Population Association of America Annual Meeting

April 30 – May 2, 2015 San Diego, CA.

Dynamics of social care and paid work in mid-life

Maria Evandrou; Jane Falkingham; Madelin Gomez-Leon; Athina Vlachantoni

ESRC Centre for Population Change and Centre for Research on Ageing, University of Southampton, United Kingdom

Short Abstract

The impact of caring responsibilities on carers' employment has been extensively researched from a cross-sectional perspective and focusing on women, evidencing an inverse relationship between caring and one's attachment to the labour market. Using the National Child Development Survey, this paper investigates the transitions in employment and caring status of a cohort of individuals born in Britain in 1958, aged between 46 and 50 years. Logistic regression is used to investigate the impact of transitions into and out of a caring role in mid-life for one's parents/parents-in-laws on the probability of ceasing/reducing one's employment, controlling for the carers' socio-demographic characteristics. Findings show that 21% of males and 33% of females provided social care to their parents/parents-in-laws at least once at ages 46 or 50, with a higher propensity of reducing their working hours among females, continuous carers and intensive carers. Partner's employment status becomes significant when combining paid work and caring.

Keywords: Informal care, longitudinal analysis, labour force participation

Session: 103. Connecting Exposures and Outcomes Across the Life Course

Acknowledgments

This research is supported by the ESRC Centre for Population Change (Grant number ES/K007394/1).

Extended Abstract

Introduction

With rising longevity, an increasing proportion of individuals are reaching oldest-old ages. In this context, the onset or worsening of diseases and limitations in daily activities, particularly beyond the age of 75, has implications for the need for formal or informal care from others (Vlachantoni et al., 2015; Wittenberg et al., 2006). Previous research has highlighted the important role of the family in the provision of informal care, particularly from one's spouse or adult children (Glaser et al., 2006; Litwin & Stoeckel, 2013). In countries with different family arrangements and policies towards providing care such as England, Spain and the USA, research has indicated (Sole-Auro & Crimmins, 2014) that it is mainly adult children who provide care to their parents. Other research focusing on projections of the need for informal care in the UK projected that the demand for care provided by children will increase by 60% by the year 2031 (Pickard et al., 2000).

There is extensive literature on the relationship between being a carer and their economic activity status. A study analysing the case of England has found that economically active individuals, males in particular, are less likely to provide care compared to the inactive population, with an inverse relationship between economic activity and intense caring (Vlachantoni, 2010). A similar relationship between economic activity and caring was found for females in a USA panel study, but there was little impact of caring on males' economic activity patterns (Van Houtven et al., 2013). Although similar trends of reducing employment participation have been found by other research studies (F. Carmichael & Charles, 2003; M. Evandrou et al., 2002; Proulx & Le Bourdais, 2014), there is also a body of work which has found little evidence of informal caring resulting in the reduction of work hours, in particular when longitudinal dataset is used (Leigh, 2010; Michaud et al., 2010). Thus, the relationship between caring and employment remains contested. Being caught in mid-life between caring responsibilities (to parents and/or children) and working is a scenario that women in particular face over their life course (Berecki-Gisolf et al., 2008; F. Carmichael & Charles, 2003; Maria Evandrou & Glaser, 2004). Moreover, health status is also an important predictor of one's employment attachment (Glaser et al., 2005), although mixed results have been found with respect to the relationship between one's health and caring responsibilities (Glaser et al., 2005; Vlachantoni, 2010).

This research aims to contribute to the literature, examining the relationship between employment and caring using unique longitudinal cohort data, the National Child Development Survey (NCDS). Data is currently available up to wave 8, when the individuals born in 1958 reach 50 years old. The main advantage and novelty of its use to examine informal care provision in Britain is that it provides a wide range of information on events over the life course. It includes the caring role and employment history of individuals in their mid-life, the combination of which allows us to examine the interaction between care provision and one's economic activity status within a longitudinal perspective, controlling for health and other socio-demographic characteristics. Thus, the aim of this paper is to investigate the effect of caring for one's parents/parents-in-law on the probability of changing status in employment and on the risk of reducing work hours or stopping work altogether. The importance of taken into account life course approach, in this case start caring prior to the change in employment, our research attempts to answer the following questions: Are employed

individuals more likely to reduce or stop work if the take on caring responsibilities? Is the effect of caring trajectories on employment mediated by the intensity of the caring role?

The caring experience as well as changes in employment status and working hours are recorded at two points in time (age 46 and 50). Other socio-demographic factors are taken into consideration for observable heterogeneity, including sex, type of employment (part-time or full-time), family arrangements, presence of children, health status, education, partner's employment and intensity of caring (hours of care per week).

The analysis has a longitudinal perspective, examining different dimensions related to care provision and the gender division in terms of paid and non-paid work. Firstly, the provision of care is analysed, followed by the examination of the intensity of the support provided (average number of hours in a typical week) in both waves, before then focusing on the transition between caring and not caring. Secondly, the transitions in employment status are investigated, with particular emphasis on the transitions downwards, which are the focus of our research. Finally, the effect of caring transitions on the probability of reducing one's working hours or stopping work altogether is examined, after controlling for other socio-demographic variables.

Theoretical framework

Our analysis focuses on the impact that caring for parents or parents-in-law have on the employment attachment of adult children in England. Being involved in multiple roles such as caring for older parents (or children) and paid employment reduces the time dedicated to each role and could affect personal well-being. Given the scarcity of time available, increased responsibilities lead to adjust or reduce the amount of time dedicated to each role. In this paper we use the work-life balance framework to understand the impact of starting or increasing caring responsibilities (for parents/parents-in-law) on the employment attachment of adult children.

Within this framework, the conflict hypothesis implies that demand and stress arise when a new responsibility arises or intensifies, thus time dedicated to previous roles is negatively affected. In this sense, caring role will reduce working hours or to switch to part-time job, as it has been observed in the study by Carmichael et al (2008).

In contrast, the accumulation role and enhancement hypothesis affirm that being involved in multiple roles positively affects individuals lives (Marks, 1977). Having other roles and remaining in the labour market could be due to financial needs, availability of flexible conditions at work or because it provides a respite time from caring responsibilities (Fiona Carmichael et al., 2008; Proulx & Le Bourdais, 2014).

Previous empirical studies show mixed results in the relationship between caring role and employment. It has usually been found a negative effect of caring role on the employment status of the carers, reducing their working hours (F. Carmichael & Charles, 2003) or stopping work altogether (F. Carmichael et al., 2010). However, other research have found that after controlling for within individual characteristics, little evidence were found on reducing working hours, at least for females and for those with high education levels (Carmichael et al., 2008). Michaud et al. (2010) have found small negative effect of caring in the case of co-residential caring, but not for extra-residential caring

responsibilities, while Berecki-Gisolf et al. (2008) have found negative effect on employment only for those providing intense care.

To account for these circumstances, we will adopt a life course perspective in our analysis. In this sense, using longitudinal data from a cohort study will allows us to take into account experiences prior to the caring responsibilities, such as co-residence with the person cared for, previous employment occupation, marital status and health of the carer. Moreover, the longitudinal approach used here will enable to account for the transitions into caring role on the transition to reducing or quitting employment. Few studies have used longitudinal approach given the scarcity of available data with wide information on the employment and caring status in the English context (Carmichael et al., 2010; Michaud et al., 2010). For instance, Carmichael et al (2008) analysed a small subsample of carers in England to analyse employment status prior and after the caring transition. They found that start caring reduced the working hours and the probability of being in employment, being higher the effect for those doing intense care (50 hours or more). Interestingly, among those caring, they found no differences in the effect of start caring among sexes and between occupational categories. In addition, Michaud et al. (2010) in their study of England females caring for 5 or 10 hours a week, they compared the effect of type of care provided and its intensity when using data from pooled panel and when it takes into account within individual characteristics, establishing in both negative effects, but with clear lower effects in the last one analysed.

In a wider representative study by Van Houtven et al. (2013) for the USA, it was found that type of care provided did matters on the employment attainment. In their study, after controlling for several sociodemographic characteristics, only chore types of help matters in the case of females employment, while for males was personal care. Also, in a study for Australian population (Leigh, 2010) he compared the effect of caring provision on employment using both cross-sectional and longitudinal methods, and found negative effects using the longitudinal approach but to a lesser extent than when cross-sectional data is used.

Concerning multiple roles given the provision of care for children/young adults and for parents/parents-in-law there is also mixed results. Although is still low the proportions of individuals facing this two responsibilities, called the sandwich generation, in addition of being in the labour market, it certainly creates even more stress and pressure to reduce employment hours as Williams (2005) reported for Canada and Evandrou et al (2002) for England. In contrast, another study in Canada using event history analysis found for those working 30 hours or more a reduced risk of stop working for both sexes (Proulx and Bourdais, 2014). Their study also suggests that less demanding work (in terms of time and flexibility) could help individuals cope with paid work and informal caring for their parents. However, important confounder such as intensity of the caring and health of the carer were not included in this analysis. In order to go deep in the understanding the balance between caring and employment, we will include in our model this variable in addition to income and type of occupation.

Data and methods

<u>Sample</u>

The research employs the National Child Development Survey (NCDS) data, which is a longitudinal birth cohort study carried out by the Centre for Longitudinal Studies (CLS). It follows individuals born in a particular week of March 1958 in Great Britain through the course of their lives, recording events and circumstances in early life as well as outcomes and achievements later on.

The baseline of the study are those individuals born in 1958 (age 0) from the Perinatal Mortality Survey, which was designed to examine social and obstetric factors associated with stillbirth and infant mortality (17,634 babies born). Since then, eight subsequent waves, at ages 7, 11, 16, 23, 33, 42, 46 and age 50, have been carried out for all cohort members living in England, Scotland or Wales. The sample size in wave 8 consist of 9,789 individuals. The sample used in this paper includes those individuals who have a living parent or parent-in-law, thus they are at risk of provide care for them, and were interviewed in both waves 7 and 8 resulting in a sample of 7,304 individuals. Moreover, 857 individuals were excluded due to missing information on the variables used for the multivariate analysis, or were not working in wave 7, resulting in a final sample of 6,447 individuals.

Measures

The individual working status in wave 7 was taken into account as initial point, whereas we investigate whether in wave 8 they have moved downwards from previous employment status to a new one with reduced working hours or within the following descending order: full-time paid employee, part-time paid employee, full-time self-employed, part-time self-employed and not working status. This order was selected, placing self-employed below the paid employee given that the decision to change to self-employment could have being affected by the perspective of needing to have more control of working hours or gaining more flexibility to cope with the informal care role.

Thus, we use as outcome variable the employment transitions, where two states were distinguished: 1) continue working with same status or higher (for instance from part-time to full-time jobs) with same working hours or more, and 2) change downwards in employment status, reduce working hours or stop working altogether.

The main predictors in the study are the transitions from and to the caring role, taking into account the intensity of the caring (more than 10 hours).

Questions relating to the type of care provided and amount of time dedicated to care provision were asked of each cohort member, which provides information on the individuals' caring role and its intensity. Slightly different questions on care provision were used in the two waves, which have been harmonized for the predictor of caring status, using the following definition of care:

"Provision of informal care (not professional) except financial help to parents or parents-in-law".

Caring transitions between wave 7 and wave 8 (age 46 and age 50) will be taken into account using the following three categories: 1) Stopped/not caring, 2) Start caring and 3) Continued caring.

The covariates used include living arrangements (eg. living with dependent children and parents/parents-in-law), economic activity, housing tenure, education, marital status, income, self-perceived health and employment status for both the individual and the partner.

<u>Methodology</u>

The analysis has a longitudinal perspective, examining different dimensions related to care provision and the gender division in terms of paid and non-paid work. In the first place, the transitions in caring status as well as the transitions in employment status are examined between age 46 and age 50. We follow the analysis by examining the intensity of the help provided (average of hours in a typical week) in both waves, to in a later stage focus on the interaction between both transitions in employment and in caring role. Finally, the association of caring with employment status is examined. We use logistic regression to analyse the effect of caring status and other sociodemographic variables on the probability of reducing one's employment status (from FT to PT or reducing work hours) or stopping work altogether.

Results

Table 1 presents the descriptive statistics regarding care provision at age 46 and 50. At age 46, 8% of males provided care, while for females this percentage was higher at almost 15%. The differences by gender remain in the following wave at age 50, although an increase is found in the propensity of children to provide care for their parents or parents-in-law; a rise of around 8 and 10 percentage points for males and females respectively. Among those who provided care at age 46 (wave 7), 25% of males and almost 38% of females cared for 10 hours or more a week.

In spite of the increase of caring role in the subsequent wave, the percentage of individuals who were providing intensive caring was lower, with a decline for males to 18% and for females to 25%. As the cohort in the study ages, the percentage of individuals providing care to their parents increases, albeit the proportion providing intensive care declines. Interestingly, the percentage of ever being in a caring role is higher than that observed in any of the waves, with around one-fifth of males and one-third of females provided care at least once.

	Wave 7 (46yrs)		Wave 8 (50yrs)		Caring at least in one wave	
	Male	Female	Male	Female	Male	Female
Caring responsibility						-
Informal Care (to parents/parents-in-law)	8.1%	14.9%	15.8%	25.4%	21.3%	32.8%
Did not provide care	91.9%	85.1.%	84.2%	74.6%	78.7%	67.2%
Intensity of caring						
<9 hrs	75.2%	61.8%	82.2%	74.7%		
10+ hrs	24.8%	38.2%	17.8%	25.3%		

Table 1. Percentage of employed individuals at wave 7 providing care and intensity of caring by sex and study waves.

Source: NCDS 2005-2009.

Examining changes in caring status between waves, Table 2 shows that among those who were not caring at age 46, 14% of males and 21% of females were caring at age 50 (New carers). The proportion of individuals who provided care in the previous wave and were caring in the subsequent wave is higher than that observed for the new carers, with 31% and 50% of males and females respectively (Continued carers). Moreover, males reported higher percentages of not being in a caring role in any wave or having stopped caring than females.

	Provide Help (age 50)				Provide Help (age 50)				
Males		No	Yes	Total	Females		No	Yes	Total
Provide Help	No	86%	14%	100%	Provide Help	No	79%	21%	100%
(age 46)	Yes	69%	31%	100%	(age 46)	Yes	50%	50%	100%
	Total	84%	16%	100%		Total	75%	25%	100%

Table 2. Transitions of provision of help between age 46 and age 50.

Source: NCDS 2005-2009.

Employment transitions between waves indicate that more than 65% of individuals in each employment status remain in the same category for the following wave, being the more stable those in full-time paid employment for both sexes and the less stable, those in part-time paid employment for males and part-time self-employment in females.

The following part of the analysis combine the transitions downwards in employment of both males and females together with the transitions of caring status. Table 3 presents the three transitions of caring role: 1) New carers, 2) Continuous carers and 3) Not caring or stopped caring. Moreover, the employment transition, which is the outcome variable in the following section, is also presented as: 1) Working in the same category or have moved upwards and 2) Moved downwards, reduced working hours or stopped working altogether.

Focusing on the first four rows of Table 3, 12.8% of individuals in overall have reduced their employment, while new carers represent 15% and continuous carers almost total to 5%. Conversely, the percentages of individuals changing employment varies depending on the caring role, with a higher proportion for those who have been caring from previous wave (17.8%), and the lowest for those not caring (12.4%).

Caregiving transitions	Employme	(column percentage)	
	(row p		
_	Working	Stopped or reduced working	Total
Transitions of caring status			
New carers	86.3	13.7	15.4
Continued caring	82.2	17.8	4.9
Not caring or stopped	87.6	12.4	79.7
Total	87.2	12.8	100.0
New carers			
Cared for <9 hrs/wk	87.6	12.4	82.7
Cared for >10 hrs/wk	81.2	18.8	17.3
Total	86.5	13.5	100.0
Continued carers			
Cared for <9 hrs/wk	86.7	13.3	62.1
Cared for >10 hrs/wk	74.8	25.2	37.9
Total	82.2	17.8	100.0

 Table 3. Transitions of caring and employment status between age 46 and age 50.

The changes in employment are also noteworthy when the intensity of caring is taken into account. Although new carers with lower intensity show similar proportions to those who were not caring (12.4%), it is clear that taking on a new caring role, which is intensive, increases the proportion of leaving employment or reduce working hours (18.8); reaching 25% for continuous carers with high intensity.

In the last section of the paper we analyse the impact of the transitions into caring roles on the employment transitions downwards (reduce employment or stop working), using a multivariate analysis with logistic regressions to control for specific socio-demographic variables. We conducted two logistic regression models to explore the employment transitions. Firstly we used as predictors of reducing work hours or stopping work the three caring transitions previously described, and in a later stage we analysed the effect of the caring intensity, conditioning of being a carer (either from previous wave at age 46 or as new carer at age 50).

Key results from the multivariate analysis

- Being continues carer or female increases the chances of reduce employment or stop altogether.
- Joint decisions matters. Those with partners reducing employment have higher risk of reducing work, BUT, continues carers with partner as self-employed, are less likely to leave or reduce employment.
- Living with parents/parents-in-law was associated with leaving employment.
- Dependent children living in the household was not associated with reducing employment.
- Once controlling for caring transitions, education was found not significant.
- Once the intensity of current caring is included, previous caring status is not significant.
- Among carers, females are less likely to reduce/ leave employment, which could be implying that they manage to juggle both responsibilities better than males.
- Joint decision to withdraw or reduce employment are no longer significant for carers, but being a continuous carer and having a partner working as self-employee decreases the likelihood of reduce/stopping work.

Discussion

Caring transitions are significantly associated with reducing employment in the general model, with those who were continues carers (started caring at age 46) having higher chances of being out of the labour market or having reduced their working hours than those who start caring at age 50 (new carers). However, when analysing only those who were caring at age 50, and the intensity of care provided is taken into account, the transition effect disappears; showing that the time spent caring is what really affects combining employment and informal provision of care. Moreover, we have found interaction effects between sex and occupational category and that marital status and partner's

employment matters to own decisions regarding combining paid work and informal care. Interestingly, own employment status, education level, income and living arrangements, show no effect once intensity of caring and partner's employment are taken into account.

The limitations that individuals face to remain in the labour market when providing informal care has implications for the government policies regarding extending working lives, especially at adult ages. With the increase demand of informal care from parents/parents-in-law (and other relatives or friends), individuals in their mid-life face a time constraint, which has proven to affects their employment participation, with their family circumstances strongly influencing their economic activity attachment. From an economic perspective, this affect both to the government, with a reduction in financial resources due to a reduction in income tax, and to the individuals, which may face a financial constraints due to reduction of wages and future pension returns at older ages. From a social and health perspectives, caring for adult individuals could be a stressful and complex task to sustain over time, especially when intense and more specialised type of care arise.

References

- Berecki-Gisolf, J., Lucke, J., Hockey, R., & Dobson, A. (2008). Transitions into informal caregiving and out of paid employment of women in their 50s. *Soc Sci Med*, *67*(1), 122-127. doi: 10.1016/j.socscimed.2008.03.031
- Carmichael, F., & Charles, S. (2003). The opportunity costs of informal care: does gender matter? Journal of Health Economics, 22(5), 781-803. doi: <u>http://dx.doi.org/10.1016/S0167-6296(03)00044-4</u>
- Carmichael, F., Charles, S., & Hulme, C. (2010). Who will care? Employment participation and willingness to supply informal care. *Journal of Health Economics, 29*(1), 182-190. doi: <u>http://dx.doi.org/10.1016/j.jhealeco.2009.11.003</u>
- Carmichael, F., Hulme, C., Sheppard, S., & Connell, G. (2008). Work life imbalance: Informal care and paid employment in the UK. *Feminist Economics*, 14(2), 3-35. doi: 10.1080/13545700701881005
- Evandrou, M., & Glaser, K. (2004). Family, work and quality of life: changing economic and social roles through the lifecourse. *Ageing & Society, 24*(05), 771-791. doi: doi:10.1017/S0144686X04002545
- Evandrou, M., Glaser, K., & Henz, U. (2002). Multiple role occupancy in midlife: balancing work and family life in Britain. *Gerontologist*, 42(6), 781-789.
- Glaser, K., Evandrou, M., & Tomassini, C. (2005). The health consequences of multiple roles at older ages in the UK. *Health & Social Care in the Community, 13*(5), 470-477. doi: DOI 10.1111/j.1365-2524.2005.00574.x
- ---. (2006). Multiple role occupancy and social participation among midlife wives and husbands in the United Kingdom. *International Journal of Aging and Human Development, 63*(1), 27-47.
- Leigh, A. (2010). Informal care and labor market participation. *Labour Economics*, 17(1), 140-149. doi: http://dx.doi.org/10.1016/j.labeco.2009.11.005
- Litwin, H., & Stoeckel, K. J. (2013). The Social Networks of Older Europeans. In C. Phellas (Ed.), *Aging in European Societies* (Vol. 6, pp. 177-190): Springer US.
- Michaud, P.-C., Heitmueller, A., & Nazarov, Z. (2010). A dynamic analysis of informal care and employment in England. *Labour Economics*, *17*(3), 455-465. doi: <u>http://dx.doi.org/10.1016/j.labeco.2010.01.001</u>

- Pickard, L., Wittenberg, R., Comas-Herrera, A., Davies, B., & Darton, R. (2000). Relying on informal care in the new century? Informal care for elderly people in England to 2031. *Ageing and Society, 20*, 745-772. doi: Doi 10.1017/S0144686x01007978
- Proulx, C., & Le Bourdais, C. (2014). Impact of providing care on the risk of leaving employment in Canada. *Can J Aging*, 33(4), 488-503. doi: 10.1017/s0714980814000452
- Sole-Auro, A., & Crimmins, E. M. (2014). Who cares? A comparison of informal and formal care provision in Spain, England and the USA. *Ageing and Society*, *34*(3), 495-517. doi: 10.1017/S0144686X12001134
- Van Houtven, C. H., Coe, N. B., & Skira, M. M. (2013). The effect of informal care on work and wages. *Journal of Health Economics, 32*(1), 240-252. doi: <u>http://dx.doi.org/10.1016/j.jhealeco.2012.10.006</u>
- Vlachantoni, A. (2010). The demographic characteristics and economic activity patterns of carers over 50: evidence from the English Longitudinal Study of Ageing. *Popul Trends*(141), 51-73. doi: 10.1057/pt.2010.21
- Vlachantoni, A., Shaw, R., Evandrou, M., & Falkingham, J. (2015). The determinants of receiving social care in later life in England. *Ageing & Society, 35*(02), 321-345. doi: <u>http://dx.doi.org/10.1017/S0144686X1300072X</u>

Williams, C. (2005). The sandwich generation. In S. Canada (Ed.), *Perspectives on labour and income*.

Wittenberg, R., Comas-Herrera, A., King, D., Malley, J., Pickard, L., & Darton, R. (2006). Future demand for long-term care, 2002 to 2041: projections of demand for long-term care for older people in England. *PSSRU discussion paper, 2330*.