

# Debt, Credit Payment Holidays, and Their Relationship with Mental Health during the COVID-19 Pandemic in the United Kingdom

Matthew Sparkes<sup>1</sup> , Senhu Wang<sup>2</sup> , and Jacques Wels<sup>3,4</sup>

## Abstract

Although the relationship between debt and mental health is well documented, little is known about how changes in debt status and the specific policies implemented to assist borrowers during the COVID-19 pandemic have impacted the mental health of men and women. Particular attention is paid to the implementation of a non-neoliberal “credit payment holiday” scheme during the pandemic in the United Kingdom. Data come from three waves of the Understanding Society COVID-19 surveys. We use panel data models to assess the relationship between change in the presence of unsecured debt, credit payment holiday, and psychological distress (12-item General Health Questionnaire [GHQ-12] Likert score), controlling for confounders. The presence of debt is associated with significantly higher psychological distress, and the pattern is particularly pronounced for women than for men. Among the indebted population, the results show that credit payment holiday can significantly buffer the negative mental health effect of debt. While the buffering effect is larger for women, it is not significantly different across genders. The relationship between debt and mental health remains significant throughout the pandemic, but the credit payment holiday scheme has played a significant role in attenuating it and could be implemented as a policy tool outside the pandemic context.

## Keywords

debt, mental health, gender, credit payment holidays, neoliberalism, COVID-19

## INTRODUCTION

During the COVID-19 pandemic, the negative effect of occupational and financial disruptions on mental health and wellbeing has been widely documented (Bond and Arcy 2021; Dragano, Reuter, and Berger 2022; Wels et al. 2022). Rapid social change can have an uneven impact on lives already shaped by social inequalities (Moen 2022), and sociological research has also

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<sup>1</sup>University of Cambridge, Cambridge, UK

<sup>2</sup>National University of Singapore, Singapore

<sup>3</sup>University College London, London, UK

<sup>4</sup>Université libre de Bruxelles, Brussels, Belgium

### Corresponding Author:

Matthew Sparkes, Department of Sociology, University of Cambridge, 16 Mill Lane, Cambridge CB2 1SB, UK.  
Email: [ms2268@cam.ac.uk](mailto:ms2268@cam.ac.uk)

highlighted the disproportionate impact of these disruptions on women (Wels and Hamarat 2022; Bond and Arcy 2021). However, while cross-sectional studies demonstrated the negative mental health impact of debt at the start of the pandemic (Kousoulis et al. 2020), little is known about how *changes* in debt status and the specific *policies* implemented to assist borrowers during the pandemic impacted the mental health of men and women, which is where our article seeks to contribute. Like other sociological studies that have used significant events as natural experiments to test their uneven impact on people's health (see Catalano and Hartig 2001; Tsai and Venkataramani 2015), we view the macroeconomic and policy changes toward borrowers during the pandemic as a natural experiment setting to test their *uneven* impact on individuals' mental health and psychological distress.

Extensive research conducted prior to the outbreak of COVID-19 evidenced a clear link between persistent debt and mental ill-health across a range of indicators (Clayton, Liñares-Zegarra, and Wilson 2015; Frasquilho et al. 2016; Loibl et al. 2022; Meltzer et al. 2013). In the United Kingdom (U.K.), nearly half (46 percent) of those in problem debt have a mental health problem, and almost one in five (18 percent) with a mental health problem are in problem debt (Bond and Arcy 2021). Although U.K. debt levels stabilized at the start of the pandemic (Francis-Devine 2021), changing debt levels and socio-demographic and socioeconomic circumstances likely influenced and, in some cases, exacerbated mental health and well-being problems. *Thus, the first objective of this study is to examine the relationship between debt and mental health throughout the pandemic.*

In addition, the COVID-19 pandemic resulted in a significant shift in government policy from neoliberalism to Keynesian-style interventionism, characterized by rapidly increased welfare spending and government debt to support the labor market (Béland et al. 2021; Spencer et al. 2022; Wood, Ausserladscheider, and Sparkes 2022). Among the most important provisions was a government-endorsed credit payment holiday scheme (around 5 million accessed the scheme by July 2021), permitting borrowers to make no payments under a regulated credit contract for a specified period without being in shortfall (Financial Conduct Authority [FCA] 2020b). The

scheme is significant because it represented a distinct break in the neoliberal political economic context of debt, which sociological studies have established fosters stigma and feelings of shame for those who default (Sparkes 2020; Sweet, DuBois, and Stanley 2018), particularly for women (Sweet 2018). As such, the scheme provides a natural experiment to examine the mental health impacts of intervening on indebtedness via alternative public policy. *Therefore, the second objective is to assess whether government-endorsed credit payment holidays impacted the relationship between debt and mental health during the pandemic.*

Finally, gender inequalities in mental health and in accessing socioeconomic resources are widely recognized (Blanchflower and Bryson 2022; Harder and Sumerau 2018; Phelan, Link, and Tehranifar 2010; Roberts 2013). Moreover, studies have shown that debt disproportionately impacts women, who are more likely to be overindebted (HM Treasury 2019) and to experience stress (Dunn and Mirzaie 2022; Gumy 2013). As a result, the psychological impact of debt during the pandemic and the policies implemented to assist borrowers may also be uneven across genders. *Thus, the third objective is to explore whether the effect of debt and payment holiday scheme varies by gender.*

By realizing these objectives, we suggest that credit payment holidays may function as a way of reducing both the stress and personal stigma of having debt by publicly acknowledging that default is not due to personal fault or responsibility. By providing insights into how the mental health of those in debt can be influenced by alternative policies, we inform sociological understandings of the role played by the political economic context on the gendered links between debt and mental (ill-)health, providing critical information about which policies to address them might work.

The remainder of our article is structured as follows. First, we examine the impact of neoliberal policymaking before summarizing the research on the links between debt, mental health, and gender. We then assess the emergence of COVID-Keynesianism, paying particular attention to the government-endorsed credit payment holiday scheme as distinctive of the shift from neoliberal policymaking, before setting out our research questions and hypotheses. Thereafter, we describe our data, longitudinal methodology, and quantitative

analytical strategy. Finally, we detail our results and discuss their implications for policies tackling mental health.

## BACKGROUND LITERATURE

### *Neoliberalism, Debt, Collection Practices, and Discourses*

Neoliberalism as an economic policy paradigm emerged as a dominant form of policymaking in the United States and the United Kingdom from the 1980s (Hall 1993), replacing the post-war Keynesian consensus that prioritized full employment by using fiscal and monetary policy to support counter-cyclical demand management (Hall 1989). The neoliberal paradigm emphasizes the dominant role of markets as the main engine of economic growth, along with fiscal conservatism, welfare state retrenchment, lower taxes, stable and low inflation, and labor market flexibility (Hay 2004). The emergence of neoliberalism coincided with the financialization of their economies: characterized predominantly by rising household indebtedness to facilitate homeownership (Hay 2013) and high levels of consumer spending (Langley 2008). Extensive literature reveals how neoliberal policies amplify economic and gendered inequalities, perpetuating conditions that disproportionately influence who can access credit and why they use it (Bezanson and Luxton 2006; Montgomerie and Büdenbender 2015; Roberts 2013).

A smaller body of sociological literature draws attention to how institutions, policymakers, and firms support neoliberal policy goals and financial market functioning through debt collection practices and stigmatizing discourses surrounding default (Tyler 2015; Sparkes 2020). Such practices were exposed and exacerbated by the 2008 Global Financial Crisis (“GFC”), when governments and central banks sought to protect the financial system from systemic defaults: first through nationalization and later by regulatory reform. A new standard, the International Financial Reporting Standards 9 (“IFRS 9”), was issued in 2014 to improve credit risk accounting by firms when borrowers breach credit covenants (PricewaterhouseCoopers LLP 2017). The standard requires the use of a 30-day past due payment on any credit obligation to determine whether a loan has suffered a significant increase in credit risk (“SICR”)

and 90-day past due payment to deem the borrower as in default and the agreement as credit-impaired (Woods 2020). If the latter occurs, it will appear on the borrower’s credit report: first as a “flag” for three years after the arrangement ends and then as “arrear,” both of which will be detrimental to their credit score and chances of gaining access to credit at favorable terms (Experian 2022).

When a borrower misses a payment, it can generate fear, shame, and embarrassment (Christians Against Poverty 2019). Once a default occurs, firms can begin collection proceedings via a default notice, county court judgment (“CCJ”), and later repossession of property via a bailiff, which compounds borrowers’ internal barriers to seeking advice and exacerbates the stress, anxiety, perceived personal failure, guilt, and shame that come with problem debt (HM Treasury 2019; Sparkes 2020; Sweet et al. 2018). This reflects the increasing intensification of an “individualised financial responsibility” (Walker 2012, p. 49) discourse among pro-neoliberal politicians, think-tanks, and media in the aftermath of the GFC (Sweet 2018; Sparkes 2020). Preaching financial responsibility, frugality, and self-sufficiency and stigmatizing those who fail to repay debt (Sparkes 2020), this reconfigured debt from a societal problem stemming directly from neoliberal policies into an individualized problem that pathologizes the borrower (Walker 2012). Sociological studies have highlighted how these discourses attempt to erase the gendered subject in the context of ongoing inequalities in (un)paid labor and asset ownership (Roberts 2013), yet, at the same time, have found that internalization of neoliberal narratives differs by gender (Peacock, Bissell, and Owen 2014), whereby women are more likely to endorse the terms “failure” and “personal responsibility” in association with their debt (Sweet 2018). The unequal impact of the policies associated with neoliberalism and the discourses and instruments that support its goals are therefore regarded by some sociologists as crucial factors when examining the gendered implications of debt on mental health.

### *Debt, Mental Health, and Gender*

Prior to the outbreak of COVID-19, the impact of debt on individual mental health and wellbeing received extensive academic and policy attention.

Whether debt is measured with objective or subjective criteria, there is robust evidence of a persistent negative relationship between it, mental health, and wellbeing in many industrialized countries (Frasquilho et al. 2016), which sociological studies have found is heightened by gender inequalities (Dunn and Mirzaie 2022; Gummy 2013; Sweet 2018).

Studies utilizing objective measures (i.e., the total amount of debt) have found an increased likelihood of mental disorder irrespective of whether the debt is secured or unsecured (Clayton, Liñares-Zegarra, and Wilson 2015; Meltzer et al. 2013). However, this effect is more pronounced when the type of debt is high-cost and unsecured (Hojman, Miranda, and Ruiz-Tagle 2016; Loibl et al. 2022; Meltzer et al. 2013), where there are multiple sources of debt (Meltzer et al. 2013), and where debts are persistently high over time (Clayton et al. 2015; Gunasinghe et al. 2018; Hojman et al. 2016; Sun and Houle 2020). Similarly, studies based on subjective measures such as capacity or difficulty to pay (ten Have et al. 2021) or financial worry and rumination (de Bruijn and Antonides 2020) find an increased likelihood of mental disorder and lower levels of life satisfaction irrespective of the type (Loibl et al. 2022), which is heightened when persistent over time (Clark, D'Ambrosio, and Zhu 2021; ten Have et al. 2021).

Furthermore, sociological studies examining sociodemographic differences in mental health and its links with debt have long highlighted a disproportionate impact on women. For example, indicators of mental disorder tend to be heightened among women (Blanchflower and Bryson 2022). When we consider debt, women are more likely to be overindebted (HM Treasury 2019) and to report stress (Dunn and Mirzaie 2022), particularly when experiencing unemployment, childbirth, and partnership dissolution (Gummy 2013), findings that are perhaps indicative of their greater tendency to internalize neoliberal narratives (see Peacock et al. 2014; Sweet 2018). Also, fundamental cause theory highlights gender as a fundamental cause of mental health problems and attributes women's persistent mental health disadvantages compared with men to a range of sociostructural factors that maintain and reproduce gender inequalities (Harder and Sumerau 2018; Phelan et al. 2010). For example, the relatively

lower labor market position of women and the prevalence of patriarchal gender norm mean that women are structurally disadvantaged compared with men in accessing socioeconomic resources (e.g., power, prestige, money, and beneficial social networks) to deal with debt and health problems. Thus, when facing debt issues, women have relatively fewer resources to address their financial difficulties and are more likely to suffer from mental health problems compared with men.

Overall, debt is clearly an important socioeconomic determinant of mental health (Gunasinghe et al. 2018), but the relationship is complex—debt levels change over time and the debt-related contribution to mental disorder can diminish as the former falls (Hojman et al. 2016)—and complicated by gender inequalities, highlighting the need for longitudinal research. However, critics have noted that policymakers, and often researchers, tend to understand mental health as an individualized phenomenon, locating the “problem” in the person (Sweet 2018; Sweet et al. 2018; Tyler and Slater 2018). For example, the U.K. government's 2021 Breathing Space policy (HM Treasury 2019, 2021)—which supplanted the credit payment holiday scheme—allows a statutory 60-day break from penalties if a borrower misses a payment on a credit covenant, but can only be accessed if they contact a professional debt advisor or are undergoing mental health crisis treatment. As a result, the onus is placed on the individual's conduct or health status, with the political and economic context obscured, absolving the role of governing bodies and their policies on shaping (mental) health inequities (Sweet 2018; Tyler and Slater 2018). However, as highlighted above, economic and gendered inequalities do influence the uneven impact of debt on mental health; as these are shaped by neoliberal policies and their overarching goals, they further substantiate sociological accounts that seek to situate them more explicitly in the neoliberal political economic context (Sparkes 2020; Sweet 2018; Sweet et al. 2018; Tyler and Slater 2018). It will be argued below that an economic policy change—specifically the government-endorsed credit payment holiday scheme—implemented to assist borrowers during the pandemic provides a unique opportunity to further examine the gendered links between neoliberalism, debt, and mental health.

## COVID-Keynesianism, the Credit Payment Holiday Scheme, and Mental Health

Faced with an unprecedented health emergency during COVID-19, governments and central banks across the globe eschewed neoliberal policymaking and resorted to unprecedented Keynesian-style interventions and support measures to minimize the impact on households and businesses (Béland et al. 2021; Wood et al. 2022). In the United Kingdom, the government intervened directly with over £410 billion of elevated fiscal spending for the Coronavirus Job Retention Scheme, Self-Employment Income Support Scheme, a £20 per week increase of Universal Credit, and loans to private firms and corporations (Béland et al. 2021; Spencer et al. 2022). (For reference, 1 Pounds Sterling equals about 1.24 US dollar in early 2023.) These measures also involved “unprecedented levels of government-led support for borrowers” (Woods 2020), including a moratorium on repossession of housing property, goods, and vehicles and the introduction of a government-endorsed mortgage payment holiday scheme (later extended to forms of unsecured credit) for those facing financial difficulties associated with the pandemic.

Similar to studies that used significant events as natural experiments to examine the health impact on individuals exposed to them, including the sinking of the Estonia on birth-rates in Sweden (Catalano and Hartig 2001) and the 9/11 terrorists attack on the psychological well-being of Americans (Tsai and Venkataramani 2015), researchers have used the economic and policy changes implemented during the pandemic as a natural experiment to test their uneven impact on mental health and psychological distress (Moen 2022). Psychological and sociological literature has evidenced the negative effect of several occupational and financial disruptions on mental health and well-being, particularly among those experiencing reduced working hours (Dragano et al. 2022), furlough (Bond and Arcy 2021), or unemployment (Wels et al. 2022). Given long-standing and ongoing gender inequalities in paid labor markets, asset ownership, and the division of unpaid labor (Montgomerie and Büdenbender 2015; Roberts 2013), it is unsurprising there is strong evidence

that women were disproportionately impacted by these occupational and financial disruptions (Wels and Hamarat 2022; Bond and Arcy 2021; Moen 2022).

There have also been reports that some households, particularly those with unsecured debt (who tend to have lower incomes and are less likely to be in employment), are experiencing financial difficulty (Francis-Devine 2021; Khaliq and Dey-Chowdhury 2022). However, while cross-sectional studies have demonstrated the negative mental health impact of debt at the start of the pandemic (Kousoulis et al. 2020) and the higher amount of debt after the first year among those with a mental health problem (28 percent) compared with those without (21 percent) such a problem (Bond and Arcy 2021), little is known about how *changes* in debt status throughout the pandemic impacted people’s mental health: the *first* area where our article seeks to contribute.

Research examining the effects of the government-endorsed credit payment holidays is rarer still. Although Bond and Arcy (2021) found those with a mental health problem were more likely to access the scheme (7 percent) compared with those without one (4 percent), we are unaware of any study assessing their impact on mental health. The scheme initially permitted borrowers to defer payment for a three-month period, later extended to six months in November 2020. While “normal” payment holidays were available to some borrowers prior to the pandemic (Experian 2022), the guidance set out by the Bank of England (Woods 2020) and FCA (2020a) to firms was unique in how it treated borrowers who breached credit covenants by using the scheme. First, borrowers were not considered in arrears or in default under the IFRS 9 and statutory definition of default under the European Union Capital Requirements Regulation. Second, firms were encouraged to grant a credit payment holiday if a borrower requested one and not expected to investigate the circumstances surrounding the request. Third, firms were advised to prevent any negative impact on the borrower’s credit score. Fourth, charges or fees in connection with the credit payment holiday were not generated.

They were predicated on the assumption that the economic shock from the pandemic would prove temporary (FCA 2020a; Woods 2020): that many would need them solely in the short

term to deal with reduced income or job uncertainty (Woods 2020) and that pressure on banks needed to be reduced to support market functioning (FCA 2020a, 2020b). As the guidance indicates, however, implementation was at odds with previously established assumptions and policies for credit risk accounting, default, and collections (including the application of IFRS 9), adopted during the post-GFC neoliberal period. Given research has found that macroeconomic developments, neoliberal policies, and discourses are associated with increased prevalence of mental health disorders, particularly among women, the government-endorsed credit payment holiday provides a unique natural experiment into the effects of an alternative policy set, with different goals and instruments for achieving them (Hall 1993), on the gendered links between debt and mental health: the *second* area where our article seeks to contribute.

## RESEARCH QUESTIONS AND HYPOTHESES

To address these empirical gaps, the article focuses on three research questions:

**Research Question 1:** Is there a significant relationship between mental health and debt level during the pandemic?

With unsecured borrowing concentrated more heavily among women and low-income workers, who were more likely to experience a drop in their incomes in the pandemic's earlier phases (Khaliq and Dey-Chowdhury 2022), we hypothesize that the positive relationship between debt and mental distress will continue to be significant during the pandemic (Hypothesis 1).

**Research Question 2:** Did the credit payment holiday scheme moderate the relationship between debt and mental health during the pandemic?

As credit payment holidays function by publicly acknowledging that default is not due to personal fault or responsibility, we hypothesize that borrowers who accessed the scheme will have a lower level of mental distress than those who did not (Hypothesis 2).

**Research Question 3:** Are there gender differences in the mental health effects of debt and credit payment holiday scheme?

Because women were more likely to be in debt at the outset of the pandemic and to report poorer mental health and greater sensitivity to debt problems due to their structural disadvantages, we hypothesize that the positive effect of debt on mental distress is greater for women (Hypothesis 3a) and thus the credit payment holiday will provide more mental health benefits for women than men (Hypothesis 3b).

## METHODS

### *Data and Sample*

This study uses data from Understanding Society (USoc): The U.K. Household Longitudinal Study. USoc is a large-scale nationally representative panel survey in the United Kingdom (like the Panel Study of Income Dynamics in the United States). In the first wave in 2009, it included a clustered and stratified sample of around 50,000 individuals from around 30,000 households who were interviewed in person. The same households were followed and re-interviewed in each subsequent year, and currently there are 12 waves in the main USoc survey (Institute for Social and Economic Research 2021). During the COVID-19 pandemic, the USoc used web surveys to collect nine waves of panel data based on the original probability sample (from April 2020 to April 2021). This study used the USoc COVID-19 Study Waves 6 (November 2020), 8 (March 2021), and 9 (April 2021) because they contained comparable information about debt. The average response rate among the three waves is 48 percent (Institute for Social and Economic Research 2021). There are 12,035 respondents in Wave 6, 12,680 in Wave 8, and 12,818 in Wave 9. To consider the pre-pandemic debt status, we also included USoc Wave 8 (collected during 2016–2018), which are the most recent pre-pandemic data with debt information. When the three waves of USoc COVID-19 study and the pre-pandemic Wave 8 are combined, there are 11,254 respondents in Wave 6, 11,821 in Wave 8, and 11,885 in Wave 9: a drop from Wave 8 of 6.9, 7.3, and 7.8 percent, respectively. Therefore, the total sample with repeated measurement across waves in this study is 34,960 person-wave

observations. (The data from USoc COVID-19 study can be downloaded from the UK Data Service: <https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=8644>.)

## Outcome Variable

The General Health Questionnaire (GHQ) is used to measure subjective wellbeing (Goldberg 1978). GHQ converts 12 questions on a Likert scale from 0 to 3 into a total score ranging from 0 (*least distressed*) to 36 (*most distressed*). The 12 questions focus on loss of sleep, playing a useful role, feeling constantly under strain, problems overcoming difficulties, being unhappy or depressed, losing confidence, respondents believing they are worthless, general happiness, feeling capable of making decisions, ability to face problems, and enjoying day-to-day activities.

## Explanatory Variables

The first exposure variable used in the article is *debt excluding mortgage (yes/no)*, distinguishing on a binary basis any money respondents owed, including personal loans, overdrafts, credit card balances, loans from a private individual, or any other rolled over month-to-month. The second exposure variable is the logarithm of the *total amount of debt* (numeric, in Pound Sterling): collecting information about the total owed by respondents at the time of interview (only for those who declared having unsecured debt). The final exposure variable is *debt and credit payment holiday*, combining information on whether credit payment holiday(s) were granted and whether the respondent reported unsecured debts. It includes four modalities: debt and credit holiday, debt and no credit holiday, no debt and no credit holiday, and no debt and credit holiday.

## Control Variables and Levels of Adjustment

The study controls for a set of fixed and time-varying covariates.

Fixed covariates:

*Sex* (male, female)

*Highest level of education* (higher education diploma or higher, A-level equivalent,

general certificate of secondary education [GCSE], certificate of secondary education [CSE], another certificate, none of these)

*Household Composition* prior to the start of the pandemic (alone and no child, alone and child or children, couple and no child, couple and child or children, two non-couple adults and no children, two or more adults with no couple and no children, couple and other adults and no children, couple and other adults and children)

*Country of residence* (England, Wales, Scotland, Northern Ireland)

*Pre-pandemic debt* (yes, no)

*Pre-pandemic debt amount* (numeric, logarithm)

*Pre-pandemic GHQ* (numeric, on a scale from 0 to 36)

Time-varying covariates:

*Age and age-squared*

*Employment status* (employed, furloughed, self-employed, employed, and self-employed, not working)

*Equivalentized household incomes (log)*: we calculated household incomes based on household composition using Organisation for Economic Co-operation and Development (OECD) guidelines (Anyaegbu 2010) and the logarithm of the total amount.

## Levels of Adjustment

The models are adjusted to confounders over three additive levels of adjustment. The non-adjusted model does not control for any covariates. The sociodemographic adjusted model controls for age, sex, education, and household composition. Finally, the fully adjusted model controls for socioeconomic characteristics including adjusted household incomes and employment status, as well as the presence of pre-pandemic debt and pre-pandemic GHQ. The fixed-effects model (see below) only controls for time-varying exposure variables (change in debt levels and credit holiday, household incomes, and employment status) and hence only has a non-adjusted and fully adjusted model that controls for change in equivalentized household incomes and employment status. By contrast, the random-effects model includes all fixed and time-varying covariates.

## Analytical Strategy

Given the nested data structure (i.e., person-wave observations are nested within persons), the estimation model can be expressed in the following equation:

$$\text{Mental health}_{it} = \alpha_t + \beta_1 \text{Debt status}_{it} + \beta_2 \text{Covariates}_{it} + T_t + \mu_i + \varepsilon_{it}$$

where  $\text{Mental health}_{it}$  refers to the mental health status of individual  $i$  at time point  $t$ ,  $\alpha_t$  refers to the intercept that may vary across time,  $\beta_1$  is the coefficient for the key independent variable (debt status),  $\beta_2$  is the coefficient for covariates,  $T_t$  refers to the effect of time,  $\mu_i$  refers to the time-constant error term that will be excluded during the estimation, and  $\varepsilon_{it}$  refers to the time-varying error term.

Fixed-effects and random-effects regressions are used to estimate the model, and each method has its own strengths and limitations. On one hand, fixed-effects models can provide more robust estimates of the effects of explanatory variables because it only focuses on within-individual variation. However, it is less statistically efficient because it ignores all between-individual variation and cannot estimate the effects of time-constant variables (Allison 2009). On the other hand, random-effects models use both within-individual and between-individual variations and are thereby more statistically efficient. However, its estimates of time-varying variables may be less robust due to stronger assumptions of endogeneity. Thus, we report results of both fixed-effects and random-effects models to maximize the use of available data and then use a Hausman test to compare both models (Bell, Fairbrother, and Jones 2019).

## Weights and Multiple Imputations

Analyses were replicated using two types of weights. The longitudinal weight is provided by USoc to adjust sample composition in the different COVID-19 waves. However, as the study combined COVID-19 waves with pre-pandemic waves, we calculated an Inverse Probability Weight (“ipw”) as the reverse probability of having taken part in the pre-pandemic wave based on variables including sex, pre-pandemic debt,

pre-pandemic GHQ, country, and whether respondents were living in an urban or rural area. Finally, as relatively important missing data rates can be observed (see Table S1 in Online Supplementary File for descriptive statistics about the different variables used), particularly for education, incomes, and pre-pandemic debt levels, we deployed Random Forest Multiple imputations using the fullest of exposures and control variables to impute the data set. Random Forest methods are commonly used for multiple imputations, particularly for their capacity to handle both numeric and categorical variables. All analyses were made using the software R. The package “MICE” was used for multiple imputations.

The results set out in this article mainly focus on estimates calculated using the longitudinal weight combined with ipw. That said, results flowing from the model with longitudinal weight only and from multiple imputations are shown in Tables S2–S4 in Online Supplementary File.

## RESULTS

### Descriptive Statistics

For descriptive statistics (including mean, standard deviation, range, and missing data) about the different variables used, see Table S1 in Online Supplementary File. To summarize, the GHQ scores have slightly higher values in Wave 6 and lower values in subsequent waves. The mean age in Waves 6, 8, and 9 was, respectively, 54.2, 54.6, and 54 years. The study slightly over-represents female respondents, but this was corrected using the USoc-provided longitudinal weight. About 41 percent of the sample had at least a diploma of higher education and 16 percent a GCSE. The dominant household composition was couple with no children (37.1 percent) and then couple with one child or children (21.5 percent). In total, 3.7 percent of the population was in furlough but with higher rates in Wave 6 (6.6 percent) and lower rates in Waves 8 and 9 (4 and 0.6 percent), which is consistent with the progressive access restrictions to the furlough scheme as social restrictions were eased. A large part of the sample (43 percent) was out of work, which particularly included the retired population. Finally, most of the respondent population was in England (75.9 percent), but information was also collected in other U.K. nations.



**Table 1.** Distribution of Unsecured Debts and Credit Payment Holiday by Wave.

Pre-pandemic		Pandemic					
		Wave 6		Wave 8		Wave 9	
January–May 2018	Total	November 2020	March 2021	April 2021	Total		
No unsecured debt (including mortgage debt)	22,752 (68.70%)	No unsecured debt (including mortgage debt)	No credit holiday	7,768 (71.37%)	8,065 (70.83%)	8,042 (70.26%)	23,875 (70.81%)
Unsecured debt	10,366 (31.30%)	Unsecured debt	Credit holiday	139 (1.28%)	167 (1.47%)	197 (1.72%)	503 (1.49%)
			No credit holiday	2,724 (25.03%)	2,847 (25.00%)	2,884 (25.20%)	8,455 (25.08%)
			Credit holiday	253 (2.32%)	307 (2.70%)	323 (2.82%)	883 (2.62%)
<i>Total</i>	33,118 (100%)	<i>Total</i>	holiday	10,884 (100%)	11,386 (100%)	11,446 (100%)	33,716 (100%)

Table 1 shows the distribution of the debt variable (binary) prior to the start of the pandemic and at each pandemic time-point, as well as the distribution of the credit holidays. The proportion of respondents reporting unsecured debt (i.e., excluding mortgage debt) prior to the start of the pandemic was 31.3 percent. Figures have barely changed over the pandemic: a total of 27.4, 27.7, and 27.7 percent of the sample reported unsecured debt in November 2020, March 2021, and April 2021, respectively, indicating that the overall number of people reporting debt has not changed since the start of the pandemic. Regarding the results of the credit holiday scheme, across the 27.7 percent of the sample who reported unsecured debts, 2.6 percent obtained a credit holiday across the three selected COVID-19 waves. Across the 72.3 percent of the sample without unsecured debts, 1.5 percent obtained a credit holiday. In total, the credit holiday concerned 4.1 percent of the sample. The proportion of respondents reporting a credit holiday rose across the three COVID-19 waves: from 3.6 percent in Wave 6 to 4.2 and 4.5 percent in Waves 8 and 9, respectively.

**Debt Presence and Credit Payment Holiday**

Table 2 shows the association between debt and GHQ. The left-hand side presents the estimates from a fixed-effects model, while random effects appear on the right. Model 1 examines the relationship between GHQ and debt, with the latter coded as a binary variable (the reference category

is “no debt”). Model 2 uses a factor variable that combines debt presence and whether a credit holiday was granted. The reference category is “No debt and no credit holiday.” The two models were run using three levels of adjustment: no adjustment, an adjustment to sociodemographic characteristics, and a full adjustment that included pre-pandemic debt presence and pre-pandemic GHQ. Results in Table 2 are calculated using the ipw. Analyses using the USoc-provided longitudinal weight and the Random Forest imputation are shown in Tables S2–S4 in Online Supplementary File.

Estimates in Model 1 show a clear relationship between unsecured debt presence (compared with the absence of unsecured debt) and GHQ at all levels of adjustment and in both random-effects and fixed-effects models. Debt presence is associated at 0.31 (95% confidence interval [CI] = [0.10, 0.51]) with GHQ in the fully adjusted fixed-effects model and 0.46 (95% CI = [0.31, 0.62]) in the random-effects model. In other words, there is a consistent association between debt and GHQ, where debt is associated with poorer levels of subjective wellbeing (high GHQ scores), lending support to Hypothesis 1.

In Model 2, we again identify a positive relationship between reporting debt and no credit holiday (in reference to reporting no debt and no credit holiday): 0.26 (95% CI = [0.04, 0.47]) and 0.40 (95% CI = [0.24, 0.55]) in the fully adjusted fixed-effects and random-effects models. Of particular interest here is that Model 2 measures the specific impact of credit holiday. Those who report no debt and credit holiday also report lower GHQ scores (better levels of subjective

**Table 2.** Association between Debt Presence, Credit Payment Holiday, and GHQ—Full Sample.

ipw	Fixed effect		Random effect		
	No adj.	Full adj.	No adj.	Socio adj.	Full adj.
<b>Model 1</b>					
Debt	0.31*** [0.13, 0.49]	0.31** [0.10, 0.51]	0.65*** [0.51, 0.79]	0.46*** (0.32, 0.60)	0.46*** (0.31, 0.62)
No debt	Ref.	Ref.	Ref.	Ref.	Ref.
<b>Model 2</b>					
Debt and credit holiday	-1.48** [-2.47, -0.49]	-1.16 [-2.35, 0.03]	1.38*** [0.92, 1.84]	0.77** (0.29, 1.26)	0.88*** (0.40, 1.36)
Debt and no credit holiday	0.28** (0.09, 0.46)	0.26* (0.04, 0.47)	0.61*** (0.47, 0.76)	0.42*** (0.27, 0.56)	0.40*** (0.24, 0.55)
No debt and credit holiday	-2.20*** [-3.25, -1.15]	-1.96** [-3.17, -0.75]	0.62* [0.07, 1.17]	-0.33 (-0.89, 0.23)	-0.53 (-1.08, 0.03)
No debt and no credit holiday	Ref.	Ref.	Ref.	Ref.	Ref.

Note. "Debt" refers to unsecured non-mortgage debts. GHQ = General Health Questionnaire. Significance levels should be interpreted as follows: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 3.** Association between Credit Payment Holiday and GHQ—Sample Restricted to Respondents Reporting Debt Presence.

ipw	Fixed effect		Random effect		
	No adj.	Full adj.	No adj.	Socio adj.	Full adj.
<b>Model 3</b>					
Debt and credit holiday	-1.52* [-2.73, -0.32]	-2.62** [-4.35, -0.88]	0.73** [0.21, 1.24]	0.51 [-0.04, 1.05]	0.94** [0.38, 1.51]
Debt and no credit holiday	Ref.	Ref.	Ref.	Ref.	Ref.

Note. "Debt" refers to unsecured non-mortgage debts. GHQ = General Health Questionnaire. Significance levels should be interpreted as follows: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

wellbeing), with estimates of  $-1.96$  (95% CI =  $[-3.17, -0.75]$ ) and  $-0.53$  (95% CI =  $[-1.08, 0.03]$ ) in the fully adjusted fixed-effects and random-effects models, supporting Hypothesis 2.

When looking at those reporting unsecured debts and credit holiday, there are contradictory findings. In the fixed-effects model, there is a negative relationship of  $-1.16$  (95% CI =  $[-2.35, 0.03]$ ), contrasting with a positive relationship in the random-effects model ( $0.88$ , 95% CI =  $[0.40, 1.36]$ ). In other words, credit holiday for those reporting unsecured debts is associated with poorer subjective wellbeing in the random-effects model, but better subjective wellbeing in the fixed-effects model.

One issue raised by Model 2 is that the choice of the reference category (no debt and no credit holiday) has an impact on how coefficients are calculated. To better understand the specific effect of credit holiday on those reporting unsecured debts, we restricted the sample to respondents who declared having debt during at least one pandemic wave in Table 3. The reference category is "debt and no credit holiday." Coefficients are of the same nature as in Table 2, but with higher significance for the fixed-effects model.

The fully adjusted model reveals an association of  $-2.6$  (95% CI =  $[-4.35, -0.88]$ ) and  $0.94$  (95% CI =  $[0.38, 1.51]$ ), respectively, in the fixed-effects and random-effects models. These

coefficients show that having both debt and credit holiday compared with reporting debt and no credit holiday is associated with better subjective wellbeing (lower GHQ) in the fixed-effects model but not in the random-effects one, confirming the findings from Model 2. Hausman test results across the different models are provided in Tables S5 in Online Supplementary File with clear indications that the use of a fixed-effects model is justified.

### Amount of Debt

Table 4 examines the association between self-reported amount of unsecured debt (on a logarithmic scale) and GHQ. The top of the table runs analyses on the full sample (with a high number of zero values corresponding to those reporting no debt), while the bottom subset refers to those who reported unsecured debt during at least one time-point over the pandemic. The model contains levels of no adjustment, sociodemographic adjustment, and full adjustment. It also contains an additional column looking at the interaction between debt amount and credit holiday within the fully adjusted model only.

When treating debt as a numeric exposure, the amount of debt is associated with higher GHQ scores (Model 4) in both the fixed-effects (0.03, 95% CI = [0.002, 0.05] and random-effects models (0.05, 95% CI = [0.03, 0.07]). When restricting the sample to those reporting debts, the association is stronger but less statistically significant: 0.06 (95% CI = [-0.09, 0.20]) and 0.09 (95% CI = [0.01, 0.18]), respectively, in the fully adjusted fixed-effects and random-effects models (Model 6), indicating that the amount of debt plays a specific role in explaining GHQ independently of the level of equivalized incomes.

Models 4 and 6 were replicated in Models 5 and 7 using credit holiday as an interaction term. In Model 5, the main effect of credit holiday is strongly and significantly associated with lower GHQ scores in both fixed-effects (-2.31, 95% CI = [-3.5, -1.09]) and random-effects (-0.57, 95% CI = [-1.12, -0.02]) models. Similarly, when restricting the sample to those reporting debts, the association is even stronger but less statistically significant: -3.83 (95% CI = [-8.07, 0.42]) and -1.86 (95% CI = [-4.32, 0.60]), respectively.

### Gender Differences

Figures 1 and 2 replicated the analyses performed in Models 1 and 2 but only in the fully adjusted model. Figure 1 shows the association between debt presence and GHQ across gender, with higher coefficients observed for females (fixed effects: 0.52, 95% CI = [0.22, 0.83], random effects: 0.75, 95% CI = [0.53, 0.97]) than males (fixed effects: 0.07, 95% CI = [-0.2, 0.35], random effects: 0.18, 95% CI = [-0.03, 0.38]). Further analyses (Tables S6–S7 in Online Supplementary File) show that the interaction effects between gender and debt on mental health are significant, confirming the higher negative effect of debt presence on female mental health. This result supports Hypothesis 3a.

Figure 2 looks at the association between debt and credit holiday and GHQ and shows similar findings. Debt and credit holiday are associated with better mental health outcomes among both females and males in the fixed-effects model and worse ones in the random-effects model. Further interaction analyses (Tables S8–S9 in Online Supplementary File) show that debt and no payment holiday have a significantly larger negative effect on mental health for women than for men. In contrast, the payment holiday scheme can reduce mental distress of debt for both men and women. While the moderation effect is stronger for women, the interaction effect is not significant. Overall, this result is generally consistent with, but do not fully support Hypothesis 3b.

## DISCUSSION AND CONCLUSION

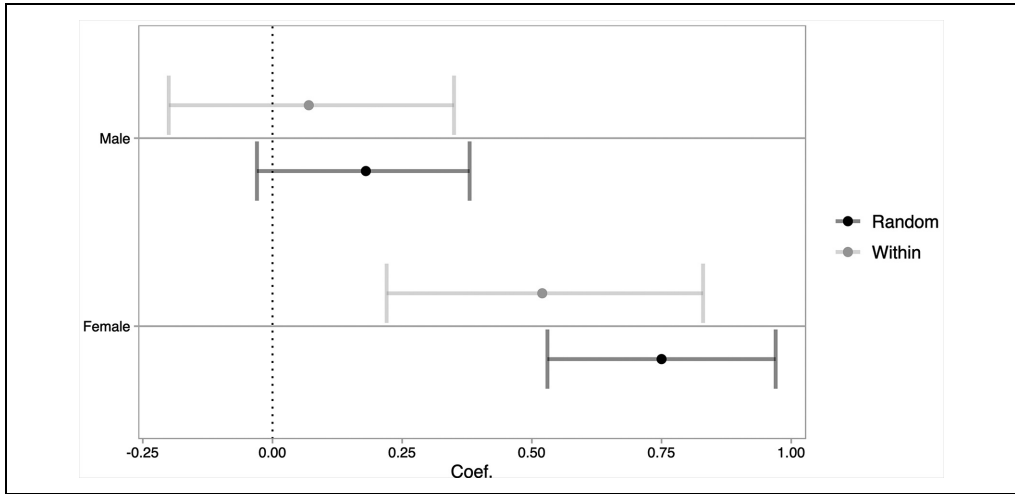
Our study set out with three objectives. The *first* sought to examine the relationship between debt and mental health throughout the pandemic, the *second* to assess whether the government-endorsed credit payment holiday impacted this relationship, and the *third* to explore whether patterns vary by gender. In realizing these objectives, our research makes three key findings.

First, we find that unsecured debt did not increase during the pandemic. However, what might have changed is the capacity to repay those debts due to the economic disruptions caused by the pandemic, which may have impacted psychological distress. We also demonstrate that the presence of unsecured debts during the pandemic is

**Table 4.** Amount of Debt and GHQ Among the Full Sample and Restricted to the Population Reporting Debt Presence.

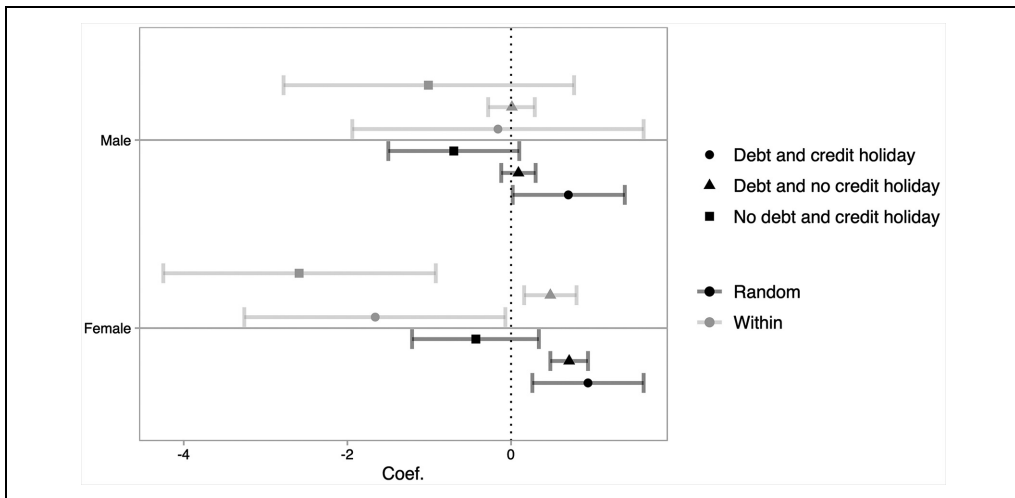
	Fixed effect			Random effect			
	No adj.	Full adj.	Full adj. and interaction	No adj.	Socio adj.	Full adj.	Full adj. and interaction
<b>Full population</b>							
Model 4	<i>ipw</i> 0.03* [0.002, 0.05]	0.03* [0.002, 0.05]	0.02 [-0.01, 0.05]	<i>ipw</i> 0.07*** [0.05, 0.08]	0.04*** [0.02, 0.06]	0.05*** [0.03, 0.07]	0.04*** [0.02, 0.06]
Model 5			-2.31*** [-3.53, -1.09]				-0.57* [-1.12, -0.02]
			0.08 [-0.01, 0.17]				0.15*** [0.08, 0.22]
<b>Debt population</b>							
Model 6	<i>ipw</i> 0.01 [-0.12, 0.15]	0.06 [-0.09, 0.20]	0.05 [-0.10, 0.20]	<i>ipw</i> -0.10* [-0.18, -0.02]	-0.01 [-0.09, 0.08]	0.09* [0.01, 0.18]	0.06 [-0.03, 0.15]
Model 7			-3.83 [-8.07, 0.42]				-1.86 [-4.32, 0.60]
			0.07 [-0.36, 0.50]				0.30* [0.02, 0.58]

Note. "Debt" refers to unsecured non-mortgage debts. GHQ = General Health Questionnaire. Significance levels should be interpreted as follows: \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.



**Figure 1.** Associations between unsecured debt and GHQ by gender, random-effects and fixed-effects models.

Note. GHQ = General Health Questionnaire.



**Figure 2.** Associations between unsecured debt, credit holiday, and GHQ by gender, random-effects and fixed-effects models.

Note. GHQ = General Health Questionnaire.

associated with poorer mental health independent of the amount of debt, although higher amounts exacerbate this further. Treating debt as a binary variable (debt presence) or as a numeric variable (debt amount) does not affect the overall results.

Our findings here are consistent with the extensive body of pre-COVID literature highlighting

a negative relationship between debt and mental health, which is more pronounced when debts are unsecured (Hojman et al. 2016; Loibl et al. 2022; Meltzer et al. 2013) and persistently high over time (Clayton et al. 2015; Gunasinghe et al. 2018; Hojman et al. 2016; Sun and Houle 2020). Our longitudinal results also complement and extend the cross-sectional findings of Kousoulis

et al. (2020) by highlighting the continued mental health impact of debt during the pandemic. In essence, we show that debt remained an important socioeconomic determinant of mental health during COVID-19.

Second, we find that uptake of the government-endorsed credit payment holiday scheme by borrowers led to a significant reduction in the associated GHQ score in comparison with other borrowers. The magnitude of this difference suggests potentially significant health benefits. This is an important distinction: it shifts attention from the individual to the impact of governing bodies and their policies on the link between debt and mental health. Lower GHQ scores among those who accessed the scheme may be explained by its favorable acknowledgment of their circumstances. Alternatively, this difference could also owe to several factors associated with a shift from the core policies and discourses of the neoliberal policy paradigm, including established policies for credit risk accounting, default, and collections (such as the IFRS 9).

Earlier, we highlighted how regulatory reforms (FCA 2021), debt collection practices (HM Treasury 2019), and financialized discourses surrounding debt repayment (Sparkes 2020; Walker 2012) that support neoliberal policy goals and financial market functioning can negatively impact mental health. Through these processes, borrowers are encouraged to take “responsibility for their poor financial management” and “the psychological distress that has arisen from their circumstances” (Walker 2012, p. 53). This is corroborated by Sweet et al. (2018) and Sparkes (2020) who both found that stigma surrounding financial failure generated negative psychological effects among borrowers in the United States and the United Kingdom, respectively, whereby they internalized notions of personal responsibility, shame, and guilt for failing to meet expectations of financial management.

When implementing the credit payment holiday, the Bank of England justified the removal of the normal consequences for missed payment (such as fees and penalties, arrears, credit file impairment, and repossession) on the basis that it was “part of an unprecedented government-led effort to support the economy amid the COVID-19 outbreak,” rather than “in response to the circumstances of individual borrowers” (Woods 2020). In this context, borrowers were not deemed

“responsible” for their circumstances during the pandemic. This distinction meant the scheme neutralized the dominant neoliberal discourse regarding debt repayment obligations during its implementation between March 2020 and July 2021. In effect, it destigmatized “failure” to meet obligations to credit covenants because it recognized the structural cause of this “failure,” minimizing the sense of shame or disgrace that can accompany missed payments (Sparkes 2020; Sweet et al. 2018).

Third, our stratified analyses of gender show that unsecured debt presence is associated with worse mental health (higher GHQ scores) for women compared with men, but both genders are negatively affected by debt. Similarly, the credit payment holidays moderated this relationship and were associated with GHQ improvements for both, although the positive effect was more pronounced for women. Given sociological studies have highlighted how women are more likely to internalize neoliberal narratives (Peacock et al. 2014) and express “failure” and “personal responsibility” in association with their debt (Sweet 2018), the greater positive effect on the mental health of women, in comparison with men, who accessed the scheme lends support to our explanation of its destigmatizing effects.

To our knowledge, this is the first time a longitudinal study addresses such an issue, and these findings help us understand why certain aspects of the neoliberal policy paradigm, and the discourses that support it, might be associated with poorer mental health among those in problem debt, especially women. Our results further support suggestions made by critical scholars that the gendered links between debt and mental health should be placed in perspective with the neoliberal political economic context (Sweet et al. 2018; Tyler 2015; Tyler and Slater 2018), including broader trends in macroeconomic conditions and policymaking that influence the unequal prevalence of debt and its volume, and the policy solutions for individuals impacted by it.

Four limitations with our study can help guide future research. First, although we have used longitudinal data, there are limitations in data availability. Consistent data about unsecured debts during the pandemic were only available between November 2020 and April 2021, which omits information from the first lockdown. Similarly, the last available pre-COVID wave to include

comparable information about unsecured debts was in 2018. Debt levels might have changed between 2018 and the pandemic's start. It was not possible to include a control for this in the random-effects model; however, comparing fixed effects and random effects was a way to tackle such a bias.

Second, information on household incomes and debt amount contained missing values and information was more complete when focusing on binary variables. We have used multiple imputations and provided results for the actual debt amount but were not able to calculate a debt-to-income ratio for these reasons.

Third, such were the available data, it was impossible to distinguish the content of unsecured debts nor how they were considered by respondents. Information is available about borrowers whose request for a credit payment holiday was granted, but not about rejected applications, limiting analyses to the former. Although the criteria for inclusion would indicate that the latter group is small, future research should examine the mental health effect on those with debts who could not obtain a government-endorsed credit payment holiday.

Finally, we have proposed that lower GHQ scores among those who accessed the credit payment holiday could be explained by a shift from neoliberal policies toward borrowers, including a neutralization of the stigmatizing discourse surrounding debt repayment. However, due to data limitations, we have not tested these explanations. Future research using more applicable data could examine why there are differences in the GHQ scores between those who accessed the scheme and other borrowers.

Despite these limitations, our study suggests that the government-endorsed credit payment holiday had a significant impact on reducing the effect of debt on mental health among those who utilized the scheme during the pandemic, particularly among women. In the United Kingdom, the government has ended the scheme; efforts to reduce the mental health impacts of problem debt have since reverted to a “responsibility” ethos via the Breathing Space policy, where “penalties” are paused for 60 days only if a borrower accesses professional debt advice (HM Treasury 2019). Yet it remains a social priority to minimize the mental health burden of problem debt—and our results


indicate that credit payment holidays are an effective policy tool.


Indeed, such has been the unequal and cumulative rise in individual and household debt due to COVID-19, the ongoing cost of living crisis, and rising borrowing costs, our results suggest that government-endorsed credit payment holidays should not be regarded as an “unprecedented measure” solely for global pandemics. Instead, it can become a long-term policy tool that helps minimize both the negative mental health effects of persistent financial precarity and women's experiences of ongoing gender inequalities in (un)paid labor (Montgomerie and Büdenbender 2015; Roberts 2013), and the mental health impact of debt fostered by neoliberal political economy.

## FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: No funding to declare for this research. Jacques Wels is funded by the Belgian National Scientific Fund (FNRS) Research Associate Fellowship (CQ) no. 40010931. Dr Senhu Wang is funded by the National University of Singapore Assistant Professor Start-up Grant and Singapore Ministry of Education Academic Research Fund Tier 1 Grant (FY2022-FRC2-001).

## ORCID iDs

Matthew Sparkes  <https://orcid.org/0000-0002-6636-2931>

Senhu Wang  <https://orcid.org/0000-0002-0065-7059>

## SUPPLEMENTAL MATERIAL

Supplemental material for this article is available online.

## REFERENCES

- Allison, Paul D. 2009. *Fixed Effects Regression Models*. London, England: Sage.
- Anyaegbu, Grace. 2010. “Using the OECD Equivalence Scale in Taxes and Benefits Analysis.” *Economic & Labour Market Review* 4:49–54. doi:10.1057/elmr.2010.9.
- Béland, Daniel, Bea Cantillon, Rod Hick, and Amílcar Moreira. 2021. “Social Policy in the Face of a Global Pandemic: Policy Responses to the COVID-19 Crisis.” *Social Policy and Administration* 55:249–60. doi:10.1111/spol.12718.

- Bell, Andrew, Malcolm Fairbrother, and Kelvyn Jones. 2019. "Fixed and Random Effects Models: Making an Informed Choice." *Quality & Quantity* 53: 1051–74. doi:10.1007/s11135-018-0802-x.
- Bezanson, Kate, and Meg Luxton. 2006. *Social Reproduction: Feminist Political Economy Challenges Neo-liberalism*. Montreal, QC, Canada: McGill-Queen's University Press.
- Blanchflower, David, and Alex Bryson. 2022. "The Female Happiness Paradox." Working Paper 29893. Retrieved April 8, 2023 (<https://www.nber.org/papers/w29893>).
- Bond, Nikki, and Conor D. Arcy. 2021. "The State We're in: Money and Mental Health in a Time of Crisis." Retrieved April 8, 2023 (<https://www.moneyandmentalhealth.org/publications/the-state-were-in/>).
- Catalano, Ralph, and Terry Hartig. 2001. "Communal Bereavement and the Incidence of Very Low Birthweight in Sweden." *Journal of Health and Social Behavior* 42:333. doi:10.2307/3090182.
- Christians Against Poverty. 2019. "Client Report: Changing Perceptions." Retrieved April 8, 2023 (<https://bynder.capuk.org/m/7aafa1dec901b88f/original/Client-report-2019.pdf>).
- Clark, Andrew E., Conchita D'Ambrosio, and Rong Zhu. 2021. "Living in the Shadow of the Past: Financial Profiles and Well-being." *Scandinavian Journal of Economics* 123:910–39. doi:10.1111/sjoe.12426.
- Clayton, Maya, José Liñares-Zegarra, and John O. S Wilson. 2015. "Does Debt Affect Health? Cross Country Evidence on the Debt-health Nexus." *Social Science and Medicine* 130:51–58. doi:10.1016/j.socscimed.2015.02.002.
- de Bruijn, Ernst-Jan, and Gerrit Antonides. 2020. "Determinants of Financial Worry and Rumination." *Journal of Economic Psychology* 76:102233. doi:10.1016/j.joep.2019.102233.
- Dragano, Nico, Marvin Reuter, and Klaus Berger. 2022. "Increase in Mental Disorders during the COVID-19 Pandemic—the Role of Occupational and Financial Strains. An Analysis of the German National Cohort (NAKO) Study." *Deutsches Arzteblatt International* 119:179–87. doi:10.3238/arztebl.m2022.0133.
- Dunn, Lucia F., and Ida A. Mirzaie. 2022. "Gender Differences in Consumer Debt Stress: Impacts on Job Performance, Family Life and Health." *Journal of Family and Economic Issues*. 1–18. DOI: 10.1007/s10834-022-09862-z.
- Experian. 2022. "Payment Holidays." Retrieved September 24, 2022 (<https://www.experian.co.uk/consumer/help-discover/discover/guides/payment-holidays.html>).
- Financial Conduct Authority. 2020a. "Joint Statement by the FCA, FRC and PRA." Retrieved September 21, 2022 (<https://www.fca.org.uk/news/statements/joint-statement-fca-frc-pra>).
- Financial Conduct Authority. 2020b. "Mortgages and Coronavirus: Our Guidance for Firms." Retrieved September 21, 2022 (<https://www.fca.org.uk/firms/mortgages-coronavirus-guidance-firms>).
- Financial Conduct Authority. 2021. "Dealing with the Financial Impact of Rising Costs of Living." Retrieved September 24, 2022 (<https://www.fca.org.uk/consumers/financial-impact-rising-cost-living>).
- Francis-Devine, Brigid. 2021. "Coronavirus: Impact on Household Debt and Savings." Retrieved April 8, 2023 <https://commonslibrary.parliament.uk/research-briefings/cbp-9060/>.
- Frasquilho, Diana, Margarida Gaspar Matos, Ferdinand Salonna, Diogo Guerreiro, Cláudia C. Storti, Tânia Gaspar, and José M. Caldas-De-Almeida. 2016. "Mental Health Outcomes in Times of Economic Recession: A Systematic Literature Review Health Behavior, Health Promotion and Society." *BMC Public Health* 16:115.
- Goldberg, David. 1978. *Manual of the General Health Questionnaire*. Windsor, England: NFER Nelson.
- Gumy, Julia. 2013. *The Impact of Unemployment, Child-birth and Partnership Dissolution on Perceived Problematic Debt in the UK, Germany and Luxembourg*. Cambridge, England: University of Cambridge.
- Gunasinghe, Cerrisse, Billy Gazard, Lisa Aschan, Shirlee MacCrimmon, Matthew Hotopf, and Stephani L. Hatch. 2018. "Debt, Common Mental Disorders and Mental Health Service Use." *Journal of Mental Health* 27:520–28. doi:10.1080/09638237.2018.1487541.
- Hall, Peter A. 1989. *The Political Power of Economic Ideas: Keynesianism across Nations*. Guildford, England: Princeton University Press.
- Hall, Peter A. 1993. "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain." *Comparative Politics* 25:275–296. doi: 10.2307/422246.
- Harder, Brittany M., and J. E. Sumerau. 2018. "Understanding Gender as a Fundamental Cause of Health: Simultaneous Linear Relationships between Gender, Mental Health, and Physical Health Over Time." *Sociological Spectrum* 38:387–405. doi:10.1080/02732173.2018.1532366.
- Hay, Colin. 2004. "The Normalizing Role of Rationalist Assumptions in the Institutional Embedding of Neo-liberalism." *Economy and Society* 33:500–27. doi:10.1080/0308514042000285260.
- Hay, Colin. 2013. *The Failure of Anglo-liberal Capitalism*. London, England: Palgrave MacMillan.
- HM Treasury. 2019. Breathing Space Impact Assessment. Retrieved September 14, 2022. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/863869/Breathing\\_Space.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863869/Breathing_Space.pdf).



- HM Treasury. 2021. "New Scheme to Give People in Problem Debt Breathing Space Launched." Retrieved April 8, 2023 (<https://www.gov.uk/government/news/new-scheme-to-give-people-in-problem-debt-breathing-space-launched>).
- Hojman, Daniel A., Álvaro Miranda, and Jaime Ruiz-Tagle. 2016. "Debt Trajectories and Mental Health." *Social Science and Medicine* 167:54–62. doi:10.1016/j.socscimed.2016.08.027.
- Institute for Social and Economic Research. 2021. "Understanding Society COVID-19 User Guide." Version 10.0. Colchester: University of Essex.
- Khalik, Muhammed, and Sumit Dey-Chowdhury. 2022. "UK Finance during the Coronavirus (COVID-19) Pandemic: June 2022." Retrieved April 8, 2023 <https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/articles/impactonukfinanceduringthecoronaviruscovid19pandemic/june2022>).
- Kousoulis, Antonis, Shari Mcdaid, David Crepez-Keay, Susan Solomon, Chiara Lombardo, Jade Yap, Lauren Weeks, Chris O'sullivan, Rachel Baird, Richard Grange, Toni Giugliano, Lucy Thorpe, Lee Knifton, and Mark Rowland. 2020. "The COVID-19 Pandemic, Financial Inequality and Mental Health." Retrieved April 8, 2023 <https://www.mentalhealth.org.uk/our-work/research/covid-19-pandemic-financial-inequality-and-mental-health>).
- Langley, Paul. 2008. "Financialization and the Consumer Credit Boom." *Competition and Change* 12: 133–47. doi:10.1179/102452908X289794.
- Loibl, Căzilia, Stephanie Moulton, Donald Haurin, and Chrissie Edmunds. 2022. "The Role of Consumer and Mortgage Debt for Financial Stress." *Aging and Mental Health* 26:116–29. doi:10.1080/13607863.2020.1843000.
- Meltzer, Howard, Paul Bebbington, Traolach Brugha, Michael Farrell, and Rachel Jenkins. 2013. "The Relationship between Personal Debt and Specific Common Mental Disorders." *European Journal of Public Health* 23:108–13. doi:10.1093/eurpub/cks021.
- Moen, Phyllis. 2022. "The Uneven Stress of Social Change: Disruptions, Disparities, and Mental Health." *Society and Mental Health* 12:85–98. doi:10.1177/21568693221100171.
- Montgomerie, Johnna, and Mirjam Büdenbender. 2015. "Round the Houses: Homeownership and Failures of Asset-based Welfare in the United Kingdom." *New Political Economy* 20:386–405. doi:10.1080/13563467.2014.951429.
- Peacock, Marian, Paul Bissell, and Jenny Owen. 2014. "Dependency Denied: Health Inequalities in the Neo-liberal Era." *Social Science & Medicine* 118: 173–80. doi:10.1016/j.socscimed.2014.08.006.
- Phelan, Jo C., Bruce G. Link, and Parisa Tehranifar. 2010. "Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications." *Journal of Health and Social Behavior* 51:S28–S40. doi:10.1177/0022146510383498.
- PricewaterhouseCoopers LLP. 2017. "IFRS9, Financial Instruments: Understanding the Basics." Retrieved April 8, 2023 <https://www.pwc.com/gx/en/audit-services/ifrs/publications/ifrs-9/ifrs-9-understanding-the-basics.pdf>.
- Roberts, Adrienne. 2013. "Financing Social Reproduction: The Gendered Relations of Debt and Mortgage Finance in Twenty-first-century America." *New Political Economy* 18:21–42. doi:10.1080/13563467.2012.662951.
- Sparkes, Matthew. 2020. 'I just felt responsible for my debts': Debt stigma and classificatory exploitation. In J. Gardener, M. Grey, K. Moser (Eds.). *Debt and Austerity: Implications of the Financial Crisis*. London: Elgar Publishing.
- Spencer, David A., Mark Stuart, Chris Forde, and Christopher J. McLachlan. 2022. "Furloughing and COVID-19: Assessing Regulatory Reform of the State." *Cambridge Journal of Regions, Economy and Society* 16:81–91. doi:10.1093/cjres/rsac026.
- Sun, Amy Ruining, and Jason N. Houle. 2020. "Trajectories of Unsecured Debt across the Life Course and Mental Health at Midlife." *Society and Mental Health* 10:61–79. doi:10.1177/2156869318816742.
- Sweet, Elizabeth. 2018. "'Like You Failed at Life': Debt, Health and Neoliberal Subjectivity." *Social Science and Medicine* 212:86–93. doi:10.1016/j.socscimed.2018.07.017.
- Sweet, Elizabeth, L. Zachary DuBois, and Flavia Stanley. 2018. "Embodied Neoliberalism: Epidemiology and the Lived Experience of Consumer Debt." *International Journal of Health Services* 48:495–511. doi:10.1177/0020731418776580.
- ten Have, Margreet, Marlous Tuithof, Saskia van Dorselaer, Derek de Beurs, Bertus Jeronimus, Peter de Jonge, and Ron de Graaf. 2021. "The Bidirectional Relationship between Debts and Common Mental Disorders: Results of a Longitudinal Population-based Study." *Administration and Policy in Mental Health and Mental Health Services Research* 48: 810–20. doi:10.1007/s10488-021-01131-9.
- Tsai, Alexander C., and Atheendar S. Venkataramani. 2015. "Communal Bereavement and Resilience in the Aftermath of a Terrorist Event: Evidence from a Natural Experiment." *Social Science & Medicine* 146:155–63. doi:10.1016/j.socscimed.2015.10.050.
- Tyler, Imogen. 2015. "Classificatory Struggles: Class, Culture and Inequality in Neoliberal Times." *Sociological Review* 63:493–511. doi:10.1111/1467-954X.12296.
- Tyler, Imogen, and Tom Slater. 2018. "Rethinking the Sociology of Stigma." *Sociological Review* 66: 721–43. doi:10.1177/0038026118777425.

- Walker, Carl. 2012. "Neoliberal Ideology and Personal Debt in the United Kingdom." Pp. 49–61 in *Community Psychology and the Socio-economics of Mental Distress: International Perspectives*, edited by C. Walker, K. Johnson, and L. Cunningham. London, England: Palgrave Macmillan.
- Wood, James D.G., Valentina Ausserladscheider, and Matthew Sparkes. 2022. "The manufactured crisis of COVID-Keynesianism in Britain, Germany and the USA." *Cambridge Journal of Regions, Economy and Society* 16:19–29. <https://doi.org/10.1093/cjres/rsac030>
- Wels, Jacques, and Natasia Hamarat. 2022. "A shift in women's health? Older workers' self-reported health and employment settings during the COVID-19 pandemic." *European Journal of Public Health* 32: 80–86. <https://doi.org/10.1093/eurpub/ckab204>
- Wels, Jacques, Charlotte Booth, Bożena Wielgoszewska, Michael J. Green, Giorgio Di Gessa, Charlotte F. Huggins, Gareth J. Griffith, Alex S. F. Kwong, Ruth C. E. Bowyer, Jane Maddock, Praveetha Patalay, Richard J. Silverwood, Emla Fitzsimons, Richard Shaw, Ellen J. Thompson, Andrew Steptoe, Alun Hughes, Nishi Chaturvedi, Claire J. Steves, Srinivasa Vittal Katikireddi . . . George B. Ploubidis. 2022. "Mental and social wellbeing and the UK coronavirus job retention scheme: Evidence from nine longitudinal studies." *Social Science & Medicine* 308:115226. <https://doi.org/10.1016/j.socscimed.2022.115226>
- Woods, Sam. 2020. "Covid-19: IFRS 9, Capital Requirements and Loan Covenants." Bank of England. Retrieved September 24, 2022 (<https://www.bankofengland.co.uk/prudential-regulation/letter/2020/covid-19-ifrs-9-capital-requirements-and-loan-covenants>).