Original research

BMJ Open Identifying how pre-existing resources combine to shape the experiences of work and family life of a diverse sample of working parents with at least one child in primary school in Scotland during COVID-19 pandemic-related social restrictions: a qualitative descriptive design

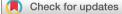
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ABSTRACT

To cite: McQueen F, Osborn S. Identifying how pre-existing resources combine to shape the experiences of work and family life of a diverse sample of working parents with at least one child in primary school in Scotland during COVID-19 pandemic-related social restrictions: a qualitative descriptive design. *BMJ Open* 2024;**14**:e078850. doi:10.1136/ bmjopen-2023-078850

Prepublication history for this paper is available online. To view these files, please visit the journal online (https://doi. org/10.1136/bmjopen-2023-078850).

Received 14 August 2023 Accepted 27 April 2024



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Dr Fiona McQueen; f.mcqueen@napier.ac.uk **Objectives** This study aimed to identify factors that shaped working parents (WPs') experiences of COVID-19-related social restrictions and analyse the relationships between those factors.

Design A qualitative descriptive design was used to collect five time points of data including two online questionnaires and three telephone or online interviews between March 2021 and August 2021 with some follow-up interviews in December 2022.

Setting The COVID-19 pandemic led to social restrictions which greatly impacted WPs who had to both work and look after their children within their home space without any formal childcare.

Participants 19 participants living in Scotland who had at least one child of primary school age and who had been working in March 2020.

Results All parents were affected by social restrictions during the COVID-19 pandemic, with the flexibility of employers, their socioeconomic situation and the amount of space in their home environment being particularly influential. The impact of social restrictions was greater for lone parents (LPs) due to the inability to share childcare with another adult in the home. Parents in low-income households were affected due to pre-existing inequalities of resources. **Conclusions** These findings indicate several policy options that could mitigate negative outcomes for parents in the case of a future pandemic, including options to lessen inequities experienced by LPs. These include priority access to school places (particularly for children with underlying chronic medical conditions), the ability to establish a 'support bubble' at the beginning of social restrictions and being given access to safe outside places for children without a garden.

INTRODUCTION

COVID-19-related lockdowns and social restrictions led to sudden and drastic changes

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Interviews and online surveys were conducted with 19 diverse working parents (WPs) to explore experiences of COVID-related social restrictions.
- ⇒ In-depth qualitative accounts are analysed using the socioecological model to consider the broader social context for WPs during social restrictions.
- \Rightarrow The results build on the body of quantitative research in the area of COVID and mental well-being.
- ⇒ This study provides detail and depth about experiences to explain the meaning of correlations within the body of quantitative research that has been conducted with parents during COVID-19.
- ⇒ Due to the small sample size, findings are not generalisable nor representative of broader populations.

to patterns of work and care, resulting in a dramatic shift in how working parents (WPs) managed their lives.¹ School and childcareprovider closures, along with restrictions on contact with family and friends outside of the household, meant that many WPs had to provide care and home-schooling to their children while simultaneously balancing paid work in the home for months, depending on local rules (for a timeline of restrictions in Scotland, see table 1.) WPs with children living at home therefore had to rapidly adjust. Quantitative research highlights that school closures 'induced a unique immediate juggling act for WPs of school age children'.²

Evidence clearly demonstrates that social restrictions during COVID-19 threatened mental well-being, with an increase in
 Table 1
 Stages of social restrictions in relation to COVID-19 in Scotland

Date of policy	Nature of restrictions
March 2020	Large events of 500 plus people were cancelled, all schools and nurseries were closed, and a national lockdown was imposed which meant everyone was to stay at home except to buy food, exercise once per day and if they could not work from home.
March to August 2020	There was a process of relaxing of restrictions across different regions, depending on the rates of COVID infection, until all pupils were able to return to school on 11 August 2020.
August 2020 to January 2021	Vaccinations were introduced and rolled out in Scotland. However, the country went into national lockdown again on 5 January 2021.
February to July 2021	The second national lockdown was lifted on 22 February 2021 for childcare services and primary 1–3 children (aged between 5 and 7 years roughly), then all children could go back to school from 15 March 2021, although secondary schools (aged between 12 and 18 years roughly) went back part time.
July 2021	Scotland was moved into level 0 of the strategic framework. All of the restrictions on social gatherings and leaving the house were lifted.

psychological distress recorded 1 month into lockdown.³ Mental well-being is an important health indicator as it reflects quality of life and happiness.⁴ During COVID-19 social restrictions, parents' well-being was particularly impacted by increases in stress⁵ compounded by the unpredictability of restrictions affecting families.⁶ Quantitative research conducted in the UK highlighted that single mothers had higher levels of psychological distress in COVID due to having a higher rate of coming out of employment than any other group.^{7 8} In Scotland, currently, roughly 25% of families with dependent children are lone parent (LP) families, with 67% of LPs in employment. Moreover, 38% of children in LP house-holds in Scotland live in poverty, highlighting the degree of overlap between LPs and low-income families.⁹

Understanding the processes through which social restrictions negatively affected well-being among WPs is key for considering future policies that might mitigate poor health in future pandemics. Social determinants of health including socioeconomic position, housing and living environment, work environment and social networks are well established within the field of public health as having as much influence on health outcomes as genetics or healthcare.¹⁰ Socioeconomic position, often measured in relation to occupation, income and education, is central to inequalities of health outcomes

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as the most socially disadvantaged are more likely to have poor health.¹¹ Low-income families have been particularly affected by COVID-19 restrictions with quantitative research finding that negative impacts on well-being and mental health were increased¹² including higher-thanthreshold anxiety and depression symptoms.¹³

As a key determinant of health, quality of housing has been shown to be inextricably linked to physical and mental health through direct and indirect pathways, both through self-reported measures and through measuring biomarkers of stress.¹⁴ Direct pathways include overcrowding,¹⁵ while indirect pathways include housing affordability problems that exacerbate stress.¹⁶ Access to a private garden has also been found to be beneficial for health.¹⁷ Research suggests that during the COVID-19 social restrictions, when whole populations spent an increased amount of time at home, house type, availability of workspace and the neighbourhood environment-including open space attached to the property (eg. gardens and balconies)-significantly impacted levels of stress¹⁸ and mental health outcomes, including loneliness, depression and anxiety.¹⁹

Social networks are comprised of social connections and relationships that extend from spouses or partners and family members to coworkers and acquaintances, and which vary in frequency of contact and emotional closeness.²⁰ During social restrictions, interactions were greatly reduced and more focused on co-resident network members, meaning the critical benefits of social interaction were greatly reduced. Due to the curtailment of in-person contact in workplaces, the number of spontaneous social interactions (such as chatting while preparing drinks or food) have vastly reduced, leading to a cut in opportunities to seek informal support between workers. This loss has been particularly felt by singleperson households who have experienced feelings of loneliness.²¹

While quantitative research findings can shed light on patterns and correlations, the qualitative research presented in this paper helps to interpret the findings above through using a socioecological framework (see figure 1). Modified socioecological models (MSEMs) have been used to understand multilevel and interacting factors for a range of public health issues²² as they provide insight into how factors contribute to health problems. MSEMs have not yet been used to identify how preexisting inequalities of WPs shaped experiences of social restrictions and may explain their lower well-being during the pandemic.

Aim and research question

The objective of this study was to identify factors that shaped WPs' experiences of COVID-19-related social restrictions in Scotland and analyse the relationships between those factors using a socioecological model. The research question this study seeks to answer is: How did pre-existing resources combine to shape the experiences of work and family life of a diverse sample of WPs with

Individual

- Feeling lonely
- Worried about finances
- Worried about children's wellbeing
- Pre-existing health issues make restrictions harder
- Lack of space to work from home

Interpersonal

- Missing childcare support from family and friends
- Missing socialising with friends and family
- Socialising is difficult if no garden
- Increase in conflict in household due to overcrowding
- Older relatives don't want to form social bubble due to concerns about infection

Organisational

- Missing spontaneous social interactions at work
- Unable to be flexible with no one to share childcare with
- Clubs and activities where socialise closed leading to lack of adult contact
- Need to reduce hours or laid off due to childcare demands
- If no change to working hours need to work in evenings/ night-time to catch up due to solo childcare responsibilities
- Lack of access to primary school places partly due to lack of consistency/clarity in allocating places

Societal

- Outside spaces closed therefore children stuck in house all day particularly impacting those with no outside space
- Pre-existing inequalities of housing quality and income, partly caused by 'austerity' policies
- Social bubbles not implemented for lone parents until June 2020

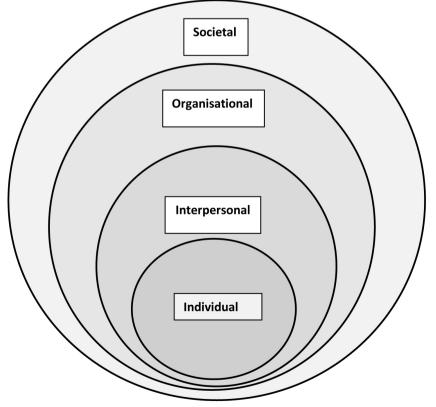


Figure 1 Modified socioecological model representing multilevel factors shaping working parent experiences of social restrictions related to COVID-19.

at least one child in primary school in Scotland during COVID-19 pandemic-related social restrictions?

METHODS

Study design

The study has a qualitative descriptive design (QDD)²³ in order to identify factors that shaped WPs' experiences and analyse the relationships between those factors. The qualitative descriptions approach seeks to understand a process or phenomenon directly through the perspectives of those involved to explore their understandings and the meanings they attach to their experiences.²⁴ A QDD was chosen as it provides an opportunity to learn how participants 'see their world' and to capture an account of the complexity of that world.²⁵ A QDD is appropriate to research that explores novel conditions for organising work and family life due to the lack of existing knowledge and the limited nature of the time period for generating data.²⁵ This research design is not claiming representativeness or generalisability but rather capturing in-depth accounts from people experiencing a particular situation.

Participants and settings

Inclusion criteria were (1) a parent who had at least one child of primary school age in March 2020, (2) who were in work and (3) living in Scotland in March 2020. All participants had experienced the series of social restrictions imposed during the COVID-19 pandemic and were resident in Scotland for the duration of the research (see table 2). Longitudinal data were collected between March 2021 and August 2021, with some follow-up interviews in December 2022, from 19 participants from across Scotland. The longitudinal design allowed opportunity for participants to describe changes in their situation before and after the level of restrictions eased, as well as to reflect in depth on their experience during and between interviews. It was important to be able to conduct research interviews when participants were subject to severe restrictions then subsequently navigating the uneven transition out of lockdown, although there was still high uncertainty as to whether there would be more restrictions imposed.

Sampling

This QDD study aimed to gather in-depth data on the experiences of a diverse range of WPs using a maximum variation sampling approach.²⁶ For this to be manageable, the sample was limited to 20 participants. The rationale for this sample size is that it would provide a small number of parents in each category of the key demographic groups (ie, LP fathers, dual parent mothers, etc). The sampling frame was designed to have an even split across four key demographic axes based on pre-existing circumstances and resources: gender, income, lone or partnered parents (PPs) and being resident in the central belt of Scotland or not (ie, a proxy measure for rural/urban). Decisions around the final sample were based on achieving maximum variance through the inclusion of

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more demographic characteristics including workplace factors (ie, having been on furlough or moved to working from home), LGBTQ (lesbian, gay, bisexual, trans or queer) identifying parents, people of colour and parents with pre-existing health conditions in the household.

Participants were recruited through a series of paid targeted adverts on Facebook which became increasingly specific. The initial advert was targeted at people living in Scotland over the age of 18 years and the advert text asked for interested parents who had been working in March 2020 to read more information about the project on a Qualtrics landing page. Advert target criteria were continually refined over a 3-week recruitment period to obtain a range of potential participants that fit with the sampling frame. The final advert used was targeted at men only, over the age of 18, living in Scotland and the advert text asked for LPs interested in taking part in the research as LP fathers were the hardest subsample to recruit.

Over the 3-week recruitment period, 282 people clicked on the landing page link, of those 33 completed all of the pre-qualifying demographic questions. The research team reviewed the collected data of all potential participants and allocated these to a sampling frame template in order to identify where gaps needed to be targeted by Facebook adverts. Some subsamples over-recruited (ie, LP mothers with low income) in these cases the research team considered the whole sample so far and included participants who had characteristics that increased the variance of the sample. Twenty participants were chosen to participate and approached by email, of those 19 took part in at least four points of data collection and were included in the study.

The final sample (detailed in table 2) fulfils the sampling frame outlined above. Based on the criteria, the research team hypothesised what could be relevant to the experiences of WPs during COVID-19-related social restrictions, including living in different parts of Scotland (9/14 mainland postcodes are represented) and working in a range of sectors. Key marginalised identities were also positively discriminated for in the final sample including LGBTQ+ identifying parents (n=3), people of colour (n=3) and those for whom a member of the household has a disability (n=6).

Data collection

Demographic data were collected from potential participants in a Qualtrics survey which provided participants with information about the research and sought written consent to take part. Quantitative and qualitative data collection took place with each participant in the questionnaire-interview-questionnaire-interview order over the research period. The questionnaire elements of the QDD were designed primarily to gather data on household composition, working patterns and resources. Data gathered from the first questionnaire were used to inform and refine the questions being asked in the first interview (eg, interviewers could say 'I know you have been on furlough recently, how did that come about?') to improve

	Lone parent		Dual parent	
	Women	Men	Women	Men
Low income*				
Yes	4	2	2	0
No	1	1	3	5
Household income				
10–19k	4	0	1	0
20–29k	1	2	1	0
30–49k	0	1	0	0
50–69k	0	0	2	1
Over 70k	0	0	1	4
Key worker				
Yes	1	0	4	2
No	4	3	1	3
Working hours changes				
No change	2	1	2	1
Reduced hours	2	1	0	0
Extended hours	0	1	2	3
Change to pattern	0	0	1	1
Laid off	1	0	0	0
Main place of work				
WFH	4	3	2	4
Workplace	0	0	3	1
No workplace	1	0	0	0
Pre-existing health condition in ho	usehold			
Yes	3†	2	0	0
No	2	1	5	5
Sufficient space in home‡				
Yes	2	2	2	5
Not much	3	1	1	0
No	1	0	2	0

*Measured by receipt of means tested benefits.

†One household has a parent and child with pre-existing health conditions.

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‡As determined by participants in interview 1, yes responses include a private garden.

WFH, work from home.

connection with participants and facilitate 'rich' descriptions of their 'world in process' as they adjusted to disruptions. Data collected in the questionnaires were used to inform the content development of the subsequent interview guides. One outcome of having questionnaire data prior to interviews was a high level of rapport perceived by interviewers as discussion of *what* had happened could be quickly acknowledged or summarised by participants so that talk could move on to detailed descriptions of *how* WPs had experienced social restrictions.

The interview questions outlined were written by the research team based on findings of previous quantitative research conducted in this area. The first interview included questions related to balancing family and work life and the participants' understanding of the way the pandemic had changed their relationships. The second interview asked about the financial implications of the pandemic, changes to work and looking to the future. Follow-up interviews asked participants about changes since all social restrictions had been lifted.

The research team conducted telephone and online interviews, as chosen by the participant, from their homes. Participants (with whom researchers had no prior relationship) were interviewed at home, often with dependent children also in the home. Verbal consent was obtained during each telephone interviews. Interviews copyright.

lasted approximately 40–60 min. As a token of appreciation, each participant was sent by email a ± 10 Love2Shop voucher for each interview they took part in. One participant withdrew from the study after initial data collection.

Data analysis

Interviews were recorded with participants' permission and transcribed verbatim and averaged around 1 hour. Analysis was conducted using NVivo V.20. A priori themes associated with our theoretical framework (social determinants of health) provided the first-order codes. As one element in familiarising ourselves with our data,²⁷ and as a check against excessive segmentation or loss of context or narrative coherence, a file was created for each participant in which selected information from questionnaires was collated and annotated excerpts in relation to key themes. The research team met regularly to benefit from the team's cumulative familiarity with the data and to reflexively review the development of codes and themes. From testing the definition of and relation between themes, the analysis process progressed to evaluating the potential of the socioecological model to support organising themes and 'map' the story of the analysis²⁸ in addressing the research question.

The analysis generated themes of significance for participants' well-being as individuals, parents and workers, and for understanding the relevance of relationships with family, friends and colleagues, as well as negotiating changed institutional demands of work and school. All of these elements, and the overall experience of restrictions, were located within wider societal context of crisis restrictions as shaped by pre-existing structural inequalities. In the final stage of the analysis, therefore, the relevant themes were defined as factors germane at different levels of the socioecological model, which then organised the interconnection between themes.

Questionnaire data were compiled by question to support accurate description of and systematic comparison within the sample. Some questionnaire data provided potentially useful category information (occupation, age of children, location of work), with some quantitative measures such as number of rooms, income bracket, for example) also useful for comparison. As the primary purpose of gathering quantitative data was to ensure the sampling frame was fulfilled and to inform interview design the only analysis of questionnaire data performed was frequency distribution.

Study rigour

All data were rigorously examined by two seasoned researchers to improve the study's confirmability. Researcher triangulation was used during analysis to ensure credibility of interpretation of results. Transferability has been considered through the full description of the project's background, recruitment, sampling frame, data collection processes and analytical process.

Patient and public involvement

No patients were involved in this study.

The research received ethical approval from the university where the research team is based and complies with the Declaration of Helsinki. All data were securely stored, anonymised and participants were assigned a pseudonym.

RESULTS

The current qualitative study builds on the body of quantitative research in the area of COVID and mental well-being to consider the broader social context of WPs during social restrictions using the socioecological model. Figure 1 illustrates a social ecology of how factors produce low well-being among WPs, and table 3 contains interview extracts to illustrate these factors.

During the period of the most stringent social restrictions, the changes effected at a societal level were profound. As noted, school closures and the suspension of most formal and informal childcare provision were combined with the widespread shift to working from home or, for essential workers, to working in highrisk environments. Many WPs, including the majority of participants, became responsible for home-schooling alongside WFH. Provision to support LPs in meeting this demand, through the formation of 'social bubbles,' was not made until June 2020.

Societal level factors

At the societal level, key factors of lack or adequacy of private space, and dependence or not on public spaces, reflected the significance of pre-existing inequalities in housing. Social restrictions enforced during COVID-19 exacerbated the differences between families in this sample who were comfortable at home and those who were not. A lack of space within the home was discussed as leading to stress for most low-income parents (9/19) required to fit childcare and home-schooling around WFH and the demands of family life, often in overcrowded accommodation. Having space to work was also an issue raised by many parents, including where two parents were working from home, and for those with smaller homes, many of whom lived in lower income households.

Inequalities in quality of housing were magnified when access to outside space is taken into consideration. The closing of public play parks meant families with no private outside space (predominantly low-income families) were stuck inside homes that were too small for them, often for weeks at a time during the strictest social restrictions. In one case, promised progress on vital improvement in social housing provision was repeatedly stalled. Many parents also missed community clubs, for their children and themselves, underlining the significance of such social organisations and spaces beyond the home to the well-being of children and families.

Disparities in household income and income security were a second central theme highlighting how preexisting inequalities between parents were exacerbated

Table 3 Intervie	w extracts illustrating factors
Societal factors	Pre-COVID social inequalities—Housing space Lack of space—"I've got three kids in one room, because the oldest one's obviously older, so I put her in the wee-est room and then the wee one (the baby) is still in with us." (Woman, PP)
	Adequate space—"We've got sort of designated places Lisa works upstairs, there's an area there in the hall. I'm in the study—which sounds grander than it is—but which is downstairs. And the kids can be in the kitchen, dining room, living room or their bedrooms." (Man, PP)
	Outside spaces closed therefore children stuck in house all day
	"Cause we've been crammed into this tiny wee flat. The kids don't have any garden, they've got nowhere to burn off energy so our outside space would be to go somewhere and we don't have anywhere to go. And then places are closed, so it's been difficult just staying in in the same house all together. So, they're bouncing off the walls in here most of the time, to be honest." (Woman, LP)
Organisational factors	Missing spontaneous social interactions at work/commute "There was definitely () professional isolation. Because I wasn't seeing any work colleaguesso you didn's see any of your peers for a period of time () but I was definitely less isolated than my wife, because she was at home." (Man, PP)
	Flexible working eases strain on parents
	Flexible employer—"I didn't want to let them down, and, do you know, our work has been really good. Like they have been very, do your work when you can. We understand you've got a child." (Woman, PP)
	Inflexible employer—"My boss herself is an workaholic so she expects a high standard with her staff team. So she was quite clear that she's, like, you will be doing your 35 hours a week And trying to juggle When I reflect back, it was just like, at the start of the pandemic, I really, really struggled." (Man, LP)
	Lack of access to primary school places—from parent of child additional needs
	"We are both key workers but we didn't put the children into school because Thomas's work was based at home. But they were aware that Thomas may have to go out. So when he had to go out to an emergency, of my goodness, they made our lives as difficult as possible, they made us feel horrendous about it." (Woman, PP)
Interpersonal	Missing childcare support
level factors	"So, the biggest challenge for me probably has been that they're used to me being out of the house and going to work and them being looked after by somebody else, whether it's teachers at school or at a club or something like that. For the last year, for most of the time they've been able to physically see me but I've been ignoring them because I've been working." (Woman, LP)
	Older relatives don't want to form social bubble due to concerns about infection
	"Yes, I was in a bubble with my parents. There was a point where my mum and dad got really scared so I had, kind of, un-bubbled with them, and bubbled with my partner." (Woman, LP)
Individual level factors	Feeling lonely "I was starting to feel quite down. I felt like I wasn't getting enough social time One of the biggest changes for me in lockdown has been realising that the people that I would've listed as friends from before are probably not really friends, they haven't really checked in with me during lockdown." (Woman, LP)
	Worried about finances—low income
	"Finances are stressful sometimes, but I don't know if it's just my situation as well. I normally did a budget, but with COVID I've ended up being stupid with money and got like little loans and stuff like this." (Woman, LP)
	Worried about children's well-being
	"My oldest son, for instance, he's had some recent mental health issues and I don't think for a second that he would have had as many issues and had as many difficulties had he had the usual outlets to release his pent up frustrations and anger." (Man, PP)

by the pandemic. While flexibility for salaried WPs was a form of support, for those in insecure or part-time work flexibility or the reduction of hours could affect income. One LP made up for hours lost to childcare with holiday pay and another lost the income from a second business unable to operate during restrictions. Thus, for LPs on low income, the risks to income security—of physical or mental ill health as experienced before or during restrictions by LPs (5/9), for example—remain higher and financial rewards of working often more hard-won. By contrast, those not on low incomes and in secure (ie, salaried) employment were more likely to report increased savings, due to lack of spending on leisure and travel, for example. Of the nine parents with a household income below 40 kpa, seven (including five LPs) reported no increase in savings and only two reduced debt during social restrictions. Of the 10 parents with a household income above 50 kpa, 5 increased savings and 4 reduced debt.

Organisational level factors

Two organisations had the biggest impact on parents during social restrictions—their children's school(s) and their employer. During social restrictions, the majority of parents in this study worked from home (14/19), while 5 parents continued to work from their workplace, all of whom were key workers (defined by Scottish ministers as people who ensure essential services run and the vulnerable in communities are supported). For parents newly working from home, this brought challenges related to the home becoming the location of both childcare (including home-schooling) and paid work.

In relation to schools, key themes were the lack of access, or clarity on access, to primary school places and inconsistent support from schools for home-schooling. The majority of parents in this study found the application of national guidelines on children attending primary school inconsistent both within their local context and at a national level, as individual schools developed their own policies on the definition of 'key workers.' This was particularly frustrating for parents of children with pre-existing health conditions due to a perceived lack of support from primary schools, in failing to provide appropriate materials for home-schooling, and the disruption to children's routine.

Many WPs discussed the potential for flexible working to enable them to combine working and home-schooling roles and to ease strain on parents, although this was not always the case for LPs. While the weight of restrictions could sometimes be mitigated through 'flexibility', this was within the gift of employers. Although WPs with flexible employment and part-time work could more easily accommodate the demands of social restrictions, this flexibility could come at the cost of extremely long hours or loss of income.

The move to home being the primary location of childcare and paid work was made more difficult for LPs due to not being able to divide tasks or parts of the day between two people to get everything done as many co-resident parents did. As a result of this pressure, some LPs (3/9)reduced their hours. One was furloughed and one was laid off. Others rescheduled their work around childcare, as did some in two-parent households, none of whom reduced their hours while several increased their hours (4/10), although not necessarily their income.

For LPs who had more than one child at home, including one with pre-existing conditions (3/9), home-schooling was extremely difficult to manage, particularly around paid work commitments. Those LPs who had pre-existing health conditions themselves (1/9), or whose

children did (5/9), found managing the well-being of their children particularly taxing.

Another key theme in participants' reflections on enforced WFH was missing the commute to the workplace. The opportunity to shift role from being a parent to being a colleague or friend was particularly salient for all parents, as was the missed time to facilitate this shift during commuting time. For parents now working from home, both LPs and PPs, the time previously spent commuting was configured as time to 'catch their breath' after dropping children at school or childcare. How much they missed their commute was surprising to many parents as its benefits had not been appreciated until it was no longer part of their routine.

Interpersonal level factors

At the interpersonal level, participants reported that they experienced the limiting of in-person contact during strict social restrictions as a significant reduction in both support and interaction, the practical and relational implications of which were intensely felt by LPs. Other key factors were missing informal childcare support and managing health risks to loved ones, as well as missing social interactions with both friends and colleagues.

Informal arrangements of childcare with family members and friends ended during social restrictions which meant that for the majority of LPs there was no option but to combine the dual roles of paid work and childcare throughout the day and often into the evening. Interpersonal relationships within the household were often strained due to competing demands on time and space, leading to more conflict than usual, between parents and children and also between siblings. As noted above, confinement within a small space intensified the stress of managing children who were 'bouncing off the walls', as one LP put it, through boredom and unspent energy. One LP circumvented these issues by having her mother move in with her throughout social restrictions, a decision she felt had been highly beneficial to her and her daughter. However, most LPs did not have this option.

Concerns about the risks of COVID on the part of participants or their families could also be a barrier to forming the bubbles which might have supported WPs, and LPs in particular. Many participants were careful to avoid passing on infection to older relatives, leading to some reluctance to establish 'support bubbles', even once these were permitted.

The lack of opportunity to socialise during restrictions was accentuated for LPs who could not leave children alone at home (to go for a walk with friends for instance) and by the lack of garden space (for some low-income families) to socialise in. While all parents discussed new ways in which they were in contact with family and friends, including more video and telephone contact, the sense that contact was not as fulfilling as face-to-face interaction (for them or their children) was pervasive among parents.

By design, social restrictions related to COVID-19 led to a dramatic reduction in social contact as described by all parents, but research highlights the potentially disproportionate significance for LPs. For those lone mothers in the lowest 20% income bracket, a high level of social connectedness can improve not only their well-being but also that of their children.²⁹ For LPs in this study, the lack of contact outside the household often meant that vital support systems that maintained their well-being were suspended.

Interpersonal relationships (including spontaneous social connections) normally facilitated through work were missed by many (17/19) parents, including LPs (8/9) as much of their 'adult conversation' prior to restrictions had occurred at work.

Individual level factors

The combined and cumulative implications of factors at the societal, organisational and interpersonal level were seen in participants' accounts of their own emotions, concerns and well-being. The theme of feeling lonely or isolated was a striking feature of most LP accounts. While all parents, both LPs and PPs, were concerned about their children's well-being during social restrictions, this was exacerbated for LPs by a lack of a co-resident parent with whom they could discuss these concerns. Most WPs regretted losing opportunities to change social role from 'parent' to 'friend' or 'colleague', and LPs highlighted a sense of loneliness associated with social restrictions as they missed adult company.

Similarly, parents worried about children's well-being, expressing anxiety about children's own anxiety, isolation and confinement indoors, particularly during the winter lockdown. Many tried to facilitate outdoor activity and were concerned about the amount of time spent on electronic devices, although also conscious of the benefits of their potential for interaction with friends. Again, these solutions were more difficult to realise or more ambivalent where there was very limited outdoor space or where children had additional needs.

Concern about finances was discussed by most LPS due to low income (6/8), and in some cases reduced hours, with the absence of a co-resident parent to share worries and decision-making. Alongside reduced income (6/9), restrictions could also bring some new financial demands around purchasing items for children, either necessities like clothes or for treats to sustain quality of life by alleviating the boredom and repetitiveness of spending all day at home for weeks.

DISCUSSION

The application of an MSEM in organising the relationship between levels of factors underlines that recognition of this interaction is needed to understand the relative situations of participants as well as to understand the variation in experience of restrictions among LPs. Access to support at the organisational level in terms of income and conditions of employment, combined with access to resources determined at the societal level, such as housing, shaped some resources at interpersonal level including feeling lonely and/or worried about finances.

Differences in the ways societal level factors impacted parents during social restrictions were primarily caused by structural inequalities that were prevalent in the UK pre-COVID, intensified by over 10 years of 'austerity' policies that have reduced healthy life expectancy, particularly among the 20% most deprived population.³⁰ Recent Lone Parent Obligations (LPO) policies require LPs in receipt of benefits to look for work and are related to more distress and poorer health for lone mothers.³¹ Housing inequalities have also widened within the UK, affecting the well-being of families living in overcrowded, poorquality housing through policies such as the 'bedroom tax' where the 'underoccupancy penalty' cut housing subsidies for households deemed to have excess rooms, resulting in increased psychological distress among social housing tenants.³²

At the structural level, the effects of pre-existing inequalities in resources such as space at home or household income were exacerbated and led to outcomes at the individual level of increased worry about finances for those whose earning capacity was compromised by restrictions or at the interpersonal level in increased conflict related to overcrowding (a result predominantly experienced by families with more than one child and low income). A particular contribution of this study is highlighting the number of factors at the interpersonal level that have shaped WPs' experiences of restrictions; social connectedness was eroded through a reduction in contact with work colleagues, family members and friends. The reduction in social contact combined with being solely responsible for childcare at home, including the monitoring of children's well-being, led to additional pressure on LPs.

Alongside these multilevel constraints, WPs also spoke of the benefits of spending more time with their children and being more familiar with their schoolwork. PPs predominantly had more space in their homes, higher household income and more capacity to have some time dedicated to working (ie, when they were not simultaneously responsible for childcare). Thus, there were two key axes of difference for LPs. They were more likely to be vulnerable to organisational and societal factors, including loss of childcare, rigidity or loss of working hours and the financial effects of reduced working hours and dependent on employer flexibility or furlough schemes. In addition, without the support of another family member or supportive co-parenting across households, LP participants also reported greater strain, at interpersonal and personal levels, between working and caring responsibilities.

CONCLUSIONS

The strengths of this study include combining depth of discussion with the use of a socioecological model to highlight interactions between levels of the social context surrounding parents' experiences of social restrictions.

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Careful consideration must be given to how to support LPs and low-income families in any future social restrictions, as well as to acknowledge the ongoing inequalities between households. This study suggests that social connectedness, primarily at the interpersonal level, should be a priority in future pandemic planning.²⁰

The main finding from this project is to highlight the consequences of the complex circumstances navigated by WPs during social restrictions and to examine the relation between paid work and (unpaid) caring work. The findings and policy implications from this paper are that planning in any future social restrictions must include targeted interventions for WPs including support bubbles being permitted from the start of restrictions for LPs, support for employers to be flexible in respect of scheduling work hours, particularly for LPs, recognition in furlough guidance of the time demands for WPs to support their children's well-being and education (in lieu of professional support such as teachers), easier access to school places-particularly for children with pre-existing health conditions, and access to outside spaces for children to play for low-income families (who are less likely to have private access to other outside spaces). For LPs, the normative assumptions underpinning requirements of paid work were harmful as this group predominantly had less flexibility to undertake paid work. Overall, the social restrictions implemented and government response to COVID-19 revealed and reinforced social inequalities among parents which in turn reproduced differences in resources that directly impacted their well-being.

Study limitations

The small, purposeful sample is not representative and the qualitative design, intended to explore specific cases in depth, does not permit generalisation of the findings to Scotland as a whole or to any other population. Although the sample did include a small number of essential workers, the range of occupations discussed within the sample was, necessarily, limited. Also, the research did not consider the case of others affected by the need to home-school, such as carers who were not parents nor has a sufficiently large sample to comment on unique factors for specific populations (eg, to LGTBQ+ or parents of colour).

The time points sampled through questionnaires and interviews were not precisely comparable as they were spread over a period of weeks, and include, due to logistical limitations, only retrospective accounts of the very early stages of restrictions.

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Acknowledgements We appreciate the contribution from all participants and FM would like to thank her Write Club for support with writing this paper.

Contributors FM is the first author and overall content guarantor responsible for conceptualisation, conducting fieldwork, methodology, formal analysis, writing (original draft), writing (review and editing) and funding acquisition. S0 is the second author responsible for conducting fieldwork, formal analysis and writing (review and editing).

Funding This work was supported by Edinburgh Napier University through the Social Sciences Re-engagement funding (N5119).

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Ethical approval was given by School of Applied Sciences Integrity Committee (ID 2700513). Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request.

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REFERENCES

- 1 Craig L. Coronavirus, domestic labour and care: gendered roles locked down. *J Sociol* 2020;56:684–92.
- 2 Heggeness ML. Estimating the immediate impact of the COVID-19 shock no parental attachment to the labor market and the double bind of mothers. *Rev Econ Househ* 2020;18:1053–78.
- 3 Niedzwiedz CL, Green MJ, Benzeval M, et al. Mental health and health behaviours before and during the initial phase of the COVID-19 lockdown: longitudinal analyses of the UK household longitudinal study. J Epidemiol Community Health 2021;75:224–31.
- 4 Nordenmark M. How family policy context shapes mental wellbeing of mothers and fathers. Soc Indic Res 2021;158:45–57.
- 5 Spinelli M, Lionetti F, Setti A, et al. Parenting stress during the COVID-19 outbreak: socioeconomic and environmental risk factors and implications for children emotion regulation. *Family Process* 2021;60:639–53.
- 6 Gayatri M, Irawaty DK. Family resilience during COVID-19 pandemic: a literature review. *Fam J Alex Va* 2022;30:132–8.
- 7 Zhou M, Hertog E, Kolpashnikova K, *et al.* Gender inequalities: changes in income, time use and well-being before and during the UK COVID-19 lockdown. *SocArXiv* [Preprint] 2020.
- 8 Xue B, McMunn A. Gender differences in the impact of the COVID-19 lockdown on unpaid care work and psychological distress in the UK. *SocArXiv* [Preprint] 2020.
- 9 Scottish Government. Tackling child poverty delivery plan: fourth year progress report 2021 to 2022. Available: https://www.gov. scot/publications/tackling-child-poverty-delivery-plan-fourth-year-progress-report-2021-22/pages/1/ [Accessed 21 Apr 2023].
- 10 Popham F, Bambra C. Evidence from the 2001 English census on the contribution of employment status to the social gradient in self-rated health. J Epidemiol Community Health 2010;64:277–80.
- 11 Khalatbari-Soltani S, Cumming RC, Delpierre C, et al. Importance of collecting data on socioeconomic determinants from the early stage of the COVID-19 outbreak onwards. J Epidemiol Community Health 2020;74:620–3.
- 12 Kerr ML, Rasmussen HF, Fanning KA, et al. Parenting during COVID-19: a study of parents' experiences across gender and income levels. *Fam Relat* 2021;70:1327–42.
- 13 Hwang P, Ipekian L, Jaiswal N, et al. Family functioning and mental wellbeing impairment during initial quarantining for the COVID-19 pandemic: a study of Canadian families. *Curr Psychol* 2022;10:1–13.
- 14 Clair A, Hughes AJ. Housing and health: new evidence using biomarker data. *J Epidemiol Community Health* 2019;73:256–62.
- 15 Howden-Chapman P, Wilson N. Housing and health. In: Howden-Chapman P, Tobias M, eds. Social Inequalities in Health: New Zealand 1999. Wellington: Ministry of Health, 2000.
- 16 Bentley R, Baker E, Mason K. Cumulative exposure to poor housing affordability and its association with mental health in men and women. J Epidemiol Community Health 2012;66:761–6.
- 17 Gibson M, Thomson H, Kearns A, et al. Understanding the psychosocial impacts of housing type: qualitative evidence

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from a housing and regeneration intervention. *Housing Studies* 2011;26:555–73.

- 18 Xiao J, Zhao J, Luo Z, et al. The impact of built environment on mental health: a COVID-19 lockdown perspective. *Health & Place* 2022;77:102889.
- 19 Bower M, Buckle C, Rugel E, et al. And 'Traumatised': COVID-19 intensified the impact of housing inequality on Australians' mental health. Int J Hous Policy 2023;23:260–91.
- 20 Long E, Patterson S, Maxwell K, et al. COVID-19 pandemic and its impact on social relationships and health. J Epidemiol Community Health 2022;76:128–32.
- 21 Bu F, Steptoe A, Fancourt D. Loneliness during a strict lockdown: trajectories and predictors during the COVID-19 pandemic in 38,217 United Kingdom adults. Soc Sci Med 2020;265:113521.
- 22 Lewis R, Mitchell KR, Mercer CH, *et al.* Navigating new sexual partnerships in midlife: a socioecological perspective on factors shaping STI risk perceptions and practices. *Sex Transm Infect* 2020;96:238–45.
- 23 Jack SM, Phoenix M. Qualitative health research in the fields of developmental medicine and child neurology. *Develop Med Child Neuro* 2022;64:830–9.
- 24 Caelli K, Ray L, Mill J. 'Clear as mud': toward greater clarity in generic qualitative research. *Int J Qual Methods* 2003;2:1–13.

- 25 Bradshaw C, Atkinson S, Doody O. Employing a qualitative description approach in health care research. *Glob Qual Nurs Res* 2017;4.
- 26 Palinkas LA, Horwitz SM, Green CA, et al. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Adm Policy Ment Health 2015;42:533–44.
- 27 Braun V, Clarke V. Using thematic analysis in qualitative research. *Qual Res Psychol* 2006;3:77–101.
- 28 Braun V, Clarke V. Reflecting on reflexive thematic analysis. Qual Res Sport Exerc Health 2019;11:589–97.
- 29 Treanor M. Social assets, low income and child social, emotional and behavioural wellbeing families. *Fam Relatsh Soc* 2016;5:209–28.
- 30 Walsh D, Wyper GMA, McCartney G. Trends in healthy life expectancy in the age of austerity. *J Epidemiol Community Health* 2022;76:743–5.
- 31 Li L, Avendano M. Lone parents' employment policy and adolescents' socioemotional development: quasi-experimental evidence from a UK reform. *Soc Sci Med* 2023;320:115754.
- 32 Kim C, Teo C, Nielsen A, et al. What are the mental health consequences of austerity measures in public housing? A quasiexperimental study. J Epidemiol Community Health 2022;76:730–5.