% | 7% | 7% | 7% | 8% | 7% | 8% | 8% | 8% | 8% |
| Somewhat satisfied | 14% | 14% | 14% | 13% | 13% | 13% | 13% | 14% | 13% | 17% | 16% | 17% | 17% | 18% | 17% |
| Very satisfied | 58% | 58% | 58% | 51% | 52% | 49% | 56% | 56% | 56% | 56% | 56% | 57% | 54% | 53% | 54% |
| Number of Observations | 4225 | 1513 | 2712 | 4354 | 1642 | 2712 | 3567 | 1391 | 1391 | 2176 | 970 | 1206 | 2474 | 973 | 1501 |

Note: For a more detailed descriptive statistics table, refer to Appendix Tables A-1 and A-2

Table 1 also shows that women's usage of other flexible working arrangements like part-time work stays consistently high across all waves in the Understanding Society dataset, while men's usage of these arrangements remains consistently low. These findings corroborate previous empirical evidence, which shows that among flexible working arrangements, women are most likely to avail themselves of the option of working part-time (Wheatley, 2017), often due to structural and normative expectations.

For life satisfaction levels, the highest proportion of individuals are concentrated in the 'very satisfied' category, as seen in Table 2. Nevertheless, there is a slight decline in the proportion over the waves, from 59% to 56%. A similar decline is also seen across the 'very dissatisfied' category, which shifts from 5% to 3% between waves 2 to 10. Overall, the proportion of individuals across all life satisfaction categories stays stable over time.

Comparably, for the categories of satisfaction with the amount of leisure time and health, stability in the proportion of individuals also holds across all five waves in the dataset. In the 'very dissatisfied' category for satisfaction with the amount of leisure time, there is a meagre decline from 13% to 11% between 2010-11 and 2018-19. On the other hand, during this time frame, the proportion of people in the 'very satisfied' category grows from 24% to 26%. For satisfaction with health, the most noticeable changes are seen for the category 'very satisfied' in which the proportion of individuals declines from 58% in 2010-11 to 54% in 2018-19.

Generally, the proportion of individuals in all categories of cognitive subjective well-being measures in my dataset is stable over time, experiencing only minor variations.

Results

Individual Associations

Table 2 summarises the results from my fixed effects ordered logit models, which studied the impact of parents' transition to flexitime or teleworking on their well-being levels. Model 1 shows that their take-up of flexitime or teleworking does impact parents' life satisfaction levels. However, some domain-specific satisfaction levels are likely to benefit from the switch to flexitime; parents' odds of reporting high levels of satisfaction with leisure time increase by approximately 19%. Moreover, the take-up of teleworking can lead to an increase in the odds of high levels of health satisfaction by a factor of approximately 1.25.

Among fathers in the subsample, transitioning to flexitime or teleworking is not significantly associated with overall life satisfaction. However, teleworking is associated with approximately 32% higher odds of fathers reporting satisfaction with their leisure time (OR=1.319), providing partial support for H3. Conversely, the use of flexitime is associated with a decrease in health satisfaction by a factor of 0.81, contradicting the positive association hypothesised in H1. Overall, the findings show differences in

associations with general and domain-specific well-being outcomes, which will be discussed further later.

Table 2

Parental transition to flexitime and teleworking and their subjective well-being levels (Odds Ratios)

| Variables | All | | | Fathers | | | Mothers | | |
|---|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Flexitime | 1.066 (0.117) | 1.188* (0.108) | 0.927 (0.093) | 0.950 (0.171) | 1.145 (0.174) | 0.809+ (0.129) | 1.160 (0.160) | 1.217+ (0.137) | 1.008 (0.130) |
| Teleworking | 1.080 (0.143) | 1.419 (0.117) | 1.247+ (0.156) | 0.962 (0.193) | 1.319+ (0.213) | 1.133 (0.209) | 1.201 (0.216) | 0.901 (0.132) | 1.381* (0.239) |
| Other Flexible Working Arrangements | 0.928 (0.064) | 1.072 (0.062) | 0.956 (0.064) | 0.963 (0.123) | 0.992 (0.105) | 0.955 (0.116) | 0.908 (0.076) | 1.112 (0.077) | 0.951 (0.067) |
| Marital Status (reference category: single/never married) | | | | | | | | | |
| Married/Cohabiting | 1.448 (0.317) | 1.287 (0.229) | 0.956 (0.192) | 8.759* (9.562) | 2.296 (1.839) | 0.585 (0.285) | 1.361 (0.301) | 1.377 (0.233) | 0.985 (0.209) |
| Divorced/Separated/Widowed | 1.092 (0.265) | 1.083 (0.225) | 1.064 (0.248) | 3.497 (4.419) | 3.785 (3.794) | 1.183 (0.971) | 1.057 (0.261) | 1.018 (0.216) | 1.029 (0.249) |
| Number of Children (reference category: one child) | | | | | | | | | |
| Two | 1.454* (0.225) | 0.966 (0.120) | 1.127 (0.161) | 1.563 (0.382) | 1.094 (0.206) | 0.863 (0.187) | 1.368 (0.275) | 0.892 (0.146) | 1.333 (0.255) |
| More than two | 1.794 (0.540) | 0.861 (0.211) | 1.046 (0.290) | 1.632 (0.767) | 0.773 (0.282) | 0.535 (0.222) | 1.823 (0.714) | 0.893 (0.292) | 1.608 (0.595) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | | | | |
| One | 0.778 (0.120) | 0.705** (0.085) | 1.014 (0.139) | 0.884 (0.204) | 0.660* (0.119) | 1.250 (0.259) | 0.711 (0.147) | 0.732 (0.123) | 0.879 (0.162) |
| More than one | 0.687 (0.216) | 0.482** (0.125) | 1.252 (0.357) | 0.694 (0.332) | 0.533 (0.199) | 2.017 (0.860) | 0.708 (0.299) | 0.455* (0.165) | 0.916 (0.350) |
| Number of children aged 3-4 in household (reference category: none) | | | | | | | | | |
| One | 0.667** (0.098) | 0.735** (0.085) | 0.931 (0.125) | 0.748 (0.166) | 0.781 (0.134) | 1.268 (0.253) | 0.617* (0.121) | 0.713* (0.112) | 0.761 (0.139) |
| More than one | 0.481* (0.162) | 0.565 (0.165) | 0.966 (0.309) | 0.606 (0.288) | 0.733 (0.330) | 1.622 (0.744) | 0.396 (0.189) | 0.497 (0.193) | 0.693 (0.313) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | | | | |
| One | 0.714* (0.105) | 0.876 (0.102) | 1.114 (0.150) | 0.685 (0.158) | 0.845 (0.150) | 1.327 (0.270) | 0.741 (0.141) | 0.905 (0.141) | 0.970 (0.175) |
| More than one | 0.558* (0.159) | 0.885 (0.199) | 1.020 (0.268) | 0.532 (0.234) | 0.930 (0.311) | 1.548 (0.610) | 0.587 (0.220) | 0.872 (0.265) | 0.756 (0.266) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | | | | |
| One | 0.770 (0.115) | 1.004 (0.120) | 1.012 (0.141) | 0.699 (0.165) | 0.951 (0.177) | 1.200 (0.260) | 0.816 (0.159) | 1.052 (0.166) | 0.885 (0.163) |

| | | | | | | | | | |
|---|---------------------|---------------------|---------------------|-------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| More than one | 0.667 (0.188) | 1.058 (0.240) | 1.047 (0.277) | 0.550 (0.246) | 1.033 (0.353) | 1.473 (0.581) | 0.759 (0.279) | 1.109 (0.336) | 0.794 (0.284) |
| Employment Sector (reference category: semi routine or routine) | | | | | | | | | |
| Intermediate | 1.084 (0.174) | 0.970 (0.124) | 1.216 (0.176) | 1.610 (0.524) | 0.925 (0.234) | 2.087** (0.567) | 0.943 (0.176) | 0.990 (0.145) | 1.032 (0.177) |
| Management & Professional | 1.016 (0.148) | 0.879 (0.103) | 0.999 (0.132) | 1.279 (0.353) | 0.884 (0.188) | 2.032** (0.482) | 0.928 (0.161) | 0.878 (0.124) | 0.761 (0.124) |
| Private Sector | 0.914 (0.092) | 0.916 (0.079) | 0.918 (0.085) | 0.898 (0.168) | 0.824 (0.135) | 0.797 (0.137) | 0.936 (0.111) | 0.946 (0.096) | 0.979 (0.107) |
| Long standing illness | 0.767*** (0.056) | 0.804*** (0.051) | 0.529*** (0.036) | 0.891 (0.108) | 0.893 (0.098) | 0.599*** (0.070) | 0.711*** (0.065) | 0.761*** (0.059) | 0.497*** (0.041) |
| Job Change | 1.187* (0.099) | 1.143* (0.077) | 1.233** (0.095) | 1.357* (0.193) | 1.247* (0.133) | 1.270 (0.161) | 1.092 (0.113) | 1.096 (0.095) | 1.211* (0.118) |
| Age | 0.943*** (0.012) | 1.009 (0.011) | 1.001 (0.012) | 0.954* (0.022) | 1.011 (0.019) | 1.011 (0.020) | 0.937*** (0.015) | 1.007 (0.013) | 0.997 (0.014) |
| Hours spent in paid work | 1.004 (0.005) | 0.982*** (0.004) | 1.008+ (0.005) | 1.008 (0.010) | 0.975** (0.007) | 1.003 (0.009) | 1.001 (0.006) | 0.985** (0.005) | 1.010* (0.006) |
| Log Household Income | 1.182 (0.116) | 1.018 (0.082) | 0.931 (0.081) | 1.170 (0.251) | 1.130 (0.189) | 0.976 (0.182) | 1.197 (0.133) | 0.979 (0.090) | 0.904 (0.090) |
| Log Likelihood | -7499.806 | -10288.244 | -10129.88 | -2583.557 | -3540.688 | -3506.308 | -4893.106 | -6721.356 | -6590.734 |
| Observations | 20,604 | 20,604 | 20,604 | 9,320 | 9,320 | 9,320 | 11,284 | 11,284 | 11,284 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + p<0.1 * p<.05 ** p<.01 *** p<.001

For mothers, Model 3 (Table 2) indicates that transitioning to flexitime is associated with approximately 22% higher odds (OR = 1.22) of reporting greater satisfaction with the amount of leisure time, offering partial support for H2, which hypothesises a positive association. However, flexitime is not significantly associated with either life satisfaction or health satisfaction. In contrast, teleworking is linked to significantly higher odds of reporting satisfaction with health—approximately 38.1% higher (OR = 1.381)—which runs counter to the negative association hypothesised in H4. These contrasting results highlight the nuanced effects of teleworking and flexitime on different aspects of mothers' subjective well-being.

Cross-partner Associations

Table 3 summarises the results of fixed-effects ordered logit models examining the impact of one partner's transition to flexitime or teleworking on the other partner's subjective well-being within heterosexual dual-earner households.

Model 1 indicates that mothers' adoption of flexitime is not statistically significantly associated with fathers' subjective well-being across any of the measured indicators. However, mothers' transition to teleworking is associated with approximately a 53% reduction in fathers' odds of reporting high levels of life satisfaction. Associations with other well-being indicators remain statistically insignificant. These findings negate Hypotheses H5a and H6a, which posit a positive relationship between mothers' adoption of flexitime or teleworking and fathers' subjective well-being.

Table 3**Spousal transition to flexitime/teleworking and parents' subjective well-being levels (Odds Ratios)**

| Variables | Fathers | | | Mothers | | |
|---|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | Model 1 | | | Model 2 | | |
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Spousal/Partner Characteristics | | | | | | |
| Flexitime | 0.980 (0.470) | 1.161 (0.357) | 0.814 (0.302) | 1.090 (0.384) | 1.484+ (0.404) | 0.815 (0.265) |
| Teleworking | 0.467+ (0.238) | 0.626 (0.267) | 1.621 (0.751) | 0.837 (0.369) | 0.646 (0.220) | 0.922 (0.346) |
| Other Flexible Working Arrangements | 0.856 (0.223) | 1.198 (0.234) | 0.837 (0.198) | 0.840 (0.232) | 0.647* (0.137) | 0.980 (0.235) |
| Age | 0.966 (0.159) | 0.935 (0.120) | 0.832 (0.151) | 1.371 (0.373) | 0.981 (0.199) | 0.931 (0.223) |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | 0.608 (0.328) | 1.313 (0.628) | 0.718 (0.353) | 1.143 (0.559) | 0.600 (0.367) | 1.251 (0.810) |
| Management & Professional | 0.394* (0.180) | 1.004 (0.410) | 0.944 (0.393) | 1.312 (0.585) | 0.824 (0.406) | 1.356 (0.687) |
| Private Sector | 0.911 (0.400) | 0.676 (0.198) | 1.210 (0.470) | 1.027 (0.379) | 0.767 (0.203) | 1.840 (0.647) |
| Long standing illness | 1.323 (0.356) | 0.953 (0.226) | 1.189 (0.294) | 0.926 (0.241) | 0.917 (0.200) | 1.207 (0.252) |
| Job Change | 0.807 (0.253) | 0.826 (0.199) | 0.862 (0.271) | 1.359 (0.432) | 1.072 (0.284) | 1.137 (0.322) |
| Hours Spent in Paid Work | 1.033+ (0.020) | 1.014 (0.014) | 1.017 (0.017) | 1.021 (0.019) | 0.978+ (0.015) | 0.988 (0.018) |
| Individual Characteristics | | | | | | |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | 1.625 (1.218) | 1.008 (0.551) | 2.732 (1.469) | 1.649 (0.831) | 1.718 (0.707) | 1.560 (0.719) |
| Management & Professional | 0.742 (0.457) | 0.594 (0.256) | 2.435* (1.070) | 1.078 (0.463) | 1.145 (0.431) | 0.594 (0.261) |
| Private Sector | 0.642 (0.258) | 0.908 (0.325) | 0.477* (0.167) | 1.056 (0.374) | 0.999 (0.293) | 0.943 (0.293) |

| | | | | | | |
|---|------------------|-------------------|------------------|-------------------|--------------------|---------------------|
| Long standing illness | 1.194 (0.303) | 0.704 (0.165) | 0.642 (0.165) | 0.649 (0.171) | 0.535** (0.111) | 0.457*** (0.102) |
| Job Change | 1.620 (0.515) | 1.002 (0.245) | 1.057 (0.340) | 1.109 (0.376) | 0.950 (0.229) | 1.037 (0.287) |
| Age | 1.043 (0.172) | 1.173 (0.150) | 1.296 (0.234) | 0.697 (0.190) | 1.049 (0.217) | 1.054 (0.255) |
| Number of Children (reference category: one child) | | | | | | |
| Two | 1.437 (0.738) | 1.392 (0.639) | 0.612 (0.346) | 1.676 (0.945) | 0.399* (0.178) | 1.083 (0.537) |
| More than two | 3.738 (3.597) | 1.084 (1.012) | 0.368 (0.403) | 1.540 (1.704) | 0.166* (0.134) | 0.600 (0.570) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | |
| One | 0.746 (0.384) | 0.657 (0.298) | 1.354 (0.730) | 0.400 (0.222) | 1.167 (0.486) | 0.633 (0.291) |
| More than one | 1.109 (1.114) | 0.557 (0.501) | 1.616 (6.848) | 0.631 (0.665) | 1.067 (0.872) | 1.155 (1.087) |
| Number of children aged 3-4 in household (reference category: none) | | | | | | |
| One | 0.894 (0.433) | 0.942 (0.410) | 1.464 (0.807) | 0.480 (0.241) | 1.253 (0.511) | 0.825 (0.388) |
| More than one | 0.233 (0.245) | 0.304 (0.304) | 1.500 (1.427) | 0.501 (0.668) | 1.648 (1.494) | 2.552 (3.078) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | |
| One | 0.563 (0.264) | 0.695 (0.307) | 1.252 (0.667) | 0.501 (0.266) | 1.727 (0.711) | 1.462 (0.683) |
| More than one | 0.270 (0.238) | 0.642 (0.548) | 1.090 (1.158) | 0.400 (0.408) | 4.331 (3.441) | 1.282 (1.184) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | |
| One | 0.438 (0.203) | 0.556 (0.254) | 0.811 (0.454) | 0.702 (0.386) | 2.515* (1.042) | 1.184 (0.577) |
| More than one | 0.225 (0.201) | 0.349 (0.313) | 0.639 (0.707) | 0.920 (0.964) | 5.542* (4.384) | 1.233 (1.157) |
| Log household income | 1.048 (0.651) | 0.954 (0.443) | 0.795 (0.367) | 0.332* (0.182) | 1.023 (0.451) | 0.570 (0.267) |
| Hours Spent in Paid Work | 1.023 (0.020) | 0.973+ (0.015) | 0.992 (0.017) | 0.999 (0.017) | 0.992 (0.011) | 1.018 (0.014) |
| Log Likelihood | -564.668 | -809.732 | -739.965 | -603.446 | -922.935 | -905.781 |
| Observations | 2331 | 2331 | 2331 | 2675 | 2675 | 2675 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + p<0.1 * p<.05 ** p<.01 *** p<.001.

Model 2 similarly shows that most findings concerning fathers' uptake of flexitime or teleworking and their impact on mothers' subjective well-being are statistically insignificant. Nevertheless, it is noteworthy that fathers' adoption of flexitime significantly increases mothers' odds of reporting satisfaction with their amount of leisure time by approximately 48% (OR=1.484), thereby lending some support to Hypothesis 5b. This result suggests potential positive mechanisms through which flexitime may enhance subjective well-being among dual-earner couples.

Deep diving further, Table A3 specifically highlights the associations between fathers' use of flexitime and mothers' subjective well-being across different scenarios of mothers' working arrangements. When both partners use flexitime, fathers' adoption of flexitime significantly increases mothers' odds of reporting satisfaction with their leisure time by approximately 60% (OR = 1.598). Similarly, in scenarios where fathers use flexitime and mothers telework, fathers' flexitime adoption is significantly associated with increases in mothers' leisure time satisfaction by roughly 25% (OR = 1.252). Finally, in cases where only fathers adopt flexitime and mothers use neither flexitime nor teleworking, fathers' flexitime use is significantly associated with mothers' life satisfaction (OR = 1.033) and leisure satisfaction (OR = 1.489). These findings lend some evidence for H5b, which hypothesises a positive association between fathers' transition to flexitime and mothers' well-being.

On the other hand, Table A4 presents the associations between fathers' teleworking and mothers' subjective well-being across various scenarios of mothers'

working arrangements. The results indicate no significant associations, corroborating the findings from Model 2 in Table 3. Similarly, Table A5, showing the association between mothers' use of flexitime and fathers' well-being, does not report any significant associations.

However, Table A6 shows that when both partners adopt teleworking, mothers' use of the arrangement is positively associated with fathers' leisure time satisfaction (OR=1.49). This positive association is also seen when mothers' use teleworking and fathers' use flexitime. Furthermore, when mothers use teleworking and fathers use neither teleworking nor flexitime, the latter are likely to experience higher life and leisure time satisfaction.

Findings from cross-sectional models testing the association between flexibility measures and subjective well-being mostly differ from the conclusions drawn from the longitudinal models above. A key reason for such differences can be omitted variable bias, which may translate into more inflated values in the cross-sectional models. Yet, estimates from robustness checks conducted using fixed-effect linear models largely corroborate the findings of my main models, adding to their validity.

Discussion and Conclusion

This study investigates parents' uptake of flexitime and teleworking and their association with subjective well-being. The findings reveal a nuanced and complex

interaction between flexible working arrangements and well-being outcomes, contributing to the ongoing debate on how flexible work influences work-life balance and mental health across genders (Chung & van der Lippe, 2020; Craig & Churchill, 2021).

One of the key findings of this study is that mothers' transition to flexitime is positively associated with increased satisfaction with leisure time. This result aligns with the findings of Wheatley (2017), who analysed British household panel data and concluded that structured flexibility arrangements, like flexitime, enhance leisure time satisfaction among women. Similarly, recent evidence from Wang et al. (2022) supports my findings, showing that control over work schedules is associated with lower or healthier allostatic load among women in a representative sample of 3,677 British adults. The autonomy granted by flexitime likely reduces time pressures, enabling mothers to manage both domestic and professional responsibilities more efficiently (Chung & Booker, 2023). By creating opportunities to engage in leisure activities, flexitime may enhance well-being and increase satisfaction with the amount of leisure time.

This positive association can be interpreted through the lens of the Resource-Based Theory of Work-Life Balance (Hobfoll, 1989), which suggests that increased autonomy and control over one's schedule can help replenish psychological resources, thereby reducing stress and preventing burnout. This allows women to better balance their roles and, as a result, experience higher satisfaction with their leisure time. However, it is important to consider the moderating effects of occupational and social class, as pointed out by Chung et al. (2022). Women in higher occupational classes may

have more flexibility in exercising schedule control, while those in lower-paid or precarious jobs may not experience the same benefits, highlighting the importance of contextual factors in shaping the impact of flexitime.

Another core finding of this study is that mothers' transition to teleworking is associated with increased health satisfaction, supporting the Effort-Recovery Model (Meijman & Mulder, 1998), which posits that reducing commuting stress facilitates rest and recovery. This finding is particularly pertinent for mothers who juggle professional and caregiving roles, as teleworking mitigates the physical and psychological fatigue caused by commuting (Tavares, 2021). Working from home may allow mothers to better integrate self-care practices into their routines, contributing to improved health satisfaction. However, this positive association contradicts some prior studies that have suggested that teleworking may heighten stress and increase domestic burdens. For example, Song and Gao (2019) and Craig and Churchill (2021) both argue that teleworking can blur the boundaries between paid work and unpaid domestic labour, leading to role conflict and increased stress. One plausible explanation for this contradiction lies in the visibility and immediacy of commuting-related stress compared to the more diffuse and gradual accumulation of domestic burdens. Commuting often presents a tangible and immediate physical and mental strain, while the stress related to domestic workload may be less directly perceived or quantified. Therefore, when evaluating their overall well-being, mothers may attribute greater significance to the alleviation of commuting stress, resulting in increased health satisfaction. This

interpretation aligns with findings from Xue et al. (2023), which demonstrate that minimising physical strain can substantially boost perceived health outcomes.

For fathers, the adoption of flexitime appears to negatively impact their health satisfaction. A possible explanation is the intensification of work efforts associated with flexitime, where fathers, motivated by career progression and competitiveness, may extend their working hours to maximise productivity (Kelliher & Anderson, 2010). This aligns with the argument by Putnam et al. (2013) that men may perceive autonomy as an opportunity to enhance professional standing, resulting in self-imposed overwork and decreased health satisfaction. Additionally, Lott & Chung (2016) emphasise that men might utilise flexitime as a career-advancement strategy rather than a personal well-being tool, potentially leading to stress and burnout. This finding also reflects the persistence of traditional gender norms, where men feel pressure to prioritise career success over personal well-being.

In contrast, fathers' transition to teleworking shows a positive association with leisure time satisfaction. This could be due to reduced commuting stress and increased opportunities for personal activities (Glass & Noonan, 2016). Furthermore, fathers tend to benefit more from work-life integration, as they are less likely to be interrupted during work hours and often have dedicated home offices (Pabilonia & Vernon, 2021).

The analysis of cross-partner effects shows limited statistical significance, indicating that flexible working arrangements primarily impact the individual rather than

their partner. A notable exception is that mothers' adoption of teleworking negatively impacts fathers' life satisfaction. It could be because men may see women's increased availability at home as an opportunity to increase their engagement with paid work, leading to stress, anxiety, and burnout (Grönlund and Öun, 2018). Conversely, fathers' adoption of flexitime positively impacts mothers' leisure satisfaction, suggesting a more egalitarian division of household tasks (Langner, 2017). This finding aligns with Kasperska et al. (2023), who suggest that fathers' flexible roles can alleviate domestic burdens for mothers, yet overall, cross-partner effects remain limited, indicating that flexibility's impacts are largely individualized.

Despite producing the above insights, my study is subject to some limitations. Firstly, as discussed in prior sections of this study, responses for the outcome variables, satisfaction with life, satisfaction with leisure time, and satisfaction with health, are mostly constant over time and experience only minor variations across time. Therefore, my sample sizes are not ideal, especially for cross-partner analyses. Furthermore, pre-flexible working well-being figures may not be a valid indicator for well-being levels among those individuals who have experienced key life events just before the observation period of my study (Headey, 2010). Moreover, the current research does not explore if the impact of transitioning to flexitime or teleworking on well-being levels changes or sustains itself in the years to follow. My results may also be subject to omitted variable bias as respondents' home addresses and church attendance levels were not a part of my empirical models. Both general and domain-specific subjective well-being are measured

through single items in the Understanding Society survey data, which limits the analytical dimensions of my models.

Furthermore, another limitation relates to the issue of reverse causality; individuals may transition to flexible working due to low satisfaction with life or health. In such cases, the observed negative/positive associations between flexible arrangements and well-being may not represent an accurate picture. Consequently, interpreting the causal direction of the association between flexibility and health satisfaction becomes problematic. Lastly, my study only engages with three measures of cognitive subjective well-being, which is partly due to data availability. In the future, it would be insightful to explore more dimensions of well-being and their link with flexible working arrangements.

Despite these limitations, my study significantly contributes to the existing literature by investigating parental transitions to flexitime and teleworking and their impact on cognitive and subjective well-being. By incorporating both individual and cross-partner dimensions, this research provides novel insights into how partners' work patterns influence each other's lives and self-perceptions. The findings underscore the nuanced and complex interactions between flexible working arrangements and well-being outcomes, highlighting how both flexitime and teleworking can shape cognitive well-being, particularly in domains directly and indirectly tied to time availability (Lorenz, 2018). The magnitude and direction of these impacts are influenced by various factors,

including the purpose for which flexibility is used, the workplace environment, and underlying gender norms and expectations.

One of the central challenges associated with flexible working arrangements is the persistence of flexibility stigma, whereby employees utilising flexible work arrangements have historically faced perceptions of reduced commitment, resulting in career penalties such as being overlooked for promotions or high-profile assignments (Williams et al., 2013). This stigma has been particularly pronounced for men, as traditional gender norms often associate male identity with unwavering professional dedication (Kelliher & Anderson, 2010). However, the COVID-19 pandemic has significantly reshaped the landscape of flexible work by normalising remote and hybrid models and potentially reducing previous stigma (Chung & van der Lippe, 2020). Recent studies suggest that increased acceptance of flexible work has diminished negative perceptions, as both employers and employees have come to recognise its viability and benefits (POST, 2022; Felstead & Reuschke, 2021).

Despite these shifts, gendered challenges persist. While the pandemic has made it more socially acceptable for men to work flexibly, especially in the context of remote work, men who use flexible arrangements for caregiving purposes may still encounter scepticism regarding their commitment (Coltrane et al., 2013). For women, the normalisation of flexible work theoretically offers an opportunity to achieve better work-life balance, yet it also perpetuates the double burden of paid and unpaid labour, as women continue to bear the primary responsibility for caregiving (Craig & Churchill,

2021). Additionally, the risk of being perceived as less committed remains, particularly for women working remotely, as they may experience reduced visibility and fewer networking opportunities (Kelly et al., 2022; Lott & Chung, 2016). This ongoing tension between flexibility and career progression highlights the importance of addressing flexibility stigma in a targeted manner, ensuring that organisational policies are designed to evaluate performance based on outcomes rather than physical presence.

Addressing these challenges requires a multifaceted approach. British policymakers who see flexibility as a pathway to safeguarding individual autonomy, agency, and mental health, as well as fostering an egalitarian division of labour within households, must work towards further normalising the use of flexible working arrangements within the British labour market. Legislative measures are needed to protect flexible workers from discrimination and unpaid overtime, while family policies should focus on increasing fathers' involvement in domestic responsibilities to promote a more balanced distribution of caregiving roles. Moreover, organisations must cultivate inclusive cultures that recognise the value of flexible working without undermining career progression or reinforcing gender inequalities.

By critically examining these dynamics, this study not only contributes to the academic discourse on flexible work and well-being but also offers practical implications for policymakers and employers seeking to implement fair and equitable flexible working practices. As flexible work continues to evolve, especially in the wake of the pandemic, future research should continue to assess the long-term impacts of normalised flexible

arrangements on career outcomes and well-being, paying particular attention to how changing workplace cultures shape gendered experiences of flexibility.

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Appendix

Table A-1

Sample Descriptive Statistics for Categorical Variables from Understanding Society Wave 2 – 10

| Variables | 2010-11 | | | 2012-13 | | | 2014-15 | | | 2016-17 | | | 2018-19 | | |
|-------------------------------------|---------|-------|-------|---------|-----|-------|---------|-------|-------|---------|-----|-------|---------|-----|-------|
| | All | Men | Women | All | Men | Women | All | Men | Women | All | Men | Women | All | Men | Women |
| Flexitime | | | | | | | | | | | | | | | |
| Practiced | 19% | 23% | 17% | 19% | 22% | 17% | 21% | 23% | 19% | 19% | 23% | 17% | 20% | 25% | 17% |
| Not Practiced | 81% | 77% | 83% | 81% | 78% | 83% | 79% | 77% | 81% | 81% | 77% | 83% | 80% | 75% | 83% |
| Teleworking | | | | | | | | | | | | | | | |
| Practiced | 9% | 14% | 6% | 11% | 15% | 7% | 12% | 16% | 8% | 12% | 16% | 9% | 15% | 19% | 12% |
| Not Practiced | 91% | 86% | 94% | 89% | 85% | 93% | 88% | 84% | 92% | 88% | 84% | 91% | 85% | 18% | 88% |
| Other Flexible Working Arrangements | | | | | | | | | | | | | | | |
| Practiced | 50% | 16% | 70% | 46% | 17% | 68% | 47% | 20% | 68% | 46% | 15% | 68% | 47% | 18% | 68% |
| Not Practiced | 50% | 86% | 30% | 54% | 83% | 32% | 53% | 80% | 32% | 54% | 85% | 32% | 53% | 82% | 32% |
| Marital Status | | | | | | | | | | | | | | | |
| Single | 5% | 0.2% | 8% | 6% | 1% | 10% | 6% | 0.4% | 10% | 7% | 1% | 11% | 6% | 1% | 10% |
| Married/Cohabiting | 88% | 99% | 82% | 89% | 98% | 81% | 90% | 99% | 83% | 89% | 98% | 83% | 90% | 98% | 84% |
| Divorced/Widowed/ Separated | 7% | 0.80% | 10% | 5% | 1% | 9% | 4% | 0.60% | 7% | 4% | 1% | 6% | 4% | 1% | 6% |
| Number of Children | | | | | | | | | | | | | | | |
| One | 46% | 41% | 49% | 45% | 41% | 49% | 43% | 38% | 46% | 43% | 41% | 45% | 44% | 41% | 46% |
| Two | 42% | 45% | 41% | 42% | 44% | 40% | 46% | 47% | 44% | 46% | 46% | 45% | 46% | 48% | 45% |
| More than two | 12% | 14% | 11% | 12% | 15% | 11% | 11% | 15% | 10% | 11% | 13% | 10% | 10% | 11% | 9% |
| Number of Children aged 0-2 | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|
| Yes | 5% | 6% | 5% | 10% | 11% | 9% | 12% | 12% | 11% | 14% | 12% | 15% | 13% | 12% | 14% |
| No | 95% | 94% | 95% | 90% | 89% | 91% | 88% | 88% | 89% | 86% | 88% | 85% | 87% | 88% | 86% |
| Satisfaction with Life Overall | | | | | | | | | | | | | | | |
| Very dissatisfied | 5% | 4% | 5% | 6% | 5% | 7% | 5% | 4% | 5% | 4% | 4% | 5% | 3% | 4% | 4% |
| Somewhat dissatisfied | 8% | 6% | 9% | 9% | 7% | 9% | 6% | 7% | 6% | 8% | 6% | 8% | 8% | 7% | 8% |
| Neither satisfied or dissatisfied | 8% | 8% | 8% | 9% | 9% | 8% | 8% | 8% | 8% | 7% | 8% | 7% | 11% | 10% | 11% |
| Somewhat satisfied | 20% | 22% | 19% | 20% | 20% | 19% | 19% | 20% | 18% | 20% | 20% | 21% | 22% | 22% | 21% |
| Very satisfied | 59% | 60% | 59% | 56% | 59% | 57% | 62% | 61% | 63% | 61% | 63% | 59% | 56% | 57% | 56% |
| Satisfaction with Leisure Time | | | | | | | | | | | | | | | |
| Very dissatisfied | 13% | 13% | 13% | 15% | 13% | 15% | 12% | 12% | 12% | 11% | 12% | 11% | 11% | 12% | 10% |
| Somewhat dissatisfied | 25% | 25% | 25% | 24% | 26% | 22% | 23% | 24% | 22% | 22% | 23% | 21% | 23% | 23% | 24% |
| Neither satisfied or dissatisfied | 13% | 16% | 12% | 14% | 14% | 14% | 12% | 12% | 14% | 14% | 14% | 14% | 13% | 12% | 13% |
| Somewhat satisfied | 25% | 25% | 25% | 24% | 24% | 24% | 28% | 28% | 27% | 27% | 26% | 27% | 27% | 28% | 27% |
| Very satisfied | 24% | 22% | 25% | 23% | 23% | 25% | 25% | 24% | 25% | 26% | 26% | 27% | 26% | 25% | 26% |
| Satisfaction with Health | | | | | | | | | | | | | | | |
| Very dissatisfied | 7% | 5% | 7% | 17% | 15% | 18% | 11% | 10% | 12% | 6% | 6% | 6% | 6% | 7% | 6% |
| Somewhat dissatisfied | 14% | 15% | 14% | 12% | 13% | 12% | 13% | 13% | 12% | 13% | 14% | 12% | 15% | 14% | 15% |
| Neither satisfied or dissatisfied | 7% | 8% | 7% | 7% | 7% | 8% | 7% | 7% | 7% | 8% | 7% | 8% | 8% | 8% | 8% |
| Somewhat satisfied | 14% | 14% | 14% | 13% | 13% | 13% | 13% | 14% | 13% | 17% | 16% | 17% | 17% | 18% | 17% |
| Very satisfied | 58% | 58% | 58% | 51% | 52% | 49% | 56% | 56% | 56% | 56% | 56% | 57% | 54% | 53% | 54% |
| Number of observations | 4,225 | 1,513 | 2712 | 4,354 | 1,642 | 2,712 | 3,567 | 1,391 | 2,176 | 3,171 | 1,206 | 1,965 | 2,474 | 973 | 1,501 |

Table A-2

Sample Descriptive Statistics for Continuous Variables from Understanding Society Wave 2 – 10

| Outcome variables | 2010-11 | | | 2012-13 | | | 2014-15 | | | 2016-17 | | | 2018-19 | | |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | All | Men | Women | All | Men | Women | All | Men | Women | All | Men | Women | All | Men | Women |
| Household Income | 3475 (1870) | 3654 (1904) | 3369 (1840) | 3588 (1980) | 3716 (1847) | 3489 (2073) | 4083 (8570) | 4074 (4986) | 4089 (10486) | 4073 (2359) | 4255 (2103) | 3943 (2519) | 4289 (2769) | 4479 (2243) | 4154 (3081) |
| Age | 39 (6.98) | 40 (7.01) | 39 (6.94) | 39 (6.98) | 40 (6.94) | 39 (6.98) | 39 (7.08) | 40 (6.82) | 39 (7.22) | 40 (7.03) | 41 (6.94) | 39 (7.04) | 41 (7.0) | 42 (6.91) | 40 (7) |
| Number of observations | 4,225 | 1,513 | 2712 | 4,354 | 1,642 | 2,712 | 3,567 | 1,391 | 2,176 | 3,171 | 1,206 | 1,965 | 2,474 | 973 | 1,501 |

Table A3

Odds Ratios for Mothers' Subjective Well-being When Fathers Adopt Flexitime and Mothers Adopt Various Flexible Working Arrangements

| Variable | Both Partners - Flexitime | | | Fathers – Flexitime & Mothers - Teleworking | | | Fathers – Flexitime & Mothers – Neither Flexitime nor Teleworking | | |
|-----------------------------------|---------------------------|---------------------------|---------------------|---|---------------------------|---------------------|---|---------------------------|---------------------|
| | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction |
| Spousal Characteristics | | | | | | | | | |
| Flexitime | 1.054 (0.326) | 1.598* (0.244) | 0.859 (0.291) | 1.068 (0.313) | 1.252* (0.253) | 0.944 (0.309) | 1.033* (0.340) | 1.489* (0.277) | 0.824 (0.331) |
| Other Flexible Arrangements | 0.860 (0.182) | 0.810 (0.141) | 0.900 (0.160) | 0.868 (0.199) | 0.721* (0.162) | 0.911 (0.180) | 0.903 (0.221) | 0.773 (0.175) | 0.884 (0.192) |
| Private Sector | 1.164 (0.332) | 0.923 (0.232) | 1.951* (0.307) | 0.956 (0.353) | 0.748 (0.259) | 2.020* (0.336) | 1.016 (0.364) | 0.759 (0.263) | 1.801 (0.339) |
| Long standing illness | 0.997 (0.226) | 1.020 (0.189) | 1.112 (0.197) | 0.874 (0.246) | 0.947 (0.201) | 1.049 (0.200) | 0.959 (0.261) | 0.913 (0.215) | 1.224 (0.216) |
| Degree-level Qualifications | 1.220 (0.255) | 1.183 (0.230) | 1.245 (0.239) | 1.267 (0.292) | 1.125 (0.237) | 1.071 (0.272) | 1.236 (0.308) | 1.077 (0.264) | 1.062 (0.275) |
| Individual Characteristics | | | | | | | | | |

| | | | | | | | | | |
|---------------------------------------|-------------------|-----------------|--------------------|------------------|--------------------|--------------------|-------------------|------------------|--------------------|
| Age | 0.928 (0.041) | 0.995 (0.031) | 1.011 (0.035) | 0.944 (0.044) | 1.023 (0.034) | 0.991 (0.038) | 0.959 (0.046) | 1.017 (0.036) | 0.983 (0.040) |
| Private sector | 0.921 (0.332) | 0.936 (0.254) | 0.679 (0.274) | 1.150 (0.304) | 0.983 (0.267) | 0.867 (0.294) | 1.081 (0.346) | 0.994 (0.292) | 0.924 (0.307) |
| Long-term illness | 0.664 (0.228) | 0.730 (0.176) | 0.548** (0.183) | 0.718 (0.257) | 0.535** (0.206) | 0.454** (0.216) | 0.674 (0.265) | 0.548 (0.206) | 0.513** (0.224) |
| Higher education | 1.061 (0.293) | 0.972 (0.198) | 1.095 (0.228) | 1.002 (0.293) | 1.006 (0.220) | 0.999 (0.251) | 1.126 (0.344) | 0.991 (0.237) | 1.075 (0.283) |
| Log Income | 0.343* (0.472) | 1.015 (0.362) | 0.470 (0.412) | 0.389 (0.516) | 1.090 (0.421) | 0.505 (0.452) | 0.328* (0.536) | 1.001 (0.442) | 0.534 (0.477) |
| No. of children between ages 0-2 | | | | | | | | | |
| 1 | 0.915 (0.307) | 0.586 (0.229)* | 0.990 (0.255) | 0.971 (0.340) | 0.770 (0.230) | 0.902 (0.282) | 1.075 (0.372) | 0.751 (0.261) | 0.916 (0.313) |
| 2 or more | 0.833 (0.618) | 0.456 (0.432) | 1.857 (0.505) | 1.568 (0.635) | 0.633 (0.478) | 4.164 (0.681)* | 1.947 (0.694) | 0.768 (0.508) | 3.422 (0.694)* |
| No. of children between ages 3-4 | | | | | | | | | |
| 1 | 0.949 (0.233) | 0.942 (0.176) | 0.943 (0.212) | 1.121 (0.266) | 1.025 (0.185) | 0.958 (0.235) | 1.220 (0.299) | 1.096 (0.201) | 0.934 (0.266) |
| 2 or more | 0.320 (0.953) | 0.356 (0.572) | 0.683 (0.657) | 0.319 (0.802) | 0.597 (0.668) | 0.856 (0.614) | 0.415 (0.779) | 0.419 (0.778) | 0.815 (0.651) |
| No. of children between ages 5-11 | | | | | | | | | |
| 1 | 0.377* (0.474) | 1.550 (0.316) | 0.941 (0.393) | 0.795 (0.571) | 1.952† (0.391) | 1.592 (0.472) | 0.461 (0.535) | 1.726 (0.418) | 1.474 (0.472) |
| 2 or more | 0.212† (0.923) | 3.149† (0.609) | 0.527 (0.780) | 0.971 (1.084) | 5.558* (0.747) | 1.588 (0.919) | 0.347 (1.022) | 4.267 (0.806) | 1.248 (0.930) |
| No. of children between ages 12-15 | | | | | | | | | |
| 1 | 0.480 (0.501) | 2.288* (0.329) | 0.740 (0.423) | 1.133 (0.573) | 2.761** (0.388) | 1.436 (0.481) | 0.655 (0.555) | 2.522 (0.418) | 1.157 (0.493) |
| 2 or more | 0.461 (0.942) | 5.430** (0.605) | 0.719 (0.808) | 1.950 (1.095) | 6.129* (0.748) | 1.637 (0.937) | 0.765 (1.047) | 5.374 (0.806) | 1.185 (0.948) |
| Mother: Using Flexitime | 1.331* (0.210) | 1.323 (0.170) | 0.862 (0.187) | | | | | | |
| Mother: Using Teleworking | | | | 1.707 (0.340) | 0.931 (0.294) | 0.811 (0.311) | | | |
| Number of observations | 1882 | 1882 | 1882 | 1591 | 1591 | 1591 | 1423 | 1423 | 1423 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + $p < 0.1$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table A4

Odds Ratios for Mothers' Subjective Well-being When Fathers Adopt Teleworking and Mothers Adopt Various Flexible Working Arrangements

| Variable | Both Partners - Teleworking | | | Fathers – Teleworking & Mothers - Flexitime | | | Fathers – Teleworking & Mothers – Neither Flexitime nor Teleworking | | |
|-------------------------------------|-----------------------------|---------------------------|---------------------|---|---------------------------|---------------------|---|---------------------------|---------------------|
| | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction |
| Spousal Characteristics | | | | | | | | | |
| Teleworking | 0.801 (0.402) | 0.716 (0.308) | 0.898 (0.325) | 0.715 (0.395) | 0.811 (0.269) | 0.991 (0.308) | 0.851 (0.430) | 0.652 (0.348) | 0.961 (0.352) |
| Other Flexible Working Arrangements | 0.757 (0.202) | 0.9 (0.153) | 0.917 (0.184) | 0.85 (0.193) | 1.009 (0.141) | 0.907 (0.160) | 0.705 (0.223) | 0.951 (0.163) | 0.831 (0.196) |
| Private Sector | 0.96 (0.353) | 0.748 (0.259) | 2.008* (0.337) | 1.174 (0.334) | 0.932 (0.233) | 1.982* (0.307) | 1.029 (0.364) | 0.764 (0.264) | 1.804 (0.341) |
| Long standing illness | 0.855 (0.241) | 0.975 (0.199) | 1.054 (0.202) | 0.956 (0.227) | 1.037 (0.186) | 1.095 (0.197) | 0.933 (0.258) | 0.934 (0.212) | 1.231 (0.217) |
| Degree-level Qualifications | 1.287 (0.290) | 1.148 (0.237) | 1.067 (0.270) | 1.214 (0.258) | 1.196 (0.228) | 1.249 (0.237) | 1.274 (0.311) | 1.079 (0.264) | 1.069 (0.273) |
| Individual Characteristics | | | | | | | | | |
| Age | 0.946 (0.045) | 1.043 (0.033) | 0.991 (0.039) | 0.933 (0.043) | 1.016 (0.030) | 1.006 (0.036) | 0.959 (0.049) | 1.045 (0.035) | 0.978 (0.042) |
| Private sector | 1.145 (0.313) | 0.999 (0.265) | 0.854 (0.291) | 0.939 (0.335) | 0.939 (0.250) | 0.688 (0.272) | 1.09 (0.360) | 1.013 (0.288) | 0.906 (0.304) |
| Long-term illness | 0.696 (0.256) | 0.539** (0.204) | 0.456** (0.215) | 0.662 (0.228) | 0.747 (0.175) | 0.542** (0.182) | 0.657 (0.265) | 0.552** (0.206) | 0.515** (0.225) |
| Higher education | 1.012 (0.297) | 0.95 (0.220) | 0.991 (0.247) | 1.083 (0.293) | 0.925 (0.194) | 1.113 (0.227) | 1.158 (0.343) | 0.931 (0.234) | 1.069 (0.278) |
| Log Income | 0.406† (0.516) | 1.123 (0.410) | 0.532 (0.454) | 0.344* (0.476) | 1.104 (0.360) | 0.467† (0.414) | 0.331* (0.541) | 1.038 (0.438) | 0.552 (0.483) |
| No. of children between ages 0-2 | | | | | | | | | |

| | | | | | | | | | |
|--|------------------|-------------------|------------------|---------------|---------------|-------------------|---------------|---------------|-------------------|
| 1 | 0.915 (0.307) | 0.586 (0.229)* | 0.990 (0.255) | 0.971 (0.340) | 0.770 (0.230) | 0.902 (0.282) | 1.075 (0.372) | 0.751 (0.261) | 0.916 (0.313) |
| 2 or more | 0.833 (0.618) | 0.456 (0.432) | 1.857 (0.505) | 1.568 (0.635) | 0.633 (0.478) | 4.164 (0.681)* | 1.947 (0.694) | 0.768 (0.508) | 3.422 (0.694)* |
| No. of children between ages 3-4 | | | | | | | | | |
| 1 | 0.949 (0.233) | 0.942 (0.176) | 0.943 (0.212) | 1.121 (0.266) | 1.025 (0.185) | 0.958 (0.235) | 1.220 (0.299) | 1.096 (0.201) | 0.934 (0.266) |
| 2 or more | 0.320 (0.953) | 0.356 (0.572) | 0.683 (0.657) | 0.319 (0.802) | 0.597 (0.668) | 0.856 (0.614) | 0.415 (0.779) | 0.419 (0.778) | 0.815 (0.651) |
| No. of children between ages 5-11 | | | | | | | | | |
| 1 | 0.794 (0.226) | 0.82 (0.168) | 1.338 (0.196) | 0.741 (0.205) | 0.763 (0.153) | 1.402† (0.171) | 0.723 (0.242) | 0.766 (0.184) | 1.455† (0.197) |
| 2 or more | 0.86 (0.383) | 0.956 (0.295) | 1.018 (0.355) | 0.814 (0.354) | 0.808 (0.274) | 1.107 (0.320) | 0.757 (0.412) | 0.833 (0.323) | 1.097 (0.367) |
| No. of children between ages 12-15 | | | | | | | | | |
| 1 | 1.069 (0.291) | 1.204 (0.231) | 1.158 (0.273) | 0.92 (0.276) | 1.179 (0.206) | 1.063 (0.250) | 0.962 (0.316) | 1.141 (0.247) | 1.085 (0.286) |
| 2 or more | 1.684 (0.450) | 1.089 (0.373) | 1.06 (0.433) | 1.711 (0.423) | 1.433 (0.357) | 1.481 (0.403) | 1.55 (0.482) | 1.083 (0.396) | 1.04 (0.439) |
| Mother: Using Teleworking | 1.711 (0.351) | 0.965 (0.295) | 0.834 (0.311) | | | | | | |
| Mother: Using Flexitime | | | | 1.369 (0.208) | 1.326 (0.168) | 0.871 (0.187) | | | |
| Number of observations | 1591 | 1591 | 1591 | 1882 | 1882 | 1882 | 1423 | 1423 | 1423 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + p<0.1 * p<.05 ** p<.01 *** p<.001

| | | | | | | | | | |
|---|------------------|------------------|------------------|---------------|---------------|---------------|------------------|------------------|---------------|
| between ages 0-2 | | | | | | | | | |
| 1 | 0.915 (0.307) | 0.586 (0.229) | 0.99 (0.255) | 0.97 (0.340) | 0.77 (0.230) | 0.902 (0.282) | 1.075 (0.372) | 0.751 (0.261) | 0.916 (0.313) |
| 2 or more | 0.833 (0.618) | 0.456 (0.432) | 1.857 (0.505) | 1.568 (0.635) | 0.633 (0.478) | 4.166 (0.681) | 1.946 (0.694) | 0.768 (0.508) | 3.421 (0.694) |
| No. of children between ages 3-4 | | | | | | | | | |
| 1 | 0.949 (0.233) | 0.942 (0.176) | 0.943 (0.212) | 1.121 (0.266) | 1.025 (0.185) | 0.958 (0.235) | 1.22 (0.299) | 1.096 (0.201) | 0.934 (0.266) |
| 2 or more | 0.32 (0.953) | 0.356 (0.572) | 0.682 (0.657) | 0.319 (0.802) | 0.598 (0.668) | 0.856 (0.614) | 0.415 (0.779) | 0.419 (0.778) | 0.815 (0.651) |
| No. of children between ages 5-11 | | | | | | | | | |
| 1 | 0.763 (0.209) | 0.76 (0.169) | 0.86 (0.179) | 0.922 (0.222) | 0.875 (0.166) | 0.975 (0.196) | 0.837 (0.247) | 0.8 (0.190) | 0.823 (0.224) |
| 2 or more | 0.659 (0.345) | 0.821 (0.291) | 0.562 (0.339) | 0.68 (0.380) | 0.867 (0.288) | 0.575 (0.368) | 0.662 (0.421) | 0.843 (0.333) | 0.44 (0.424) |
| No. of children between ages 12-15 | | | | | | | | | |
| 1 | 0.763 (0.235) | 0.763 (0.208) | 0.71 (0.247) | 0.724 (0.275) | 0.636 (0.231) | 0.624 (0.264) | 0.689 (0.300) | 0.636 (0.258) | 0.533 (0.302) |
| 2 or more | 0.649 (0.400) | 0.512 (0.384) | 0.462 (0.455) | 0.569 (0.459) | 0.398 (0.386) | 0.477 (0.453) | 0.593 (0.520) | 0.431 (0.450) | 0.287 (0.561) |
| Father: Using Flexitime | 0.965 (0.212) | 1.129 (0.177) | 0.732 (0.210) | - | - | - | - | - | - |
| Father: Using Teleworking | - | - | - | 0.812 (0.288) | 0.941 (0.212) | 1.055 (0.235) | - | - | - |
| Number of observations | 1,682 | 1,682 | 1,682 | 1,485 | 1,485 | 1,485 | 1,190 | 1,190 | 1,190 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + p<0.1 * p< .05 ** p< .01 *** p< .00

Table A6

Odds Ratios for Fathers' Subjective Well-being When Mothers Adopt Teleworking and Fathers Adopt Various Flexible Working Arrangements

| Variable | Both Partners - Teleworking | | | Mothers – Teleworking & Fathers - Flexitime | | | Mothers – Teleworking & Fathers – Neither Flexitime nor Teleworking | | |
|----------------------------------|-----------------------------|---------------------------|---------------------|---|---------------------------|---------------------|---|---------------------------|---------------------|
| | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction | Life Satisfaction | Leisure Time Satisfaction | Health Satisfaction |
| Spousal Characteristics | | | | | | | | | |
| Teleworking | 0.528 (0.450) | 1.490* (0.356) | 1.153 (0.408) | 0.547 (0.473) | 1.259* (0.353) | 1.476 (0.396) | 1.832* (0.533) | 1.584* (0.416) | 1.480 (0.444) |
| Other Flexible Arrangements | 0.753 (0.223) | 1.070 (0.179) | 0.784 (0.231) | 0.880 (0.216) | 1.025 (0.174) | 0.895 (0.214) | 0.789 (0.246) | 1.055 (0.193) | 0.692 (0.252) |
| Private Sector | 0.858 (0.343) | 0.870 (0.246) | 1.164 (0.320) | 0.800 (0.332) | 0.704* (0.262) | 0.954 (0.280) | 0.892 (0.403) | 0.709 (0.298) | 1.174 (0.373) |
| Long standing illness | 1.194 (0.229) | 0.921+ (0.207) | 1.066 (0.217) | 1.113 (0.230) | 0.902* (0.205) | 0.984 (0.210) | 1.314 (0.264) | 0.948 (0.240) | 1.179 (0.242) |
| Degree-level Qualifications | 0.899 (0.268) | 0.866 (0.209) | 0.945 (0.273) | 0.809 (0.257) | 0.836 (0.192) | 0.984 (0.244) | 0.827 (0.305) | 0.814 (0.239) | 0.872 (0.311) |
| Age | 0.974 (0.047) | 1.106* (0.033) | 1.073* (0.040) | 0.958 (0.042) | 1.089* (0.033) | 1.059 (0.037) | 0.996 (0.051) | 1.101* (0.039) | 1.076 (0.046) |
| Private sector | 0.687 (0.369) | 0.948 (0.315) | 0.414** (0.343) | 0.908 (0.317) | 1.189 (0.299) | 0.712 (0.293) | 0.649 (0.388) | 0.946 (0.363) | 0.463* (0.372) |
| Long-term illness | 1.219 (0.225) | 0.803** (0.205) | 0.593** (0.223) | 1.210 (0.203) | 0.751 (0.194) | 0.556 (0.210) | 1.240 (0.245) | 0.722 (0.236) | 0.647* (0.251) |
| Higher education | 1.551* (0.295) | 1.104 (0.215) | 1.082 (0.257) | 1.247 (0.253) | 1.169* (0.193) | 1.175 (0.230) | 1.576 (0.319) | 1.001 (0.242) | 1.036 (0.303) |
| No. of children between ages 0-2 | | | | | | | | | |
| 1 | 0.985 (0.337) | 0.780 (0.229) | 0.902 (0.284) | 0.923 (0.305) | 0.594* (0.228) | 0.981 (0.256) | 1.117 (0.371) | 0.764 (0.259) | 0.912 (0.317) |
| 2 or more | 1.557 (0.610) | 0.647 (0.476) | 4.212* (0.689) | 0.832 (0.593) | 0.462* (0.434) | 1.822 (0.516) | 1.948 (0.653) | 0.800 (0.505) | 3.408* (0.717) |
| No. of children between ages 3-4 | | | | | | | | | |
| 1 | 1.131 (0.265) | 1.022 (0.183) | 0.976 (0.236) | 0.961 (0.232) | 0.951 (0.175) | 0.944 (0.214) | 1.254 (0.299) | 1.105 (0.199) | 0.969 (0.270) |

| | | | | | | | | | |
|--|---------------|--------------------|-------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| 2 or more | 0.304 (0.826) | 0.605 (0.670) | 0.870 (0.607) | 0.320 (0.928) | 0.326* (0.578) | 0.676 (0.651) | 0.437 (0.785) | 0.426 (0.777) | 0.820 (0.644) |
| No. of children between ages 5-11 | | | | | | | | | |
| 1 | 0.941 (0.221) | 0.885 (0.166) | 0.987 (0.197) | 0.776 (0.209) | 0.774 (0.169) | 0.856 (0.179) | 0.868 (0.248) | 0.817 (0.190) | 0.839 (0.225) |
| 2 or more | 0.694 (0.383) | 0.863 (0.289) | 0.595 (0.368) | 0.666 (0.348) | 0.835* (0.292) | 0.566+ (0.338) | 0.690 (0.424) | 0.862 (0.331) | 0.467* (0.421) |
| No. of children between ages 12-15 | | | | | | | | | |
| 1 | 0.728 (0.275) | 0.641* (0.230) | 0.628* (0.263) | 0.766 (0.237) | 0.781 (0.207) | 0.709 (0.246) | 0.694 (0.304) | 0.654* (0.257) | 0.526* (0.298) |
| 2 or more | 0.598 (0.458) | 0.399** (0.388) | 0.492 (0.453) | 0.664 (0.405) | 0.527 (0.386) | 0.466 (0.456) | 0.628 (0.521) | 0.447* (0.452) | 0.299* (0.563) |
| Log Income | 0.834 (0.523) | 0.940 (0.421) | 0.701 (0.414) | 1.001 (0.478) | 0.769 (0.385) | 0.957 (0.377) | 0.966 (0.600) | 0.902 (0.466) | 0.814 (0.458) |
| Teleworking | 0.805 (0.289) | 0.925+ (0.212) | 1.069 (0.239) | | | | | | |
| Flexitime | | | | 0.959 (0.211) | 1.132 (0.176) | 0.727 (0.210) | | | |
| Other Flexible working Arrangements | 0.957 (0.250) | 0.959 (0.203) | 1.025 (0.248) | 0.808 (0.252) | 0.841 (0.200) | 0.995 (0.230) | 0.890 (0.276) | 0.980 (0.221) | 1.210 (0.272) |
| Observations | 1485 | 1485 | 1485 | 1682 | 1682 | 1682 | 1190 | 1190 | 1190 |

Note: The table reports odd ratios. The standard error values for each estimate are mentioned in the parentheses. + p<0.1 * p<.05 ** p<.01 *** p<.001

Table A-7

Cross-sectional models for individual use of flexitime/teleworking and subjective well-being

| Variables | All | | | Fathers | | | Mothers | | |
|---|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | | Model 1 | | | Model 2 | | | Model 3 | |
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Flexitime | 0.949 (0.045) | 1.038 (0.044) | 0.952 (0.044) | 0.949 (0.071) | 0.985 (0.064) | 0.900 (0.064) | 0.965 (0.059) | 1.101+ (0.062) | 1.013 (0.060) |
| Teleworking | 1.151* (0.075) | 1.079 (0.061) | 0.993 (0.060) | 1.196* (0.107) | 1.115 (0.089) | 1.013 (0.087) | 1.083 (0.103) | 1.018 (0.080) | 0.942 (0.078) |
| Other Flexible Working Arrangements | 1.075+ (0.047) | 1.263*** (0.050) | 0.997 (0.041) | 0.916 (0.072) | 1.033 (0.080) | 0.956 (0.071) | 1.134* (0.0579) | 1.377*** (0.063) | 1.000 (0.049) |
| Female | 1.009 (0.050) | 0.964 (0.047) | 1.084+ (0.052) | - | - | - | - | - | - |
| Marital Status (reference category: single/never married) | | | | | | | | | |
| Married/Cohabiting | 1.525*** (0.090) | 1.267*** (0.069) | 1.201** (0.065) | 1.203 (0.129) | 0.939 (0.094) | 0.908 (0.094) | 1.759*** (0.125) | 1.518*** (0.097) | 1.402*** (0.088) |
| Divorced/Separated/Widowed | 1.113 (0.094) | 1.043 (0.079) | 0.988 (0.078) | 1.302 (0.313) | 1.201 (0.218) | 0.895 (0.177) | 1.161 (0.105) | 1.121 (0.095) | 1.065 (0.092) |
| Number of Children (reference category: one child) | | | | | | | | | |
| Two | 1.111 (0.105) | 0.973 (0.095) | 1.151+ (0.095) | 0.909 (0.131) | 0.953 (0.136) | 0.992 (0.125) | 1.312* (0.161) | 0.993 (0.134) | 1.274* (0.140) |
| More than two | 1.084 (0.200) | 0.836 (0.161) | 1.216 (0.196) | 0.871 (0.245) | 0.888 (0.254) | 1.021 (0.246) | 1.331 (0.312) | 0.805 (0.209) | 1.384 (0.294) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | | | | |
| One | 1.100 (0.105) | 0.761** (0.074) | 0.983 (0.080) | 1.206 (0.175) | 0.764 (0.110) | 1.034 (0.123) | 1.015 (0.125) | 0.746* (0.098) | 0.940 (0.103) |
| More than one | 1.167 (0.251) | 0.588* (0.133) | 1.203 (0.232) | 1.515 (0.505) | 0.741 (0.229) | 1.461 (0.419) | 0.937 (0.251) | 0.458* (0.150) | 1.038 (0.265) |

| Number of children aged 3-4 in household (reference category: none) | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| One | 0.902 | 0.801* | 0.950 | 1.011 | 0.849 | 1.016 | 0.821 | 0.752* | 0.914 |
| | (0.084) | (0.077) | (0.076) | (0.141) | (0.117) | (0.118) | (0.100) | (0.100) | (0.101) |
| More than one | 0.599* | 0.639* | 0.736 | 0.809 | 0.785 | 0.971 | 0.434* | 0.495* | 0.567 |
| | (0.147) | (0.141) | (0.159) | (0.262) | (0.228) | (0.290) | (0.154) | (0.158) | (0.169) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | | | | |
| One | 0.884 | 0.951 | 0.953 | 0.988 | 0.972 | 1.024 | 0.791* | 0.903 | 0.903 |
| | (0.081) | (0.091) | (0.077) | (0.139) | (0.137) | (0.126) | (0.093) | (0.119) | (0.096) |
| More than one | 0.779 | 0.884 | 0.843 | 0.931 | 0.897 | 0.904 | 0.641 | 0.830 | 0.794 |
| | (0.139) | (0.165) | (0.128) | (0.250) | (0.239) | (0.202) | (0.146) | (0.215) | (0.161) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | | | | |
| One | 0.870+ | 1.091 | 0.900 | 1.000 | 1.152 | 0.910 | 0.765* | 1.034 | 0.884 |
| | (0.080) | (0.104) | (0.073) | (0.142) | (0.161) | (0.114) | (0.090) | (0.135) | (0.092) |
| More than one | 0.811 | 1.091 | 0.875 | 1.067 | 1.126 | 1.019 | 0.619* | 1.036 | 0.776 |
| | (0.142) | (0.200) | (0.131) | (0.282) | (0.296) | (0.221) | (0.141) | (0.263) | (0.158) |
| Employment Sector (reference category: semi routine or routine) | | | | | | | | | |
| Intermediate | 1.198** | 1.036 | 1.077 | 1.225 | 0.909 | 1.060 | 1.178* | 1.075 | 1.074 |
| | (0.073) | (0.060) | (0.061) | (0.140) | (0.092) | (0.117) | (0.085) | (0.075) | (0.073) |
| Management & Professional | 1.255*** | 0.923+ | 1.135** | 1.352*** | 0.961 | 1.168 | 1.195** | 0.898 | 1.112 |
| | (0.064) | (0.043) | (0.055) | (0.113) | (0.073) | (0.095) | (0.076) | (0.053) | (0.067) |
| Private Sector | 0.959 | 1.000 | 0.894** | 1.033 | 0.930 | 0.898 | 0.905 | 1.018 | 0.879** |
| | (0.324) | (0.040) | (0.037) | (0.075) | (0.066) | (0.067) | (0.047) | (0.049) | (0.043) |
| Long standing illness | 0.590*** | 0.652*** | 0.341*** | 0.583*** | 0.703*** | 0.378*** | 0.596*** | 0.620*** | 0.316*** |
| | (0.026) | (0.028) | (0.014) | (0.045) | (0.050) | (0.026) | (0.033) | (0.033) | (0.016) |
| Job Change | 1.000 | 0.969 | 1.110+ | 1.049 | 1.088 | 1.258* | 0.978 | 0.888 | 1.013 |
| | (0.060) | (0.052) | (0.064) | (0.104) | (0.095) | (0.116) | (0.074) | (0.061) | (0.074) |
| Age | 0.983*** | 0.990** | 1.001 | 0.985* | 0.997 | 1.006 | 0.982*** | 0.984*** | 0.998 |
| | (0.004) | (0.004) | (0.004) | (0.006) | (0.006) | (0.006) | (0.005) | (0.005) | (0.005) |
| Wave (reference category : wave 2) | | | | | | | | | |
| Wave 4 | 0.882** | 0.932+ | 0.643*** | 0.897 | 0.973 | 0.680*** | 0.879* | 0.915 | 0.623*** |
| | (0.390) | (0.036) | (0.029) | (0.067) | (0.062) | (0.051) | (0.048) | (0.045) | (0.034) |
| Wave 6 | 1.069 | 1.080+ | 0.842*** | 1.027 | 1.082 | 0.872 | 1.125 | 1.113* | 0.832** |
| | (0.052) | (0.046) | (0.040) | (0.083) | (0.074) | (0.066) | (0.068) | (0.060) | (0.050) |
| Wave 8 | 1.007 | 1.143** | 0.956 | 1.052 | 1.122 | 0.876 | 0.984 | 1.185** | 1.030 |
| | (0.052) | (0.052) | (0.046) | (0.090) | (0.085) | (0.070) | (0.063) | (0.067) | (0.061) |
| Wave 10 | 0.842** | 1.127* | 0.853** | 0.815* | 1.103 | 0.798* | 0.868* | 1.183** | 0.906 |

| | | | | | | | | | |
|-----------------------|------------|------------|------------|-----------|------------|-----------|------------|------------|------------|
| | (0.046) | (0.057) | (0.045) | (0.074) | (0.091) | (0.068) | (0.060) | (0.075) | (0.060) |
| Log Household Income | 1.652*** | 1.139** | 1.284*** | 1.859*** | 1.225 | 1.459*** | 1.484*** | 1.066 | 1.153* |
| | (0.087) | (0.053) | (0.063) | (0.170) | (0.101) | (0.133) | (0.095) | (0.059) | (0.065) |
| Log Likelihood | -20595.591 | -27682.329 | -22474.536 | -7616.448 | -10498.603 | -8552.318 | -12957.903 | -17117.988 | -13871.815 |
| Observations | 17,836 | 17,836 | 17,836 | 8036 | 8036 | 8036 | 9800 | 9800 | 9800 |

Note: A pooled sample from Understanding Society (Wave 2-10) has been used to draw above-mentioned estimates. The standard error value for each estimate can be found in the parentheses. + $p < 0.1$ * $p < .05$ ** $p < .01$ *** $p < .001$.

Table A-8

Cross-sectional models for spousal/partners' use of flexitime/teleworking and parental subjective well-being

| Variables | Fathers | | | Mothers | | |
|---------------------------------|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | | Model 1 | | | Model 2 | |
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Spousal/Partner Characteristics | | | | | | |
| Flexitime | 0.909 | 1.115 | 0.835 | 1.378+ | 1.087 | 1.061 |
| | (0.140) | (0.144) | (0.119) | (0.323) | (0.179) | (0.222) |
| Teleworking | 0.867 | 0.657* | 0.777 | 1.920* | 1.179 | 1.404+ |

| | | | | | | |
|---|----------|---------|----------|---------|----------|----------|
| | (0.177) | (0.114) | (0.158) | (0.612) | (0.335) | (0.349) |
| Other Flexible Working Arrangements | 0.902 | 1.006 | 1.036 | 1.266 | 1.039 | 0.964 |
| | (0.113) | (0.108) | (0.128) | (0.322) | (0.219) | (0.208) |
| Age | 1.009 | 0.990 | 1.008 | 0.959 | 0.976 | 1.020 |
| | (0.017) | (0.014) | (0.015) | (0.020) | (0.021) | (0.022) |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | 1.083 | 0.699* | 0.879 | 1.230 | 0.607* | 0.917 |
| | (0.175) | (0.099) | (0.148) | (0.406) | (0.152) | (0.251) |
| Management & Professional | 1.116 | 0.980 | 1.022 | 1.211 | 1.069 | 1.048 |
| | (0.170) | (0.130) | (0.156) | (0.245) | (0.212) | (0.210) |
| Private Sector | 1.127 | 1.029 | 0.910 | 0.975 | 0.937 | 0.864 |
| | (0.140) | (0.118) | (0.108) | (0.193) | (0.160) | (0.165) |
| Long standing illness | 0.841 | 0.792 | 0.969 | 0.769 | 0.774 | 1.103 |
| | (0.116) | (0.100) | (0.121) | (0.167) | (0.147) | (0.260) |
| Job Change | 0.976 | 1.138 | 1.155 | 1.378 | 1.139 | 0.986 |
| | (0.170) | (0.185) | (0.198) | (0.553) | (0.316) | (0.291) |
| Individual Characteristics | | | | | | |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | 1.512 | 1.098 | 1.039 | 0.808 | 1.206 | 0.844 |
| | (0.331) | (0.177) | (0.200) | (0.217) | (0.296) | (0.208) |
| Management & Professional | 1.198 | 0.956 | 1.164 | 0.830 | 1.212 | 1.195 |
| | (0.166) | (0.121) | (0.165) | (0.195) | (0.248) | (0.274) |
| Private Sector | 0.820 | 0.868 | 0.806 | 0.882 | 1.266 | 0.885 |
| | (0.111) | (0.109) | (0.108) | (0.170) | (0.204) | (0.168) |
| Long standing illness | 0.630*** | 0.692** | 0.360*** | 0.658+ | 0.672 | 0.299*** |
| | (0.082) | (0.095) | (0.046) | (0.151) | (0.137) | (0.058) |
| Job Change | 1.537* | 1.303 | 1.572** | 0.928 | 0.780 | 1.034 |
| | (0.302) | (0.192) | (0.274) | (0.230) | (0.165) | (0.287) |
| Age | 0.973 | 1.000 | 1.006 | 1.034+ | 1.003 | 0.974 |
| | (0.014) | (0.013) | (0.014) | (0.022) | (0.022) | (0.021) |
| Number of Children (reference category: one child) | | | | | | |
| Two | 0.756 | 0.756 | 0.836 | 1.629 | 3.945* | 1.307 |
| | (0.247) | (0.304) | (0.248) | (0.988) | (2.326) | (0.667) |
| More than two | 0.671 | 0.412 | 0.793 | 1.453 | 8.588 | 1.284 |
| | (0.422) | (0.327) | (0.459) | (1.667) | (10.039) | (1.196) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | |
| One | 1.289 | 1.154 | 0.994 | 0.902 | 0.202** | 0.607 |

| | | | | | | |
|---|-----------|-----------|-----------|----------|-----------|----------|
| | (0.427) | (0.458) | (0.290) | (0.525) | (0.113) | (0.281) |
| More than one | 3.030 | 1.155 | 2.010 | 2.875 | 0.0838* | 0.987 |
| | (2.105) | (0.956) | (1.255) | (4.453) | (0.098) | (1.146) |
| Number of children aged 3-4 in household (reference category: none) | | | | | | |
| One | 1.314 | 1.474 | 1.239 | 0.736 | 0.364 | 0.795 |
| | (0.424) | (0.591) | (0.367) | (0.463) | (0.219) | (0.388) |
| More than one | 1.797 | 2.440 | 2.173 | 0.0722 | 0.0562 | 1.091 |
| | (1.248) | (2.046) | (1.854) | (0.138) | (0.107) | (1.335) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | |
| One | 1.251 | 1.395 | 1.036 | 0.563 | 0.271* | 0.707 |
| | (0.406) | (0.556) | (0.302) | (0.330) | (0.158) | (0.350) |
| More than one | 1.290 | 1.773 | 1.001 | 0.428 | 0.0867 | 0.532 |
| | (0.808) | (1.395) | (0.558) | (0.504) | (0.098) | (0.491) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | |
| One | 1.246 | 1.834 | 0.960 | 0.469 | 0.385 | 0.530 |
| | (0.395) | (0.715) | (0.283) | (0.283) | (0.221) | (0.248) |
| More than one | 1.951 | 2.226 | 1.160 | 0.354 | 0.0973 | 0.338 |
| | (12.60) | (1.741) | (0.649) | (0.407) | (0.114) | (0.324) |
| Log Household Income | 1.823** | 1.270 | 1.326 | 1.605 | 0.667 | 0.682 |
| | (0.370) | (0.226) | (0.257) | (0.533) | (0.174) | (0.218) |
| Wave(reference category: wave 2) | | | | | | |
| Wave 4 | 1.001 | 0.994 | 0.767 | 0.756 | 0.770 | 0.687 |
| | (0.147) | (0.135) | (0.113) | (0.182) | (0.180) | (0.173) |
| Wave 6 | 1.045 | 0.964 | 0.878 | 1.554+ | 1.322 | 1.316 |
| | (0.167) | (0.135) | (0.133) | (0.433) | (0.305) | (0.357) |
| Wave 8 | 1.131 | 1.179 | 0.946 | 1.270 | 1.433 | 1.874 |
| | (0.188) | (0.173) | (0.146) | (0.340) | (0.339) | (0.494) |
| Wave 10 | 0.777 | 1.069 | 0.927 | 1.002 | 1.444 | 1.164 |
| | (0.140) | (0.179) | (0.163) | (0.314) | (0.366) | (0.309) |
| Log Likelihood | -2038.545 | -2931.825 | -2341.042 | -812.713 | -1167.153 | -884.700 |
| Observations | 1,892 | 1,892 | 1,892 | 1206 | 1206 | 1206 |

Note: A pooled sample from Understanding Society (Wave 2-10) has been used to draw above-mentioned estimates. The standard error value for each estimate can be found in the parentheses. + $p < 0.1$ * $p < .05$ ** $p < .01$ *** $p < .001$.

Table A-9

Fixed effects linear models for the impact of parents' transition to flexitime/teleworking on their subjective well- being

| Variables | All | | | Fathers | | | Mothers | | |
|---|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Flexitime | 0.0271 (0.042) | 0.0909* (0.048) | -0.0324 (0.053) | -0.0241 (0.066) | 0.0706 (0.076) | -0.0998 (0.084) | 0.0645 (0.055) | 0.106+ (0.062) | 0.00611 (0.068) |
| Teleworking | 0.0311 (0.049) | 0.0463 (0.057) | 0.113+ (0.064) | -0.0117 (0.070) | 0.155* (0.080) | 0.0593 (0.091) | 0.0767 (0.068) | -0.0529 (0.082) | 0.165* (0.090) |
| Other Flexible working | -0.0335 (0.028) | 0.0373 (0.033) | -0.0378 (0.034) | -0.0184 (0.050) | -0.0116 (0.059) | -0.00431 (0.061) | -0.0346 (0.033) | 0.0612 (0.040) | -0.0544 (0.040) |
| Log Household Income | 0.0672 (0.041) | 0.00656 (0.044) | -0.0391 (0.047) | 0.0601 (0.077) | 0.0703 (0.083) | -0.00829 (0.092) | 0.0762 (0.049) | -0.0169 (0.052) | -0.0545 (0.055) |
| Number of Children (reference category: one child) | | | | | | | | | |
| Two | 0.148 (0.057) | -0.0263 (0.067) | 0.0521 (0.072) | 0.158 (0.083) | 0.0382 (0.097) | -0.0726 (0.107) | 0.132 (0.080) | -0.0699 (0.094) | 0.138 (0.097) |
| More than two | 0.228 (0.114) | -0.105 (0.134) | 0.00131 (0.142) | 0.159 (0.164) | -0.161 (0.185) | -0.330 (0.208) | 0.258 (0.157) | -0.0723 (0.189) | 0.229 (0.192) |
| Marital Status (reference category: single/never married) | | | | | | | | | |
| Married/Coha | 0.178 | 0.146 | -0.0281 | 0.802 | 0.377 | -0.337 | 0.137 | 0.142 | -0.0134 |

| | | | | | | | | | |
|---|---------|---------|-----------|---------|---------|---------|-----------|---------|----------|
| bitating | (0.103) | (0.107) | (0.108) | (0.313) | (0.374) | (0.315) | (0.107) | (0.111) | (0.113) |
| Divorced/Sep arated/Widow ed | 0.0100 | 0.0499 | 0.0287 | 0.281 | 0.710 | 0.103 | -0.000129 | 0.0147 | 0.0124 |
| | (0.118) | (0.123) | (0.132) | (0.453) | (0.535) | (0.537) | (0.121) | (0.126) | (0.135) |
| Age | -0.0232 | 0.00432 | -0.000902 | -0.0171 | 0.00456 | 0.00425 | -0.0268 | 0.00303 | -0.00290 |
| | (0.005) | (0.006) | (0.006) | (0.008) | (0.010) | (0.010) | (0.006) | (0.007) | (0.008) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | | | | |
| One | -0.0934 | -0.188 | 0.0137 | -0.0323 | -0.217 | 0.100 | -0.139 | -0.163 | -0.0563 |
| | (0.057) | (0.066) | (0.070) | (0.080) | (0.094) | (0.102) | (0.080) | (0.093) | (0.096) |
| More than one | -0.154 | -0.389 | 0.125 | -0.119 | -0.309 | 0.333 | -0.165 | -0.459 | -0.0148 |
| | (0.115) | (0.140) | (0.145) | (0.160) | (0.189) | (0.214) | (0.163) | (0.204) | (0.197) |
| Number of children aged 3-4 in household (reference category: none) | | | | | | | | | |
| One | -0.147 | -0.159 | -0.0306 | -0.0890 | -0.118 | 0.115 | -0.186 | -0.189 | -0.138 |
| | (0.053) | (0.062) | (0.067) | (0.076) | (0.086) | (0.099) | (0.075) | (0.089) | (0.092) |
| More than one | -0.305* | -0.309* | -0.0272 | -0.182 | -0.128 | 0.234 | -0.402 | -0.435 | -0.212 |
| | (0.144) | (0.154) | (0.169) | (0.191) | (0.204) | (0.226) | (0.211) | (0.238) | (0.250) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | | | | |
| One | -0.125 | -0.0639 | 0.0689 | -0.128 | -0.0779 | 0.144 | -0.121 | -0.0556 | 0.00108 |
| | (0.055) | (0.063) | (0.068) | (0.081) | (0.091) | (0.101) | (0.076) | (0.088) | (0.093) |
| More than one | -0.212 | -0.0515 | 0.0309 | -0.205 | -0.0202 | 0.210 | -0.212 | -0.0744 | -0.120 |
| | (0.106) | (0.122) | (0.131) | (0.154) | (0.172) | (0.196) | (0.147) | (0.172) | (0.177) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | | | | |
| One | -0.0936 | 0.00972 | 0.0124 | -0.119 | -0.0230 | 0.0836 | -0.0785 | 0.0311 | -0.0557 |
| | (0.057) | (0.065) | (0.070) | (0.085) | (0.094) | (0.108) | (0.078) | (0.090) | (0.094) |
| More than one | -0.142 | 0.0408 | 0.0450 | -0.195 | 0.0271 | 0.196 | -0.106 | 0.0544 | -0.0925 |
| | (0.106) | (0.123) | (0.132) | (0.155) | (0.174) | (0.194) | (0.147) | (0.173) | (0.180) |
| Job change | 0.0653 | 0.0741 | 0.111 | 0.113 | 0.122 | 0.126 | 0.0363 | 0.0500 | 0.104 |
| | (0.032) | (0.038) | (0.042) | (0.052) | (0.060) | (0.065) | (0.040) | (0.049) | (0.054) |
| Employment Sector (reference category: semi routine or routine) | | | | | | | | | |
| Intermediate | 0.0239 | -0.0208 | 0.0991 | 0.176 | -0.0308 | 0.396 | -0.0305 | -0.0124 | -0.00189 |
| | (0.066) | (0.074) | (0.080) | (0.125) | (0.146) | (0.146) | (0.078) | (0.085) | (0.094) |
| Managerial & | 0.00263 | -0.0722 | 0.00220 | 0.0939 | -0.0543 | 0.375 | -0.0359 | -0.0774 | -0.155 |

| | | | | | | | | | |
|------------------------|-----------|-----------|-----------|---------|---------|-----------|-----------|-----------|-----------|
| Professional | (0.062) | (0.068) | (0.073) | (0.113) | (0.127) | (0.120) | (0.074) | (0.082) | (0.090) |
| Private sector | -0.0309 | -0.0468 | -0.0477 | -0.0354 | -0.109 | -0.113 | -0.0257 | -0.0280 | -0.0157 |
| | (0.042) | (0.048) | (0.051) | (0.081) | (0.091) | (0.097) | (0.048) | (0.057) | (0.060) |
| Illness | -0.125*** | -0.122*** | -0.385*** | -0.0544 | -0.0589 | -0.295*** | -0.165*** | -0.157*** | -0.435*** |
| | (0.033) | (0.035) | (0.040) | (0.052) | (0.057) | (0.066) | (0.043) | (0.045) | (0.051) |
| Number of observations | 20,604 | 20,604 | 20,604 | 9320 | 9320 | 9320 | 11,284 | 11,284 | 11,284 |

Note: The standard error value for each estimate are mentioned in the brackets. + p<0.1 * p< .05 ** p< .01 *** p< .001.

Table A-10

Fixed effects linear models for the impact of spouse's/partner's transition to flexitime/teleworking on parents'

| Variables | Fathers | | | Mothers | | |
|---------------------------------|------------------------|--------------------------------|--------------------------|------------------------|--------------------------------|--------------------------|
| | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health | Satisfaction with Life | Satisfaction with Leisure Time | Satisfaction with Health |
| Spousal/Partner Characteristics | | | | | | |
| Flexitime | -0.0159 | 0.0529 | -0.0625 | 0.0260 | 0.248+ | -0.0399 |
| | (0.169) | (0.171) | (0.202) | (0.110) | (0.150) | (0.189) |
| Teleworking | -0.256+ | -0.266 | 0.227 | -0.0822 | -0.229 | -0.0191 |

| | | | | | | |
|---|---------|----------|---------|---------|----------|---------|
| | (0.190) | (0.258) | (0.264) | (0.139) | (0.174) | (0.188) |
| Other Flexible working | 0.0643 | 0.0859 | -0.0964 | -0.0395 | -0.176 | -0.0156 |
| | (0.106) | (0.103) | (0.110) | (0.089) | (0.106) | (0.122) |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | -0.281 | 0.0954 | -0.212 | 0.0721 | -0.264 | 0.0946 |
| | (0.227) | (0.265) | (0.268) | (0.212) | (0.240) | (0.339) |
| Management & Professional | -0.394 | -0.0215 | -0.0847 | 0.0753 | -0.0895 | 0.115 |
| | (0.200) | (0.238) | (0.225) | (0.186) | (0.208) | (0.248) |
| Age | -0.0226 | -0.0195 | -0.0903 | 0.0592 | 0.0184 | -0.0127 |
| | (0.114) | (0.063) | (0.060) | (0.060) | (0.067) | (0.073) |
| Private sector | -0.0677 | -0.238 | 0.0208 | 0.0204 | -0.106 | 0.299 |
| | (0.147) | (0.176) | (0.176) | (0.133) | (0.153) | (0.184) |
| Long standing illness | 0.115 | 0.00897 | 0.0722 | -0.0328 | -0.0389 | 0.0879 |
| | (0.108) | (0.122) | (0.136) | (0.087) | (0.105) | (0.112) |
| Job change | -0.0851 | -0.102 | -0.0618 | 0.0728 | 0.0372 | 0.0292 |
| | (0.112) | (0.126) | (0.149) | (0.105) | (0.130) | (0.130) |
| Individual Characteristics | | | | | | |
| Age | 0.0293 | 0.0688 | 0.130 | -0.0733 | -0.00397 | 0.00564 |
| | (0.113) | (0.062) | (0.059) | (0.062) | (0.072) | (0.077) |
| Private sector | -0.161 | -0.0371 | -0.379 | 0.0119 | 0.0126 | -0.0499 |
| | (0.172) | (0.197) | (0.182) | (0.136) | (0.149) | (0.153) |
| Long standing illness | 0.0811 | -0.195 | -0.274 | -0.202 | -0.328 | -0.456 |
| | (0.115) | (0.119) | (0.134) | (0.123) | (0.112) | (0.135) |
| Job change | 0.188 | 0.000434 | 0.0230 | 0.0289 | -0.0598 | 0.0177 |
| | (0.113) | (0.135) | (0.139) | (0.099) | (0.134) | (0.149) |
| Employment Sector (reference category: semi routine or routine) | | | | | | |
| Intermediate | 0.140 | 0.000538 | 0.434 | 0.160 | 0.298 | 0.185 |
| | (0.242) | (0.299) | (0.299) | (0.219) | (0.226) | (0.276) |
| Management & Professional | -0.150 | -0.243 | 0.478* | 0.0251 | 0.0642 | -0.285 |
| | (0.233) | (0.289) | (0.218) | (0.205) | (0.217) | (0.285) |
| Number of Children (reference category: one child) | | | | | | |
| Two | 0.119 | 0.201 | -0.347 | 0.189 | -0.354 | 0.0900 |
| | (0.204) | (0.275) | (0.270) | (0.146) | (0.209) | (0.191) |
| More than two | 0.483 | 0.0824 | -0.616 | 0.158 | -0.706 | -0.192 |
| | (0.403) | (0.538) | (0.523) | (0.268) | (0.406) | (0.386) |
| Number of children aged 0-2 in household (reference category: none) | | | | | | |
| | -0.113 | -0.267 | 0.227 | -0.311 | 0.00550 | -0.280 |

| | | | | | | |
|---|---------|---------|---------|---------|---------|----------|
| One | (0.201) | (0.272) | (0.271) | (0.162) | (0.210) | (0.183) |
| More than one | -0.0332 | -0.403 | 1.019 | -0.199 | -0.121 | -0.0485 |
| | (0.376) | (0.533) | (0.546) | (0.298) | (0.418) | (0.370) |
| Number of children aged 3-4 in household (reference category: none) | | | | | | |
| One | -0.0644 | -0.0516 | 0.264 | -0.227 | 0.0391 | -0.181 |
| | (0.186) | (0.256) | (0.265) | (0.141) | (0.198) | (0.180) |
| More than one | -0.610 | -0.448 | 0.414 | -0.459 | 0.0684 | 0.253 |
| | (0.438) | (0.440) | (0.674) | (0.471) | (0.564) | (0.452) |
| Number of children aged 5-11 in household (reference category: none) | | | | | | |
| One | -0.209 | -0.231 | 0.204 | -0.226 | 0.181 | 0.125 |
| | (0.189) | (0.264) | (0.251) | (0.148) | (0.199) | (0.175) |
| More than one | -0.481 | -0.313 | 0.202 | -0.289 | 0.544 | -0.00981 |
| | (0.353) | (0.520) | (0.500) | (0.272) | (0.372) | (0.329) |
| Number of children aged 12-15 in household (reference category: none) | | | | | | |
| One | -0.328 | -0.354 | -0.0724 | -0.0758 | 0.372 | 0.0118 |
| | (0.192) | (0.264) | (0.262) | (0.145) | (0.199) | (0.186) |
| More than one | -0.568 | -0.612 | -0.0466 | -0.0671 | 0.617 | 0.00358 |
| | (0.361) | (0.541) | (0.486) | (0.262) | (0.364) | (0.346) |
| Log household income | 0.0156 | -0.0309 | -0.167 | -0.418 | -0.0508 | -0.374 |
| | (0.258) | (0.233) | (0.304) | (0.213) | (0.211) | (0.283) |
| Number of observations | 2528 | 2528 | 2528 | 2814 | 2814 | 2814 |

Note: The standard error value for each estimate are mentioned in the parentheses. + p<0.1 * p< .05 ** p< 0.01*** p< .001.

**Empirical Chapter 2: Keyworkers' Mental Health During the
COVID-19 Infection Peaks: Mapping the Role of Gender and
Sector Differences**

Abstract

This study investigates the mental health impact of the COVID-19 pandemic on key workers in the UK, with a focus on gender and sectoral differences. Utilising longitudinal data from the UK Household Longitudinal Study (UKHLS) and its COVID-19 survey, I analyse mental health outcomes during three key infection peaks: May 2020, November 2020, and January 2021. Keyworkers faced heightened exposure to the virus and increased work demands compared to non-keyworkers, with significant implications for their mental health. I employ fixed-effects models to account for pre-pandemic mental health baselines, offering a more nuanced understanding of the psychological toll. My findings reveal stronger associations between keyworker status and mental health decline compared to non-keyworkers, particularly during the pandemic's second peak. Gender disparities were also evident, with female keyworkers reporting stronger associations with distress, exacerbated by increased domestic responsibilities. Sectoral analysis shows that health and social care workers, although at the forefront of the pandemic response, had slightly weaker associations with psychological morbidity compared to those in other key sectors like transportation and retail, due to greater institutional support. These findings highlight the need for tailored mental health interventions for keyworkers, particularly women and those in under-resourced sectors, to mitigate the adverse effects of future pandemics.

Introduction

On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic, marking a pivotal moment in modern history. The pandemic affected 771,549,718 individuals and tragically claimed 6,974,473 lives, underscoring its profound human toll. Before medical advancements such as vaccine production and rollout, efforts to curb the virus included limiting non-essential travel and contact, enforcing stay-at-home orders, social distancing, and imposing lockdowns. In the UK, the first nationwide lockdown was implemented on March 23, 2020. At the forefront of governmental measures to ensure public safety were keyworkers—those individuals employed in the healthcare, transportation, retail, delivery, and education sectors (Goldblatt and Morrison, 2020).

While sectors such as hospitality and entertainment faced temporary closures and others adapted by shifting to teleworking, keyworkers were required to maintain their pre-pandemic work routines (Banks and Xu, 2020; Davillas and Jones, 2021; Zhou et al., 2020; Daly et al., 2020). These workers encountered challenges on multiple fronts; in addition to uncertainty, they faced increased physical health risks due to greater exposure to the SARS-CoV-2 virus, surges in workload, and shortages of personal protective equipment (PPE). For those living with families, there was the additional challenge of balancing their professional duties with the need to protect their loved ones from potential infection (McConnell, 2020). The cumulative impact of these factors posed a significant threat to the mental health and well-being of keyworkers throughout the pandemic.

In this paper, I investigate the impact of COVID-19 on the mental health of keyworkers, utilizing longitudinal data from the UK Household Longitudinal Study (UKHLS) Main Survey and the UKHLS COVID-19 survey. The analysis focuses on three peaks of infection in the UK: May 2020, November 2020, and January 2021. Previous studies on keyworkers' mental health predominantly relied on data collected during the pandemic, limiting their ability to account for pre-pandemic mental health levels (Jia et al., 2020). This study addresses this limitation by incorporating pre-COVID-19 data in fixed effects models, enabling a more nuanced understanding of the association between the pandemic and mental health (Paul et al., 2021).

Existing research on psychological morbidity during the pandemic often focuses on the general population. In contrast, my study offers a comparison between keyworkers and non-keyworkers (those employed in other sectors throughout the observation period), emphasising the role of the job sector during the crisis (Jia et al., 2020). Keyworkers, being at the forefront of the pandemic response, faced greater exposure to the virus and experienced high workloads. Conversely, non-keyworkers encountered different challenges, such as adapting to remote work, dealing with job and wage insecurity, changes in work hours, and lack of access to childcare resources (Bu et al., 2022). Understanding these differences, especially across the pandemic, is crucial for identifying specific vulnerabilities and tailoring mental health support and policies to meet the unique needs of each group during similar exogenous shocks in the future. Furthermore, this comparison provides insights into the broader societal impacts of the pandemic.

Engaging with the dynamics of the keyworker subgroup, which comprised approximately 58% women, and literature on gender inequalities in the work and domestic spheres, my research examines the critical influence of gender on the relationship between the COVID-19 pandemic, keywork, and mental health. Previous studies indicate that the pandemic has amplified existing gender disparities in both the labour market and domestic spheres. Women were disproportionately represented in sectors like hospitality, retail, and personal services, which faced significant restrictions and closures, leading to job insecurity, furloughs, and reduced wages (Warren & Lyonette, 2020). In contrast, women also predominated in keywork sectors such as health and social care, where, despite job security and maintained wages, they experienced increased demand and work pressure (Warren & Lyonette, 2020). Additionally, the closure of schools and daycare facilities, combined with traditional gender norms around household labour, resulted in a substantial rise in domestic and caregiving responsibilities for women, further disrupting their work routines, especially if they were working from home (Adams-Prassl et al., 2020). Thus, my analysis will additionally explore how gender has influenced the association between keywork status and mental health, providing a nuanced comparison between male and female keyworkers and their non-keyworker counterparts. This research offers valuable insights into the interplay between gender, keywork status, and mental health outcomes during the COVID-19 pandemic.

Another dynamic within the keyworker subgroup is the division by work sectors, which forms a central aspect of my analysis. I specifically analyse the variations and distinctions across keyworker sectors, which, due to data availability, are grouped into two categories: health and social care, and all other sectors. Health and social care (HSC)

professionals were at the forefront of the pandemic response, facing significant exposure to SARS-CoV-2 and high emotional strain from witnessing high death tolls (Uphoff et al., 2021). Despite these challenges, they often benefited from stronger institutional support, public appreciation, and better access to PPE compared to other sectors (Kinman et al., 2020). In contrast, workers in transportation and essential services often faced inadequate protective measures and received less recognition, contributing to feelings of inadequacy, fear, and anxiety (Bu et al., 2022). Understanding these sector differences is crucial for strengthening vulnerable sectors and planning effective interventions for future pandemics. Additionally, analysing the intersection of gender and keywork sector will allow me to explore how sector-specific challenges intersect with gender norms and expectations, impacting psychological well-being.

Lastly, I will examine whether the core associations under study in this paper changed across the various infection peaks of the COVID-19 pandemic. Each infection peak was marked by varying levels of public health measures, such as social distancing mandates, movement restrictions, PPE supplies, medical developments, and vaccine rollouts. Additionally, public perception and fear of the virus likely fluctuated as new information emerged, vaccines were developed and distributed, and new variants of the virus appeared, each with different rates of transmissibility and severity (Bu et al., 2022). Thus, the dynamic and fluid nature of the pandemic response in the UK provides a compelling reason to investigate how these associations evolved, offering insights into the resilience and vulnerabilities of different population groups under changing conditions.

The research questions guiding my study are:

- 1. What is the association between the COVID-19 infection peaks and the mental health of keyworkers compared to non-keyworkers?**
- 2. Does the association between COVID-19 infection peaks and mental health among keyworkers and non-keyworkers vary between men and women?**
- 3. Does the association between COVID-19 infection peaks and keyworkers' mental health vary by work sector?**

In the following section, I will review existing empirical literature on the mental health of keyworkers during the COVID-19 pandemic, with a particular focus on gender-related and sector dimensions. Subsequently, I will delve into the details of the data and methodology employed in the current research and present and discuss my findings.

Literature Review

COVID-19 and Mental Health

Historically, pandemics have been linked with heightened mental health challenges among the general population. These crises not only present health threats but also disrupt the economy, labour market, and overall life dynamics, exacerbating psychological distress. For instance, the 2014-2016 Ebola outbreak caused significant mental health issues in affected regions, as documented by Jalloh et al. (2018) and O'Leary, Jalloh, & Neria (2018). The fear and anxiety were not limited to those directly

impacted by the virus but permeated the broader community. Similarly, the 2002 SARS outbreak significantly affected the mental well-being of both infected individuals and the wider population, as noted by Lee et al. (2007) and Su et al. (2007).

Similarly, the effects of the COVID-19 pandemic extended beyond those directly infected by the SARS-Cov-2 virus. Public health decisions aimed at mitigating its spread led to restrictions on movement and social interaction, closure of non-essential services, drastic changes in the labour market, and closure of childcare services (Wetherall et al., 2020). In the UK, following the first lockdown, the general population was confronted by anxiety, fear, exhaustion, additional domestic and childcare responsibilities, and financial challenges (Fancourt et al., 2021).

Several studies have reported an increase in psychiatric morbidity since the start of the COVID-19 pandemic (Pierce et al., 2020; Lob et al., 2020). In their paper on the mental health effects of the first two months of lockdown in the UK, Banks and Xu (2020) found that the pandemic substantially impacted mental health, with this impact being the largest for groups that already had lower levels of mental health before COVID-19. These findings were corroborated by Connor et al. (2020), whose research showed that during the first lockdown, people reported high levels of depression and loneliness. Similarly, Chandola et al. (2022) found that the COVID-19 pandemic and the resultant lockdown were associated with an increase in the incidence of Common Mental Disorders (CMDs).

Collectively, these studies indicate that the COVID-19 pandemic and associated lockdown measures led to a marked increase in mental health problems across the UK, with disproportionately negative effects on individuals who had pre-existing vulnerabilities.

Dynamics Across Infection Peaks

As the pandemic progressed, people gradually adapted to the "new normal," integrating ongoing restrictions into their daily lives, such as social distancing, mask-wearing, and remote working (Smith et al., 2021). However, each infection peak in the UK was characterised by variations in virus development, lockdown protocols, social distancing measures, and public health strategies (Badinlou et al., 2024). On the one hand, scientific advancements, including new medications, improved management strategies for infected individuals, and the development and deployment of vaccines, offered a sense of hope (Krammer, 2020). For example, during the initial infection peak in May 2020, widespread uncertainty and a lack of preparedness led to acute stress and fear. In contrast, during later peaks, while some of these challenges persisted, the availability of vaccines and enhanced protective measures likely mitigated the psychological impact. On the other hand, these advancements were accompanied by new and evolving challenges, such as the emergence of stronger and more transmissible virus variants like the Alpha and Delta strains, which raised renewed concerns about the efficacy of vaccines and public health measures (Kirby, 2021; Mahase, 2021). Public perception and fear of the virus fluctuated as new information emerged and new variants appeared, each with varying rates of transmissibility and severity. This period was

marked by a complex interplay of resilience and fatigue as people struggled to cope with prolonged uncertainty and disruption.

Daly et al. (2020), in their study on longitudinal changes in mental health, reported that although mental health indicators improved somewhat as lockdown restrictions were gradually lifted, they remained markedly worse than pre-pandemic levels. Supporting this, Sumner et al. (2023), using survey data collected between April 30, 2020, and July 11, 2022, observed similar trends and further noted a decline in population resilience over time. This suggests that the cumulative psychological burden of the pandemic—including ongoing fears of infection, economic uncertainty, and prolonged social isolation—continued to erode mental well-being (O'Connor et al., 2020). Consistent findings were reported by Niedzwiedz et al. (2020), who used data from the UK Household Longitudinal Study to show a significant rise in mental health problems during the first lockdown, followed by fluctuations in later phases of the pandemic.

Taken together, these findings underscore how, despite scientific progress and gradual adaptation to restrictions, the ongoing and shifting nature of the pandemic sustained elevated levels of psychological distress across the UK population.

The Plight of Keyworkers

As outlined above, key workers played a crucial role in containing the virus and maintaining essential services during the crisis (Jia et al., 2020). This experience can be understood through the lens of role strain theory, which posits that time and personal

energy are finite resources. As a result, individuals juggling multiple social roles may experience conflicts that can lead to mental health strain. While keyworkers generally retained their pre-pandemic work routines, thereby facing less financial strain and job insecurity compared to non-keyworkers, they encountered significant conflicting challenges. Their roles necessitated exposure to the virus, and they also had concerns about potentially transmitting the virus to family members, a concern exacerbated by PPE shortages and increased workload demands (Griffin, 2020; Neville & Shepherd, 2021). This dual burden, balancing professional responsibilities while managing heightened personal risks, likely contributed to elevated levels of stress and anxiety.

The existing findings comparing the mental health outcomes of keyworkers vs non-keyworkers are mixed. While Lindley and Cinzia (2021) found that keyworkers experienced lower levels of psychological distress compared to non-keyworkers in the first wave of the pandemic, Pierce et al. (2021) found that keyworkers' mental health deteriorated more than their non-keyworker counterparts in the first wave of the pandemic. Bu et al. (2022), using longitudinal data from 21874 adults over 12 months during the COVID-19 pandemic, found that keyworkers had had consistently higher levels of depressive and anxiety symptoms than non-keyworkers across the whole of the study period. Furthermore, Benassi et al. (2021) conducted a study across several European countries, finding that keyworkers generally reported higher levels of stress and anxiety than non-keyworkers. Studies focusing exclusively on keyworkers also reported substantial increases in their stress levels compared to their pre-pandemic baselines; Ayling et al. (2020) found that keyworkers experienced significantly higher levels of depression, anxiety, and stress compared to pre-pandemic norms.

Taken together, these studies suggest that while key workers may have been somewhat shielded from economic uncertainty, their sustained exposure to health risks, heavier workloads, and emotional strain contributed to a heightened and prolonged psychological burden during the pandemic.

The Role of Gender

Women were among the most vulnerable groups impacted by the COVID-19 pandemic (Davillas & Jones, 2021). Pre-pandemic gender inequalities were exacerbated by conditions created during the pandemic, placing women in a multidimensionally disadvantageous position.

Women largely constituted both the sectors that experienced the most limited operations and closures, as well as key work sectors that saw increased demand and workload (Oreffice & Quintana-Domeque, 2020). These sectors included service and hospitality, which suffered significant job losses, and healthcare and social care, where the workload intensified dramatically. Consequently, compared to their male counterparts, women were more likely to experience job insecurity, economic instability, and stress (Davillas & Jones, 2021; Xue & McMunn, 2021).

School and daycare closures significantly amplified childcare and domestic responsibilities. Social distancing and stay-at-home orders meant that informal care providers, such as grandparents or other family members, were unable to shoulder responsibilities in most cases (Zamarro, 2020). Building on pre-existing trends, women

bore the brunt of the increase in childcare and domestic responsibilities (Chung et al., 2021). The women working from home experienced a blurring of work and non-work boundaries, while those who were furloughed or worked reduced hours were further entrenched as the primary caretakers. These circumstances posed significant challenges to both the physical and psychological health of women, rendering them more vulnerable than men.

Using data from Understanding Society, Xue and McMunn (2021) found that women reported significantly higher levels of psychological distress than men during the pandemic. This disparity has been widely attributed to the compounded pressures of professional responsibilities and increased domestic obligations. Supporting this, Davillas and Jones (2021) documented similar gendered patterns in their study on COVID-19's impact on socioeconomic inequality in psychological distress in the UK. Likewise, Fancourt et al. (2021), drawing on data from the COVID-19 Social Study, reported that women consistently exhibited higher levels of anxiety, depression, and psychological distress compared to men. Etheridge and Spantig (2022) further reinforced these findings, showing that the decline in mental well-being at the onset of the pandemic was more than twice as large for women as for men in the UK. These gender disparities have been largely attributed to the increased domestic and caregiving responsibilities that disproportionately fell on women during lockdowns and school closures (Zamarro & Prados, 2021).

Comparing women in key work sectors to women in non-key work sectors, the former had better job and wage security in comparison to their counterparts (Xue &

McMunn, 2021). Furthermore, key worker women also had some access to childcare services, and schools made special arrangements to accommodate their children for a few hours a day under government orders, reducing their domestic burden (Blundell et al., 2020). Thus, key work status could have acted as a buffer against the impact of COVID-19 on mental health, lessening gendered vulnerabilities (Etheridge & Spantig, 2020).

On the other hand, in comparison to their non-key worker counterparts, female key workers faced the additional challenge of high exposure to the virus and an increase in workload due to higher sector demands (Niedzwiedz et al., 2021). In the scenario of the overall increase in domestic responsibilities, key workers were exposed to work-life conflict and the feeling of fear around the protection of the health of their loved ones (Kolehmainen & Smeds, 2021). Thus, their mental health could have suffered more than their counterparts. A 2021 study by Utzet et al. on Spanish frontline workers found that the impact of the pandemic on key workers' mental health was most pronounced for women. These findings were corroborated by Sugg et al. (2021), who used data from the Crisis Text Line (CTL) in the US and found that during the pandemic, female essential workers suffered 200% higher odds of poor mental health depicted in self-harm and abuse compared to their non-keyworker counterparts. My study will further engage with the role of gender in the association between the COVID-19 pandemic, keywork, and mental health, comparing male and female keyworkers to their non-keywork counterparts.

In light of these intersecting pressures, my study seeks to build on existing evidence by systematically examining how gender mediates the relationship between key

work status and mental health outcomes during the COVID-19 pandemic, comparing male and female key workers with their non-key worker counterparts.

Keyword Sector

Within the keyworker population, sector differences translated to varying exposures to the SARS-CoV-2 virus, differences in workload, access to PPE, and appreciation from the public and the government (Bu et al., 2022).

The HSC sector was at the forefront of the pandemic response. These workers faced immense work pressure, extreme fear of contracting the virus and transmitting it to family members, the emotional toll of patient deaths, and moral injury associated with life-and-death decisions under resource constraints (Spoorthy et al., 2020). A study by Greenberg et al. (2021) highlighted that over 50% of NHS staff reported symptoms of mental health disorders, with nurses and junior doctors being particularly affected. Similarly, a rapid systematic review by PLOS ONE (2021) emphasised that healthcare workers exhibited significant psychological symptoms, including sleep disturbances, anxiety, and depression, with prevalence rates varying widely across different studies.

However, HSC workers were more able to maintain their pre-pandemic work patterns compared to their counterparts in other keyword sectors (non-HSC). For example, teachers and education staff had to navigate the transition to online teaching while simultaneously managing in-person classes with strict health protocols (Kim & Asbury, 2020). HSC workers had better access to PPE, while workers in other sectors,

especially retail, transport, and pharmacy, often faced inadequate PPE supply issues whilst being dangerously exposed to the virus (Mason et al., 2020). Mason et al. (2020) found that grocery store workers reported high levels of stress and anxiety due to the constant risk of exposure, increased workloads, and dealing with anxious and sometimes hostile customers. Similarly, Chen et al. (2020) reported that public transport workers experienced high levels of anxiety and stress due to constant exposure to the public. In addition to the physical risks, some non-HSC workers experienced an upsurge in workload. For example, delivery drivers faced pressure to meet the surge in demand for home deliveries, which added to their stress (Campo et al., 2020). However, overall, non-HSC workers were much less likely to receive public recognition and appreciation for their work, posing further challenges to their mental health.

In their 2022 study, Bu et al. analysed data from the beginning of the COVID-19 pandemic in the UK up to the end of the third lockdown. They found that within the broad category of keyworkers, those in utility, food chain, and transport roles were especially at risk of poor mental health. These workers faced significant stressors, including increased workload, exposure to the virus, and lack of public recognition, contributing to elevated levels of anxiety and depression. Conversely, Kapil et al. (2022) discovered that healthcare professionals had higher burnout rates than non-healthcare professionals in the UK. This heightened burnout was attributed to the intense pressure of frontline duties, direct exposure to COVID-19 patients, and the emotional toll of patient care under resource-constrained conditions.

These mixed findings indicate the need for further research to identify which subgroups within keyworkers are the most vulnerable. Understanding these nuances can help tailor mental health support to the specific needs of different keyworker sectors. Furthermore, as noted earlier, the current study will explore the intersection of gender and the keywork sector on mental health to uncover additional layers of vulnerability and inform more effective interventions. This aspect of the analysis is crucial because gender dynamics within key worker roles may play a significant role in determining mental health outcomes. Key worker sectors often reflect gender imbalances, with women being overrepresented in many of these roles. These gendered patterns can contribute to different experiences of stress, burnout, and exposure to risk factors that may affect mental health (Smith et al., 2021).

These mixed findings highlight the importance of disaggregating keyworker experiences by sector to identify subgroups most vulnerable to poor mental health outcomes. Building on this, the current study investigates how gender intersects with sectoral keywork status to shape mental health outcomes. Given that keyworker sectors are often gender-segregated—with women overrepresented in roles such as healthcare, social care, and education—this intersectional lens is vital to uncovering compounded vulnerabilities and informing more targeted mental health interventions.

Data and Methods

The data used in this study were drawn from the UKHLS Main Survey and the UKHLS COVID-19 Survey, two longitudinal datasets covering socio-economic

information from British households pre- and during the COVID-19 pandemic, respectively. I used Waves 9 and 10 from the main survey; information was based on field interviews conducted between 2018 and 2019. These waves contain rich information on the demographic, socioeconomic, and political attributes of each respondent. The COVID-19 survey was a continuation of the main survey, gauging the impact of the pandemic on individuals' work-family lives, as well as their physical and mental health. These interviews were conducted in March, April, May, June, July, September, and November 2020, as well as in January and March 2021. I only used information from May and November 2020 and January 2021, as data from other periods did not contain variables relating to keyworker status and sector.

My sample consisted of individuals from the UKHLS COVID-19 datasets who had participated in either wave 9 or 10 of the main UKHLS survey³. Furthermore, I only maintained those individuals in my sample who stayed in paid employment throughout the observation period⁴ as the aim of my study was to compare keyworkers with individuals in non-keywork sectors. Lastly, all individuals in my sample stayed in the same sector throughout the observation period⁵. With these specifications, my main samples consisted of 15,602 observations for the general population and 6,343 observations for keyworkers for May 2020. These observations were reduced to 14,136 (general population) and 5,018 (keyworkers) for November 2020 and 13,067 (general population) and 5,763 (keyworkers) for January 2021. I also created subsamples by

³ For those individuals who did not have observations in Wave 10 but were present in the COVID dataset, I use Wave 9 values

⁴ I excluded individuals who were furloughed or laid off during the observation period

gender and keywork sector, the details of which can be found in the descriptive statistics section.

Variables

Dependent Variables

For the main outcome variable, I used the 12-item General Health Questionnaire (GHQ-12) from the UKHLS datasets. The GHQ-12 is measured on a continuous Likert scale, summing the 12 components of the GHQ, with higher values indicating worse mental well-being. The GHQ-12 aims to detect psychiatric disorders requiring clinical attention among respondents in community and non-psychiatric clinical settings (Lindley & Cinzia, 2021). For individuals in my sample who did not participate in Wave 10 of the main survey, I used their GHQ values from Wave 9.

Independent Variables

My main independent variable is a time variable that denotes the pandemic period. I created it to take the value 0 for the pre-pandemic period and 1 for the pandemic period. In my study, I explore how the transition to the COVID-19 pandemic is associated with mental health, comparing keyworkers to non-keyworkers across gender categories and, following that, comparing keyworkers across keywork sectors.

The subsamples are based on variables including keywork status, gender, and keywork sector. Keywork status is denoted by 0 for non-keyworkers and 1 for keyworkers.

Gender is denoted by 0 for men and 1 for women. The keywork sector is denoted by 0 for those in non-HSC sectors and 1 for those in the HSC sector. Due to limited observations, the keywork sector variable could only be split into health and social care sectors and other sectors.

Control Variables

Key control variables included age (continuous), partnership status (with a value of 1 indicating living with a partner and 0 otherwise), and the number of children, which was captured by two categorical variables: one indicating the count of children aged 0-4 and the other indicating the number of children aged 5-15⁶. I also controlled for household size, elderly care responsibilities, and interview period (in months) to account for patterns of change over time, whether the interview was conducted in summer or winter months and lagged mental health. Lastly, I also controlled for geographical location.

⁶ Since my observation period spanned 2017 (pre-COVID statistics) to 2021, I added controls for family structure and household size. It should also be noted that I used Wave 9 (2017/18) observations as pre-COVID values for only those individuals who were not in Wave 10 but had been included in the UKHLS COVID-19 survey.

Analytical Approach

Using a balanced panel, I applied fixed effects models to examine the association between the COVID-19 pandemic and changes in mental health among keyworkers compared to non-keyworkers. Mental health transitions were assessed separately across three distinct infection peaks, each time comparing pre-pandemic mental health levels (measured using waves 9/10 of the UKHLS main survey) with those observed during each infection peak. By employing fixed effects models, each individual effectively serves as their own control, thereby controlling for unobserved, time-invariant factors (Zhou & Kan, 2018). This approach enhances the robustness of the findings by substantially reducing potential biases arising from omitted variables and selection effects, thus strengthening confidence in the conclusions drawn.

In the first part of my analysis, I evaluated mental health changes among all keyworkers and all non-keyworkers following the COVID-19 pandemic, whilst, in the second part of my analysis, I factored in gender to gauge whether keyworker status provided a buffer against the gendered implications of the pandemic on mental health. In the third part, I restricted my study to keyworkers only, exploring if the association between the pandemic and keyworker mental health differed across the work sector and its intersection with gender.

A key limitation of this analysis is the potential ceiling effect in stress measurement. Some keyworkers may not show increased stress levels, not because their stress did not worsen, but because they had already reached the maximum threshold

detectable within the dataset. Those experiencing severe distress may have exited the workforce or were unable to continue participating in the survey, introducing a risk of attrition bias that could underestimate the true extent of psychological strain among keyworkers.

Descriptive Statistics⁷

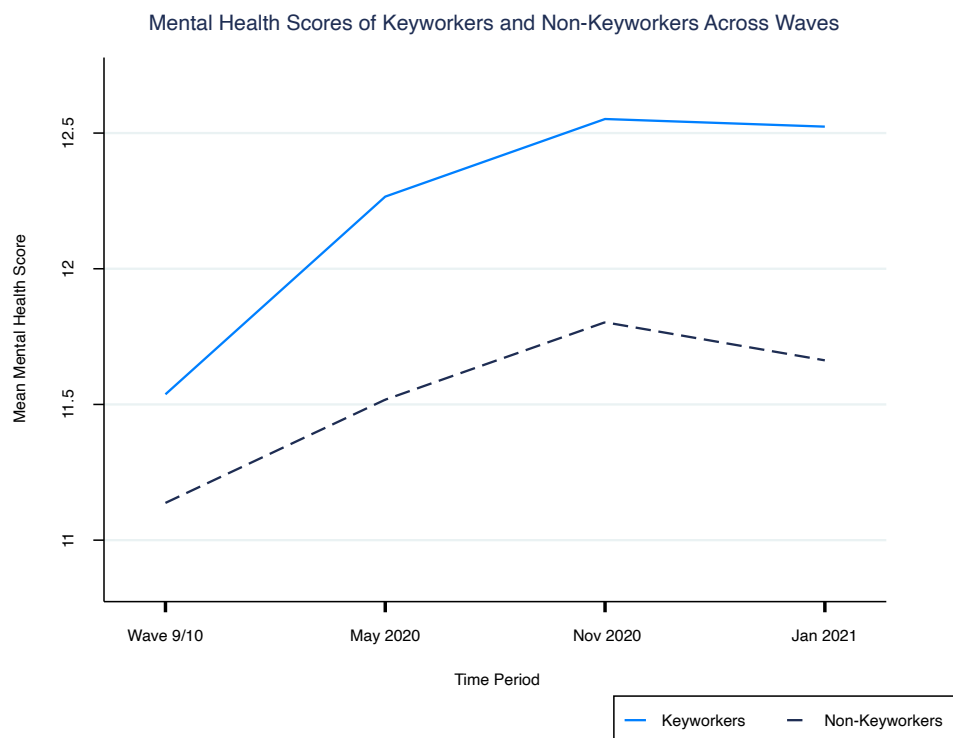
Figure 1 illustrates the trends in mean mental health scores for keyworkers and non-keyworkers across four time periods: Wave 9/10 (pre-COVID), May 2020, November 2020, and January 2021. Both keyworkers and non-keyworkers experienced an increase in mean mental health scores (indicating worsening mental health) from Wave 9/10 to May 2020, reflecting the initial impact of the COVID-19 pandemic. However, the increase was more pronounced for keyworkers compared to non-keyworkers. For both groups, the mental health scores continued to rise from May 2020 to November 2020, with keyworkers showing a sharper increase. This suggests that the prolonged effects of the pandemic further exacerbated mental health issues, particularly among keyworkers. By January 2021, there is a slight decline in mean mental health scores for both keyworkers and non-keyworkers. Throughout the observed periods, keyworkers consistently reported higher (worse) mental health scores compared to non-keyworkers⁸. This gap widened during the pandemic's peak in November 2020 and persisted into January 2021, highlighting the disproportionate burden on keyworkers.

⁷ Percentage tables relating to observations in all variables across Wave9/10 and the three infection peaks can be found in the attached appendix

⁸ Even in Wave 9/10, keyworkers' psychological morbidity was slightly higher than that of non-keyworkers

Figure 1

**Raw statistics on mental health scores of keyworkers and non-keyworkers
across waves**



Note: Higher GHQ values denote worse mental health

Figure 2 illustrates the mean mental health scores for four distinct groups: male non-keyworkers, female non-keyworkers, male keyworkers, and female keyworkers. All groups experienced an increase in mean mental health scores from Wave 9/10 (pre-COVID) to May 2020, indicating a deterioration in mental health during the early stages of the pandemic. Female keyworkers consistently exhibited the highest mean mental

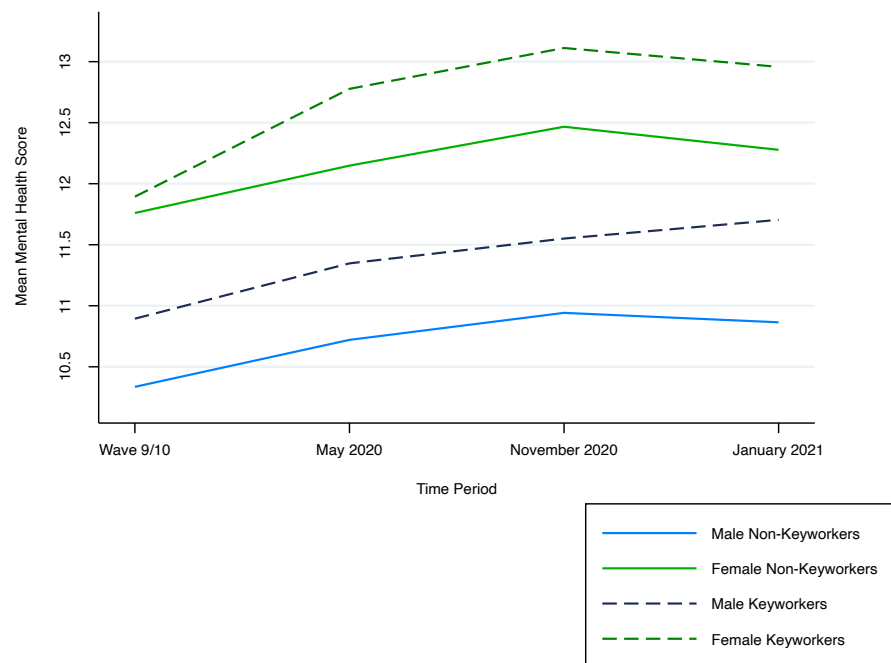
health scores, signifying the poorest mental health among the groups, followed by female non-keyworkers. This trend persisted across all periods, suggesting that female keyworkers were the most severely affected by mental health challenges throughout the pandemic.

In contrast, male non-keyworkers had the lowest mean mental health scores, reflecting relatively better mental health outcomes compared to other groups. From May 2020 to November 2020, the mental health scores for all groups continued to rise, with female keyworkers showing the most pronounced increase, reaching a peak in November 2020. This pattern suggests that the prolonged duration of the pandemic further exacerbated mental health issues, particularly for female keyworkers.

By January 2021, there was a slight decrease in mean mental health scores across all groups, though the scores remained higher than their pre-pandemic levels. Throughout all periods, females consistently reported higher mean mental health scores than males, both among keyworkers and non-keyworkers, underscoring the gender disparity in the mental health impact of the pandemic.

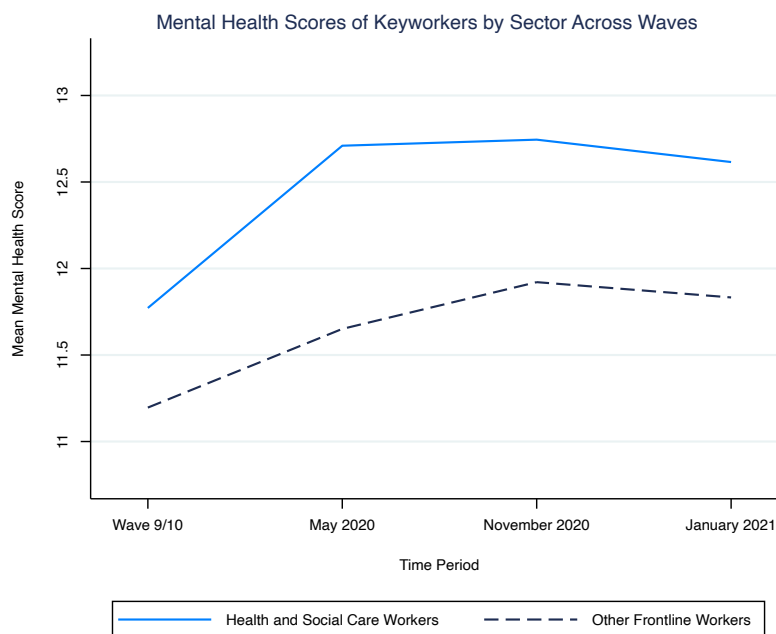
Figure 2

Raw statistics on mental health scores of keyworkers and non-keyworkers by gender across waves



Note: Higher GHQ values denote worse mental health

Figure 3 illustrates the mental health scores of keyworkers across different waves, categorised by sector. Both groups experienced an increase in mental health scores from Wave 9/10 (pre-COVID) to May 2020. However, HSC Workers showed a more pronounced increase compared to other frontline/non-HSC workers. Following this initial rise, the scores of both groups stabilised around November 2020 and experienced a slight decline by January 2021. Despite this decline, neither group returned to their pre-COVID mental health levels, indicating persistent mental health challenges. Throughout the observed period, HSC workers consistently exhibited higher mean mental health scores than non-HSC workers.

Figure 3**Raw statistics on mental health scores of keyworkers across different sectors**

Note: Higher GHQ values denote worse mental health

Results

Table I shows the results from the fixed effects regressions exploring the association between the transition to COVID-19 and mental health across three infection peaks for both keyworkers and non-keyworkers. Following the first infection peak of COVID-19, both non-keyworkers and keyworkers experienced a significant increase in mental health issues compared to their pre-pandemic values. The association was slightly

higher for keyworkers, with their psychological morbidity increasing by approximately 1.261 (Model 2) compared to an increase of 1.179 (Model 1) for non-keyworkers, indicating a marginally greater impact on the former's mental health.

The transition from pre-pandemic to the second infection peak in November 2020 had a higher association with psychological morbidity for both keyworkers and non-keyworkers compared to the first infection peak. However, this time, there was a notable difference between the two groups. Keyworkers experienced a much higher impact (coefficient of 1.806 shown in Model 4) compared to non-keyworkers (coefficient of 1.258 shown in Model 3), suggesting that the strain on mental health was considerably greater for keyworkers during this period.

Lastly, compared to their pre-pandemic levels, non-keyworkers experienced a decline in mental health during the transition to the third COVID-19 infection peak in January 2021. In contrast, the coefficient for keyworkers dropped to 0.476 (shown in Model 6) and was no longer statistically significant, indicating that the mental health impact of the COVID-19 peak may have lessened for keyworkers compared to earlier peaks.

Overall, the pandemic negatively impacted mental health across all infection peaks, with this impact being larger for keyworkers. For non-keyworkers, the adverse impact of COVID-19 on mental health increased as the pandemic progressed, whereas for keyworkers, this increase was only observed until the second infection peak in November 2020, as the coefficient for association was insignificant for January 2021.

Table I
Transition to the COVID-19 Period and GHQ-12 for Keyworkers and Non-keyworkers Across Infection Peaks

| Variable | May 2020 | | November 2020 | | January 2021 | |
|--|-----------------------------|-------------------------|---------------------------------|-------------------------|-----------------------------|-------------------------|
| | Non-Keyworkers (Model 1) | Keyworkers (Model 2) | Non- Keyworkers (Model 3) | Keyworkers (Model 4) | Non-Keyworkers (Model 5) | Keyworkers (Model 6) |
| COVID Period | 1.179*** (0.250) | 1.261*** (0.372) | 1.258*** (0.267) | 1.806*** (0.489) | 1.297*** (0.302) | 0.476 (0.477) |
| Age | -0.284 (0.152) | 0.169 (0.261) | 0.099 (0.117) | 0.598** (0.254) | 0.025 (0.158) | 0.357 (0.270) |
| Living with a partner (Reference: Yes) | | | | | | |
| couple (No) | 0.059 (0.293) | 0.015 (0.468) | -0.288 (0.375) | 0.302 (0.539) | -0.361 (0.423) | 1.016** (0.472) |
| Number of Children in HH Aged 0-4 (Reference: 0) | | | | | | |
| 1 | 0.083 (0.404) | 0.553 (0.443) | 0.763** (0.340) | 0.754 (0.460) | -0.184 (0.389) | 0.831* (0.440) |
| 2 or more | 0.559 (0.608) | 0.433 (0.769) | 0.763 (0.559) | 0.911 (0.850) | 0.039 (0.667) | 1.281 (0.728) |
| Number of Children in HH Aged 5-15 (Reference: 0) | | | | | | |
| 1 | 0.463 (0.335) | 0.004 (0.409) | -0.163 (0.264) | -0.628* (0.364) | 0.923*** (0.280) | 0.392 (0.310) |
| 2 or more | 0.495 (0.494) | 0.217 (0.576) | -0.158 (0.400) | -0.606 (0.525) | 0.961** (0.440) | 0.770 (0.481) |
| HH Size | -0.071 (0.076) | -0.130 (0.097) | -0.078 (0.071) | -0.094 (0.113) | -0.033 (0.080) | -0.309*** (0.111) |
| Cares for elderly (Reference: Yes) | | | | | | |
| No | -0.053 (0.034) | 0.037 (0.054) | -0.037 (0.042) | -0.034 (0.074) | -0.044 (0.045) | 0.014 (0.066) |
| Long Standing Illness (Reference: No) | | | | | | |
| Yes | 0.299** (0.102) | 0.623*** (0.197) | 0.296*** (0.100) | 0.346 (0.217) | 0.244** (0.105) | 0.319 (0.208) |
| Interview Period (months) | 0.017 (0.015) | -0.031 (0.026) | -0.008 (0.013) | -0.077*** (0.026) | 0.004 (0.016) | -0.019 (0.027) |
| Interview in summer months (Reference: No) | | | | | | |
| Yes | -0.327** (0.123) | -0.335 (0.197) | -0.237* (0.123) | -0.360 (0.220) | -0.187 (0.129) | -0.335 (0.215) |
| Geographical Location (Reference: North-East) | | | | | | |
| North-West | -2.821 (2.633) | -8.958*** (0.600) | -0.725 (3.126) | 4.011 (3.544) | -5.491** (2.514) | 4.388 (3.607) |
| Yorkshire and The Humber | -1.523 (2.384) | -12.907*** (3.270) | -2.554 (2.887) | -4.143 (4.174) | -3.670 (2.143) | -5.291 (5.347) |
| East Midlands | -4.156 (2.798) | -11.590*** (2.531) | -1.433 (3.036) | -1.893 (4.062) | -4.435** (2.183) | -0.249 (5.707) |
| West Midlands | -2.506 (3.029) | -13.397*** (3.161) | -0.945 (3.229) | -0.263 (3.518) | -3.274 (2.806) | -0.794 (3.583) |
| East of England | -3.933 (2.583) | -16.907*** (2.848) | -2.374 (3.086) | -3.949 (4.325) | -5.071** (2.276) | -5.628 (5.762) |
| London | -2.294 (2.444) | -5.420** (2.244) | -1.005 (3.113) | 1.918 (4.286) | -3.511 (2.102) | -2.992 (5.317) |
| South-East | -2.043 (2.672) | -19.203*** (2.213) | -1.461 (3.061) | -3.489 (4.441) | -3.403 (2.151) | -2.559 (5.479) |
| South-West | -2.319 (2.845) | -19.225*** (2.961) | -1.482 (3.068) | -7.874 (4.494) | -5.995*** (2.304) | -3.430 (5.286) |

| | | | | | | |
|---------------------|-------------------|-----------------------|----------------|--------------------|-----------------------|-------------------|
| Wales | 2.855 (2.819) | -9.690*** (0.663) | 3.358 (3.777) | 0.011 (3.843) | -10.772*** (3.298) | 5.830 (3.774) |
| Scotland | -3.413 (3.455) | -19.030*** (2.229) | -0.378 (3.406) | -7.385* (4.081) | -5.612** (2.418) | -8.262 (8.336) |
| Northern Ireland | -5.380** (2.477) | -14.294*** (2.740) | (omitted) | 2.943 (8.045) | (omitted) | -3.425 (6.831) |
| _cons | 34.302*** (8.552) | 23.552** (11.642) | 11.699 (6.997) | -7.154 (12.012) | 19.017** (9.071) | 3.779 (12.786) |
| N | 15,602 | 6,343 | 14,136 | 5,018 | 13,067 | 5,763 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The models analyse changes in mental health associated with transitioning from Pre-COVID time to the infection peaks. The Pre-COVID observations are obtained from Wave 9/10 of the UKHLS Main Survey and following that separate transition models are run for each infection peak. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table II presents the results from fixed effects regressions examining differences across gender in the associations between the transition to COVID-19 and mental health across three infection peaks for both keyworkers and non-keyworkers. The first infection peak, in May 2020, was linked to poorer mental health across all categories, male and female key and non-keyworkers. However, the most significant increase in psychological morbidity was observed among female non-keyworkers (coefficient of 1.439 in Model 3), while male keyworkers experienced the smallest decline in mental health (coefficient of 0.988 in Model 1). Among keyworkers, the transition had a stronger association with psychological morbidity in women compared to men (see Models 2 and 4).

By November 2020, the pandemic's impact on mental health intensified across all groups in the analysis. Male keyworkers were the most affected, with the transition to the pandemic corresponding to an approximately 2-point increase in psychological morbidity (refer to Model 6). Female keyworkers and non-keyworkers also experienced significant

increases, with female non-keyworkers showing a slightly higher coefficient than female keyworkers.

In January 2021, non-keyworkers, both male and female, continued to experience significant mental health impacts. In contrast, the coefficients for keyworkers, both male and female, were not statistically significant.

Table II
Transition to the COVID-19 Period and GHQ-12 for Keyworkers and Non-keyworkers Across Infection Peaks and Gender
Categories

| Variable | May 2020 | | | November 2020 | | | | January 2021 | | | | |
|--|----------------------------------|------------------------------|------------------------------------|--------------------------------|----------------------------------|------------------------------|------------------------------------|--------------------------------|----------------------------------|-------------------------------|-------------------------------------|---------------------------------|
| | Male non-keyworkers (Model 1) | Male keyworkers (Model 2) | Female non-keyworkers (Model 3) | Female keyworkers (Model 4) | Male non-keyworkers (Model 5) | Male keyworkers (Model 6) | Female non-keyworkers (Model 7) | Female keyworkers (Model 8) | Male non-keyworkers (Model 9) | Male keyworkers (Model 10) | Female non-keyworkers (Model 11) | Female keyworkers (Model 12) |
| COVID | 0.988** (0.346) | 1.171* (0.630) | 1.439*** (0.349) | 1.280** (0.464) | 1.081** (0.375) | 2.044*** (0.696) | 1.548*** (0.375) | 1.523** (0.637) | 1.458*** (0.420) | 0.973 (0.740) | 1.250*** (0.426) | 0.162 (0.612) |
| Age | -0.280 (0.213) | -0.252 (0.445) | -0.273 (0.213) | 0.361 (0.308) | 0.005 (0.136) | 0.311 (0.373) | 0.280 (0.198) | 0.763* (0.327) | -0.242 (0.217) | 0.312 (0.447) | 0.205 (0.225) | 0.445 (0.334) |
| Living with a partner (Reference: Yes) | | | | | | | | | | | | |
| (No) | -0.142 (0.415) | 0.302 (0.666) | 0.244 (0.403) | -0.180 (0.598) | -0.876 (0.755) | 1.669 (1.104) | 0.127 (0.426) | -0.196 (0.613) | 0.225 (0.730) | 1.950 (1.096) | -0.615 (0.522) | 0.740 (0.509) |
| Number of Children in HH Aged 0-4 (Reference: 0) | | | | | | | | | | | | |
| 1 | 0.443 (0.564) | -0.162 (0.648) | -0.186 (0.560) | 1.136* (0.604) | 0.972** (0.476) | -0.685 (0.645) | 0.571 (0.474) | 1.697*** (0.618) | 0.341 (0.529) | 0.748 (0.644) | -0.569 (0.544) | 0.911 (0.588) |
| 2 or more | 0.906 (0.913) | -0.787 (1.099) | 0.249 (0.805) | 1.291 (1.048) | 0.206 (0.804) | -0.998 (1.262) | 1.086 (0.767) | 2.071* (1.148) | 0.867 (0.807) | 0.229 (1.050) | -0.575 (0.996) | 2.242** (0.984) |
| Number of Children in HH Aged 5-15 (Reference: 0) | | | | | | | | | | | | |
| 1 | 0.458 (0.521) | -0.595 (0.721) | 0.428 (0.436) | 0.379 (0.502) | -0.092 (0.396) | -1.169** (0.541) | -0.267 (0.351) | -0.357 (0.468) | 0.861** (0.394) | 0.169 (0.535) | 1.011*** (0.390) | 0.706 (0.375) |

| | | | | | | | | | | | | |
|--|---------|-----------|----------|-----------|------------|------------|-----------|----------|---------|---------|----------|-----------|
| 2 or more | 0.956 | -0.151 | 0.086 | 0.690 | -0.053 | -1.117 | -0.261 | -0.320 | 0.782 | 1.556** | 1.087* | 0.533 |
| | (0.682) | (0.965) | (0.677) | (0.705) | (0.595) | (0.851) | (0.537) | (0.652) | (0.565) | (0.748) | (0.631) | (0.616) |
| HH Size | 0.070 | -0.003 | -0.161 | -0.202 | -0.040 | 0.315 | -0.086 | -0.339** | 0.036 | 0.076 | -0.067 | -0.531*** |
| | (0.108) | (0.149) | (0.102) | (0.125) | (0.111) | (0.173) | (0.092) | (0.144) | (0.115) | (0.180) | (0.110) | (0.140) |
| Cares for elderly (Reference: Yes) | | | | | | | | | | | | |
| No | -0.069 | -0.092 | -0.038 | 0.101 | -0.085 | 0.032 | 0.016 | -0.040 | -0.042 | 0.029 | -0.025 | 0.031 |
| | (0.053) | (0.104) | (0.044) | (0.061) | (0.079) | (0.117) | (0.049) | (0.094) | (0.069) | (0.130) | (0.058) | (0.077) |
| Long Standing Illness (Reference: No) | | | | | | | | | | | | |
| Yes | -0.140 | 0.721** | 0.711*** | 0.591** | 0.047 | 0.563 | 0.593*** | 0.219 | -0.011 | 0.196 | 0.506*** | 0.383 |
| | (0.140) | (0.304) | (0.146) | (0.253) | (0.137) | (0.345) | (0.144) | (0.272) | (0.147) | (0.340) | (0.150) | (0.260) |
| Interview | 0.032 | 0.003 | 0.004 | -0.045 | 0.005 | -0.053 | -0.032 | -0.086** | 0.021 | -0.013 | -0.008 | -0.026 |
| Period | (0.021) | (0.044) | (0.021) | (0.032) | (0.016) | (0.039) | (0.020) | (0.033) | (0.022) | (0.046) | (0.022) | (0.033) |
| (months) | | | | | | | | | | | | |
| Interview in summer months (Reference: No) | | | | | | | | | | | | |
| Yes | -0.195 | -0.563 | -0.452** | -0.202 | 0.054 | -0.964*** | -0.480*** | -0.027 | 0.073 | -0.307 | -0.404** | -0.342 |
| | (0.169) | (0.303) | (0.177) | (0.255) | (0.164) | (0.336) | (0.177) | (0.286) | (0.174) | (0.341) | (0.186) | (0.276) |
| Geographical Location (Reference: North-East) | | | | | | | | | | | | |
| North- | -2.563 | 8.167*** | -2.288 | -9.043*** | -9.089** | 6.513*** | 1.358 | 1.350 | -2.388 | 14.088 | -4.611* | 3.313 |
| West | (3.213) | (1.647) | (3.016) | (0.708) | (3.711) | (2.455) | (2.228) | (0.881) | (3.022) | (8.249) | (2.591) | (2.912) |
| Yorkshire | -1.210 | -8.261*** | -1.254 | -7.766*** | -8.916*** | -18.846*** | -1.918 | 0.665 | 3.454 | -4.324 | -4.314* | -1.391 |
| | (1.819) | (2.061) | (2.720) | (3.036) | (2.061) | (2.771) | (2.288) | (1.210) | (2.075) | (8.116) | (2.308) | (4.389) |
| East | -4.091 | 2.508** | -3.388 | -7.173*** | -10.821*** | -19.514*** | 2.949 | 2.838** | 2.872 | -1.245 | -4.853** | 5.660 |
| Midlands | (2.210) | (1.114) | (3.555) | (2.644) | (1.988) | (2.866) | (2.323) | (1.145) | (2.473) | (7.966) | (2.310) | (4.794) |

| | | | | | | | | | | | | |
|--------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|----------|
| West | 2.584 | 16.839*** | -3.640 | -12.595*** | -2.561 | -11.231*** | -0.326 | 3.525*** | 12.455*** | 9.022 | -5.473** | 0.779 |
| Midlands | (2.908) | (0.483) | (3.462) | (2.690) | (2.154) | (2.719) | (2.353) | (0.677) | (4.727) | (8.106) | (2.626) | (2.815) |
| East of | -1.579 | -6.213*** | -4.832 | -13.384*** | -10.291*** | -13.343*** | -0.224 | 0.184 | -0.544 | -4.461 | -3.469 | -0.482 |
| England | (0.975) | (1.387) | (3.203) | (4.353) | (1.765) | (1.900) | (2.569) | (2.521) | (2.514) | (7.477) | (2.461) | (6.912) |
| London | -0.053 | (omitted) | -3.576 | -7.636*** | -7.944*** | -10.771*** | 0.453 | 10.044*** | 3.090 | -0.335 | -3.256 | 11.942** |
| | (0.193) | | (3.000) | (0.748) | (1.922) | (2.341) | (2.527) | (0.737) | (2.284) | (7.497) | (2.185) | (5.206) |
| South- | -1.064 | -5.166*** | -1.554 | -15.851*** | -8.835*** | -12.594*** | 0.845 | 3.595 | 3.257 | -3.063 | -3.581 | 4.136 |
| East | (1.696) | (1.335) | (3.322) | (3.781) | (0.620) | (2.287) | (2.429) | (1.880) | (2.390) | (7.951) | (2.319) | (4.553) |
| South- | -1.683 | (omitted) | -2.152 | -15.099*** | -8.884*** | (omitted) | 0.505 | -2.195 | 2.667 | 5.581 | -6.475*** | -1.862 |
| West | (1.532) | | (3.414) | (3.770) | (1.623) | | (2.441) | (1.762) | (2.558) | (8.175) | (2.474) | (5.154) |
| Wales | (omitted) | (omitted) | 3.362 | -9.480*** | -8.816*** | (omitted) | 8.742*** | -3.022** | -3.426 | (omitted) | -13.333** | 4.547 |
| | | | (3.159) | (0.808) | (2.375) | | (2.633) | (1.453) | (2.997) | | (5.754) | (3.024) |
| Scotland | (omitted) | -5.370*** | -3.576 | (omitted) | -8.599*** | (omitted) | 2.442 | -3.548* | (omitted) | -5.910 | -4.976* | -5.715 |
| | | (1.284) | (3.974) | | (1.777) | | (3.535) | (1.866) | | (7.978) | (2.524) | (10.393) |
| Northern | (omitted) | (omitted) | -6.664** | -18.908*** | (omitted) | (omitted) | (omitted) | (omitted) | (omitted) | (omitted) | (omitted) | 1.185 |
| Ireland | | | (3.045) | (0.940) | | | | | | | | (5.161) |
| _cons | 31.771** | 28.950 | 34.383*** | 11.905 | 22.847** | 8.241 | 0.767 | -16.137 | 26.499** | -1.105 | 10.443 | -2.053 |
| | (12.142) | (20.568) | (11.477) | (13.501) | (7.900) | (17.268) | (10.747) | (14.710) | (12.931) | (21.723) | (12.437) | (15.280) |
| N | 7,017 | 2,226 | 8,585 | 4,117 | 6,401 | 1,760 | 7,732 | 3,256 | 5,971 | 1,994 | 7,093 | 3,765 |

*p<0.05, **p<0.01, ***p<0.001. The models analyse changes in mental health associated with transitioning from pre-COVID time to the infection peaks. The pre-COVID observations are obtained from Wave 9/10 of the UKHLS Main Survey and following that separate transition models are run for each infection peak. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table III presents the results from models estimating the impact of COVID-19 on psychological morbidity among keyworkers in non-health and social care (non-HSC) sectors compared to those in health and social care (HSC). During the first COVID-19 peak in May 2020, both groups experienced a significant increase in poor mental health, but the impact was more severe for non-HSC keyworkers. They saw an approximate 1.38-point increase in psychological morbidity (Model 1) compared to a 0.858-point increase for HSC keyworkers (Model 2).

By November 2020, during the second COVID-19 peak, psychological morbidity increased further for both groups. Again, non-HSC keyworkers experienced a significantly larger increase in adverse mental health levels, with a 2.304-point rise from their pre-COVID values (Model 3), compared to a 0.775-point rise for HSC keyworkers (Model 4). However, by January 2021, during the third COVID-19 peak, the increase in psychological morbidity for both groups was no longer statistically significant.

In summary, non-HSC keyworkers appeared to have experienced greater increases in psychological morbidity compared to HSC keyworkers across all three COVID-19 peaks, particularly during the first two peaks in May and November 2020. By January 2021, the psychological impact of the pandemic appeared to have stabilised, with no significant differences in psychological morbidity observed between the two groups. However, it should be remembered that these results do not account for the initial baseline psychological morbidity level, limiting the measurable increase due to possible ceiling effect.

Table III

Transition to the COVID-19 Period and GHQ-12 for Keyworkers Across Keywork Sectors

| Variable | May 2020 | | November 2020 | | January 2021 | |
|--|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|
| | Non-HSC (Model 1) | HSC (Model 2) | Non-HSC (Model 3) | HSC (Model 4) | Non-HSC (Model 5) | HSC (Model 6) |
| COVID-19 Period | 1.384*** (0.472) | 0.858* (0.606) | 2.304*** (0.593) | 0.775* (0.859) | 0.525 (0.582) | 0.285 (0.819) |
| Age | 0.659** (0.331) | -0.900** (0.456) | 0.531* (0.318) | 0.626 (0.420) | 0.306 (0.327) | 0.399 (0.475) |
| Living with a partner (Reference: Yes) | | | | | | |
| No | 0.006 (0.557) | -0.114 (0.864) | 0.617 (0.684) | -0.489 (0.838) | 1.545*** (0.568) | -0.224 (0.827) |
| Number of Children in HH Aged 0-4 (Reference: 0) | | | | | | |
| 1 | 0.490 (0.589) | 0.500 (0.657) | 1.133** (0.552) | -0.113 (0.816) | 1.191** (0.556) | -0.263 (0.614) |
| 2 or more | 0.224 (0.970) | 0.211 (1.330) | 1.082 (1.054) | 0.323 (1.363) | 1.897** (0.896) | -0.431 (1.179) |
| Number of Children in HH Aged 5-15 (Reference: 0) | | | | | | |
| 1 | -0.384 (0.453) | 0.599 (0.864) | -1.163*** (0.446) | 0.241 (0.642) | 0.192 (0.377) | 0.437 (0.544) |
| 2 or more | 0.232 (0.645) | -0.346 (1.182) | -1.273** (0.607) | 1.039 (1.084) | 0.758 (0.552) | 0.244 (0.957) |
| HH Size | -0.080 (0.122) | -0.285* (0.159) | -0.011 (0.139) | -0.295 (0.191) | -0.272** (0.138) | -0.452** (0.180) |
| Cares for elderly (Reference: Yes) | | | | | | |
| No | 0.048 (0.066) | 0.012 (0.092) | 0.015 (0.083) | -0.147 (0.144) | 0.109 (0.074) | -0.176 (0.132) |
| Long Standing Illness (Reference: No) | | | | | | |
| Yes | 0.587** (0.243) | 0.682** (0.334) | 0.437 (0.273) | 0.341 (0.346) | 0.506 (0.260) | -0.025 (0.343) |
| Geographical Location (Reference: North-East) | | | | | | |
| North West | -9.109*** (0.740) | 3.563*** (1.235) | -0.222 (0.881) | 4.191*** (1.582) | -0.274 (0.853) | -4.868*** (1.220) |
| Yorkshire and The Humber | -8.143 (7.492) | 1.834 (1.464) | -19.576*** (2.399) | 2.974** (1.303) | -9.092 (8.815) | -0.351 (1.392) |
| East Midlands | -7.771 (6.670) | 3.070*** (1.058) | -18.441*** (2.199) | 5.195*** (1.624) | -8.236 (8.624) | -5.193*** (1.268) |
| West Midlands | -11.285*** (1.912) | -3.476*** (1.263) | -18.179*** (2.344) | 2.910*** (0.517) | -9.742 (7.279) | 2.352*** (0.609) |
| East of England | -22.130*** (2.417) | 4.197*** (0.711) | -20.893*** (1.979) | 11.015*** (1.333) | -14.951* (8.022) | 6.228*** (1.414) |
| London | -7.856*** (0.771) | 12.552*** (0.953) | -17.237*** (2.001) | 8.870*** (0.979) | -15.558** (7.538) | 8.685*** (0.737) |
| South East | -21.136*** (1.902) | -0.973** (0.431) | -18.232*** (0.957) | 4.169*** (1.641) | -11.698 (7.274) | -4.436*** (1.150) |
| South West | -18.853*** (2.591) | (omitted) | -24.626*** (2.870) | 5.205*** (1.799) | -12.720* (7.546) | -2.980*** (1.066) |
| Wales | (omitted) | 2.996** (1.332) | (omitted) | (omitted) | (omitted) | -3.516** (1.749) |
| Scotland | (omitted) | (omitted) | -24.262*** (1.929) | 0.922 (1.139) | -22.292** (10.888) | 8.570*** (0.968) |

| | | | | | | |
|---|-----------------------|-----------------------|---------------------|---------------------|-----------------|-------------------|
| Northern Ireland | -17.612*** (2.492) | (omitted) | -4.234 (2.764) | (omitted) | 1.989 (8.157) | (omitted) |
| Interview Period (months) | -0.073** (0.033) | 0.066 (0.047) | -0.079** (0.032) | -0.063 (0.043) | -0.008 (0.032) | -0.041 (0.049) |
| Interview in summer months (Reference: No) | | | | | | |
| Yes | -0.504** (0.237) | -0.060 (0.357) | -0.426 (0.268) | -0.214 (0.390) | -0.219 (0.260) | -0.619 (0.377) |
| _cons | -0.520 (14.785) | 56.944*** (20.809) | 8.999 (14.635) | -14.123 (19.404) | 12.720 (15.883) | 1.397 (21.753) |
| N | 4,551 | 2,143 | 3,604 | 1,752 | 4,150 | 1,972 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The models analyse changes in mental health associated with transitioning from pre-COVID time to the infection peaks. The pre-COVID observations are obtained from Wave 9/10 of the UKHLS Main Survey and following that separate transition models are run for each infection peak. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table IV presents the effects of COVID-19 on psychological morbidity for male and female keyworkers across the non-HSC and health and social care (HSC) sectors. The transition to the first infection peak in May 2020 was associated with a significant increase in psychological morbidity for both male and female non-HSC keyworkers, with the impact slightly higher for female non-HSC keyworkers (coefficient of 1.467 in Model 3) than for their male counterparts (coefficient of 1.331 in Model 1). Interestingly, while the impact on HSC workers was also significant, it was notably smaller for male HSC workers (coefficient of 0.629) compared to their non-HSC counterparts. Female HSC workers experienced an approximately 1-point increase in adverse mental health levels, which, although significant, was less than the impact observed among female non-HSC keyworkers and male non-HSC keyworkers.

The transition from pre-pandemic to the second infection peak in November 2020 was associated with substantial increases in psychological morbidity for both male and female non-HSC keyworkers, with coefficients of 2.372 for males and 2.560 for females. These increases indicate that the mental health impact of the pandemic was particularly

severe for non-HSC keyworkers at this stage. In comparison, the transition did not have a significant impact on the mental health of male HSC workers, while female HSC workers experienced a modest increase in psychological morbidity (coefficient of 0.489).

Table IV

Transition to the COVID-19 Period and GHQ-12 for Keyworkers Across Keywork Sectors by Gender

| Variable | May 2020 | | | | November 2020 | | | | January 2021 | | | |
|--|--------------------------------|-------------------------|----------------------------------|------------------------------|--------------------------------|----------------------------|----------------------------------|------------------------------|--------------------------------|-----------------------------|-----------------------------------|-------------------------------|
| | Male - non-HSC (Model 1) | Male – HSC (Model 2) | Female - non-HSC (Model 3) | Female – HSC (Model 4) | Male - non-HSC (Model 5) | Male – HSC (Model 6) | Female - non-HSC (Model 7) | Female – HSC (Model 8) | Male - non-HSC (Model 9) | Male – HSC (Model 10) | Female - non-HSC (Model 11) | Female – HSC (Model 12) |
| COVID-19 Period | 1.331** (0.664) | 0.629* (1.617) | 1.467** (0.644) | 1.024* (0.651) | 2.372** (0.769) | 2.627 (1.826) | 2.560** (0.857) | 0.489+ (0.943) | 0.998 (0.815) | 1.094 (1.868) | 0.385 (0.807) | 0.239 (0.901) |
| Age | 0.284 (0.508) | -2.960** (1.271) | 0.979** (0.399) | -0.585 (0.480) | 0.388 (0.406) | -0.625 (0.979) | 0.651 (0.453) | 0.711 (0.462) | 0.566 (0.487) | -1.278 (1.091) | 0.193 (0.438) | 0.720 (0.517) |
| Living with a partner (Reference: Yes) | | | | | | | | | | | | |
| No | 0.510 (0.708) | 0.210 (1.238) | -0.182 (0.735) | 0.009 (0.960) | 2.045 (1.235) | 1.539 (2.589) | 0.109 (0.798) | -0.641 (0.878) | 1.042 (1.182) | 5.369** (2.181) | 1.648** (0.635) | -0.682 (0.838) |
| Number of Children in HH Aged 0-4 (Reference: 0) | | | | | | | | | | | | |
| 1 | -0.291 (0.684) | 0.133 (1.898) | 1.393 (1.020) | 0.824 (0.681) | -0.182 (0.636) | -4.596** (2.040) | 2.229** (0.843) | 0.761 (0.815) | 0.958 (0.702) | -0.857 (1.354) | 1.473 (0.862) | -0.153 (0.679) |
| 2 or more | -0.798 (1.135) | -2.435 (3.463) | 1.521 (1.569) | 0.712 (1.439) | 0.016 (1.254) | -11.157** (4.673) | 2.261 (1.692) | 1.934 (1.361) | 0.877 (1.110) | -4.042 (3.309) | 3.545** (1.374) | 0.428 (1.233) |
| Number of Children in HH Aged 5-15 (Reference: 0) | | | | | | | | | | | | |
| 1 | -0.722 (0.601) | 0.375 (2.795) | 0.141 (0.643) | 0.652 (0.807) | -1.306** (0.591) | -0.155 (1.474) | -0.643 (0.643) | 0.172 (0.700) | -0.205 (0.594) | 1.438 (1.487) | 0.910 (0.492) | 0.329 (0.565) |
| 2 or more | -0.076 (0.886) | -2.179 (3.342) | 0.972 (0.901) | 0.247 (1.125) | -0.757 (0.898) | -4.122 (2.955) | -1.153 (0.811) | 1.616 (1.153) | 1.553 (0.813) | -0.004 (2.008) | 0.603 (0.753) | 0.351 (1.042) |
| HH Size | 0.163 (0.157) | -0.408 (0.390) | -0.227 (0.169) | -0.198 (0.177) | 0.435** (0.206) | 0.444 (0.343) | -0.222 (0.189) | -0.397 (0.214) | 0.126 (0.203) | -0.214 (0.383) | -0.517*** (0.185) | -0.455** (0.197) |
| Cares for elderly (Reference: Yes) | | | | | | | | | | | | |
| No | -0.005 (0.101) | -0.486 (0.384) | 0.098 (0.085) | 0.085 (0.088) | 0.099 (0.138) | 0.120 (0.163) | 0.054 (0.109) | -0.173 (0.155) | 0.018 (0.135) | 0.048 (0.360) | 0.166 (0.087) | -0.188 (0.136) |
| Long Standing Illness (Reference: No) | | | | | | | | | | | | |
| Yes | 0.538 (0.332) | 1.310 (0.812) | 0.557 (0.348) | 0.575 (0.362) | 0.429 (0.382) | 0.782 (0.853) | 0.317 (0.376) | 0.174 (0.375) | 0.074 (0.366) | 0.328 (0.974) | 0.744** (0.363) | -0.125 (0.357) |
| Interview Period (months) | -0.027 (0.050) | 0.204 (0.126) | -0.105** (0.041) | 0.045 (0.050) | -0.060 (0.042) | 0.013 (0.098) | -0.094** (0.045) | -0.064 (0.047) | -0.028 (0.050) | 0.099 (0.120) | 0.000 (0.043) | -0.065 (0.052) |
| Interview in summer months (Reference: No) | | | | | | | | | | | | |
| Yes | -0.610* (0.320) | -0.046 (0.881) | -0.399 (0.338) | -0.009 (0.386) | -1.024*** (0.362) | -0.714 (1.023) | -0.044 (0.384) | -0.050 (0.421) | -0.142 (0.370) | -0.820 (0.902) | -0.289 (0.361) | -0.449 (0.411) |

| | | | | | | | | | | | | |
|--------------|-------------------|------------------------|---------------------|----------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
| _cons | 3.343 (23.428) | 154.225*** (57.191) | -24.737 (17.265) | 43.732** (21.748) | -3.132 (18.893) | 45.381 (46.016) | -9.739 (19.889) | -13.244 (21.137) | -11.810 (22.471) | 76.149 (51.500) | 10.052 (19.050) | -11.969 (23.428) |
| N | 1,997 | 373 | 2,554 | 1,770 | 1,583 | 316 | 2,018 | 1,436 | 1,779 | 361 | 2,367 | 1,611 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The models analyse changes in mental health associated with transitioning from pre-COVID time to the infection peaks. The pre-COVID observations are obtained from Wave 9/10 of the UKHLS Main Survey and following that separate transition models are run for each infection peak. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Discussion and Conclusion

This study provides nuanced insights into the relationship between COVID-19 and the mental health of keyworkers compared to non-key workers, offering a detailed comparison between keyworkers and their non-keyworker counterparts, with a particular focus on gender and work sectors. While previous research has broadly addressed the pandemic's mental health impact across various demographics, this study uniquely concentrates on keyworkers, those on the frontline of the government's COVID-19 response.

The findings, consistent with previous research, confirm that the entire population experienced significant mental health challenges during the COVID-19 pandemic (Pierce et al., 2020; Lob et al., 2020; Connor et al., 2020). The widespread disruption of daily life, strict movement restrictions, and pervasive fear of the virus could have heightened psychological distress (Fancourt et al., 2021). However, this study emphasises that keyworkers experienced a sharper decline in mental health compared to non-keyworkers, corroborating the findings of Pierce et al. (2021). This could likely be due to keyworkers' increased exposure to the virus, compounded by their professional responsibilities and the broader societal impacts affecting the entire population (Ayling et al., 2020). Specifically, the mental health gap between keyworkers and non-keyworkers widened from May to November 2020, aligning with Bu et al.'s (2022) findings. During this period, rising hospitalisations and the growing death toll could have induced panic, grief, strain, and moral injury among keyworkers, particularly those directly involved in patient care. The

shortage of personal protective equipment (PPE) and the emergence of a new SARS-CoV-2 variant with a 70% higher transmissibility rate may have further exacerbated these challenges (Kirby, 2021).

The study also explored gender dynamics in the relationship between COVID-19 and psychological morbidity, confirming that women were more adversely impacted than men (Davillas & Jones, 2021). During the pandemic's first peak, female non-keyworkers experienced the most significant association with poor mental health, followed by female keyworkers. These groups possibly faced not only disrupted work patterns but also a substantial increase in domestic responsibilities. However, female keyworkers fared slightly better than their non-keyworker counterparts, likely due to the relative job and income stability their roles provided and the limited childcare support they received, such as the government arrangements allowing their children to attend school for a few hours (Zamarro, 2020).

Interestingly, during the pandemic's second peak, male keyworkers reported the highest association with poor mental health compared to female keyworkers and both male and female non-keyworkers. This might have been due to several factors. First, male keyworkers were predominantly employed in the healthcare, delivery, and transportation sectors, which saw increased workloads due to the surge in infection rates and hospitalisations during the second wave. Additionally, inadequate safety measures in some sectors, particularly transportation and delivery, likely exacerbated mental health issues (Chen et al., 2020). Furthermore, societal norms surrounding masculinity may have

discouraged male keyworkers from expressing vulnerability, further worsening their mental health outcomes (Sugg et al., 2021). However, by the third infection peak, the adverse mental health effects on keyworkers had diminished, possibly due to adjustments to pandemic conditions and the rollout of vaccines (Bu et al., 2022).

When comparing HSC workers to non-HSC workers, the results showed that non-HSC workers experienced more substantial increases in psychological morbidity in comparison to HSC workers, supporting Bu et al.'s (2022) findings. This could potentially be indicative of non-HSC workers not only facing high exposure to the virus but also experienced PPE shortages and less public recognition and appreciation compared to their HSC counterparts. These factors may have collectively contributed to their higher susceptibility to psychological morbidity.

Lastly, when factoring gender into the association between keyworkers' mental health and COVID-19 across different work sectors, results showed that female non-HSC keyworkers had the largest increases in psychological morbidity linked to the pandemic than their counterparts. Perhaps, this dynamic was observed due to potential differences in recognition and support available to female non-HSC keyworkers and female HSC keyworkers.

There were many fluctuations in mental health throughout the infection peaks, reflecting changing circumstances and their implications for various groups in society. For example, women emerged as the most disadvantaged group during the first infection

peak, with keywork acting as a slight buffer for mental health. However, in the second peak, the most vulnerable group was male key workers, indicating the work demands and stressors they were confronted with, especially within certain sectors. Overall, the results show that the second peak of the pandemic challenged mental health the most, with keyworkers being particularly vulnerable.

However, a critical limitation of my study is that the above-mentioned findings do not account for the initial baseline level of psychological morbidity experienced by each group. For example, HSC workers, particularly women, already reported exceptionally high levels of psychological distress before the pandemic's onset. Consequently, their scope for measurable increases in stress during the pandemic was limited due to a potential ceiling effect. Thus, while non-HSC workers exhibited greater relative increases, this does not necessarily indicate that they reached higher absolute stress levels. Thus, distinguishing between relative changes and absolute stress levels is important to accurately conclude the implications of the results.

Secondly, another limitation is that the observation period does not cover the months between the infection peaks due to the absence of information on keyworker status. Comparing keyworkers' mental health to their non-keyworker counterparts during these intervals would have added an interesting dimension to my study.

Thirdly, an underlying assumption of the fixed effects models in my study is that changes in work hours and income from the pre-pandemic period to the COVID-19

infection peaks were outcomes of the pandemic. Unfortunately, while the COVID-19 survey contains variables on baseline income and work hours just before the pandemic in February 2020, responses are mostly missing, making it impossible to investigate this assumption.

Fourthly, the fluctuation in sample sizes between the three infection peaks posed various challenges. The assumption of missingness being completely at random (MCAR) might not have held true. Addressing this issue may necessitate the use of alternative statistical techniques, such as multiple imputation or maximum likelihood estimation. Non-random missingness can introduce bias to the findings, affecting the accuracy of my fixed effects models. Furthermore, the reduction in sample sizes may have decreased the statistical power of some parts of my analysis, such as the comparison between HSC and non-HSC workers.

Lastly, due to the small sample sizes, I was required to transform the keywork sector into a binary variable. This transformation, while necessary for the analysis, significantly reduced the variability within the variable, thereby limiting the ability to capture the nuanced differences between various keywork sectors. As a result, the precision of my findings may have been compromised, potentially masking sector-specific effects and leading to broader generalisations that do not fully reflect the complex realities faced by different groups of keyworkers.

Nonetheless, my research outlines the association between keywork status, the COVID-19 pandemic, and mental health, exploring differences by gender and work sector. The temporal dimension of the study, implemented through analyses across infection peaks, sheds light on the complex interplay of demographic factors with systemic changes and developments during COVID-19 in the UK. Emerging findings, like greater keyworker psychological morbidity during the pandemic, necessitate structured support and programs to safeguard frontline workers' mental health in future pandemics. Furthermore, the results indicate gendered patterns in domestic and paid work and how they evolved during an exogenous crisis, highlighting the need for family policy to promote men's participation in household responsibilities. The keyworker sector analysis stresses the need for governments to ensure that all sectors playing a role in maintaining the key functions of society during crises are adequately supported and appreciated. In future crises, safety equipment and facilities must be evenly distributed across all frontline sectors.

Moreover, my findings suggest avenues for future research. Gendered dynamics can be further explored to understand how the division of labour in keyworker households differed from non-keyworker households and its subsequent impact on individuals' mental health. Future research could also study the medium and long-term impact of the pandemic on those individuals who were in keywork sectors during the pandemic versus those who were not.

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Appendix

Table 1

Weighted descriptive statistics (in %) for categorical variables in the observation period

| | Wave 9/10 | Wave 1 | Wave 2 | Wave 3 |
|---|------------------|---------------|---------------|---------------|
| | 2017/2019 | May 2020 | November 2020 | January 2021 |
| Individuals in keywork professions | | | | |
| Yes | 28 | 29 | 28 | 29 |
| No | 72 | 71 | 72 | 71 |
| Gender | | | | |
| Men | 41 | 42 | 42 | 42 |
| Women | 59 | 58 | 58 | 58 |
| Living with a partner | | | | |
| Yes | 71 | 69 | 70 | 71 |
| No | 29 | 31 | 30 | 29 |
| Number of Children Aged 0-4 | | | | |
| None | 90 | 90 | 93 | 94 |
| One | 9 | 8 | 5 | 5 |
| Two or More | 1 | 2 | 2 | 1 |
| Number of Children Aged 5-15 | | | | |
| None | 77 | 77 | 80 | 82 |
| One | 12 | 12 | 11 | 10 |
| Two or More | 11 | 11 | 9 | 8 |
| Cares for Elderly | | | | |
| Yes | 7 | 7 | 7 | 8 |
| No | 93 | 93 | 93 | 92 |
| Long-term Health Condition | | | | |
| Yes | 35 | 40 | 44 | 43 |
| No | 65 | 60 | 56 | 57 |
| Geographical Location | | | | |
| Northeast | 3 | 3 | 4 | 4 |
| Northwest | 10 | 10 | 10 | 10 |
| Yorkshire and The | 8 | 8 | 8 | 8 |
| Humber | | | | |
| East Midlands | 8 | 8 | 8 | 7 |

| | | | | |
|----------------------------|--------|--------|--------|--------|
| West Midlands | 9 | 9 | 8 | 9 |
| East of England | 10 | 11 | 10 | 10 |
| London | 10 | 9 | 9 | 9 |
| Southeast | 14 | 14 | 15 | 14 |
| Southwest | 9 | 10 | 10 | 10 |
| Wales | 6 | 6 | 6 | 6 |
| Scotland | 9 | 8 | 9 | 9 |
| Northern Ireland | 4 | 4 | 4 | 4 |
| No. of observations | 14,257 | 13,927 | 11,329 | 11,156 |

Table 2

Weighted descriptive statistics for continuous variables in the observation period

| | Wave 9/10 | Wave 1 | Wave 2 | Wave 3 |
|-----------------------------|------------------|---------------|---------------|---------------|
| Variables | | | | |
| Overall GHQ-12 | 10.1 (5.4) | 12.2 (6.1) | 13.1 (6.0) | 12.6(6.1) |
| Strain Levels | 2.1 (0.5) | 2.4 (0.7) | 2.3(0.6) | 2.2(0.6) |
| Depressed or Unhappy | 1.2 (0.4) | 1.9 (0.8) | 2.0(0.8) | 2.0(0.8) |
| Age | 48.2(16.4) | 50.3(16.1) | 53.4(15.6) | 54.6(15.7) |
| Household Size | 2.7(1.3) | 0.5(0.9) | 0.5(0.8) | 0.5(0.9) |
| No. of observations | 14,257 | 13,927 | 11,329 | 11,156 |

Note: The numbers in the table express mean values while those in the brackets are standard deviations.

**Empirical Chapter 3: Exploring the Short- and Medium-Term
Association Between Maternity Leave Duration and Mothers'
Subjective Well-being Upon Returning to Work: A Study from
the UK**

Abstract

This chapter investigates the relationship between maternity leave duration and mothers' subjective well-being (SWB) upon returning to paid employment in the UK, focusing on both short- and medium-term outcomes. Drawing on nationally representative longitudinal data from Understanding Society (2009–2019), the analysis examines how four categories of leave length (1–3, 4–6, 7–9, and 10–12 months) are associated with three dimensions of SWB: life satisfaction, job satisfaction, and leisure time satisfaction. By providing quantitative evidence in a domain largely informed by qualitative research, this study contributes new insight into the psychological implications of maternity leave in the UK. Using ordered logit regression models, the findings show that longer maternity leave is linked to higher leisure satisfaction in the short term, especially among those taking 10–12 months. Life satisfaction exhibits a U-shaped association, peaking at moderate durations (4–6 months), while job satisfaction declines with increasing leave length. In the medium term, the positive association with leisure satisfaction diminishes, but the negative associations with life and job satisfaction persist, particularly for first-time mothers. Financial satisfaction is found to mediate some of these medium-term associations. These findings highlight the dual nature of extended maternity leave: while it supports early maternal recovery and caregiving, it may also lead to professional detachment and reduced well-being over time. The results underscore

the importance of improving maternity pay, facilitating structured reintegration into the workforce, and promoting gender-equitable caregiving policies to more effectively support maternal well-being.

Introduction

Transitioning to motherhood is a pivotal life event that significantly impacts a woman's physical, emotional, and psychological well-being. As women navigate this complex period, the need for support systems in all aspects of their lives becomes increasingly apparent. Considering this, maternity leave is a strategically crafted mechanism which can provide time for postpartum recovery while ensuring women's retention and participation in the labour market. Maternity leave offers a structured period during which new mothers can recuperate physically from childbirth, adapt to the demands of caring for a newborn, and gradually re-integrate into their professional roles without the immediate pressure to return to work (Misra et al., 2011). In this paper, I will be investigating the association between maternity leave duration and mothers' subjective well-being (SWB) on their return to work, carrying my analysis across various measures of well-being.

In the UK, the concept of maternity leave gained precedence in the 1990s, with New Labour under Blair. Under the current policy, which was last updated in the Equalities Act of 2010, women are allowed up to 52 weeks of leave post-childbirth, with the first six weeks paid at 90% of current income, the next 33 weeks paid at a statutory rate of £184 per week or 90% of current income (whichever is lower), and the remaining 13 weeks unpaid

(GOV.UK, 2024). Some employers offer enhanced pay during the 39 weeks of paid leave. However, most follow the statutory pay structure (CIPD, 2023).

The dynamics of maternity leave in the lives of British women remain an under-explored area of research. Existing studies have predominantly concentrated on outcomes related to children's development and the impact of maternity leave on women's labour market status (Fagan & Norman, 2012; Di Leo et al., 2024; Davies et al., 2022). However, there is a significant gap in understanding how maternity leave influences women's psychological well-being. My research aims to bridge this gap by examining the association between the length of maternity leave and women's SWB. Exploring this association is crucial for advancing academic understanding and informing future maternity leave policies. As policymakers seek to create more supportive environments for mothers, they must consider the broad implications of maternity leave on women's overall quality of life. By incorporating insights from my research, policymakers can design leave policies that better address women's psychological and emotional needs, promoting family well-being and gender equity in the workplace.

While research in other countries has often used quantitative methods to examine the relationship between maternity leave and maternal well-being, studies in the UK have largely relied on qualitative approaches. These have provided rich, detailed insights into individual experiences and the mechanisms surrounding maternity leave. However, there remains a critical gap in large-scale, quantitative evidence that can identify broader patterns and explore how specific characteristics of maternity leave relate to women's

well-being upon returning to work, particularly in the context of UK maternity leave policies and labour market structures. My research addresses this gap by applying a quantitative approach. Using data from Understanding Society, a nationally representative British household panel study, I systematically investigate how the duration of maternity leave influences mothers' reintegration into the workforce. This enables a comprehensive analysis of large-scale associations and offers a deeper understanding of how maternity leave length affects maternal well-being.

The relationship between maternity leave duration and maternal well-being is widely debated across theoretical perspectives. Role Accumulation Theory (Sieber, 1974) and Stress and Coping Theory (Lazarus & Folkman, 1984) emphasise the positive effects of extended leave⁹, highlighting the time it affords mothers to adapt to their new roles, develop stable routines, and recover from the physical and emotional demands of childbirth. Such adjustment could support higher levels of well-being upon re-entry into the workforce (Dagher et al., 2014; Koslowski & Kadar-Satat, 2019). Conversely, Human Capital Theory (Becker, 1964) and Signalling Theory (Spence, 1973) warn that prolonged absence from work can lead to feelings of disconnect from work and skills atrophy, which can undermine career trajectories, increase stress and depressive symptoms (Evertsson & Duvander, 2011; Gangl & Ziefle, 2015). Social Role Theory (Eagly, 1987) further contends that extended leave may entrench traditional gender norms, amplifying domestic responsibilities and exacerbating work–life tensions, particularly in households with pre-

⁹ Short leave is around 1 – 3 months, moderate leave is around 4 to 6 months, whereas long/extended leave is beyond 6 months (Chatterji and Markowitz, 2005; Dagher, McGovern, & Dowd, 2014; Plotka & Busch-Rossnagel, 2018)

existing inequalities (Fagan & Norman, 2012). These competing viewpoints are reflected in empirical research, which points to a curvilinear relationship: while moderate leave durations can enhance maternal well-being, overly long leaves may have diminished or even adverse effects (Evertsson & Duvander, 2010; Pettit & Hook, 2009). This study investigates this curvilinear dynamic in the UK context, focusing on three dimensions of well-being: general life satisfaction, satisfaction with leisure time, and job satisfaction.

Building on this theoretical and empirical backdrop, a further focus of this study is the medium-term association¹⁰ between maternity leave duration and maternal well-being across different dimensions. While extended leave may offer immediate postnatal benefits, prolonged absence from the workforce can limit opportunities for skill development, networking, and career advancement, effects that often become more pronounced over time (Huang & Yang, 2015). Such professional stagnation may, in turn, undermine income mobility and contribute to elevated levels of stress and anxiety (Evertsson & Duvander, 2011). Additionally, spending extended periods primarily within the domestic sphere may reinforce traditional caregiving roles, deepening the unequal division of housework and caregiving responsibilities. Over time, this imbalance can intensify the conflict between personal and professional identities, often prompting mothers to opt for part-time or lower-responsibility roles. This shift may heighten financial dependency on partners and exacerbate mental health issues such as anxiety (Theunissen et al., 2018; Ziefle, 2020). In light of these dynamics, this study investigates the short and medium-term implications of maternity leave duration for maternal well-being.

¹⁰ For this study, medium-term is defined as around 3 years after returning to work post maternity leave whereas short-term is defined as less than 1 year after returning to work (Budig & England, 2001)

It should be noted that the aspects of well-being that this study will cover are intricately linked to individuals' cognitive appraisals and evaluations of their lives, a concept central to the broader understanding of SWB (Diener et al., 2018). These cognitive components of well-being, such as satisfaction with life, job, and leisure time, are especially relevant from a policy perspective because they tend to be more stable and enduring over time, offering a reliable metric for assessing the long-term impact of maternity leave on mothers' overall life satisfaction.

In the following sections, I will elaborate on the policy context for my research and delve into the mechanisms through which the duration of maternal leave links with well-being before presenting my analysis.

The British Context

The provision of various forms of parental leave has been a defining feature of European countries over the past forty years, with work-family reconciliation becoming a high priority for many governments since the 1990s (Atkinson, 2017).

Maternity rights legislation was formally introduced in 1979, entitling mothers to return to their pre-birth jobs at any time up to 29 weeks after childbirth, provided they had worked for the same employer for at least two years, with a minimum of 16 hours per week. For those working between 8 and 16 hours, continuous employment with the same

employer for five years was required. Additionally, eligibility was contingent on working until at least the 11th week before the expected week of childbirth (EWC). Statutory Maternity Pay (SMP) was payable for up to 18 weeks, with six weeks paid at 90% of the mother's previous salary, followed by 12 weeks at a flat rate (Burgess et al., 2008).

During the 1990s, New Labour introduced a series of work-family reconciliation measures to support women's employment, leading to extensions in maternity leave (Fagan et al., 2012). In 1999, the government adopted an EU Directive on Parental Leave and, in 2003, introduced amendments that extended maternity leave from nine to 12 months and increased the low flat-rate statutory leave payment from 12 to 20 weeks. In 2007, this payment was further extended to 33 weeks, with the earnings-related payment of 90% of salary unchanged for the first six weeks. The final reform under Labour came in 2010, with the introduction of Additional Parental Leave, allowing mothers to transfer unused maternity leave and pay to fathers after the child was 20 weeks old (Moss & O'Brien, 2019). The most recent reform, Shared Parental Leave, introduced in 2014, further extended this by allowing mothers and fathers to share 50 weeks of leave in the first year following birth (Atkinson, 2017).

Currently, eligible employees can take up to 52 weeks of maternity leave, with the first 26 weeks classified as 'Ordinary Maternity Leave' and the last 26 weeks as 'Additional Maternity Leave'. Leave can be taken as early as 11 weeks before the expected week of childbirth unless the baby is born early. Statutory Maternity Pay (SMP) is available for up to 39 weeks, with the first six weeks paid at 90% of the employee's average weekly

earnings (AWE) before tax, followed by 33 weeks at either £184.03 or 90% of their AWE, whichever is lower. Eligibility for SMP requires employees to be on the payroll during the qualifying week, the 15th week before the expected week of childbirth, and to provide proof of pregnancy and at least 26 weeks of continuous employment up to any day in the qualifying week (GOV.UK, 2024).

A CIPD study conducted in 2022 found that 33% of UK organisations only meet the statutory minimum requirement for maternity pay, while 18% offer between 4 and 13 weeks of enhanced maternity pay at or near the full rate. Approximately 21% of organisations provide 26 weeks of enhanced maternity pay at or near the full rate, followed by 13 weeks at the SMP rate or 90% of average weekly earnings (CIPD Report, 2022).

These policy dynamics significantly influence mothers' decisions regarding the duration of leave and shape workplace attitudes towards extended maternity leave. The low level of statutory maternity pay in the UK, among the lowest compared to similar countries, imposes substantial financial pressure on mothers. This strain forces many women to shorten their maternity leave, even if it would be in their own and their child's best interest to take a longer break. The Maternity Action 2023 Cost of Living Survey highlights this issue, with 60% of respondents either returning early or planning to do so due to financial concerns (Maternity Action, 2024). This trend reinforces a culture where extended maternity leave is viewed as a luxury rather than a standard practice, exacerbating stress and financial instability for new mothers.

Moreover, limited access to adequate statutory maternity pay at the governmental level perpetuates an aversion to extended maternity leave in the British labour market (Maternity Action, 2024). Employers may perceive women who take longer leave as a financial burden or less committed to their work, leading to potential discrimination in promotions, pay raises, and job assignments (Budd et al., 2008). Such discrimination is often rooted in stereotypes that equate prolonged absence with reduced productivity and a lack of dedication, disregarding the broader social and economic benefits of supporting working mothers. Consequently, this can exacerbate stress and anxiety among mothers upon their return to work.

Literature Review

Maternity Leave Duration and Subjective Well-being

The literature on maternity leave and maternal subjective well-being (SWB) is both extensive and contested, drawing on diverse theoretical traditions and empirical settings. According to Role Accumulation Theory (Sieber, 1974; Goode, 1960) and Stress-and-Coping Theory (Lazarus & Folkman, 1984), maternity leave offers a critical period for mothers to recover physically, adjust psychologically, and forge secure mother–infant attachments (Sroufe et al., 2005; Van Niel et al., 2020). Each additional month of leave not only permits wound healing and hormonal rebalancing but also gives mothers the time to develop targeted coping strategies for common postpartum stressors, such as depressive symptoms, anxiety and fatigue, and to establish daily routines and support networks that

ease their transition back to work (Dagher, McGovern & Dowd, 2014; Chatterji & Markowitz, 2012). In turn, these processes bolster maternal self-efficacy, reduce parental stress and ultimately promote higher SWB upon re-entering the workforce (Goode, 1960; Sieber, 1974; Dagher et al., 2014). Moreover, the security of a strong attachment bond not only supports a child's cognitive and emotional development but also underpins the mother's psychological well-being, creating a virtuous cycle of health and confidence (Lazarus & Folkman, 1984; Van Niel et al., 2020; Sroufe et al., 2005).

Work–Family Conflict Theory (Greenhaus & Beutell, 1985) also offers insight, explaining that conflict emerges when demands from work and family roles are mutually incompatible, such that fulfilling the requirements of one role makes it difficult to meet those of the other. In this context, maternity leave can serve as a critical buffer, reducing immediate work-related pressures and allowing mothers the time and space to recover physically, establish routines, and bond with their infants (Dagher, McGovern, & Dowd, 2014; Hyde et al., 2001). While leave alone cannot eliminate long-term work–family conflict, especially as caregiving responsibilities persist beyond the leave period, sufficient leave duration can delay the onset of overlapping demands and help mothers return to work in a more stable and prepared state. This temporary alleviation of role strain may lower stress levels, enhance job satisfaction, and contribute positively to maternal well-being and child development (Chatterji & Markowitz, 2005; Misra, Budig, & Boeckmann, 2011).

However, alternative theoretical frameworks suggest that extended maternity leave may not always yield additional benefits for mothers and, in some cases, may even have

adverse consequences for maternal well-being. Social Role Theory (Eagly, 1987; Eagly & Wood, 2012) argues that long-term withdrawal from the workforce, especially beyond six months, can reinforce traditional caregiving roles, potentially heightening identity conflict and “role overload” upon return to work. These dynamics may be particularly salient in households with persistent gendered divisions of labour, where the cumulative strain of paid and unpaid responsibilities can detract from women’s psychological well-being (Bünning, 2015). Human Capital Theory (Becker, 1964; Mincer & Polachek, 1974) adds that longer leave may contribute to skill atrophy and missed career development opportunities, which impact women’s self-efficacy, job satisfaction, and financial security, all critical dimensions of subjective well-being. In parallel, Signalling Theory (Spence, 1973; Correll, Benard & Paik, 2007) suggests that extended leave may be interpreted by employers as a sign of reduced career motivation, resulting in marginalisation from challenging work or slower promotion, factors that can erode a mother’s sense of purpose and workplace belonging (Budig & England, 2001).

Comparative analyses (Evertsson & Duvander, 2010; Pettit & Hook, 2009) bridge these competing views by uncovering a consistent curvilinear (U-shaped) association. Short leaves (roughly one to three months) often fail to deliver sufficient time for medical recovery, bonding and coping-skill acquisition; moderate leaves (roughly four to six months) strike an optimal balance, maximising secure attachment, mental health and partial income replacement, while long leaves (beyond six months) incur diminishing or negative returns through accelerated skill erosion, income loss (given statutory pay caps) and employer signalling costs (Misra et al., 2011).

Empirical evidence increasingly highlights the nuanced relationship between maternity leave duration and maternal well-being. While taking leave in the early postpartum period is consistently linked to improved mental health and greater life satisfaction (Dagher, McGovern & Dowd, 2014), the benefits of extended leave beyond a certain point are less definitive. For instance, using data from the US, Chatterji and Markowitz (2005), found that mothers who took 12 or more weeks of leave reported better mental health than those who returned to work earlier; however, these improvements tended to plateau with longer absences. Similarly, Berger, Hill, and Waldfogel (2005) observed that longer paid leave was associated with reduced maternal depression, though the strength of this effect diminished over time. Supporting these theoretical perspectives, Dagher, McGovern, and Dowd (2014), in a study of three hospitals in Minnesota, reported that longer maternity leave was linked to fewer postpartum depressive symptoms, but only up to a threshold of six months.

Short-Term Association

For the short-term (less than one year after returning to work from leave), the implications of maternity leave duration, previous literature has suggested that short leave can significantly compromise the immediate postnatal adjustment period. During this time, mothers undergo intense physical recovery, hormonal fluctuations, and the steep learning curve of caregiving. From the perspective of Work–Family Conflict Theory (Greenhaus & Beutell, 1985), the premature convergence of caregiving and professional

demands creates time- and strain-based conflict. These overlapping pressures limit a mother's ability to meet the expectations of either role effectively, often resulting in psychological distress, low self-efficacy, and a diminished sense of control (Allen et al., 2000; Misra, Budig & Boeckmann, 2011). Studies such as Feldman et al. (2004), Chatterji & Markowitz (2005), and Dagher et al. (2014) indicate that returning to work too early increases the risk of postpartum depression, fatigue, and reduced parenting and job satisfaction.

In contrast, longer maternity leave, particularly beyond six months, can enhance well-being by offering mothers further time to recover, adapt, and build confidence in their caregiving role. One key benefit during this stage is the opportunity to foster a secure mother–child bond, which forms the basis for early socio-emotional development and maternal psychological stability. As Van Niel et al. (2020) note, extended leave facilitates sustained physical closeness and responsive caregiving to the infant's needs, all of which contribute to maternal confidence and reduced stress. This early bonding process is not only critical for the child's cognitive and emotional growth but also for the mother's sense of purpose, efficacy, and attachment satisfaction, all of which are essential components of subjective well-being.

However, when leave extends substantially beyond six months, new short-term risks may emerge, particularly around professional identity and psychosocial strain. Although detachment from the workplace is typically regarded as a medium- to long-term concern, anticipatory effects can arise early on. McGovern et al. (2007) report that mothers on longer leave often express anxiety about reintegration and fear diminished

relevance in their professional settings. These concerns, centred on exclusion from workplace developments and decreased visibility, can lower confidence and increase uncertainty, undermining the psychological benefits of time away. Similarly, Theunissen et al. (2018) found that women on extended leave often began to feel isolated and less professionally capable upon returning to work.

A further short-term challenge is the reinforcement of traditional gender roles. As argued by Social Role Theory (Eagly & Wood, 2012), extended maternity leave, particularly when taken in the absence of shared parental leave, can consolidate the view that caregiving is inherently a maternal responsibility. Misra, Budig, and Boeckmann (2011) demonstrate that such patterns often lead to asymmetric divisions of domestic labour, which increase women's caregiving burden and reduce their professional autonomy. These dynamics can be emotionally taxing even before re-entry, as women begin to navigate the psychological tension between intensive mothering and anticipated workplace reintegration.

Most notably, moderate leave durations appear to offer the most balanced short-term outcomes. This timeframe offers enough space for physical recovery and emotional recalibration, while avoiding the identity disconnection or professional anxieties sometimes associated with longer absences. It enables mothers to rebuild stamina, establish consistent caregiving routines, and gradually prepare for re-entry into the workforce without feeling overwhelmed. Moderate leave also aligns more closely with statutory pay periods in many settings (including the UK), reducing financial stress while enabling recovery and bonding (Chatterji & Markowitz, 2005; Pettit & Hook, 2009).

These benefits are reflected in empirical findings such as those by Dagher et al. (2014), as mentioned above, who observed that postpartum depressive symptoms declined with increased leave length but began to plateau after approximately six months. Similarly, Berger, Hill, and Waldfogel (2005) found that longer paid leave improved maternal mental health, but the effect weakened after a moderate threshold.

Based on these insights, I hypothesise that:

Hypothesis 1: There is a U-shaped association between maternity leave duration and maternal well-being in the short term, such that mothers who take moderate-length leave will report higher levels of subjective well-being in comparison to those who take either short or long leave.

Medium-Term Association

In the medium term, around three years after returning to work from leave (Budig & England, 2001), the implications of maternity leave duration on maternal subjective well-being (SWB) may evolve. Whereas the short-term focus is often on physical recovery and emotional adjustment, the medium term is shaped more profoundly by career re-entry dynamics, skill retention, and role identity.

Drawing on Human Capital Theory (Becker, 1964; Mincer & Polachek, 1974), long maternity leave, particularly durations extending into the second year, can erode job-specific skills and interrupt professional development. In fast-paced industries such as

finance, technology, or healthcare, where knowledge and technical competencies evolve rapidly, prolonged absence may result in mothers returning to roles that have changed significantly or require re-skilling (Evertsson & Duvander, 2011). This skill erosion can weaken professional confidence and hinder job performance, contributing to lower career satisfaction and reduced well-being.

Signalling Theory (Spence, 1973) also helps explain medium-term disadvantages linked to long leave. Extended time away from the workplace may be interpreted by employers as an indication of lower career ambition or diminished professional commitment. This perception can translate into concrete penalties, such as exclusion from high-visibility projects, fewer leadership opportunities, or reduced access to career development resources. Correll, Benard, and Paik (2007) experimentally demonstrated that mothers were perceived as less competent and less committed than non-mothers, even when qualifications were identical. Similarly, Theunissen et al. (2018) found that mothers who took more than a year of maternity leave in the Netherlands were disproportionately underrepresented in promotion pipelines and strategic roles, often facing challenges reintegrating into teams and decision-making structures.

These structural and perceptual barriers often contribute to medium-term career stagnation. Budig and England (2001) documented how wage penalties for motherhood persist and compound over time, particularly for women who took extended leave. Such stagnation has measurable consequences for subjective well-being, contributing to diminished autonomy, role dissatisfaction, and financial strain. Gatrell et al. (2013) further emphasised that the inability to reassert one's professional identity after prolonged

absence can generate internalised feelings of disengagement and eroded self-worth, particularly among highly educated or previously career-oriented mothers.

Nevertheless, moderate maternity leave durations appear to confer meaningful benefits that extend into the medium term. The early postpartum months are critical for establishing mother–child bonding, emotional security, and caregiving routines, which have been shown to support maternal and child well-being well into the toddler years (Tanaka, 2005; Berger, Hill & Waldfogel, 2005). Compared to mothers who take shorter leaves, those who return to work after a moderate period are more likely to benefit from a secure attachment foundation, which can help ease the emotional and logistical demands of balancing work and parenting over time (Plotka & Busch-Rossnagel, 2018; Van Niel et al., 2020).

Taken together, the literature implies that in the medium term, the U-shaped relationship observed in the early postpartum period becomes less symmetrical. The disadvantages associated with very short leave may diminish as career re-entry stabilises, whereas the costs of extended leave, skill erosion, stalled advancement, and negative employer perceptions, become more pronounced. Based on this, I hypothesise that:

Hypothesis 2: In the medium term, shorter to moderate maternity leave durations are associated with higher levels of maternal subjective well-being compared to long leave durations.

Data and Methods

Data

The current study capitalises on the wealth of data from Understanding Society, the UK's comprehensive household longitudinal panel study initiated in 2009. This rich dataset encompasses interviews with approximately 40,000 British households each year, capturing a diverse tapestry of economic and social fluctuations across the UK, delineated at societal, household, and individual levels. This extensive representation is particularly pertinent to my research, as it includes individuals across all demographics, making it an ideal foundation for investigating the impact of extended maternity leave on mothers' SWB upon their return to work. For this study, the variables within Understanding Society that track maternity leave and employment patterns are integral. Furthermore, the study's longitudinal design allows me to explore the short- and medium-term association of extended leave with SWB.

For the analytical sample, I included mothers from Waves 2-12 (2010-2021)¹¹ who were currently in paid employment, had reported taking maternity leave since their last interview, stated the duration of the leave, were employed throughout the observation period, and had remained in the same job¹². Based on these criteria, the final sample

¹¹ Variables on maternity leave duration are only available from Wave 2.

¹² Since this study focuses specifically on understanding the association between maternity leave length and maternal well-being in the context of re-entry to the workforce, it does not include those women in the sample who dropped out of work after childbirth/did not return to work once their leave ended.

consisted of 2,245 mothers, which was reduced to 1,697¹³ for the medium-term association analysis.

Dependent Variables

In the Understanding Society dataset, variables measure overall and domain-specific cognitive well-being¹⁴. To provide a robust and multidimensional analysis, my analysis engages with both types of variables. Overall, cognitive well-being is measured by the following question about life satisfaction: “How dissatisfied or satisfied are you with your life overall?”. Similarly, domain-specific dimensions are measured by the following questions: “How dissatisfied or satisfied are you with your job?” and “How dissatisfied or satisfied are you with your amount of leisure time?”. Response categories for all three questions range from 1-7, with 1 denoting ‘Completely dissatisfied’, 2 ‘Mostly dissatisfied’, 3 ‘Somewhat dissatisfied’, 4 ‘Neither satisfied nor dissatisfied’, 5 ‘Somewhat satisfied’, 6 ‘Mostly satisfied’ and 7 ‘Completely satisfied’. I use the existing categories for my analyses.

Independent Variables

¹³ Some mothers from the short-term sample were no longer observed in the medium-term follow-up, leading to a reduction in the sample size for the medium-term analysis. In addition, 20 mothers who reported giving birth to another child between the short-term and medium-term periods were excluded, as the analysis focused on mothers who remained in paid employment throughout the observation period.

¹⁴ My selection of domain-specific variables was guided by the intent to examine well-being in both non-work and work spheres. I used leisure time satisfaction to assess well-being in the non-work domain and job satisfaction to capture well-being within the work domain (Qadri, 2022)

The main independent variable in this study is the duration of maternity leave, which was calculated by subtracting the leave start date from the return-to-work date and dividing this figure by thirty to approximate the number of months of leave taken. Months were chosen as the unit of measurement rather than days, as most maternity leave policies, institutional frameworks, and social norms are structured around monthly increments, making this a more practical and policy-relevant approach (Ray, Gornick, & Schmitt, 2010).

To capture potential non-linear associations between maternity leave duration and maternal life satisfaction, the variable was divided into four categories: ‘1’ (1–3 months), ‘2’ (4–6 months), ‘3’ (7–9 months), and ‘4’ (10–12 months). This categorisation reflects meaningful thresholds within the UK policy context, where mothers are entitled to up to 12 months of maternity leave and 9 months of statutory leave pay. It also facilitates the detection of non-linear effects, particularly in light of existing research suggesting a U-shaped relationship between leave duration and maternal well-being, where both very short and very long leaves are associated with poorer outcomes (e.g. Aitken et al., 2015; Ginja & Karimi, 2022). Categorising the variable in this way allows for a more nuanced analysis of how varying lengths of leave may differentially influence maternal life satisfaction.

Control Variables

A comprehensive set of control variables is included in the analysis to account for potential confounders that may influence both maternity leave duration and maternal well-being. These comprise the length of time since the mother returned to work following maternity leave, as well as a range of sociodemographic characteristics such as age, education level, number of children, and marital status, factors consistently linked to health outcomes and access to social and economic resources (Berkman et al., 2000).

Economic variables include individual income, weekly work hours, employment sector, and occupational position, given that financial stability and job characteristics are known to affect both the ability to take leave and subjective well-being (Ross & Mirowsky, 1999). Health-related controls include the newborn's birth weight, the presence of chronic health conditions in the mother, and self-reported well-being prior to childbirth (included as a continuous variable), as both maternal and infant health status can shape the need for leave and influence subsequent mental health outcomes (Garbarski, 2010).

Social support is proxied by the number of adults in the household and reported access to childcare, which are recognised as important buffers against maternal stress and play a key role in the postnatal recovery process (Cohen & Wills, 1985). Lastly, geographical region is included to account for variation in local maternity leave implementation and healthcare service provision across the UK (van den Berg et al., 2010)¹⁵.

¹⁵ Two crucial control variables were the fathers' uptake of leave and the length of their leave. However, controlling for these variables would have significantly reduced the sample size. While the *Understanding Society* dataset collects information from all household members, partner data is sometimes missing. Specifically, 1,300 fathers reported parental leave uptake, and of those, only 1,000 provided information on the length of their leave. This number was

Analytical Strategy

To investigate the association between the duration of maternity leave and mothers' SWB upon their return to work, I employ ordered logit regression models. This approach is suited for the analyses, given the ordinal nature of the dependent variable, SWB, which is measured on a Likert-type scale¹⁶. The ordered logit model allows for the appropriate handling of such data, as it accounts for the fact that while well-being is ranked, the distances between categories may not be uniform.

To further explore the robustness of the findings and shed light on potential mechanisms underlying the association between maternity leave duration and maternal well-being, a series of auxiliary analyses were conducted (results are in the attached appendix). To further explore the robustness of the findings and shed light on potential mechanisms underlying the association between maternity leave duration and maternal well-being, a series of auxiliary analyses were conducted (see Appendix for results). Financial well-being was included in the regression models to examine whether the association between leave duration and the main well-being measures changed once economic circumstances were accounted for¹⁷. In addition, separate models were estimated

further reduced once observations with missing responses on the well-being variables were removed. Moreover, incorporating fathers' leave into the analysis left me with a sample of only 800 women for the medium-term analysis, which would have underpowered the models. As a result, I used partnership status as a proxy for fathers' support.

¹⁶ A more robust modelling approach, such as fixed effects models, could have been considered. However, their application was not feasible as they require multiple observations of maternity leave per individual, which my data did not provide.

¹⁷ As discussed in the literature review, financial strain is an important mediator in the association between maternity leave length and maternal subjective well-being. Thus, in my auxiliary models, I control for financial strain by adding a variable which measures satisfaction with finances on a Likert scale.

for mothers experiencing their first birth and those having a second or subsequent child. This distinction allows for a more nuanced comparison, recognising that first-time mothers may face different challenges, expectations, and support structures than mothers with prior parenting experience. Lastly, I also implemented OLS models to test the association between leave duration and well-being, the results of which are in the appendix.

A key limitation of my analysis is the potential for endogeneity, particularly due to reverse causality. In this case, reverse causality means that a mother's well-being before maternity leave could influence the length of the leave, rather than the leave duration affecting well-being. For example, mothers who are healthier or have higher well-being before childbirth may choose shorter leaves because they feel more resilient, recover more quickly, or experience less stress, allowing them to return to work sooner. On the other hand, mothers facing health challenges or higher stress may opt for longer leaves to ensure they have enough time to recover and manage their well-being.

This two-way relationship makes it difficult to establish a clear cause-and-effect link between the length of maternity leave and well-being after the leave. Instead of the leave affecting post-leave well-being, it could be the mother's initial well-being that determines how long she stays on leave.

To address this issue, I control for pre-childbirth well-being in the analysis. However, this doesn't entirely solve the problem because other unaccounted factors¹⁸ or simultaneous feedback between leave duration and well-being may still affect the results.

¹⁸ Due to missing data, I could not include relevant control variables, such as the use of flexible working in my analyses. Further details on missing variables can be found in the limitations section at the end of the paper.

Therefore, my study avoids making causal claims about the relationship between maternity leave duration and maternal mental health. Instead, the focus remains on identifying and describing the associational patterns between leave duration and well-being. While these associations are informative, they should not be interpreted as evidence of a direct cause-and-effect relationship¹⁹.

Descriptive Statistics

This section summarises the distribution of key categorical variables. Table 1 presents the proportions for each category across the short-term and medium-term outcome samples.

In terms of life satisfaction, the most common response in both samples is “Mostly Satisfied” (47% in the short-term and 44% in the medium-term sample). “Somewhat Satisfied” increases from 17% to 23%, while “Completely Satisfied” decreases from 13% to 9%. The proportion of respondents reporting “Somewhat Dissatisfied” increases slightly, from 7% to 8%.

Leisure time satisfaction is more evenly distributed across categories. In the short-term sample, 26% report being “Somewhat Satisfied,” 24% “Somewhat Dissatisfied,” and 15% “Neither Satisfied nor Dissatisfied.” A small proportion report being “Completely Satisfied” (4%) or “Completely Dissatisfied” (6%). In the medium-term

¹⁹ I explored several causal inference methods for my analysis. Initially, I evaluated potential instrumental variables, but those that satisfied the exogeneity criterion either had a substantial amount of missing data or were entirely absent from my dataset. I also considered propensity score matching (PSM); however, this method was unsuitable since it is designed for binary treatments, while my independent variable, maternity leave duration, is continuous. Consequently, PSM could not be applied in this context.

sample, “Mostly Satisfied” increases from 13% to 16%, and “Somewhat Satisfied” from 26% to 28%. The proportion reporting “Completely Dissatisfied” and “Mostly Dissatisfied” decreases slightly, from 6% to 4% and 12% to 10%, respectively.

Job satisfaction is generally high. In the short-term sample, 35% report being “Mostly Satisfied,” 28% “Somewhat Satisfied,” and 10% “Neither Satisfied nor Dissatisfied.” Smaller proportions report dissatisfaction, including 9% “Somewhat Dissatisfied,” 8% “Mostly Dissatisfied,” and 2% “Completely Dissatisfied.” These proportions remain relatively stable in the medium-term sample, with slight increases in “Completely Dissatisfied” (3%) and “Somewhat Dissatisfied” (14%), and small decreases in the “Satisfied” categories.

In sum, the data shows that respondents generally report moderate to high satisfaction across all three domains, with only modest differences observed between the short- and medium-term periods.

The distribution of maternity leave durations reveals that the most common length is 7–9 months, taken by approximately 31% of the sample. In contrast, the least common duration is 10–12 months, accounting for 21%. Short (1–3 months) and moderate (4–6 months) leaves together make up nearly half of the sample (48%), indicating a substantial proportion of mothers return to work within six months.

Table 1

Descriptive statistics (percentages) for categorical variables across the short and medium-term samples

| Variables | Short-Term Sample | Medium-Term Sample |
|---|-------------------|--------------------|
| Satisfaction with Life | | |
| Completely Dissatisfied | 3 | 3 |
| Mostly Dissatisfied | 5 | 5 |
| Somewhat Dissatisfied | 7 | 8 |
| Neither Satisfied nor Dissatisfied | 8 | 8 |
| Somewhat Satisfied | 17 | 23 |
| Mostly Satisfied | 47 | 44 |
| Completely Satisfied | 13 | 9 |
| Satisfaction with Amount of Leisure Time | | |
| Completely Dissatisfied | 6 | 4 |
| Mostly Dissatisfied | 12 | 10 |
| Somewhat Dissatisfied | 24 | 24 |
| Neither Satisfied nor Dissatisfied | 15 | 12 |
| Somewhat Satisfied | 26 | 28 |
| Mostly Satisfied | 13 | 16 |
| Completely Satisfied | 4 | 5 |
| Satisfaction with Job | | |
| Completely Dissatisfied | 2 | 3 |
| Mostly Dissatisfied | 8 | 9 |
| Somewhat Dissatisfied | 9 | 14 |
| Neither Satisfied nor Dissatisfied | 10 | 10 |
| Somewhat Satisfied | 28 | 26 |
| Mostly Satisfied | 35 | 33 |
| Completely Satisfied | 8 | 8 |

Maternity Leave Duration

| | | |
|-----------------------|----|----|
| 1 – 3 months | 24 | 24 |
| 4 – 6 months | 24 | 23 |
| 7 – 9 months | 31 | 32 |
| 10 – 12 months | 21 | 21 |

Ethnicity

| | | |
|-------|----|----|
| White | 87 | 87 |
| Other | 13 | 13 |

Partnership Status

| | | |
|-----------|----|----|
| Single | 8 | 10 |
| Partnered | 92 | 90 |

Education

| | | |
|-----------------------|----|----|
| No Certification | 10 | 10 |
| GCSE or Equivalent | 22 | 22 |
| A Level or Equivalent | 28 | 25 |
| Degree or Equivalent | 40 | 43 |

Job Level

| | | |
|-------------------------|----|----|
| Routine | 19 | 20 |
| Intermediate | 18 | 22 |
| Management/Professional | 62 | 58 |

Private Sector

| | | |
|-----|----|----|
| Yes | 53 | 52 |
| No | 47 | 48 |

**Children Aged 0-2 (Apart
from newborn child)**

| | | |
|-----------|----|----|
| 0 | 94 | 94 |
| 1 or more | 6 | 6 |

Children Aged 3-4

| | | |
|------------------------------|----|----|
| 0 | 77 | 44 |
| 1 | 22 | 55 |
| 2 or more | 1 | 1 |
| Children Aged 5-11 | | |
| 0 | 74 | 53 |
| 1 | 20 | 38 |
| 2 or more | 6 | 9 |
| Children Aged 12-15 | | |
| 0 | 95 | 93 |
| 1 | 4 | 6 |
| 2 or more | 1 | 1 |
| Access to Formal Care | | |
| Yes | 67 | 70 |
| No | 33 | 30 |
| Long-Term Illness | | |
| Yes | 15 | 16 |
| No | 85 | 84 |
| Wave | | |
| Wave 2 | 9 | 9 |
| Wave 3 | 11 | 12 |
| Wave 4 | 12 | 12 |
| Wave 5 | 11 | 12 |
| Wave 6 | 9 | 10 |
| Wave 7 | 8 | 9 |
| Wave 9 | 10 | 9 |
| Wave 10 | 12 | 11 |
| Wave 11 | 8 | 8 |
| Wave 12 | 8 | 8 |

| Region | | |
|---------------------|-------|-------|
| North East | 3 | 3 |
| North West | 10 | 10 |
| Yorkshire | 8 | 8 |
| East Midlands | 9 | 9 |
| West Midlands | 8 | 8 |
| East of Eng. | 9 | 9 |
| London | 10 | 9 |
| South East | 12 | 11 |
| South West | 8 | 8 |
| Wales | 7 | 7 |
| Scotland | 8 | 8 |
| Northern Ireland | 8 | 8 |
| Observations | 2,245 | 1,697 |

Table 2 presents descriptive statistics for continuous variables, including age, income, work hours, and household composition. On average, respondents are in their mid-30s, with individual weekly work hours around the mid-20s. Individual income levels vary widely, as reflected in the large standard deviations. Birth weight of the newborn child averages around 3.2 kg.

Table 2

Descriptive statistics for continuous variables across the short and medium-term samples

| Variables | Short-Term Sample | Medium-Term Sample |
|------------------|-------------------|--------------------|
|------------------|-------------------|--------------------|

| | | |
|-------------------------------|-----------------|-----------------|
| Age | 33.20(6.13) | 35.53(6.05) |
| Individual Net Income | 1621.93(804.11) | 1732.74(860.31) |
| Weekly Work Hours | 27.60(9.62) | 22.08(9.54) |
| Birth Weight of Newborn Child | 3.2 (0.4) | 3.2 (0.4) |
| Number of Adults in HH | 0.22(0.77) | 0.18(1.08) |

Values reported in the table represent means, with the corresponding standard deviations provided in parentheses.

In the next section, I will present the results of my ordered logit regression analysis, examining the association between leave duration and well-being, while accounting for a range of confounding variables.

Results

Short-Term Association

Table 3 presents the results of three ordered logistic regression models examining the association between maternity leave duration (measured in months) and three different satisfaction measures in the short-term: satisfaction with leisure time (Model 1), satisfaction with life (Model 2), and job satisfaction (Model 3). The odds ratios (OR) and significance levels are reported for each independent variable, with the main variable of interest being maternity leave duration.

Table 3

Ordered Logit Regression Results: Short-term Association Between Maternity Leave and Well-being

| Variables | Model 1 | Model 2 | Model 3 |
|---|---------------------------|-------------------|------------------|
| | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1 – 3 months) | | | |
| 4 – 6 months | 1.162* (0.108) | 1.106+ (0.228) | 0.763** (0.076) |
| 7 – 9 months | 1.263** (0.08) | 0.791** (0.165) | 0.526** (0.084) |
| 10 – 12 months | 1.284* (0.104) | 0.546** (0.176) | 0.453** (0.087) |
| Length of time since return (months) | 0.981 (0.017) | 1.052* (0.016) | 1.084* (0.029) |
| Age | 0.979** (0.008) | 0.978** (0.008) | 0.995 (0.008) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.881 (0.148) | 0.883 (0.146) | 1.207 (0.182) |
| Partnership Status (Ref: No partner) | | | |
| Partner | 1.364** (0.257) | 1.788** (0.317) | 0.934 (0.165) |
| Log Income | 0.915 (0.081) | 1.150* (0.169) | 1.140* (0.094) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.146 (0.166) | 1.064 (0.185) | 1.134 (0.179) |
| A Level or Equivalent | 0.903 (0.159) | 0.952 (0.174) | 0.989 (0.185) |
| Degree or Equivalent | 0.926 (0.113) | 1.234 (0.155) | 1.154 (0.142) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 0.971 (0.400) | 0.671 (0.196) | 1.289 (0.558) |
| Routine | 0.545 (0.187) | 0.948 (0.320) | 1.540 (0.535) |
| Private Sector (Ref: Yes) | | | |
| No | 0.988 (0.091) | 1.230* (0.117) | 1.065 (0.097) |
| Weekly Work Hours | 0.985** (0.005) | 0.998 (0.006) | 0.995 (0.005) |

| | | | |
|--|------------------|------------------|------------------|
| Birth Weight of Newborn | 1.031*(0.139) | 1.028*(0.113) | 1.022*(0.033) |
| Child | | | |
| Children Aged 0-2 (Ref: 0 other than newborn) | | | |
| 1 or more | 0.762 (0.133) | 0.732 (0.145) | 0.750 (0.146) |
| Children Aged 3-4 (Ref: 0) | | | |
| 1 | 0.906 (0.091) | 0.929 (0.095) | 0.898 (0.088) |
| 2 or more | 1.018 (0.607) | 0.466 (0.335) | 0.704 (0.383) |
| Children Aged 5-11 (Ref: 0) | | | |
| 1 | 0.835 (0.092) | 0.728** (0.088) | 1.045 (0.118) |
| 2 or more | 0.676** (0.122) | 0.787 (0.164) | 1.102 (0.204) |
| Children Aged 12-15 (Ref: 0) | | | |
| 1 | 0.896 (0.187) | 0.704 (0.160) | 0.987 (0.231) |
| 2 or more | 1.510 (0.648) | 0.351 (0.300) | 1.331 (1.254) |
| Access to Formal Care (Ref: Yes) | | | |
| No | 0.748** (0.083) | 0.894 (0.102) | 1.001 (0.103) |
| Number of Adults in HH | 0.959 (0.059) | 0.833** (0.054) | 1.092 (0.070) |
| Long-Term Illness (Ref: Yes) | | | |
| No | 1.472** (0.185) | 1.495** (0.185) | 1.356* (0.170) |
| Previous Satisfaction Score | 1.504*** (0.052) | 1.667*** (0.091) | 1.085*** (0.025) |
| Wave (Reference: Wave 2) | | | |
| Wave 3 | 0.991 (0.184) | 0.758 (0.162) | 0.941 (0.167) |
| Wave 4 | 1.182 (0.227) | 1.218 (0.271) | 1.037 (0.187) |
| Wave 5 | 1.229 (0.221) | 1.204 (0.276) | 1.215 (0.238) |
| Wave 6 | 1.524* (0.307) | 1.246 (0.286) | 1.413 (0.288) |
| Wave 7 | 1.267 (0.269) | 0.897 (0.209) | 1.374 (0.292) |

| | | | |
|---------------------------------|----------------|---------------|----------------|
| Wave 9 | 1.089 (0.250) | 0.819 (0.202) | 1.370 (0.290) |
| Wave 10 | 1.120* (0.314) | 0.892 (0.213) | 1.612* (0.322) |
| Wave 11 | 1.132* (0.517) | 1.143 (0.302) | 1.400 (0.318) |
| Wave 12 | 1.119 (0.338) | 1.065 (0.342) | 1.510 (0.468) |
| Region (Ref: North East) | | | |
| North West | 0.658 (0.182) | 0.920 (0.290) | 0.903 (0.266) |
| Yorkshire | 0.762 (0.212) | 0.631 (0.200) | 0.921 (0.277) |
| East Midlands | 0.866 (0.232) | 0.736 (0.232) | 0.806 (0.239) |
| West Midlands | 0.831 (0.265) | 0.835 (0.272) | 0.943 (0.291) |
| East of Eng. | 0.810 (0.229) | 0.860 (0.269) | 1.137 (0.343) |
| London | 0.833 (0.250) | 0.685 (0.232) | 0.834 (0.250) |
| South East | 0.888 (0.236) | 0.751 (0.231) | 1.034 (0.297) |
| South West | 0.858 (0.242) | 0.863 (0.268) | 1.326 (0.395) |
| Wales | 1.049 (0.306) | 0.836 (0.279) | 1.041 (0.320) |
| Scotland | 0.833 (0.231) | 0.867 (0.290) | 0.583 (0.181) |
| Northern Ire. | 0.955 (0.266) | 0.959 (0.324) | 1.140 (0.335) |
| Observations | 2,007 | 2,007 | 2,007 |
| Pseudo R-squared | 0.043 | 0.058 | 0.016 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Longer maternity leave was associated with greater leisure time satisfaction (Model 1). Compared to mothers who took 1–3 months of leave, those who took 4–6 months (OR = 1.162, $p < 0.05$), 7–9 months (OR = 1.263, $p < 0.01$), and 10–12 months (OR = 1.284, $p < 0.05$) had significantly higher odds of reporting greater satisfaction with

their leisure time, with the odds increasing by up to 28.4% for those on leave for 10–12 months.

In contrast to other well-being measures, the association between maternity leave duration and life satisfaction was mixed. Taking 4–6 months of leave was linked to a slight and only weakly significant increase in life satisfaction (OR = 1.106, $p < 0.10$). However, taking longer leave was associated with lower life satisfaction: mothers who took 7–9 months (OR = 0.791, $p < 0.01$) or 10–12 months (OR = 0.546, $p < 0.01$) had significantly lower odds of reporting higher life satisfaction compared to the reference group. These results offer limited support for Hypothesis 1, which proposed a U-shaped relationship between leave duration and maternal well-being in the short term.

For job satisfaction, the association was consistently negative and became stronger as the length of maternity leave increased. Compared to the reference group, mothers who took 4–6 months of leave were approximately 24% less likely to report high job satisfaction (OR = 0.763, $p < 0.05$). Those who took 7–9 months had 47% lower odds (OR = 0.526, $p < 0.05$), while those taking 10–12 months had 55% lower odds (OR = 0.453, $p < 0.01$). This suggests that longer maternity leave is progressively associated with lower job satisfaction.

Overall, while extended maternity leave appeared to enhance leisure time satisfaction, it was associated with substantial declines in life and job satisfaction, particularly when leave exceeded six months.

Auxiliary analyses (Table A1, Appendix) assessed whether controlling for satisfaction with income altered these patterns. Including income satisfaction had a minimal impact on the results for leisure time satisfaction. For life and job satisfaction, the negative associations with longer leave durations were slightly attenuated: for instance, the odds ratio for 10–12 months of leave rose from 0.546 to 0.562 for life satisfaction, and from 0.453 to 0.491 for job satisfaction. These modest shifts suggest that financial satisfaction played a limited mediating role in the relationship between maternity leave length and maternal well-being.

Further analyses (Tables A2 and A3, Appendix) split the sample into first-time mothers and experienced mothers. Patterns were broadly consistent across both groups. In each, taking 4–6, 7–9, or 10–12 months of maternity leave was associated with higher odds of greater leisure time satisfaction, and taking 7–9 or 10–12 months was linked to lower odds of greater life satisfaction. Similarly, across both groups, longer leave durations were associated with lower odds of greater job satisfaction. While the overall direction of the associations was similar, first-time mothers tended to show slightly stronger positive associations with leisure time satisfaction and more pronounced negative associations with life and job satisfaction than experienced mothers.

Medium-Term Association

Table 4 presents the results of three ordered logistic regression models examining the association between maternity leave duration (measured in months) and three different satisfaction measures in the medium term.

Table 4

Ordered Logit Regression Results: Medium-term Association Between Maternity Leave and Well-being

| Variables | Model 1 | Model 2 | Model 3 |
|--|---------------------------|-------------------|------------------|
| | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Duration (1 – 3 months) | | | |
| 4 – 6 months | 0.934 (0.140) | 1.043 (0.173) | 0.801* (0.140) |
| 7 – 9 months | 1.037 (0.149) | 0.815* (0.146) | 0.692* (0.136) |
| 10 – 12 months | 1.173 (0.185) | 0.753+(0.181) | 0.527* (0.131) |
| Length of time since return (months) | 0.675 (0.014) | 0.812 (0.022) | 0.145 (0.043) |
| Age | 0.981 (0.008)* | 0.976 (0.008)*** | 1.001 (0.009) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.832 (0.122) | 0.593 (0.100)*** | 1.107 (0.197) |
| Partnership Status (Ref: No partner) | | | |
| Partner | 1.556**(0.265) | 2.231***(.384) | 0.772*(0.132) |
| Household Income | 1.008 (0.000) | 1.004 (0.000)*** | 1.005 (0.000) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.126 (0.184) | 1.093 (0.195) | 0.965 (0.168) |
| A Level or Equivalent | 1.187 (0.234) | 0.966 (0.198) | 0.761 (0.156) |

| | | | |
|--|-----------------|------------------|------------------|
| Degree or Equivalent | 0.982 (0.121) | 1.369 (0.171)* | 0.891 (0.113) |
| Private Sector (Ref: Yes) | | | |
| No | 0.853 (0.084)* | 0.921 (0.094) | 0.888 (0.087) |
| Birth Weight of Newborn | 1.221 (0.165) | 1.04 (0.113) | 1.032 (0.433) |
| Child | | | |
| Children Aged 3-4²⁰ (Ref: 0) | | | |
| 1 or more | 0.860 (0.097) | 0.921 (0.107) | 1.189 (0.130) |
| Children Aged 5-11 (Ref: 0) | | | |
| 1 | 0.943 (0.090) | 1.175 (0.117) | 1.154 (0.110) |
| 2 or more | 0.902 (0.143) | 1.013 (0.194) | 1.317 (0.238) |
| Children Aged 12-15 (Ref: 0) | | | |
| 1 | 0.787 (0.175) | 0.865 (0.211) | 0.991 (0.194) |
| 2 or more | 1.453 (0.796) | 2.735 (0.952)** | 2.722 (2.023) |
| Access to Formal Care (Ref: Yes) | | | |
| No | 0.844 (0.106) | 0.991 (0.134) | 0.892 (0.124) |
| Number of Adults in HH | 0.983 (0.047) | 0.951 (0.033) | 0.945 (0.106) |
| Long-Term Illness (Ref: Yes) | | | |
| No | 1.351 (0.165)** | 1.466 (0.184)*** | 0.844 (0.105) |
| Previous Well-being Score | 1.218** (0.035) | 1.507 (0.502) | 1.756*** (0.620) |
| Wave (Ref: Wave 2) | | | |
| Wave 3 | 1.267 (0.324)** | 1.632 (0.313)* | 1.729 (0.323)* |
| Wave 4 | 1.151 (0.244) | 1.345 (0.310) | 1.393 (0.291) |
| Wave 5 | 1.782 (0.337)** | 1.664 (0.363)* | 1.529 (0.316)* |
| Wave 6 | 1.734 (0.351)** | 1.295 (0.274) | 1.377 (0.307) |
| Wave 7 | 1.454 (0.300)* | 1.401 (0.310) | 1.902 (0.420)** |
| Wave 8 | 1.753 (0.353)** | 1.143 (0.261) | 1.651 (0.372)* |

²⁰ This does not include the child for whom the maternity leave was taken

| | | | |
|---------------------------------|------------------|---------------|-----------------|
| Wave 9 | 1.364 (0.287) | 1.096 (0.240) | 1.547 (0.346)* |
| Wave 10 ²¹ | 2.071 (0.477)** | 1.036 (0.244) | 1.681 (0.384)** |
| Wave 11 | 2.301 (0.519)*** | 1.293 (0.305) | 1.874 (0.463)** |
| Wave 12 | 2.171 (0.498)*** | 1.184 (0.275) | 1.701 (0.409)** |
| Region (Ref: North East) | | | |
| North West | 1.335 (0.378) | 1.186 (0.388) | 1.000 (0.296) |
| Yorkshire | 1.240 (0.376) | 0.840 (0.269) | 0.833 (0.251) |
| East Midlands | 1.133 (0.323) | 0.743 (0.241) | 1.235 (0.366) |
| West Midlands | 1.034 (0.305) | 1.128 (0.363) | 0.811 (0.264) |
| East of Eng. | 1.301 (0.390) | 1.01 (0.321) | 1.061 (0.314) |
| London | 0.977 (0.292) | 0.932 (0.310) | 0.878 (0.274) |
| South East | 1.304 (0.371) | 1.305 (0.409) | 1.132 (0.331) |
| South West | 1.213 (0.349) | 1.126 (0.370) | 1.255 (0.370) |
| Wales | 1.165 (0.363) | 1.181 (0.410) | 1.392 (0.448) |
| Scotland | 1.164 (0.330) | 1.253 (0.422) | 0.879 (0.268) |
| Northern Ire. | 1.921 (0.600)*\ | 1.385 (0.440) | 1.254 (0.383) |
| Observations | 1,674 | 1,674 | 1,674 |
| Pseudo R2 | 0.034 | 0.021 | 0.041 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

²¹ Some wave dummies appear to have relatively large effects, which may reflect unobserved time-specific shocks or broader contextual changes during particular survey waves (e.g. economic fluctuations, policy reforms, or COVID-19-related disruptions). While these are not the focus of the analysis, their inclusion helps to control for time-fixed effects and absorb unmeasured heterogeneity, ensuring the robustness of the estimated relationships between maternity leave duration and well-being.

The ordered logit regression results for the medium-term association between maternity leave length and maternal cognitive well-being reveal a nuanced pattern. In terms of leisure time satisfaction, there were no significant differences between mothers who took 4–6, 7–9, or 10–12 months of leave and those who took only 1–3 months, indicating that leave length had little impact on this domain of well-being.

However, the results for life satisfaction show that longer leave durations were associated with lower odds of reporting greater satisfaction. Specifically, taking 7–9 months of leave was associated with an approximately 18% reduction in the odds of higher life satisfaction (OR = 0.815, $p < 0.05$), and taking 10–12 months corresponded to a 25% reduction (OR = 0.753, $p < 0.10$), relative to the 1–3-month reference group. Taking 4–6 months (OR = 1.043) showed no significant difference.

The negative association was strongest for job satisfaction. Compared to taking 1–3 months of leave, mothers who took 4–6 months had a 19.9% lower likelihood of reporting higher job satisfaction (OR = 0.801, $p < 0.05$). Those taking 7–9 months experienced a 30.8% reduction (OR = 0.692, $p < 0.05$), and those taking 10–12 months had a 47.3% reduction (OR = 0.527, $p < 0.05$).

Overall, while leisure satisfaction appeared unaffected by maternity leave length, both life and job satisfaction declined with longer leave durations. These findings offer partial support for Hypothesis 2, which posited that in the medium term, shorter to

moderate leave durations are associated with higher maternal subjective well-being compared to extended leave.

In the auxiliary analysis, Table A5 in the appendix presents the models controlling for satisfaction with income. The negative associations weakened across life satisfaction and job satisfaction. For the former, the odds ratio for 7–9 months increased from 0.815 to 0.860 ($p < 0.05$), and for 10–12 months from 0.753 to 0.806 ($p < 0.05$). Similarly, for job satisfaction, the odds ratio for 4–6 months rose from 0.801 to 0.912 ($p < 0.05$), for 7–9 months rose from 0.692 to 0.853 ($p < 0.05$), and for 10–12 months rose from 0.527 to 0.600 ($p < 0.05$). In sum, controlling for satisfaction with income reduced the magnitude of the negative associations between longer maternity leave and both life and job satisfaction, implying that part of the original negative associations was mediated through mothers' financial satisfaction.

In Tables A6 and A7 (Appendix), I re-run the analyses, splitting the sample into first-time mothers and experienced mothers. For the two groups, broadly similar patterns in the association between maternity leave length and well-being were observed, though some differences in magnitude emerged. Among first-time mothers, taking longer maternity leave was more strongly associated with lower well-being outcomes compared to other mothers. For life satisfaction, first-time mothers who took 7–9 months (OR = 0.730, $p < 0.05$) and 10–12 months (OR = 0.610, $p < 0.05$) of leave had lower odds of reporting greater satisfaction compared to those who took 1–3 months. Experienced mothers also showed negative associations, but the magnitude was smaller: 7–9 months

(OR = 0.828, $p < 0.05$) and 10–12 months (OR = 0.695, $p < 0.05$). The association between longer leave and job satisfaction was also more pronounced for first-time mothers. Taking 7–9 months (OR = 0.700, $p < 0.05$) and 10–12 months (OR = 0.470, $p < 0.05$) of leave was associated with lower odds of greater job satisfaction, while among other mothers, the odds ratios were 0.750 ($p < 0.1$) and 0.540 ($p < 0.05$), respectively, indicating a weaker negative association. For leisure time satisfaction, maternity leave duration showed no significant associations for either group. Overall, while longer maternity leave was associated with lower life and job satisfaction for both groups, the associations were slightly stronger among first-time mothers, especially for those who took 10–12 months of leave.

Comparing the short-term and medium-term findings, longer maternity leave was initially associated with higher satisfaction with leisure time but lower satisfaction with life and work. However, in the medium term, the positive association with leisure time satisfaction disappeared, while the negative associations with life and job satisfaction persisted, although they were somewhat weaker than in the short term. A key difference between the two periods is that controlling for income satisfaction had a more substantial impact in the medium-term analysis than in the short-term. This suggests that income satisfaction becomes a more important determinant of overall well-being over time. Moreover, in both the short and medium term, first-time mothers experienced slightly greater declines in life and job satisfaction from taking longer maternity leave compared to mothers with more children.

The findings and conclusions based on the results of the OLS models are similar to those of the Ordered Logit Models. Please refer to the attached Appendix for more details.

Discussion and Conclusion

This study provides preliminary insights into the relationship between maternity leave duration and mothers' subjective well-being (SWB) upon their return to work in the UK, focusing on both short- and medium-term scenarios. While prior research has examined the effects of childbirth on women's labour market outcomes, there remains a significant gap in British studies exploring the impact of maternity leave on mothers' psychological health, particularly across different dimensions of well-being. This research seeks to bridge that gap by taking an initial step toward understanding these dynamics, using a quantitative approach to uncover large-scale patterns in well-being outcomes across life satisfaction, job satisfaction, and leisure time satisfaction. In doing so, it offers important foundations for future work that can better inform maternity leave policies aimed at supporting maternal health and workplace equity.

The empirical findings indicate that the relationship between maternity leave duration and maternal well-being varies across different dimensions of well-being. Notably, longer leave is associated with greater satisfaction with leisure time. Specifically, taking a 10–12 month leave, the maximum available duration, was linked to a higher probability of reporting high leisure time satisfaction. This suggests that

extended leave may enable mothers to establish personal routines and allocate time for themselves, thereby reducing time-based role conflicts, as theorised by the Work–Family Conflict Theory (Greenhaus & Beutell, 1985).

In contrast, short-term life satisfaction exhibits a weak U-shaped association with maternity leave duration. Moderate leave (4–6 months) is weakly but positively associated with life satisfaction, whereas leave beyond six months is linked to significantly lower levels of satisfaction. One possible explanation is that moderate leave offers sufficient time for physical recovery and bonding with the newborn, consistent with Role Accumulation Theory (Sieber, 1974; Goode, 1960) and Stress-and-Coping Theory (Lazarus & Folkman, 1984). However, extended leave beyond six months may pose short-term challenges, such as threats to professional identity, increased psychological strain (Theunissen et al., 2018), and a heightened domestic burden on women (Misra, Budig, & Boeckmann, 2011). These findings align with prior research showing that while longer maternity leave improves maternal mental health, the benefits tend to plateau after around six months (Dagher et al., 2014; Berger, Hill, & Waldfogel, 2005).

On the other hand, a longer duration of maternity leave was negatively associated with job satisfaction; as the length of leave increased, job satisfaction tended to decline. Exploring potential mechanisms underlying this relationship, I found that financial satisfaction played only a limited mediating role. This suggests that the association may instead reflect anxieties surrounding reintegration into the workplace, such as feelings of disconnection, reduced confidence upon return (Hideg et al., 2018), and role conflict,

where women must balance newly developed caregiving responsibilities with professional demands (Adkins & Premeaux, 2012). Insufficient workplace support, such as a lack of flexibility, managerial understanding, or reintegration programmes, may further exacerbate these challenges (Kossek et al., 2011).

The relationship between maternity leave duration and well-being followed a broadly similar pattern for both first-time mothers and those with previous children. However, the associations were generally more pronounced among first-time mothers. One possible explanation is that experienced mothers may have developed more effective coping strategies for managing the transition between home and work, drawing on prior experiences to better navigate role conflicts and expectations (Bornstein et al., 2003; Nomaguchi & Milkie, 2003). They are likely to face fewer uncertainties and may be more confident in balancing professional and caregiving responsibilities. In contrast, first-time mothers often confront these challenges for the first time, which can heighten anxieties around career progression, disrupt their sense of professional identity, and increase the time needed to establish new routines and rebuild self-efficacy upon returning to work (Buzzanell & Liu, 2005; Gatrell, 2005; Sargent, 2005).

In the medium term, the positive association between maternity leave length and leisure time satisfaction diminished. However, the negative relationship between extended leave and both life satisfaction and job satisfaction persisted. Unlike the short-term U-shaped pattern observed for life satisfaction, the medium-term associations revealed a more linear trend: longer leave was consistently linked with lower levels of life and job satisfaction. That said, the strength of these associations weakened over time,

suggesting that mothers may gradually adapt to post-leave changes, gain greater clarity about their career trajectories, and adjust expectations accordingly (Hays, 1996; Moen & Roehling, 2005)²².

Another key finding was that financial well-being emerged as a more prominent mediator in the relationship between maternity leave duration and well-being in the medium term. Specifically, the negative association between extended leave and both life and job satisfaction weakened more noticeably than in the short term once income satisfaction was accounted for. This may reflect the growing visibility of long-term career consequences over time, such as skill erosion, slowed professional development, and limited career advancement, which can result in reduced income growth and, consequently, lower overall satisfaction with one's career and life (Evertsson & Duvander, 2011). Additionally, longer leave durations may inadvertently signal lower career ambition to employers, contributing to wage penalties and further widening income disparities among mothers in the medium term (Lequien, 2012), thereby exacerbating job dissatisfaction.

Despite these valuable insights, my study has several limitations. Firstly, the sample sizes were suboptimal due to the low reporting rate for maternity leave start and end dates²³.

²²As shown in the short-term analysis disaggregated by first-time and experienced mothers, prior familiarity with maternity leave and caregiving may equip mothers with more effective coping strategies to manage the challenges of extended leave. By the medium term, as more time had elapsed since returning to work, mothers may have further adapted to these changes, which could explain why the impact of leave duration on well-being became somewhat attenuated.

²³I found that approximately 60% of mothers had not reported start and end dates of their maternity leave.

My samples were further reduced by approximately 30% due to dropouts in the medium-term analyses.

Secondly, a significant portion of my dataset lacked information regarding paternity leave, which limited my ability to incorporate it into the models as a control variable. The inclusion of paternity leave dynamics could offer valuable insights, as research suggests that access to paternity leave is associated with higher levels of partner support, which is a key factor influencing mental health outcomes (Huerta, 2013). Currently, I account for marital status and the number of adults in the household, excluding the partner and children, to assess informal support. However, having more comprehensive data on paternity leave would strengthen the robustness of my model and enhance the validity of the results.

Thirdly, the study does not account for key control variables, such as whether employers offer enhanced maternity pay, as this information is missing from the dataset. Enhanced pay could indicate an employer's supportive attitude toward maternity leave, potentially increasing the likelihood of helping mothers transition back to work, as opposed to viewing extended leave with scepticism (Misra et al., 2011). Additionally, due to a large number of missing responses, I could not control for respondents' access to and use of flexible working arrangements, both pre-leave and post-leave, in my analyses. Research suggests that mothers with access to flexible jobs may take longer leave and report higher well-being, not necessarily because of the leave itself, but because their jobs allow them to

balance work and family more effectively. Due to a large number of missing observations on flexibility, this variable was excluded from the analysis²⁴.

Fourthly, the relationship between maternity leave duration and SWB may be bidirectional. The study does not clarify the direction of this association. It is possible that pre-existing levels of well-being could influence the duration of maternity leave taken. For instance, mothers who are already experiencing lower well-being or greater stress might choose to take longer leave to recover from the psychological impact of childbirth. Although the study attempts to control for previous well-being levels, fully disentangling this bidirectional relationship has not been achieved.

My research makes a significant contribution to the understanding of maternity leave and maternal well-being in the UK, an area that remains underexplored in comparison to labour market outcomes. It reveals that longer maternity leave is positively associated with greater satisfaction in leisure time, suggesting that extended leave enables women to restore work-life balance, establish sustainable personal routines, and engage in recuperative activities. This benefit is particularly relevant to the time-based role conflicts that new mothers often face. However, the findings also underscore a critical tension: while longer leave supports leisure satisfaction, taking leave beyond six months is associated with declines in both life and job satisfaction in the short and medium term. A closer examination of underlying mechanisms suggests that income satisfaction mediates some of these associations, pointing to limited reintegration pathways, reduced

²⁴ I considered imputing values from past waves; however, the use of flexible working arrangements among individuals tends to fluctuate over time. As a result, imputation might have introduced additional bias into the analysis, potentially leading to inaccurate conclusions.

career mobility, and stagnating earnings as potential contributors. These patterns highlight deeper structural shortcomings in the UK labour market, indicating that it remains insufficiently inclusive and adaptable to the realities of returning mothers.

The implications of these findings are both practical and policy relevant. Employers must play a proactive role in reshaping organisational cultures to better accommodate non-work responsibilities. This includes implementing structured reintegration programmes, offering enhanced maternity pay, and institutionalising flexible working arrangements to facilitate smoother transitions. At the policy level, stronger interventions are needed to support maternal employment trajectories, such as increasing statutory maternity pay, introducing non-transferable paternity leave quotas to encourage shared caregiving, and expanding access to support networks for new mothers.

Future research should build on this foundation by exploring the directionality of the relationship between maternity leave duration and well-being, and by examining variations across different family types, occupational sectors, and socio-economic groups. Where longitudinal data permits, it is essential to investigate the long-term psychological and career-related effects of maternity leave to inform more inclusive and sustainable work-family policies in the UK.

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Appendix

Table A1

Ordered Logit Regression Results: Short-term Association Between Maternity Leave and Well-being (controlling for financial well-being)

| Variables | Model 1 | Model 2 | Model 3 |
|--|---------------------------|-------------------|------------------|
| | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1 – 3 months) | | | |
| 4 – 6 months | 1.153* (0.111) | 1.104+ (0.122) | 0.781** (0.078) |
| 7 – 9 months | 1.252* (0.088) | 0.832** (0.077) | 0.543* (0.086) |
| 10 – 12 months | 1.281* (0.108) | 0.562** (0.096) | 0.491** (0.087) |
| Length of time since return (months) | 0.852 (0.017) | 1.043* (0.016) | 1.046* (0.029) |
| Age | 0.977** (0.007) | 0.975** (0.008) | 1.005 (0.007) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.892 (0.133) | 0.871 (0.139) | 1.364* (0.210) |
| Partnership Status (Ref: No partner) | | | |
| Partner | 1.364** (0.257) | 1.788** (0.317) | 0.934 (0.165) |
| Log Income | 0.886 (0.075) | 0.964 (0.116) | 1.031 (0.097) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.044 (0.140) | 1.218 (0.208) | 0.954 (0.149) |
| A Level or Equivalent | 0.940 (0.152) | 0.917 (0.175) | 0.845 (0.158) |
| Degree or Equivalent | 0.911 (0.110) | 1.096 (0.144) | 1.011 (0.119) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 1.354* (0.167) | 1.134 (0.151) | 1.240+ (0.155) |
| Routine | 1.006 (0.115) | 0.888 (0.117) | 1.222 (0.158) |
| Private Sector (Ref: Yes) | | | |
| No | 0.949 (0.086) | 1.067 (0.103) | 1.075 (0.096) |
| Hours of Work | 0.996 (0.005) | 0.995 (0.006) | 0.992 (0.005) |
| Birth Weight of Newborn Child | 1.031* (0.139) | 1.028* (0.113) | 1.022* (0.033) |
| Children Aged 0-2 (Ref: 0 other than newborn) | | | |
| 1 or more | 0.762 (0.133) | 0.732 (0.145) | 0.750 (0.146) |
| Children Aged 3-4 (Ref: 0) | | | |
| 1 | 0.906 (0.091) | 0.929 (0.095) | 0.898 (0.088) |
| 2 or more | 1.018 (0.607) | 0.466 (0.335) | 0.704 (0.383) |
| Children Aged 5-11 (Ref: 0) | | | |
| 1 | 0.835 (0.092) | 0.728** (0.088) | 1.045 (0.118) |
| 2 or more | 0.676** (0.122) | 0.787 (0.164) | 1.102 (0.204) |
| Children Aged 12-15 (Ref: 0) | | | |
| 1 | 0.896 (0.187) | 0.704 (0.160) | 0.987 (0.231) |

| | | | |
|---|------------------|------------------|-------------------|
| 2 or more | 1.510 (0.648) | 0.351 (0.300) | 1.331 (1.254) |
| Access to Formal Care (Ref: Yes) | | | |
| No | 0.748** (0.083) | 0.894 (0.102) | 1.001 (0.103) |
| Number of Adults in HH | 0.959 (0.059) | 0.833** (0.054) | 1.092 (0.070) |
| Long-Term Illness (Ref: Yes) | | | |
| No | 1.472** (0.185) | 1.495** (0.185) | 1.356* (0.170) |
| Satisfaction with income | 1.669*** (0.060) | 1.859*** (0.069) | 1.270*** (0.0390) |
| Previous Satisfaction Score | 1.504*** (0.052) | 1.667*** (0.091) | 1.085*** (0.025) |
| Wave (Reference: Wave 2) | | | |
| Wave 3 | 0.991 (0.184) | 0.758 (0.162) | 0.941 (0.167) |
| Wave 4 | 1.182 (0.227) | 1.218 (0.271) | 1.037 (0.187) |
| Wave 5 | 1.229 (0.221) | 1.204 (0.276) | 1.215 (0.238) |
| Wave 6 | 1.524* (0.307) | 1.246 (0.286) | 1.413 (0.288) |
| Wave 7 | 1.267 (0.269) | 0.897 (0.209) | 1.374 (0.292) |
| Wave 9 | 1.089 (0.250) | 0.819 (0.202) | 1.370 (0.290) |
| Wave 10 | 1.120* (0.314) | 0.892 (0.213) | 1.612* (0.322) |
| Wave 11 | 1.132*** (0.517) | 1.143 (0.302) | 1.400 (0.318) |
| Wave 12 | 1.119 (0.338) | 1.065 (0.342) | 1.510 (0.468) |
| Region (Ref: North East) | | | |
| North West | 0.658 (0.182) | 0.920 (0.290) | 0.903 (0.266) |
| Yorkshire | 0.762 (0.212) | 0.631 (0.200) | 0.921 (0.277) |
| East Midlands | 0.866 (0.232) | 0.736 (0.232) | 0.806 (0.239) |
| West Midlands | 0.831 (0.265) | 0.835 (0.272) | 0.943 (0.291) |
| East of Eng. | 0.810 (0.229) | 0.860 (0.269) | 1.137 (0.343) |
| London | 0.833 (0.250) | 0.685 (0.232) | 0.834 (0.250) |
| South East | 0.888 (0.236) | 0.751 (0.231) | 1.034 (0.297) |
| South West | 0.858 (0.242) | 0.863 (0.268) | 1.326 (0.395) |
| Wales | 1.049 (0.306) | 0.836 (0.279) | 1.041 (0.320) |
| Scotland | 0.833 (0.231) | 0.867 (0.290) | 0.583 (0.181) |
| Northern Ire. | 0.955 (0.266) | 0.959 (0.324) | 1.140 (0.335) |
| Observations | 2,007 | 2,007 | 2,007 |
| Pseudo R-squared | 0.043 | 0.058 | 0.016 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A2

**Ordered Logit Regression Results: Short-term Association Between Maternity Leave and Well-being
(First Time Mothers)**

| | Model 1 | Model 2 | Model 3 |
|---|----------------------------------|--------------------------|-------------------------|
| Variables | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1–3 months) | | | |
| 4–6 months | 1.182* (0.110) | 1.100+ (0.225) | 0.725** (0.080) |
| 7–9 months | 1.295** (0.090) | 0.754** (0.170) | 0.415** (0.086) |
| 10–12 months | 1.321* (0.110) | 0.512** (0.180) | 0.430** (0.090) |
| Length of time since return (months) | 0.965 (0.018) | 1.063* (0.017) | 1.100* (0.030) |
| Age | 0.967*** (0.009) | 0.967*** (0.010) | 1.005 (0.009) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.788 (0.215) | 0.849 (0.244) | 1.224 (0.265) |
| Log Income | 1.138 (0.182) | 1.027 (0.133) | 0.997 (0.118) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.189 (0.253) | 1.520 (0.390) | 0.999 (0.228) |
| A Level or Equivalent | 1.202 (0.295) | 1.193 (0.302) | 0.944 (0.250) |
| Degree or Equivalent | 1.260 (0.228) | 1.438+ (0.281) | 1.104 (0.188) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 1.298 (0.230) | 0.999 (0.185) | 0.881 (0.150) |
| Routine | 0.915 (0.155) | 0.755 (0.140) | 0.973 (0.180) |
| Private Sector (Ref: Yes) | | | |
| No | 0.989 (0.128) | 1.114 (0.148) | 1.116 (0.141) |
| Hours of Work | 0.992 (0.008) | 0.998 (0.008) | 0.992 (0.008) |
| Access to Formal Care (Ref: Yes) | 0.674* (0.104) | 0.953 (0.152) | 1.105 (0.178) |
| Number of Adults in HH | 0.931 (0.066) | 0.844* (0.069) | 1.105 (0.073) |
| Long-Term Illness (Ref: Yes) | 1.071 (0.196) | 1.252 (0.232) | 1.132 (0.204) |
| Previous Satisfaction Score | 1.286*** (0.064) | 1.752*** (0.139) | 1.062* (0.026) |
| Wave (Ref: Wave 2) | | | |
| Wave 3 | 0.846 (0.199) | 0.595+ (0.160) | 0.990 (0.216) |
| Wave 4 | 1.754* (0.451) | 1.306 (0.375) | 0.694 (0.163) |
| Wave 5 | 1.460 (0.387) | 1.777* (0.514) | 1.260 (0.335) |
| Wave 6 | 1.893* (0.502) | 1.797* (0.512) | 1.340 (0.338) |
| Wave 7 | 2.032* (0.583) | 1.016 (0.314) | 1.011 (0.303) |
| Wave 8 | 1.445 (0.386) | 0.933 (0.335) | 2.957*** (0.920) |
| Wave 9 | 1.300 (0.336) | 0.982 (0.289) | 1.083 (0.278) |
| Wave 10 | 1.748* (0.488) | 1.098 (0.329) | 1.343 (0.362) |
| Wave 11 | 1.426 (0.420) | 1.117 (0.329) | 1.309 (0.442) |
| Wave 12 | 1.532 (0.480) | 0.895 (0.300) | 1.361 (0.411) |
| Observations | 979 | 979 | 979 |
| Pseudo R-squared | 0.036 | 0.083 | 0.025 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A3

Ordered Logit Regression Results: Short-term Association Between Maternity Leave and Well-being (Experienced Mothers)

| Variables | Model 1 | Model 2 | Model 3 |
|---|---------------------------|-------------------|------------------|
| | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1–3 months) | | | |
| 4–6 months | 1.135* (0.111) | 1.074 (0.237) | 0.786** (0.078) |
| 7–9 months | 1.235* (0.087) | 0.825** (0.175) | 0.555** (0.089) |
| 10–12 months | 1.250* (0.108) | 0.582** (0.185) | 0.475** (0.092) |
| Length of time since return (months) | 0.992 (0.018) | 1.040* (0.017) | 1.079* (0.031) |
| Age | 0.994 (0.012) | 0.990 (0.014) | 1.002 (0.013) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.757 (0.160) | 0.774 (0.159) | 1.356 (0.297) |
| Log Income | 0.756* (0.100) | 0.946 (0.150) | 1.091 (0.153) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.092 (0.204) | 1.166 (0.267) | 1.020 (0.226) |
| A Level or Equivalent | 0.935 (0.217) | 0.828 (0.224) | 0.855 (0.214) |
| Degree or Equivalent | 1.026 (0.170) | 1.267 (0.210) | 1.158 (0.193) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 1.281 (0.230) | 1.112 (0.198) | 1.553* (0.282) |
| Routine | 0.949 (0.156) | 0.907 (0.170) | 1.379+ (0.246) |
| Private Sector (Ref: Yes) | 0.923 (0.119) | 0.980 (0.133) | 1.067 (0.135) |
| Hours of Work | 1.006 (0.007) | 0.997 (0.008) | 0.995 (0.007) |
| Children Aged 0–2²⁵ (Ref: 0) | | | |
| 1 or more | 0.610 (0.129) | 1.059 (0.241) | 0.762 (0.140) |
| Children Aged 3–4 (Ref: 0) | | | |
| 1 | 0.831 (0.154) | 1.397 (0.287) | 0.908 (0.156) |
| 2 | 0.608 (0.383) | 1.448 (0.830) | 1.957 (1.679) |
| Children Aged 5–11 (Ref: 0) | | | |
| 1 | 0.740+ (0.130) | 0.821 (0.159) | 1.008 (0.161) |

²⁵ This does not include the newborn child

| | | | |
|---|------------------|---------------------|------------------|
| 2 | 0.792 (0.190) | 0.933 (0.229) | 1.174 (0.287) |
| Children Aged 12–15 (Ref: 0) | | | |
| 1 | 0.611* (0.144) | 0.711 (0.180) | 1.264 (0.306) |
| 2 | 0.727 (0.435) | 0.270* (0.160) | 1.361 (0.685) |
| Access to Formal Care (Ref: Yes) | 0.774+ (0.105) | 0.918 (0.141) | 1.261 (0.177) |
| Number of Adults in HH | | | |
| Long-Term Illness (Ref: Yes) | 1.532* (0.258) | 1.865*** (0.312) | 1.492* (0.265) |
| Previous Satisfaction Score | 1.614*** (0.081) | 1.897*** (0.155) | 1.114*** (0.033) |
| Wave (Ref: Wave 2) | | | |
| Wave 3 | 1.098 (0.267) | 1.005 (0.259) | 0.812 (0.176) |
| Wave 4 | 1.279 (0.325) | 1.481 (0.395) | 1.274 (0.276) |
| Wave 5 | 0.945 (0.233) | 1.178 (0.329) | 1.486 (0.365) |
| Wave 6 | 1.551 (0.429) | 1.700+ (0.487) | 1.200 (0.317) |
| Wave 7 | 1.243 (0.323) | 0.966 (0.261) | 1.639* (0.408) |
| Wave 8 | 1.189 (0.300) | 0.788 (0.212) | 1.410 (0.355) |
| Wave 9 | 1.254 (0.344) | 1.359 (0.382) | 1.526 (0.407) |
| Wave 10 | 1.212 (0.341) | 0.771 (0.219) | 0.949 (0.248) |
| Wave 11 | 1.413 (0.421) | 1.089 (0.363) | 0.973 (0.320) |
| Wave 12 | 1.532 (0.480) | 0.895 (0.300) | 1.361 (0.411) |
| Observations | 1,063 | 1,063 | 1,063 |
| Pseudo R-squared | 0.052 | 0.083 | 0.027 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A4

OLS Regression Results: Short-term Association Between Maternity Leave and Well-being

| Variables | Model 1 | Model 2 | Model 3 |
|---|---------------------------|---------------------|------------------|
| | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Duration (Ref: 1 – 3 months) | | | |
| 4 -6 months | 0.726** (0.068) | 0.691+ (0.143) | 0.477* (0.048) |
| 7 – 9 months | 0.789** (0.050) | 0.494* (0.103) | 0.329** (0.053) |
| 10 – 12 months | 0.802* (0.065) | 0.341** (0.110) | 0.283** (0.054) |
| Length of time since return (months) | -0.012 (.0138) | -0.030** (0.012) | -0.007 (0.022) |
| Age | -0.016** (0.006) | -0.008 (0.006) | -0.003 (0.006) |
| Ethnicity (Ref: White) | | | |

| | | | |
|--|------------------|------------------|------------------|
| Other Ethnicity | -0.129 (0.132) | -0.028 (0.104) | 0.118 (0.109) |
| Partnership Status (Ref: No partner) | | | |
| Partner | 0.247* (0.147) | 0.304**(0.131) | -0.113(0.128) |
| Log Income | 0.000 (0.000) | 0.000 (0.000) | 0.000 (0.000) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 0.098 (0.116) | 0.016 (0.110) | 0.086 (0.123) |
| A Level or Equivalent | -0.060 (0.140) | 0.050 (0.115) | -0.017 (0.147) |
| Degree or Equivalent | -0.060 (0.097) | 0.133* (0.080) | 0.145 (0.097) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 0.116 (0.333) | -0.166 (0.200) | 0.284 (0.324) |
| Routine | -0.368 (0.277) | 0.079 (0.168) | 0.385 (0.280) |
| Private Sector (Ref: Yes) | | | |
| No | 0.003 (0.072) | 0.139** (0.058) | 0.036 (0.070) |
| Weekly Work Hours | -0.011** (0.004) | 0.000 (0.003) | -0.003 (0.004) |
| Birth Weight of Newborn Child | 0.231* (0.065) | 0.443(0.113) | 0.348 (0.433) |
| | | | |
| Children Aged 0-2 (Ref: 0 other than newborn) | | | |
| 1 or more | -0.171 (0.145) | -0.124 (0.126) | -0.230 (0.151) |
| Children Aged 3-4 (Ref: 0) | | | |
| 1 | -0.077 (0.081) | -0.013 (0.065) | -0.073 (0.076) |
| 2 or more | -0.021 (0.489) | -0.688 (0.564) | -0.302 (0.482) |
| Children Aged 5-11 (Ref: 0) | | | |
| 1 | -0.149* (0.088) | -0.217** (0.081) | 0.034 (0.083) |
| 2 or more | -0.332** (0.146) | -0.205 (0.137) | 0.099 (0.140) |
| Children Aged 12-15 (Ref: 0) | | | |
| 1 | -0.124 (0.165) | -0.151 (0.148) | -0.021 (0.159) |
| 2 or more | 0.265 (0.388) | -0.540 (0.508) | 0.086 (0.601) |
| Access to Formal Care (Ref: Yes) | | | |
| No | -0.212** (0.084) | 0.002 (0.071) | 0.001 (0.080) |
| Number of Adults in HH | -0.050 (0.048) | -0.140** (0.047) | 0.060 (0.046) |
| Long-Term Illness (Ref: Yes) | | | |
| No | 0.310** (0.100) | 0.224** (0.084) | 0.240** (0.098) |
| Previous Well-being Score | 0.306*** (0.025) | 0.286*** (0.032) | 0.063*** (0.015) |
| Wave (Reference: Wave 2) | | | |
| Wave 3 | -0.001 (0.149) | -0.105 (0.137) | -0.025 (0.146) |
| Wave 4 | 0.133 (0.154) | 0.113 (0.139) | 0.068 (0.146) |
| Wave 5 | 0.191 (0.149) | 0.090 (0.142) | 0.165 (0.157) |
| Wave 6 | 0.354** (0.159) | 0.153 (0.136) | 0.303* (0.155) |
| Wave 7 | 0.205 (0.168) | 0.040 (0.142) | 0.250 (0.164) |
| Wave 8 | 0.174 (0.158) | -0.090 (0.143) | 0.400** (0.162) |
| Wave 9 | 0.085 (0.175) | -0.082 (0.150) | 0.262 (0.163) |
| Wave 10 | 0.370** (0.164) | 0.069 (0.144) | 0.413** (0.155) |
| Wave 11 | 0.609*** (0.180) | 0.090 (0.159) | 0.264 (0.179) |
| Wave 12 | 0.134 (0.250) | 0.207 (0.169) | 0.347 (0.248) |

| Region (Ref: North East) | | | |
|---------------------------------|------------------|---------------------|------------------|
| North West | -0.342 (0.219) | -0.130 (0.174) | 0.026 (0.232) |
| Yorkshire | -0.266 (0.220) | -0.282 (0.178) | 0.031 (0.235) |
| East Midlands | -0.133 (0.214) | -0.234 (0.180) | -0.035 (0.235) |
| West Midlands | -0.214 (0.241) | -0.074 (0.179) | 0.091 (0.242) |
| East of Eng. | -0.186 (0.223) | -0.069 (0.171) | 0.180 (0.232) |
| London | -0.173 (0.238) | -0.324* (0.193) | -0.063 (0.235) |
| South East | -0.099 (0.211) | -0.224 (0.171) | 0.102 (0.227) |
| South West | -0.136 (0.221) | -0.103 (0.173) | 0.239 (0.238) |
| Wales | -0.009 (0.231) | -0.084 (0.180) | 0.066 (0.245) |
| Scotland | -0.168 (0.222) | -0.079 (0.182) | -0.335 (0.244) |
| Northern Ire. | -0.077 (0.220) | -0.065 (0.183) | 0.238 (0.231) |
| _cons | 4.046*** (0.486) | 4.173*** (0.415) | 4.321*** (0.454) |
| Observations | 2,007 | 2,007 | 2,007 |
| R-Squared | 0.137 | 0.143 | 0.046 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A5

Ordered Logit Regression Results: Medium-term Association Between Maternity Leave and Well-being (controlling for financial well-being)

| | Model 1 | Model 2 | Model 3 |
|---|----------------------------------|--------------------------|-------------------------|
| Variables | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1–3 months) | | | |
| 4–6 months | 0.965 (0.142) | 1.025 (0.175) | 0.912*(0.143) |
| 7–9 months | 1.020 (0.151) | 0.860* (0.148) | 0.853* (0.183) |
| 10–12 months | 1.095 (0.188) | 0.806* (0.138) | 0.600* (0.134) |
| Length of time since return (months) | 0.926 (0.017) | 0.583 (0.023) | 0.662 (0.029) |
| Age | 0.976 (0.039) | 0.969 (0.043) | 1.071 (0.040) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.346 (0.250) | 0.882 (0.714) | 1.764 (1.317) |
| Log Income | 0.621 (0.344) | 0.561 (0.366) | 0.932 (0.507) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 0.541 (0.424) | 0.151* (0.144) | 1.535 (1.491) |

| | | | |
|---|-----------------|--------------------|---------------------------|
| A Level or Equivalent | 0.763 (0.765) | 0.451 (0.474) | 0.707 (0.767) |
| Degree or Equivalent | 1.128 (0.703) | 0.635 (0.393) | 2.146 (1.688) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 3.116* (1.666) | 0.607 (0.292) | 1.215 (0.641) |
| Routine | 1.519 (1.032) | 1.013 (0.940) | 1.053 (0.783) |
| Private Sector (Ref: Yes) | | | |
| No | 1.558 (0.742) | 0.772 (0.343) | 1.232 (0.535) |
| Hours of Work | 0.998 (0.030) | 1.000 (0.035) | 0.987 (0.032) |
| Children Aged 3–4 (Ref: 0) | | | |
| 1 or more | 0.893 (0.538) | 1.214 (0.680) | 0.504 (0.281) |
| Children Aged 5–11 (Ref: 0) | | | |
| 1 | 1.018 (0.687) | 0.975 (0.563) | 2.414 (2.047) |
| 2 | 0.113 (0.205) | 1.645 (1.841) | 1.467 (2.187) |
| Children Aged 12–15 (Ref: 0) | | | |
| 1 or more | 12.686 (21.163) | 13.217 (26.242) | 5.03e+06*** (1.02e+07) |
| Access to Formal Care (Ref: Yes) | | | |
| No | 0.467 (0.294) | 0.539 (0.415) | 0.560 (0.329) |
| Number of Adults in HH | | | |
| Long-Term Illness (Ref: Yes) | | | |
| No | 1.673 (1.006) | 1.518 (1.168) | 0.391 (0.264) |
| Wave (Ref: Wave 3) | | | |
| Wave 4 | 2.386 (2.823) | 1.351 (1.374) | 1.891 (1.939) |
| Wave 5 | 1.261 (1.207) | 2.098 (1.876) | 6.939* (6.682) |
| Wave 6 | 2.835 (2.888) | 2.033 (1.869) | 5.966+ (5.722) |
| Wave 7 | 1.321 (1.474) | 0.303 (0.361) | 6.015 (7.404) |
| Wave 8 | 6.113+ (6.269) | 3.476 (3.268) | 7.066+ (7.635) |
| Wave 9 | 3.128 (3.077) | 2.022 (1.748) | 9.524* (10.551) |
| Wave 10 | 5.691 (8.106) | 0.894 (1.017) | 3.149 (3.643) |
| Wave 11 | 1.764 (1.866) | 0.517 (0.484) | 2.918 (3.322) |
| Wave 12 | 0.646 (1.284) | 0.409 (0.437) | 3.473 (5.321) |
| Previous Satisfaction Score | 1.232 (0.217) | 1.840** (0.393) | 1.139* (0.068) |
| Satisfaction with income | 1.415* (0.235) | 1.832 (0.738) | 3.982*** (0.781) |
| Observations | 1,674 | 1,674 | 1,674 |
| Pseudo R-squared | 0.137 | 0.206 | 0.303 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A6

Ordered Logit Regression Results: Medium-term Association Between Maternity Leave and Well-being (First Time Mothers)

| | Model 1 | Model 2 | Model 3 |
|---|----------------------------------|--------------------------|-------------------------|
| Variables | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| 4–6 months | 0.915 (0.144) | 0.998 (0.178) | 0.775* (0.144) |
| 7–9 months | 0.960 (0.150) | 0.730* (0.149) | 0.700* (0.184) |
| 10–12 months | 1.020 (0.185) | 0.610* (0.137) | 0.470* (0.135) |
| Length of time since return (months) | 0.640 (0.015) | 0.780 (0.021) | 0.140 (0.042) |
| Age | 0.973+ (0.015) | 0.986 (0.016) | 0.999 (0.015) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.555* (0.165) | 0.413** (0.127) | 0.743 (0.235) |
| Log Income | 0.814 (0.249) | 0.941 (0.330) | 1.194 (0.283) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.078 (0.329) | 0.884 (0.306) | 0.762 (0.224) |
| A Level or Equivalent | 1.384 (0.574) | 1.148 (0.542) | 0.723 (0.343) |
| Degree or Equivalent | 1.125 (0.275) | 1.742* (0.456) | 0.801 (0.182) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 0.998 (0.273) | 1.168 (0.316) | 1.247 (0.366) |
| Routine | 0.924 (0.235) | 0.968 (0.280) | 1.387 (0.319) |
| Private Sector (Ref: Yes) | | | |
| No | 1.000 (0.193) | 1.008 (0.200) | 0.894 (0.174) |
| Hours of Work | 0.979 (0.013) | 0.982 (0.014) | 1.012 (0.012) |
| Access to Formal Care (Ref: Yes) | 0.727 (0.232) | 1.140 (0.407) | 0.960 (0.284) |
| Long-Term Illness (Ref: Yes) | 1.296 (0.343) | 2.007* (0.557) | 0.811 (0.248) |
| Wave (Ref: Wave 3) | | | |
| Wave 4 | 1.384 (0.540) | 2.680* (1.211) | 1.129 (0.539) |
| Wave 5 | 2.245* (0.920) | 3.794** (1.774) | 1.204 (0.620) |
| Wave 6 | 3.006** (1.140) | 4.353** (2.175) | 0.997 (0.557) |
| Wave 7 | 2.305+ (1.070) | 3.475** (1.509) | 1.211 (0.589) |
| Wave 8 | 4.201** (2.076) | 3.151* (1.654) | 1.523 (0.831) |
| Wave 9 | 2.185+ (0.960) | 2.492+ (1.192) | 1.089 (0.555) |
| Wave 10 | 4.934** (2.658) | 4.230** (2.277) | 1.287 (0.684) |
| Wave 11 | 3.949** (1.742) | 3.223* (1.521) | 1.836 (0.945) |
| Wave 12 | 3.073* (1.718) | 4.745** (2.364) | 1.761 (0.940) |
| Observations | 732 | 732 | 732 |
| Pseudo R-squared | 0.033 | 0.052 | 0.027 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A7

Ordered Logit Regression Results: Medium-term Association Between Maternity Leave and Well-being (Other Mothers)

| | Model 1 | Model 2 | Model 3 |
|---|----------------------------------|--------------------------|-------------------------|
| Variables | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Length (Ref: 1–3 months) | | | |
| 4–6 months | 0.950 (0.141) | 1.058 (0.174) | 0.810* (0.141) |
| 7–9 months | 1.015 (0.148) | 0.828* (0.147) | 0.750+ (0.179) |
| 10–12 months | 1.155 (0.181) | 0.695* (0.135) | 0.540* (0.131) |
| Length of time since return (months) | 0.685 (0.014) | 0.820 (0.020) | 0.155 (0.043) |
| Age | 0.973+ (0.015) | 0.986 (0.016) | 0.999 (0.015) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | 0.555* (0.165) | 0.413** (0.127) | 0.743 (0.235) |
| Log Income | 0.814 (0.249) | 0.941 (0.330) | 1.194 (0.283) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 1.078 (0.329) | 0.884 (0.306) | 0.762 (0.224) |
| A Level or Equivalent | 1.384 (0.574) | 1.148 (0.542) | 0.723 (0.343) |
| Degree or Equivalent | 1.125 (0.275) | 1.742* (0.456) | 0.801 (0.182) |
| Job Level (Ref: Management/Professional) | | | |
| Intermediate | 0.998 (0.273) | 1.168 (0.316) | 1.247 (0.366) |
| Routine | 0.924 (0.235) | 0.968 (0.280) | 1.387 (0.319) |
| Private Sector (Ref: Yes) | 1.000 (0.193) | 1.008 (0.200) | 0.894 (0.174) |
| Hours of Work | 0.979 (0.013) | 0.982 (0.014) | 1.012 (0.012) |
| Access to Formal Care (Ref: Yes) | 0.727 (0.232) | 1.140 (0.407) | 0.960 (0.284) |
| Long-Term Illness (Ref: Yes) | 1.296 (0.343) | 2.007* (0.557) | 0.811 (0.248) |
| Children Aged 3–4 (Ref: 0) | | | |
| 1 or more | 0.845 (0.158) | 1.365 (0.290) | 0.932 (0.159) |
| Children Aged 5–11 (Ref: 0) | | | |
| 1 | 0.755 (0.133) | 0.842 (0.162) | 1.027 (0.165) |
| 2 or more | 0.810 (0.195) | 0.955 (0.232) | 1.192 (0.293) |
| Children Aged 12–15 (Ref: 0) | | | |
| 1 | 0.627* (0.147) | 0.734 (0.183) | 1.290 (0.312) |
| 2 or more | 0.748 (0.442) | 0.284* (0.163) | 1.389 (0.692) |
| Wave (Ref: Wave 3) | | | |

| | | | |
|-------------------------|-----------------|-----------------|---------------|
| Wave 4 | 1.384 (0.540) | 2.680* (1.211) | 1.129 (0.539) |
| Wave 5 | 2.245* (0.920) | 3.794** (1.774) | 1.204 (0.620) |
| Wave 6 | 3.006** (1.140) | 4.353** (2.175) | 0.997 (0.557) |
| Wave 7 | 2.305+ (1.070) | 3.475** (1.509) | 1.211 (0.589) |
| Wave 8 | 4.201** (2.076) | 3.151* (1.654) | 1.523 (0.831) |
| Wave 9 | 2.185+ (0.960) | 2.492+ (1.192) | 1.089 (0.555) |
| Wave 10 | 4.934** (2.658) | 4.230** (2.277) | 1.287 (0.684) |
| Wave 11 | 3.949** (1.742) | 3.223* (1.521) | 1.836 (0.945) |
| Wave 12 | 3.073* (1.718) | 4.745** (2.364) | 1.761 (0.940) |
| Observations | 942 | 942 | 942 |
| Pseudo R-squared | 0.033 | 0.052 | 0.027 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Table A8

OLS Regression Results: Medium-term Association Between Maternity Leave and Well-being

| | Model 1 | Model 2 | Model 3 |
|---|----------------------------------|--------------------------|-------------------------|
| Variables | Leisure Time Satisfaction | Life Satisfaction | Job Satisfaction |
| Maternity Leave Duration | | | |
| 4 – 6 months | 0.584** (0.088) | 0.652** (0.108) | 0.501** (0.088) |
| 7 – 9 months | 0.648** (0.093) | 0.733** (0.116) | 0.509** (0.091) |
| 10 – 12 months | 0.471** (0.113) | 0.432** (0.085) | 0.329** (0.082) |
| Length of time since return (months) | -0.009 (0.0141) | -0.011 (0.032) | -0.014 (0.051) |
| Age | -0.014** (0.007) | -0.014** (0.006) | 0.005 (0.006) |
| Ethnicity (Ref: White) | | | |
| Other Ethnicity | -0.177 (0.127) | -0.340*** (0.120) | 0.083 (0.123) |
| Household Income | 0.00003 (0.00003) | 0.00010*** (0.02) | 0.000 (0.000) |
| Education (Ref: No Cert) | | | |
| GCSE or Equivalent | 0.080 (0.133) | 0.093 (0.118) | -0.075 (0.121) |
| A Level or Equivalent | 0.109 (0.163) | 0.022 (0.139) | -0.222 (0.148) |
| Degree or Equivalent | -0.022 (0.102) | 0.196** (0.086) | -0.097 (0.091) |
| Private Sector (Ref: Yes) | | | |
| No | -0.142* (0.080) | -0.038 (0.066) | -0.112 (0.071) |
| Birth Weight of Newborn Child | 0.134 (0.165) | 0.223(0.113) | 0.315 (0.433) |
| Children Aged 0-2 (Ref: 0 other than child for whom leave was taken) | | | |
| 1 or more | -0.095 (0.171) | 0.263* (0.141) | 0.068 (0.165) |
| Children Aged 3-4 (Ref: 0) | | | |
| 1 | -0.123 (0.090) | -0.044 (0.074) | 0.149* (0.081) |
| 2 or more | 0.323 (0.479) | 0.642** (0.272) | 0.627*** (0.236) |
| Children Aged 5-11 (Ref: 0) | | | |

| | | | |
|---|------------------|------------------|------------------|
| 1 | -0.037 (0.078) | 0.127** (0.065) | 0.093 (0.069) |
| 2 or more | -0.067 (0.131) | -0.022 (0.120) | 0.160 (0.123) |
| Children Aged 12-15 (Ref: 0) | | | |
| 1 | -0.188 (0.176) | -0.141 (0.159) | 0.009 (0.138) |
| 2 or more | 0.312 (0.448) | 0.741*** (0.180) | 0.671** (0.313) |
| Access to Formal Care (Ref: Yes) | | | |
| No | -0.165 (0.101) | 0.008 (0.087) | -0.058 (0.091) |
| Long-Term Illness (Ref: Yes) | | | |
| No | 0.228** (0.101) | 0.258*** (0.088) | -0.126 (0.088) |
| Wave (Ref: Wave 3) | | | |
| Wave 4 | 0.071 (0.173) | 0.146 (0.148) | 0.309** (0.156) |
| Wave 5 | 0.464*** (0.158) | 0.276* (0.142) | 0.348** (0.154) |
| Wave 6 | 0.411** (0.165) | 0.145 (0.139) | 0.235 (0.165) |
| Wave 7 | 0.308* (0.169) | 0.208 (0.142) | 0.510*** (0.160) |
| Wave 8 | 0.444*** (0.169) | 0.071 (0.150) | 0.345** (0.167) |
| Wave 9 | 0.255 (0.174) | 0.114 (0.149) | 0.365** (0.166) |
| Wave 10 | 0.607*** (0.189) | 0.009 (0.159) | 0.426** (0.172) |
| Wave 11 | 0.662*** (0.190) | 0.213 (0.155) | 0.484*** (0.179) |
| Wave 12 | 0.595*** (0.187) | 0.167 (0.148) | 0.447*** (0.171) |
| Region (Ref: North East) | | | |
| North West | 0.192 (0.234) | 0.137 (0.209) | 0.015 (0.215) |
| Yorkshire | 0.122 (0.249) | -0.027 (0.213) | -0.106 (0.223) |
| East Midlands | 0.062 (0.235) | -0.138 (0.216) | 0.195 (0.213) |
| West Midlands | -0.031 (0.243) | 0.098 (0.211) | -0.213 (0.236) |
| East of Eng. | 0.170 (0.245) | 0.065 (0.209) | 0.073 (0.215) |
| London | -0.064 (0.249) | -0.007 (0.220) | -0.064 (0.223) |
| South East | 0.181 (0.235) | 0.158 (0.207) | 0.085 (0.209) |
| South West | 0.130 (0.239) | 0.170 (0.206) | 0.170 (0.214) |
| Wales | 0.078 (0.254) | 0.152 (0.220) | 0.183 (0.230) |
| Scotland | 0.094 (0.236) | 0.196 (0.215) | -0.103 (0.224) |
| Northern Ire. | 0.467 (0.251) | 0.301 (0.207) | 0.214 (0.219) |
| _cons | 4.023*** (0.389) | 5.058*** (0.323) | 5.005*** (0.342) |
| Observations | 1,674 | 1,674 | 1,674 |
| R-squared | 0.047 | 0.061 | 0.033 |

+p<0.1, *p<0.05, **p<0.01, ***p<0.001. All statistics have been rounded to three decimal places. Standard errors are in the brackets.

Conclusion Chapter: Unveiling Dynamics: Examining the Gendered Association Between Shifting Work Patterns, Labour Market Changes, and Maternity Leave on Mental Health and Wellbeing.

Introduction

This doctoral thesis, comprising three empirical papers, investigates how structural, institutional, and life-course transformations influence individuals' cognitive subjective well-being and mental health. A central thread running through the analysis is the role of gender, with a particular emphasis on analysing differences between men and women that reveal underlying vulnerabilities and persistent inequalities. This concluding chapter brings together the key findings of the three studies, highlights their theoretical contributions, reflects on the limitations of the research, and offers suggestions for future inquiry.

A unifying theme across the chapters is the persistent tension between work and family life, and the differentiated expectations placed on mothers and fathers. These tensions are not merely personal or circumstantial. They are shaped by broader institutional frameworks, such as flexible working arrangements, parental leave policies, and occupational norms, that intersect with deeply embedded gender roles (Crompton & Lyonette, 2006; Lewis et al., 2008). While such policies are often framed as tools for supporting work-life balance, they can also reinforce traditional divisions of labour by embedding assumptions about caregiving, commitment, and availability (Williams, 2010; Gatrell et al., 2014). In this context, cultural ideals of the 'ideal worker' and the 'intensive parent' produce competing demands, particularly for women in heterosexual households, who continue to bear the brunt of balancing paid work and unpaid care (Hochschild & Machung, 2012; Ridgeway & Correll, 2004).

These tensions are dynamic, shifting across life stages, institutional contexts, and socio-economic positions, but they consistently highlight the limitations of policy solutions that fail to address the structural roots of gendered inequalities. Rather than resolving work-family conflict, these measures often displace the burden of reconciliation onto individuals, typically women, who must navigate competing roles with limited institutional support (Fraser, 1994; McDowell, 2005). By foregrounding these tensions, this thesis illuminates the deep-seated institutional and cultural forces that continue to shape well-being and mental health in contemporary working families.

In the next section, I present the key findings from each of the empirical chapters.

Key Findings

Chapter 1

This chapter examines the association between flexible working arrangements, specifically flexitime and teleworking, and parental subjective well-being, revealing clear yet gender-differentiated outcomes.

Regarding flexitime, mothers experience benefits to their leisure satisfaction. This may result from increased schedule control, enabling more efficient management of professional and domestic duties, thereby replenishing psychological resources and reducing stress (Wheatley, 2017; Wang et al., 2022). In contrast, fathers' transition to flexitime is negatively associated with their health satisfaction. This could be because

work autonomy encourages them to extend their working hours in pursuit of higher pay and career progression (Kelliher & Anderson, 2010).

When adopting teleworking, mothers report positive outcomes related to health satisfaction, likely due to reduced commuting stress, which allows more time for rest and recovery (Tavares, 2021). Fathers also benefit, particularly in terms of leisure time satisfaction. Reduced commuting may afford them more time and energy for leisure activities, especially for those with dedicated home offices, who are better able to maintain work-life boundaries (Pabilonia & Vernon, 2021).

While cross-partner associations are generally limited, one notable finding is that mothers' teleworking is negatively associated with fathers' life satisfaction. A possible explanation is that fathers may perceive their partner's increased presence at home as an opportunity to focus more intensively on their work responsibilities, thereby increasing their work demands and stress levels (Kelliher & Anderson, 2010). Conversely, fathers' use of flexitime appears to positively influence mothers' leisure satisfaction, possibly reflecting a more equitable division of household responsibilities (Grönlund & Öun, 2018; Langner, 2017).

In sum, Chapter 1 reiterates that flexible working is associated with mothers' and fathers' outcomes differently. Flexitime helps mothers feel more satisfied with their free time, while it seems to harm fathers' health, possibly because they work longer hours. Teleworking may improve mothers' health and give fathers more enjoyable leisure time by cutting out commuting. While associations with partners are generally small, mothers' teleworking may lower fathers' life satisfaction, perhaps by increasing their work stress.

In contrast, when fathers use flexitime, it may help mothers enjoy more leisure time by encouraging a fairer split of household tasks.

Chapter 2

This chapter explores the association between COVID-19 and keyworkers' mental health across three infection peaks in the UK: April 2020, November 2020, and January 2021. The analysis compares keyworkers with non-keyworkers, investigating differences across gender and occupational categories.

Findings reveal that keyworkers experienced higher levels of psychological distress than non-keyworkers during the first two peaks, likely due to heightened uncertainty, fear of virus exposure, and intense professional pressures (Ayling et al., 2020). The second peak, in particular, proved especially challenging, possibly due to the surge in death rates and moral injury. By the third peak, however, the association between keyworker status and mental health was no longer significant, perhaps because of growing adaptation to pandemic-related changes or the beginning of vaccine rollouts, which may have boosted workers' confidence (Davillas & Jones, 2021).

Gender-specific analyses reveal that during the first peak, women experienced a greater decline in mental health than men, likely due to the added burden of domestic responsibilities combined with work disruptions (Davillas & Jones, 2021). Interestingly, female non-keyworkers were slightly more disadvantaged than their keyworker counterparts, possibly due to the latter benefiting from income stability and childcare support (Zamarro, 2020).

The second peak had the strongest negative association with male keyworkers' mental health, in contrast to both female keyworkers and non-keyworkers. This may be due to increased infection and death rates in November 2020, particularly affecting male-dominated sectors like transportation and delivery, which were often overlooked in terms of safety measures and PPE provision (Chen et al., 2020). In addition, masculine norms may have discouraged men from expressing vulnerability, thereby exacerbating psychological distress (Sugg et al., 2021).

Sector-specific analysis further reveals that non-health and social care (non-HSC) keyworkers experienced greater psychological distress than those in HSC roles. This highlights disparities in access to resources, recognition, and institutional support (Bu et al., 2022). Female non-HSC keyworkers were particularly affected, facing intersecting challenges including low pay, caregiving responsibilities, insufficient workplace protections, rigid work structures, and limited sectoral recognition, underscoring the need for inclusive, equitable support across all frontline roles (Heisig, 2023).

In sum, keyworkers reported worse mental health than non-keyworkers in the first two peaks, likely due to fear, stress, and high work pressure, though this gap narrowed by the third peak as people adjusted and vaccines became available. Gender differences were clear, women's mental health declined more in the first peak, especially non-keyworkers, possibly due to job instability and extra domestic duties. By the second peak, male keyworkers were hit hardest, perhaps due to their concentration in sectors like transport, with poor safety measures. The chapter also finds that keyworkers outside health and social care suffered more than those within it, particularly women, due to low pay, poor

protection, and lack of support, highlighting the need for broader recognition and better working conditions across all essential sectors.

Chapter 3

This chapter investigates the impact of maternity leave duration on mothers' subjective well-being (SWB) upon returning to work in the UK. The findings show differentiated associations across three dimensions of SWB: leisure time satisfaction, life satisfaction, and job satisfaction, with both short- and medium-term implications.

In the short term, longer maternity leave is strongly associated with greater leisure time satisfaction. Mothers taking 10–12 months, the longest leave category, reported the highest levels of leisure satisfaction, likely due to the opportunity to establish new routines, recover from childbirth, and engage in personal or recreational activities (Van Niel et al., 2020). However, the benefits of extended leave did not extend across all well-being domains. Life satisfaction followed a weak U-shaped pattern: moderate leave (4–6 months) was linked to slightly higher life satisfaction, while both very short and very long leaves were associated with lower satisfaction. This suggests that moderate leave may offer a balanced period for physical recovery and bonding without risking disconnection from the workplace. In contrast, extended leave beyond six months may lead to feelings of professional detachment, career stagnation, and heightened domestic burdens (Hideg et al., 2018; Misra, Budig, & Boeckmann, 2011).

Job satisfaction was consistently negatively associated with longer maternity leave. Mothers who took extended leave reported lower satisfaction with their jobs,

potentially due to difficulties reintegrating into the workplace, including skill atrophy, reduced confidence, and diminished employer support (Heisig, 2023). Perceived setbacks in career progression or being viewed as less committed may further lower job satisfaction (Stearns, 2015). Although financial satisfaction was examined as a mediating factor, its influence was relatively minor, suggesting that broader workplace culture and structural issues play a more significant role (Evertsson & Duvander, 2011; Lequien, 2012).

In the medium term, some of these patterns persisted. The association between leave duration and leisure time satisfaction became non-significant, possibly because the initial benefits of rest and personal time diminished as mothers returned to full-time work (Heisig, 2023). However, the negative associations with life and job satisfaction remained, albeit with reduced intensity, implying a degree of adaptation or resignation (Hays, 1996; Moen & Roehling, 2005). Financial well-being emerged as a more important mediator in the medium term, helping to explain some of the continuing negative effects on life and job satisfaction. This likely reflects the growing importance of long-term economic consequences such as reduced earnings, slowed career progression, and concerns about professional instability (Stearns, 2015).

Overall, in the short term, longer leave improves mothers' satisfaction with their leisure time, especially for those taking 10–12 months, likely due to more recovery and personal time. However, life satisfaction is highest with moderate leave (4–6 months), suggesting a balance between family bonding and staying connected to work. Job satisfaction, on the other hand, drops with longer leave, possibly because of challenges

like skill loss, lower confidence, and limited employer support. In the medium term, the link between leave duration and leisure time satisfaction fades, while the negative associations with life and job satisfaction remain, though less strongly. Over time, financial concerns, like lost earnings and stalled careers, play a bigger role in shaping mothers' well-being

Common Conclusions

Several common conclusions emerge across the three empirical chapters, demonstrating how institutional policies and life-course transitions interact with gender norms to shape parental well-being in differentiated and often unequal ways. While the chapters address distinct contexts, flexible working, keyworker mental health during COVID-19, and maternity leave, they collectively reveal how support mechanisms intended to ease work–family reconciliation frequently reproduce or intensify gendered vulnerabilities. In particular, they show that the same policies can generate divergent outcomes for mothers and fathers, reflecting not only differences in usage but also in how flexibility, protection, and time away from work are interpreted, accommodated, or penalised within workplaces and households (Chung & van der Horst, 2018; Gatrell et al., 2014).

These patterns must be understood within the broader structure of the UK labour market, where formal entitlements, such as the right to request flexible working or take extended maternity leave, exist alongside weak statutory pay, uneven employer practices, and persistent gender norms around caregiving and work (Maternity Action, 2024; Moran

& Koslowski, 2018). While mothers appeared to benefit from supportive policies in some dimensions of life like leisure time, they faced challenges in others like job satisfaction, which could be attributed to reintegration challenges, and financial insecurity, particularly in sectors less supportive of flexibility or where leave-taking is culturally stigmatised (Wheatley, 2017; Budd et al., 2008). Fathers, by contrast, were more likely to experience strain or reduced well-being when engaging with flexibility, pointing to the cultural constraints that still frame caregiving as primarily a maternal responsibility (Gatrell et al., 2014; Sugg et al., 2021). These tensions were especially visible during the pandemic, when both structural gaps in policy coverage and deeply gendered role expectations amplified psychological distress, particularly for those in undervalued or under-protected sectors (Bu et al., 2022; Heisig, 2023).

Together, the findings suggest that policy effectiveness cannot be judged solely by access or uptake. Instead, outcomes must be analysed through the lens of how such policies interact with sectoral hierarchies, gendered divisions of labour, and the normative expectations embedded in workplaces and family life (Lewis et al., 2008; Lyonette, 2015). What appears as 'support' in policy design can, in practice, shift responsibility onto individuals, most often mothers, who must navigate conflicting demands without sufficient institutional backing (Fraser, 1994). The chapters collectively demonstrate that tensions between paid work and unpaid care remain a central fault line in the production of gendered well-being, and that these tensions are reshaped, but not resolved, by current policy frameworks.

In sum, the thesis underscores the need for a more intersectional and relational approach to work–family policy, one that moves beyond formal entitlements to consider how policies are interpreted, enacted, and experienced in everyday life. Without attending to the cultural and structural conditions in which they operate, even well-intentioned interventions may perpetuate the very inequalities they aim to address.

Theoretical Contributions

This research advances theoretical understanding at the intersection of work flexibility, gender inequality, subjective well-being (SWB), and work–family reconciliation. Drawing on three empirical studies, the thesis makes four main contributions that refine and extend existing frameworks in the sociology of work, gender studies, and well-being research.

First, the thesis makes an original contribution by foregrounding cross-partner effects in heterosexual households, an area underexplored in work–family interface literature. While most studies treat well-being outcomes as individual-level responses to flexible working, this research shows that one partner’s use of flexibility can significantly affect the other’s well-being. For example, mothers’ teleworking is associated with reduced life satisfaction among fathers, while fathers’ use of flexitime is linked to enhanced leisure satisfaction among mothers. These findings challenge individualistic assumptions embedded in many work–life balance models by demonstrating that flexible working arrangements operate relationally within households. In doing so, the thesis

expands current theoretical frameworks to account for interdependence and household-level dynamics, encouraging a more holistic approach to understanding the consequences of flexible working.

Second, the research contributes to theories of subjective well-being and work–life balance by offering a domain-specific perspective. Rather than treating well-being as a general or undifferentiated outcome, the thesis disaggregates it into leisure time satisfaction, health satisfaction, life satisfaction, and job satisfaction, highlighting how flexible working arrangements shape these dimensions unevenly and along gendered lines. Mothers are more likely to experience gains in leisure and health satisfaction, while fathers may face losses in health satisfaction, possibly due to work intensification. This finding challenges universalist claims about the benefits of flexible work and refines well-being theory by emphasising the selective, contingent, and gendered nature of these benefits. It also underscores the importance of moving beyond generic well-being measures to better understand how flexibility reshapes everyday experiences of work and care.

Third, the thesis offers a novel contribution to the literature on maternity leave and well-being within the UK context. Existing research on maternity leave has largely focused on employment outcomes or comparisons between countries with differing welfare regimes. This study adds to that body of work by examining how maternity leave duration is associated with multiple aspects of maternal well-being in both the short and medium term. It demonstrates that while longer leave supports leisure satisfaction early on, it can diminish job and life satisfaction over time, particularly in contexts of weak

financial support and limited reintegration mechanisms. This insight adds complexity to theoretical debates on maternity leave by showing how well-being trajectories are shaped by the interplay between policy design, labour market norms, and household financial pressures, particularly in liberal welfare states such as the UK.

Fourth, the research extends occupational health and workplace stress theories by investigating sector-specific mental health vulnerabilities among keyworkers during the COVID-19 pandemic. While much pandemic-era research has focused on healthcare workers, this study reveals that male keyworkers in non-health sectors (e.g. transport and logistics) experienced particularly acute declines in mental health. This was shaped by a combination of increased workloads, lack of institutional recognition, and gendered norms around stoicism and risk. By highlighting how occupational roles and gender expectations intersect, the study enriches existing models of workplace well-being by incorporating a gendered political economy of care and risk, particularly in times of crisis.

Taken together, these contributions advance theoretical discussions on flexible working, well-being, and gender by: (1) introducing a relational lens that highlights interdependent well-being effects within households; (2) advancing domain-specific analyses of subjective well-being; (3) contextualising maternity leave experiences within a national policy environment; and (4) illuminating sectoral and gendered vulnerabilities in occupational mental health. In doing so, the thesis calls for a more intersectional, context-sensitive, and relational approach to theorising well-being in contemporary working life.

Policy Implications

The findings of this research suggest several important policy implications that address the persistent challenges identified across the three empirical chapters. These relate to the design and delivery of flexible working arrangements, crisis support for keyworkers, and maternity leave structures, all of which require greater sensitivity to gender, sector, and life-course variation.

Firstly, while flexible working arrangements such as flexitime and teleworking were associated with improvements in mothers' leisure and health satisfaction, they did not consistently enhance well-being across all groups. For instance, fathers reported reduced health satisfaction when using flexitime, likely due to increased work intensity and the pressure to maintain productivity. These findings underscore that flexibility, in its current form, does not automatically confer well-being benefits. Rather than alleviating stress, it can shift the burden of managing competing demands onto individuals, especially in workplace cultures that reward constant availability and equate long hours with commitment. Crucially, these patterns may be shaped by persistent gender norms that discourage men from scaling back at work or engaging more fully in caregiving. When flexible working is seen as a 'maternal' entitlement or when male workers feel compelled to prove their commitment through presenteeism, the potential of such arrangements to advance gender equality is undermined. Addressing these norms—through inclusive policy design, leadership modelling, and organisational culture change

is essential if flexible working is to support well-being equitably and contribute meaningfully to gender parity in both paid and unpaid work.

To be genuinely supportive, flexible working must be underpinned by structural safeguards, such as workload caps, protected non-working hours, and clear expectations around availability. These measures are not only essential for protecting individual well-being but are also crucial for promoting gender equality. As demonstrated in Chapter 1, when fathers engage in flexible working, it enhances mothers' leisure time satisfaction, potentially supporting a more equitable distribution of unpaid domestic labour. Encouraging fathers' uptake of flexibility, through explicitly gender-inclusive policies, visible male role models, and team-based flexibility, can help normalise shared caregiving responsibilities. In this way, flexible working can evolve from an individual accommodation to a lever of broader cultural and structural change in gender norms.

Secondly, the findings from the COVID-19 chapter highlight the urgent need for sector-specific and gender-sensitive mental health interventions, particularly for essential workers in non-healthcare areas such as transport, logistics, and retail. Male keyworkers in these sectors experienced sharp declines in mental health during the pandemic, exacerbated by increased workloads and gendered expectations to endure silently. Female keyworkers outside health and social care also faced compounded pressures, balancing frontline responsibilities with intensified domestic demands. In both cases, a lack of tailored support left many vulnerable to psychological strain.

One clear implication is the necessity of robust childcare support, especially for keyworkers, particularly during national crises. Many female keyworkers bore the dual

burden of maintaining essential services while caring for children during school closures, yet childcare provision was often inconsistent and poorly communicated. Policymakers must develop crisis-responsive childcare infrastructure to ensure that the population, and especially essential workers, regardless of gender or sector, have access to reliable and affordable care. This would prevent work–family conflicts from escalating and reduce the mental health burden during crises.

Third, the research on maternity leave in the UK underscores the need to reform both the design and implementation of leave policies. While longer leave improved mothers' leisure satisfaction in the short term, it also contributed to job dissatisfaction and reduced life satisfaction in the medium term. These patterns can be understood in the context of low statutory maternity pay and limited reintegration support. To mitigate these long-term penalties, maternity leave policy must move beyond duration alone and address the full spectrum of women's return-to-work needs. This includes re-entry programmes, retraining opportunities, and stronger legal protections against discrimination.

Equitable caregiving remains essential. Despite policy provision for shared parental leave, uptake remains low, and mothers continue to shoulder the primary burden. Policies should promote greater take-up among fathers through non-transferable, well-paid “use-it-or-lose-it” entitlements. This would help shift gender norms and ease the disproportionate career costs borne by mothers. Simultaneously, extending statutory maternity pay and linking it more closely to previous earnings would reduce financial strain, allowing women to take the leave they need.

In summary, these findings call for a more comprehensive and equity-oriented approach to work–family policy. Flexible working arrangements must be restructured to prevent overwork and actively promote gender equality. Mental health interventions during crises should incorporate broad-based support for the general population, alongside targeted measures that address the unique pressures faced by essential workers, particularly through the provision of relief from additional responsibilities such as childcare. Maternity leave must not only support maternal recovery but also safeguard women’s long-term employment trajectories. Without adequate reintegration support and sufficient pay, extended leave can lead to job dissatisfaction, stalled career progression, and financial insecurity. To prevent this, policies must go beyond duration to include well-compensated leave, re-entry programmes, and protections against discrimination.

Limitations

The limitations of this study highlight certain areas where further research is needed to build on the findings.

Firstly, data limitations exist due to the reliance on secondary data, primarily from the Understanding Society dataset and other sources. While these data sets offer valuable insights, they may not capture specific nuances of subjective well-being and mental health that could be better addressed through tailored, primary data collection methods. Furthermore, self-reported measures introduce the potential for response bias, as

individuals may not always accurately reflect their well-being or mental health in their responses.

Another limitation is the temporal constraint of the studies. The data used, particularly regarding the COVID-19 pandemic or specific periods covered in Understanding Society, may limit the generalisation of findings to those specific time frames. For instance, mental health impacts and the effects of flexible working arrangements may evolve, especially beyond the unique circumstances of the pandemic. Similarly, the long-term outcomes of flexible working and maternity leave may not be fully captured within the studied periods.

Additionally, the research focuses on associations rather than causality, meaning that while relationships between flexible working, maternity leave, and well-being are identified, the study does not provide conclusive evidence of causal links. There could be other unobserved factors influencing these outcomes. As such, the findings should be interpreted with caution when considering the complexity of well-being and mental health.

The study's generalisation is also limited to the UK context. While the research provides valuable insights into the effects of flexible working, maternity leave, and keyworker mental health during the pandemic within the UK, these findings may not fully apply to other countries with different social policies and workplace cultures. For

example, countries with different labour laws, leave policies, and healthcare systems might yield different results, making cross-country comparisons challenging.

Although the study considers sectoral differences, particularly within the context of keyworkers, its focus on non-health sectors versus health sectors could be expanded to cover a broader range of industries. Mental health impacts observed in certain sectors during the pandemic may not necessarily translate to others, especially in under-researched sectors where similar pressures may exist but have not been adequately explored.

Another limitation arises from the cross-partner analysis, which is restricted to heterosexual households due to the available data. This limitation excludes the experiences of same-sex couples and single-parent households, leaving certain family dynamics unexplored. Future research that includes more diverse household structures would provide a more comprehensive understanding of cross-partner impacts on well-being.

Lastly, while the study identifies that fathers' health satisfaction is negatively affected by increased work intensity under flexible working arrangements, it does not delve deeply into how work intensity is measured or experienced. The data lacks detailed information on workload, job demands, and hours worked, which are crucial for understanding the nuances of work intensity in relation to family roles. Future research

should aim to gather more granular data on these aspects to better capture the experiences of individuals in different family and work structures.

Addressing these limitations in future research would provide a more comprehensive and nuanced understanding of the relationships between work arrangements, family roles, and well-being outcomes.

Future research directions

The findings and limitations of this research suggest several important directions for future research that could build on the current study and provide a more comprehensive understanding of the relationships between work arrangements, family roles, and well-being outcomes.

Firstly, future research could benefit from incorporating primary data collection methods tailored to capture more nuanced measures of subjective well-being and mental health. While secondary data, such as Understanding Society, offers valuable insights, it may lack the specific detail needed to fully understand the complexities of flexible working arrangements and maternity leave. Conducting qualitative research through interviews or focus groups could provide richer, in-depth insights into the experiences of individuals, including how they navigate work intensity, caregiving responsibilities, and their overall well-being.

Another critical area for future research is the examination of the long-term impacts of flexible working arrangements, particularly beyond the time frames covered in this study. While the research captures associations within a certain period, extending the analysis to investigate long-term well-being outcomes would provide a fuller picture of how flexible work arrangements, such as teleworking and flexitime, impact both men and women throughout their careers. A longitudinal approach could help to track these impacts over time and shed light on the sustainability of flexible work policies in promoting well-being.

Additionally, future studies should aim to better understand the causal relationships between flexible working, maternity leave, and well-being, rather than focusing solely on associations. Employing methods such as randomised control trials (RCTs) or natural experiments could help isolate the effects of specific work arrangements or leave policies, allowing researchers to draw stronger conclusions about the causal links between these factors and well-being outcomes.

Expanding the generalisation of findings by conducting cross-national studies could also be an important direction for future research. Since this study is UK-specific, comparing results across different countries with varying social policies, maternity leave structures, and workplace cultures would provide valuable insights into how these factors influence well-being. This would also enable a deeper understanding of how country-specific contexts impact the effectiveness of flexible work and family leave policies in promoting gender equality and mental health.

Future research could also explore sectoral differences more comprehensively. While this study focused on keyworkers in health and non-health sectors during the COVID-19 pandemic, extending this focus to a broader range of industries would be beneficial. Investigating how flexible working arrangements and mental health outcomes vary across different industries, including sectors that were less visible during the pandemic, would provide more generalisable insights into how various work environments influence employee well-being.

Given the cross-partner dynamics identified in the study, future research should expand to include diverse household structures, such as same-sex couples and single-parent households, to explore how flexible working and caregiving responsibilities affect well-being in different family contexts. These households may face unique challenges and benefits that have not been fully explored in current literature.

Lastly, there is a need for research that delves deeper into work intensity under flexible working arrangements. Future studies should collect more granular data on workload, hours worked, and job demands to better understand how work intensity is experienced, especially by fathers and others who might experience increased pressure under flexible arrangements. This would provide a clearer picture of how work-life balance policies could be improved to mitigate stress and enhance well-being for all employees.

In conclusion, future research should aim to provide more nuanced and comprehensive insights by expanding the scope of analysis, improving the methodologies used to investigate these relationships, and including a wider range of household structures and industries. These efforts would offer a clearer understanding of the long-term impacts of flexible working arrangements and family leave policies on well-being and gender equality.

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