

# Nuclearization of maternal social support network and childcare provision in the UK and USA during the COVID-19 pandemic



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## Introduction

The COVID-19 pandemic has had particularly difficult effects on mothers. Globally, families depend on extra-household individuals, both unpaid (friends, neighbours, family) and paid (day-cares, nannies, schools), for help with childcare. School closures and social distancing measures have limited access to these types of support, and research shows that women have disproportionately taken on additional childcare and domestic work during the pandemic. This increased burden of care has consequences for mothers' socioeconomic and mental wellbeing.

## Objectives

We document shifts in maternal social and childcare support networks during the pandemic, and examine the links between these shifts, mothers' paid work, and maternal mental health.

## Materials

We performed an online survey of mothers with at least one child under 5 years in the US and the UK. Topics asked about include:

- **Social networks** – Participants named up to 5 women they were close to; indicated impact of pandemic on frequency of contact with each person
- **Childcare networks** – Participants named up to 10 people who performed certain childcare tasks for their children; indicated impact of pandemic on frequency of help received from each person
- **Pandemic impacts** – Participants indicated whether, at the time of survey, they: needed help with childcare, received help with childcare, used paid childcare, and performed paid work 'more often', 'about the same' or 'less often' compared to before the pandemic
- **Health** – Participants rated their mental health on a four-point scale

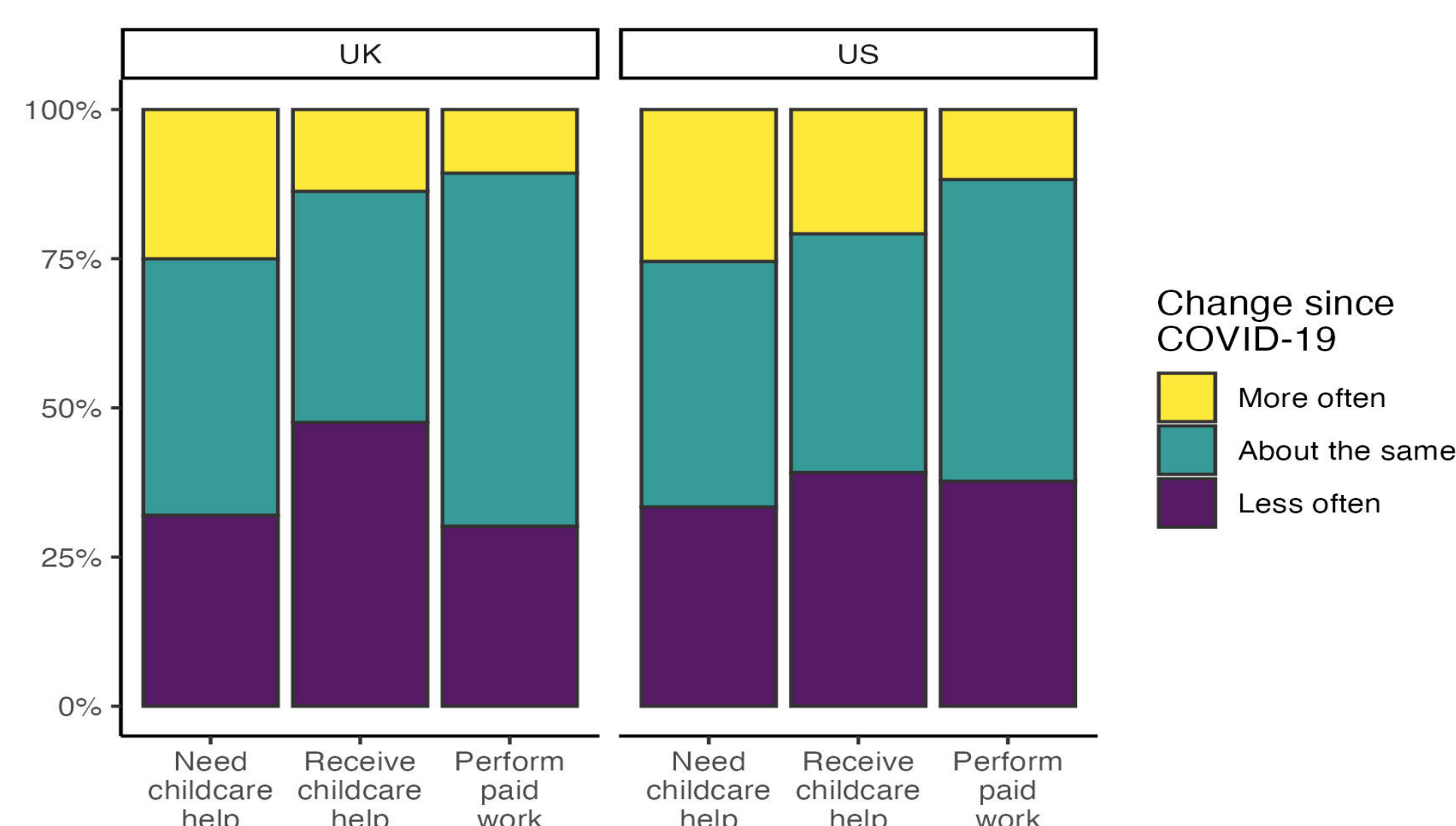
For more information about the specific questions used, please see the questionnaire on OSF: <https://osf.io/978de/>

## Women who needed more help, but received less

- Women who reported increased need for childcare help, but also a decrease in receipt of help, may be particularly vulnerable
- In both the UK & US, these women were (a) better educated (UK:  $p=0.01$ ; US:  $p=0.04$ ); (b) relied on more unpaid childcare helpers before the pandemic (UK:  $p=0.04$ ; US:  $p<0.01$ )
- Highly educated and high-earning individuals are at higher risk of pandemic-related anxiety in the current pandemic<sup>1</sup>
- These vulnerable women may have had demanding jobs that pivoted online, leading to struggles in balancing work and family commitments

## Changes in need for childcare, receipt of childcare, and work

- Roughly 25% of mothers in both the UK and the US needed childcare help more often during the pandemic than previously
- However, 40% of women in the US and 48% of women in the UK reported receiving less childcare support
- 30% of women in the UK, and 38% in the US, reduced working hours

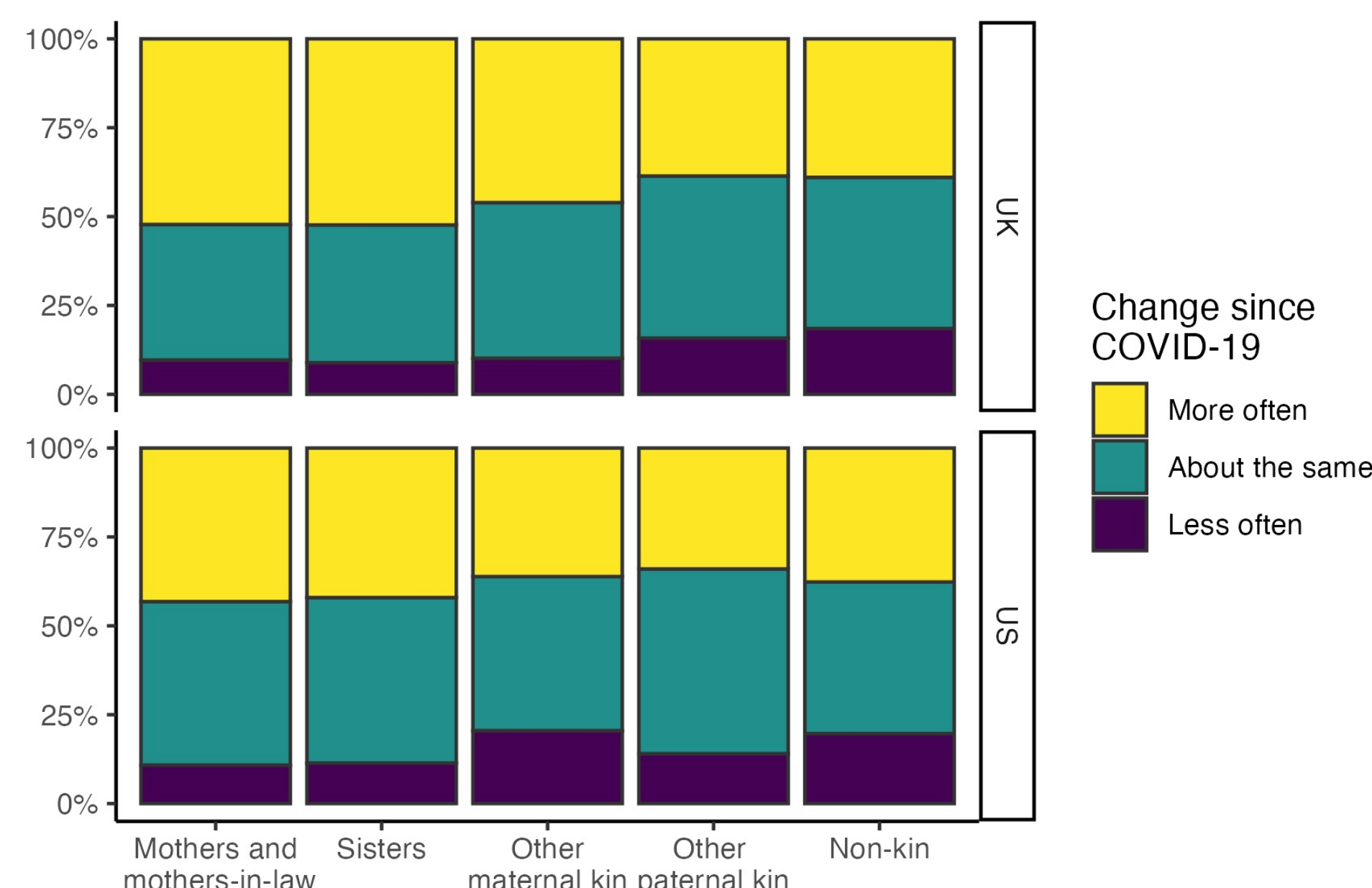


**Figure 1** Changes in need for childcare help, receipt of childcare help, hours of paid work since the onset of the pandemic

## Nuclearization of social support networks

Since the onset of the pandemic, women:

- Reduced face-to-face contact with all social contacts
- Increased virtual contact (phone, e-mail), most with close kin (mothers, mothers-in-law, sisters)
- Decreased virtual contact with non-kin and/or more distant kin



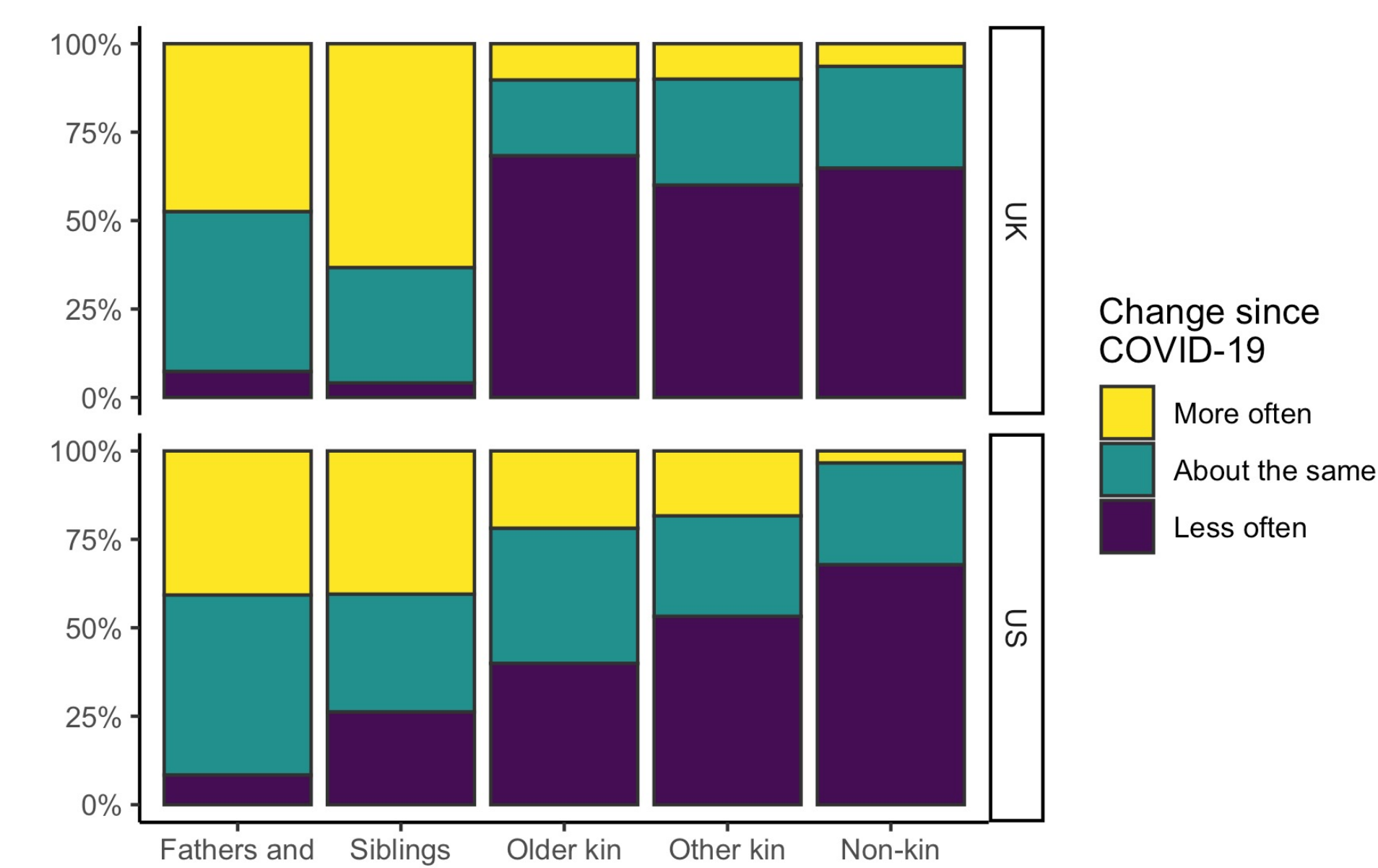
**Figure 2** Percent of social network members contacted virtually more often, about the same, or less often since the onset of the pandemic, by their relationship to the mother



## Nuclearization of unpaid childcare helper networks

Since the onset of the pandemic:

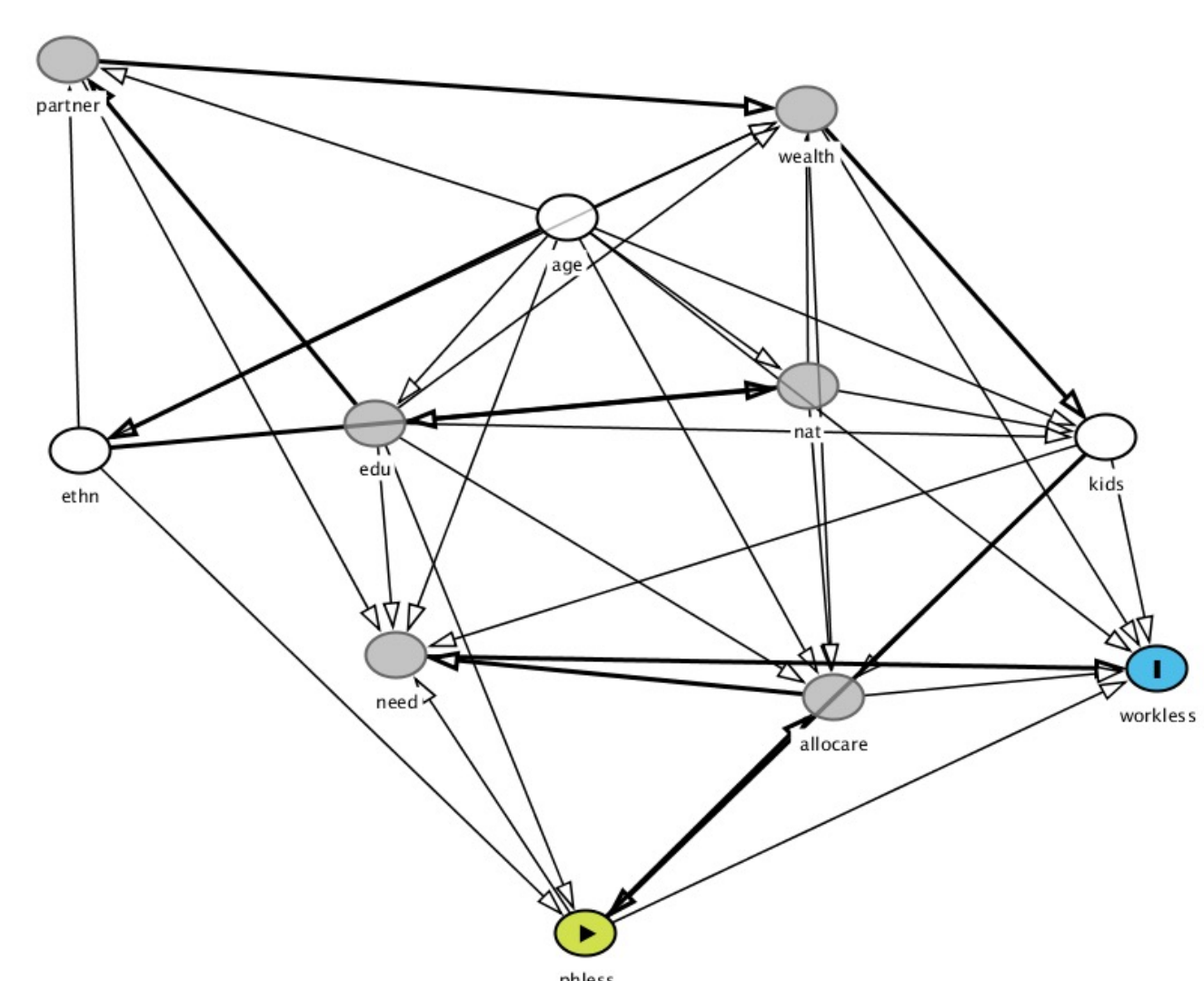
- Between 40-63% of children's fathers, step-fathers, and siblings in the UK & the US increased childcare contributions
- Grandparents, great-grandparents and non-kin reduced childcare contributions, especially in the UK



**Figure 3** Percent of helpers contributing more, about the same, or less help since the onset of the pandemic, by their relationship to the focal child

## Modelling strategy

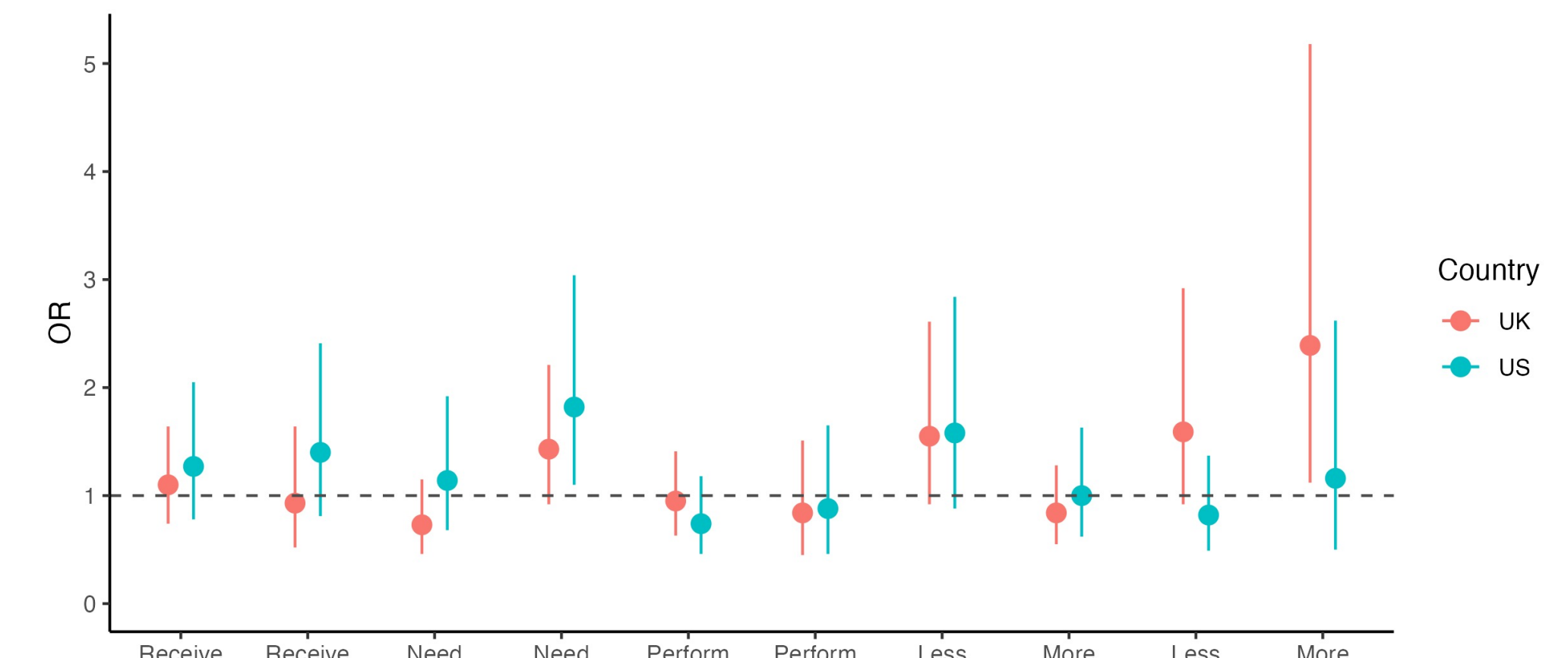
- Binary linear regression models built using the *glm* package in R
- Covariates selected using Directed Acyclic Graphs (*dagitty* package)
- DAGs use researcher-specified relationships between all variables in a model to identify which co-variables should be controlled for



**Figure 4** Directed acyclic graph (DAG) for the impact of reduced paid childcare help on the likelihood of a reduction of mother's paid work.

## Are changes in childcare, work, and social contact associated with poor mental health?

- Regression models tested if changes in (a) receipt of childcare, (b) need for childcare, (c) paid work, and (d) social contact were associated with a higher risk of poor maternal mental health
- In the UK, increased in-person contact with social network predicted poorer maternal mental health, echoing results from another recent study<sup>2</sup>
- In the US, perceived need for more childcare help was a risk factor for poor mental health, but actual receipt of childcare did not predict mental health

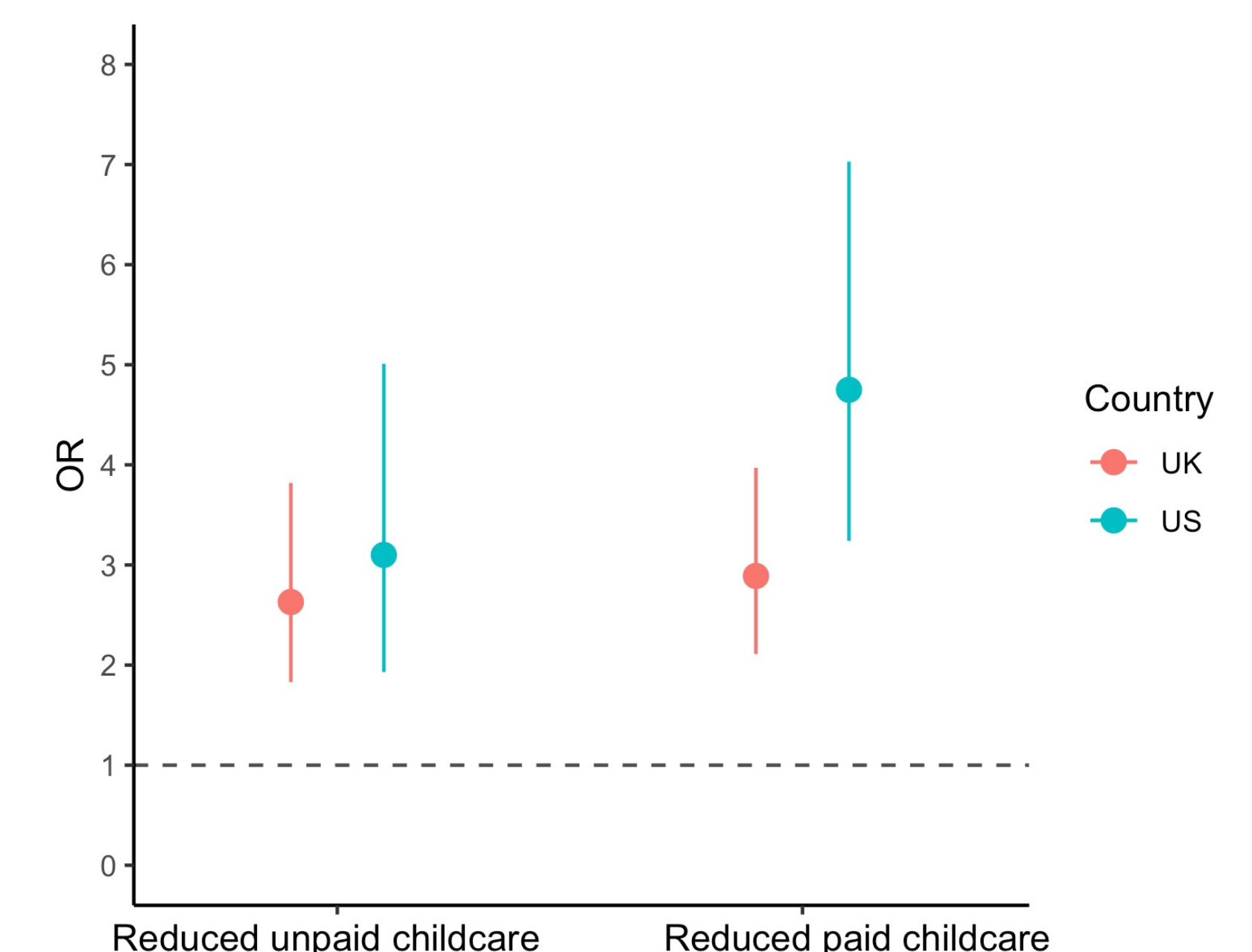


**Figure 5** Odds Ratios (OR) for the association between the predictors (x-axis) and poor mental health

- Mothers may have risked seeing relatives if they were struggling, or if the relatives were in poor health
- Need for childcare help may be more indicative of burden on mothers as we did not measure changes in their own childcare provision

## Are changes in childcare associated with change in work?

- Regression models tested if reductions in (a) unpaid and (b) paid childcare were associated with a reduction in mothers' paid work
- In both the US and the UK, reductions in both types of childcare increased odds of mothers reducing their work hours



**Figure 6** Odds Ratios (OR) for the association between the predictors and a reduction in paid work

- The pandemic has disproportionately forced mothers to leave employment or reduce their working hours
- Ensuring women can continue to access childcare is key to supporting their economic wellbeing during this time

## Discussion

- Mothers and fathers are both at risk for parental burnout from shouldering increased shares of childcare and housework during the pandemic<sup>3</sup>
- Siblings may also suffer this risk if they substantially contribute to childcare while balancing school and/or work duties
- Reductions in mothers' participation in the labour force, due to lost childcare, reverses gains made in women's equality<sup>4</sup>
- Contrasts in government responses to the pandemic in the two countries may explain differences in the impacts of the pandemic
- Relief brought on by easing of lockdowns around survey may confound analysis of factors impacting mental health

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