# COVID-19 and Informal Care: A quantitative analysis of the provision of informal care by adult children in the UK before and during the pandemic

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## Background and research questions:

Population ageing is indisputably a remarkable achievement, reflecting the advancement of healthcare and living conditions that have allowed people to live longer but also healthier lives. Within the UK, those aged 65 and over are estimated to make up 24% of the total population by 2043. Whilst in many aspects population ageing is a success story, it also undoubtedly poses several challenges. For example, age-related vulnerabilities and health problems can motivate individuals to seek support, increasing the demand for both formal and informal care.

The demand for both formal and informal care accelerated during the COVID-19 pandemic. In March 2020 the UK government mandated a series of lockdown measures and restrictions aimed at curtailing the virus, which led to unprecedented change to the organisation of social life, including to care networks. Many individuals with health and social care needs were left without formal support, as services were reduced or suspended, in turn bringing to the fore the crucial role of informal caregivers in providing care to those in need.

The increased demand for informal care was particularly prevalent for the older adult population who were deemed clinically vulnerable and advised to 'stay at home' throughout the lockdown periods. Kin relationships represent a latent web of support that can be activated in times of need, indicating that adult children may have filled the additional care burden of their parents caused by the pandemic. Despite the increased demand, a priori the precise effect of the pandemic on caregiving performed by adult children is unclear. The pandemic undoubtedly challenged intergenerational exchanges, with physical distancing measures potentially restricting adult children from meeting their non-co-resident parents in person. Thus, throughout the pandemic adult children were likely confronted with the difficult decision of either adhering to strict isolation to protect their parents from infection, or to get involved to provide much-needed care.

This study aims to investigate changes in the provision of informal care from adult children to their older adult non-co-resident parents in the COVID context and answer the following research questions:

RQ1: Were there changes in the extent to which adult children cared for their parents outside of the household?

RQ2: What *'dispositional factors'* and *'context'* of individuals are associated with an increase in the provision of informal care?

RQ3: Were there any changes in the typology of informal care being provided during the pandemic than in comparison to pre-pandemic times?

## Theoretical Framework:

This study is theoretically informed by the Informal Care Model (ICM) (Broese van Groenou and Boer, 2016) whose three key elements (*needs, dispositional factors, context*) can help describe and explain caregiving experiences during the pandemic and the extent to which they differ from pre-pandemic experiences. Although the ICM was originally designed to study the onset of informal care, the framework can be adapted and applied to empirical studies to help explain the heterogeneity of informal care provision and how it can vary across different population subgroups, such as adult children providing care to their older adult parents, alongside in times of changing context, such as the COVID pandemic.

According to the ICM, informal caregiving is triggered when someone in the network is in need of care. The needs of those receiving care and subsequently the type of care given can vary, but typically informal care comprises assistance in four main areas, (1) routine activities of daily living (e.g., bathing and eating); (2)

instrumental activities of daily living (e.g., shopping and managing finances); (3) companionship, emotional and financial support; and (4) medical and nursing tasks. It is important to note that care needs are dynamic and can change as a result of changing contexts. In the COVID context, the type of care needs and care given to the older adult population may have changed compared to pre-pandemic times. For example, there may have been increases in instrumental care activities, such as shopping, as older adult parents may have relied more heavily on their adult children due to COVID restrictions and health risks posed by the virus. Thus, in order to advance understanding of caregiving experiences, it is crucial to pay attention to those who need care, such as older adult parents, alongside changing care needs that emerged during the pandemic. Secondly, the informal care model highlights how that becoming a caregiver depends on individual dispositional factors, or the caregivers' ability and willingness to take on caring tasks. The decision to provide care is multifactorial and hence a study of caregiving must pay attention to a range of demographic and socioeconomic factors and investigate how these might shape caregiving experiences. Again, the changing context caused by the pandemic can impact these dispositional factors which in turn can influence care provision. For example, when considering the role of the family network, pre-pandemic research has shown that the presence of dependent children within an adult child's household was an important predictor of kin contact and care provision. This dispositional factor is especially relevant within the COVID context, as mandated school and childcare closures meant that adult children may have experienced increased demand at home, leaving them less time to provide informal care to their parents. Lastly, also included within the contextual factors which can facilitate or restrict care provision, includes the geographies of providing care. The geographies of an individual are intrinsically interconnected with their ability to provide informal care, and thus a study of informal care should explicitly recognise the heterogeneous and complex geographies associated with care provision.

**Data:**

This study uses quantitative data from the UK Household Longitudinal Study 'Understanding Society' (UKHLS). The UKHLS is a large-scale, nationally representative, longitudinal panel study, which collects information about people's demographic, socioeconomic, and geographic characteristics alongside key topics such as their informal care exchanges. Adults aged 16+ in sampled households have been surveyed annually since 2009 with 12 waves of data currently available. Alongside these main survey waves, on nine occasions between April 2020 and September 2021, study participants were invited to complete a web survey, which monitored the impact of the pandemic on their lives. The COVID study builds on the longitudinal strengths of the main survey, as they can be linked through a personal unique identifier. Thus, the UKHLS is an ideal source to analyse people's informal care exchanges and their comparisons to pre-pandemic times. This study exploits wave 9 of the main survey (2017-2019), the last complete wave to exclude any pandemic data, and wave 1 from the COVID study (April 2020). The sample was restricted to adult children, aged 18-65, who had at least one non-co-resident parent alive, resulting in a total analytic sample of 7,459 adult children. To adjust for potential sample bias the UKHLS COVID-19 weights were employed.

**Methods:**

To compare informal care exchange to pre-pandemic times the outcome variable is partially derived from a self-reported measure of change in care exchanges between individuals not living in the same household during the pandemic as compared to pre-pandemic times. This measure was collected in April 2020, at the time of the UK's first and strictest lockdown, and therefore is an important analytical time point to consider when comparing caregiving exchanges to pre-pandemic times, as it captures the immediate response of caregivers following the introduction of the lockdown measures. The self-reported measure of care exchanges variable was combined alongside a binary measure of pre-COVID care activities indicating whether an individual either (a) provided care to their parents in the pre-COVID time period or (b) did not provide care to their parents pre-COVID. This combined variable was recoded into four categories depending on whether individuals:

(a) Never cared - defined as those who did not care pre-COVID and experienced no change in care provision during the pandemic (i.e., they never cared)

(b) Same provision - defined as those who cared pre-COVID and experienced no change in care provision during the pandemic (i.e., their provision stayed the same)

(c) Provided more informal care - defined as (i) those who provided care pre-COVID and either provided more care to the same individual or provided care to those they had not previously cared for or (ii) those who did not provide care pre-COVID but who provided care to those they had not previously cared for

(d) Provided less informal care - defined as those who cared pre-COVID but gave less care during the pandemic

Multinomial logistic regression models were estimated to investigate the characteristics of individuals who experienced changes in their informal care provision compared to pre-pandemic times. The model encompasses a comprehensive array of explanatory variables, which are theoretically grounded from the ICM, with some of these factors aimed at accounting for the demographic and socio-economic characteristics of adult children. The purpose behind including such a diverse set of variables is to capture the nuanced differences in *'dispositional factors'* that are associated with the act of providing care. Furthermore, the model also incorporates a set of geographic variables specifically designed to capture the *'context'* in which the care exchanges occur. This inclusion is crucial in order to help understand and analyse the spatial factors that may influence caregiving dynamics. Although this analysis does not explicitly account for the profile of care recipients, studying informal caregiving provided by adult children in the context of a health crisis evidently makes apparent the many *'needs'* of older adult parents, which may have been triggered or worsened due to the pandemic. Thus, the *'needs'* of care recipients are inherently incorporated into this analysis as they are likely to activate the provision of informal care.

**Results:**

During the pandemic, 28.6% of adult children remained uninvolved in providing care outside of their household. 15.9% reported no changes in the extent of care they provided whilst 12.5% reported providing less care during the pandemic than pre-pandemic. On the other hand, the majority of respondents reported providing more care, with 43% of adult children providing more care in April 2020 than in comparison to the pre-COVID time period. Overall, the results indicate that a larger portion of individuals stepped up to provide additional or more care during the pandemic, as opposed to the relatively smaller groups whose care decreased or stayed the same during the pandemic.

Results from the multinomial logistic regression model of the 'provided more care' outcome reveal that the impact of the pandemic on informal care provision was not homogeneous, providing evidence that the pandemic was socially patterned and did not affect all individuals in the same way. The demographic results suggest that older individuals and women had a higher probability of providing more care. In terms of socioeconomic results, adult children who had a higher level of education and those who worked from home during the pandemic had a higher probability of providing more care. Finally, geographically a clear pattern emerges showing that adult children living further away from their parents had a lower probability of providing more care. Results from the 'never cared' and 'same provision' categories indicate that many population subgroups experienced changes in care provision during the pandemic. The results reinforce the idea that the pandemic undoubtedly led to changes in care provision and for some population subgroups the changes were in both directions. For example, the results from the 'provided less care' outcome reveal that some women also had a higher probability of providing less care indicating to potential contrasting mechanisms which could be influencing care provision during the pandemic. For example, on average whilst some women were more likely to have provided more care, others were more likely to have provided less care, indicating that there are contrasting mechanisms which could influence care provision during the

pandemic. For those women who had a higher probability of providing less care, the increased responsibilities within the household may have placed a greater burden on these women and in turn limited their time and ability to provide informal care.

Finally, the descriptive analysis into the typology of care being provided reveals that across all the types of care there are two key aspects that have changed. Firstly, the percentage of people giving lifts, and secondly the percentage of people shopping for their parents. We also see a distinct decline in the number of individuals helping with personal affairs and in decorating, gardening or repairs. These changes in the type of care provided are unsurprising are likely given in direct response to the governments recommendations to avoid the spread of virus and protect vulnerable people.