

Children's Strains, Parents' Pains? How Adult Children's Union Dissolution Influences Older Parents' Physical and Mental Health

Damiano Uccheddu¹⁻²

uccheddu@nidi.nl

Ruben van Gaalen³⁻⁴

i.a.vangaalen@uva.nl

Extended abstract prepared for the European Population Conference (EPC) 2020

Draft and incomplete – Please do not cite without authors' permission

1. Introduction

The well-being consequences of union dissolution have been the topic of much research. The results are generally straightforward: parental union dissolution negatively affects ex-partners' well-being (Leopold and Kalmijn 2016; Monden and Uunk 2013), parent-child relationships (Kalmijn 2013, 2016; Spitze et al. 1994), and also children's health outcomes (Goisis, Özcan, and Van Kerm 2019; Strohschein 2005). Less straightforward and less investigated are the health consequences in the opposite direction: how do children's union dissolution affect the health conditions of a parent? While some studies suggest that the health consequences of children's union dissolution are not intergenerationally associated (e.g. Milkie, Bierman, and Schieman 2008), recent longitudinal studies provide stronger support that children's union dissolution can affect parents' mental well-being (Kalmijn and de Graaf 2012; Tosi and Albertini 2018).

Despite the few previous studies on the topic, there are at least three key shortcomings. First, due to data limitations, previous research is unable to test whether changes in parental well-being – as a consequence of children's union dissolution – are due to changes in children's well-being after divorce (Kalmijn and de Graaf 2012; Tosi and Albertini 2018). This is an important knowledge gap because previous research shows that children's psychological well-being can in turn impact the psychological well-being of a parent (Knoester 2003). However, how such effects can explain the association between children's union dissolution and parental health is not yet known. Second, while some studies found that mothers suffer more – in terms of depressive feelings – from children's union dissolution than fathers (Kalmijn and de Graaf 2012), other studies did not find such gender differential effect (Milkie et al. 2008), even after distinguishing all the possible parent-child gender compositions (Tosi and Albertini 2018). These contradictions may reflect differences in study design across countries, sample composition,

¹ Netherlands Interdisciplinary Demographic Institute (NIDI-KNAW), The Hague, the Netherlands.

² Department of Sociology, University of Groningen (RUG), Groningen, the Netherlands.

³ Statistics Netherlands (CBS), The Hague, the Netherlands.

⁴ Faculty of Social and Behavioural Sciences, University of Amsterdam (UvA), Amsterdam, the Netherlands.

methods, and measures of health. Third, previous studies are based on data in which respondents do not report on all children, do not have any information on the children's (ex-)partners, and have only limited information on grandchildren. Having additional detailed information (in particular geographic proximity) – especially referred to a period prior to union dissolution – on *all* children, their (ex-)partners, and their grandchildren might advance significantly this line of research (Kalmijn and de Graaf 2012; Tosi and Albertini 2018). For example, the effects of children's union dissolution on parents' health might be stronger when grandchildren are involved. This can be due because the loss of contact with grandchildren – following parental union dissolution – might be an important source of distress for their grandparents (Drew and Silverstein 2007), and also because the stigma of divorce tends to be stronger when small children are involved (Liefbroer and Billari 2009). Previous studies have never evaluated the role of geographic proximity between grandparent and grandchildren.

This study will combine micro-level longitudinal data from administrative sources (from Statistics Netherlands – CBS) with the Dutch component of the Survey of Health, Ageing and Retirement in Europe (SHARE) and it aims at extending the literature by investigating how children's union dissolution is associated with parents' health in later life. Contrary to previous research on this topic, this study will look at various measures of physical and mental health to come to a wider agreement about the impact of children's union dissolution on different dimensions of parental health. In addition, this study will investigate the mediating role of children's characteristics (including health conditions) and the role of a series of potentially important moderating factors: gender, individual characteristics of children's (ex-)partners, and individual characteristics of grandchildren.

2. Data and methods

2.1. Sample

This study will exploit a data linkage between panel data for the Netherlands with individual-level longitudinal register data from Statistics Netherlands (CBS). More specifically, on the one hand, this study will use data from all the available waves of the Dutch component of the Survey of Health, Ageing and Retirement in Europe (SHARE). SHARE is a multidisciplinary longitudinal survey representative of the non-institutionalised population aged 50 and over (Börsch-Supan et al. 2013). One of the key advantages of SHARE is that it includes a variety of individual measures of both subjective as well as objective health. At baseline, SHARE enrolled a random sample of Dutch residents born in 1954 or earlier and their current partners living in the same household. Baseline interviews were conducted in 2004 (N=1,797). Follow-up interviews were carried out in 2006–2007, 2011, and 2013. Of the initial Dutch respondents, 91.26 per cent (n=1,640) had at least one child.

On the other hand, registry data from CBS will be used, that is, the System of Social-statistical Datasets (SSD). The SSD is an integrated, longitudinal database of numerous registers and surveys, containing the most important socioeconomic and sociodemographic variables of the complete population of the Netherlands (Bakker, van Rooijen, and van Toor 2014). It includes complete family histories, socioeconomic conditions (e.g. education, employment status, income, etc.), and individual-

level data on healthcare use of each SHARE respondents' child and grandchild. In addition, using data from CBS, it will be possible to identify place of residence of both parents, children, and grandchildren and calculate different measures of intergenerational geographic distance. Dutch SHARE respondents, who gave consent, will be linked to their children's registry data from CBS. About 90% of SHARE respondents agreed to have their survey data linked to the administrative data from CBS (Adriaan S. Kalwij, personal communication, April 16, 2019). Where possible, missing values in SHARE (e.g. marital status) will be replaced with register data from CBS.

2.2. Measures

Three dimensions of health, recorded in the SHARE survey, will serve as dependent variables in the study: a measure of *physical health* (maximum grip strength), a measure of *mental health* (EURO-D score), and a measure of *general health* (based on a 40-items Frailty Index [Romero-Ortuno and Kenny 2012]).

The main independent variable in the study will be children's divorce, measured using separate dummy for every year after divorce (cfr. Allison 1994; Brüderl and Ludwig 2015). Such a modelling strategy will allow to exclude the influence of time-constant factors and, contrary to previous studies, to identify the temporal path of the causal effect in a more flexible way. In addition, to assess whether there is an anticipation effect we will also add a dummy for the year before divorce.

Antidepressant prescriptions for depression will be taken from CBS data and used as a proxy for children's mental well-being. Using data from CBS, we will also create different measurements covering varying aspects of intergenerational geographic proximity. This will be done by measuring the length of a straight line between the geographical midpoints of the residence of parent and child, and of grandparent and grandchild at the time of the interview.

Other covariates that will be used in the analysis will refer to socio-demographic characteristics of parents, children, children's (ex-)partners, and grandchildren (e.g. age, employment status, income, neighbourhoods of residence).

2.3. Analytic strategy

The study will use fixed-effects regression models to investigate the extent to which children's union dissolution impact different dimensions of parental health. Following the contribution of Kalmijn (2012) and Tosi and Albertini (2018), the study will perform the analysis on parent-child dyads. From this set of dyads, both biological and adopted children of the SHARE respondents will be selected. Since the outcomes are changes in parents' health conditions, the sample will be restricted to SHARE respondents who participated in at least two waves.

Since the unit of analysis will be the parent-child dyad, parents with multiple children will be present in multiple observations in the sample. We will employ clustered standard errors to adjust the estimates for the correlation between dyads within the same parent. Moreover, the clustering of

multiple children within SHARE respondents (parents) will enable us to conduct fixed effects analyses in order to get closer to the causal effect of union dissolution of adult children on the health of older parents, while taking into account time-constant characteristics of these older parents.

3. Expected findings

The strength of the proposed study is the record linkage of administrative data (from Statistics Netherlands – CBS) to survey data (from SHARE). For the first time, this study will match complete children's individual and household information with their older parents' physical and mental health conditions. From a theoretical point of view, we expect to find: (i) a detrimental influence of children's union dissolution on parental health; (ii) changes in children's wellbeing – subsequent to union dissolution – to explain at least part of the variance of the association between children's union dissolution and parental health; (iii) a stronger effect of children's union dissolution on mothers' health than on fathers' health; (iv) a stronger impact of daughters' union dissolution on parental health; (v) a stronger impact of children's union dissolution on parental health when grandchildren are involved and living closer to the grandparent.

Understanding how and explaining why the union instability of an adult child might have detrimental consequences on older parents' health will provide policy makers with a clearer picture of the challenges and opportunities faced by an ageing society. The policy implications of the study might be that policies which target health inequalities among older adults need to be implemented more extensively with a stronger consideration of intergenerational relationships.

Table 1. Description of the SHARE variables that will be used in the analysis (parents).

	Whole sample					Men					Women				
	N	Mean (or %)	St.Dev	min	max	N	Mean (or %)	St.Dev	min	max	N	Mean (or %)	St.Dev	min	max
Frailty Index (FI)	8042	9.606	8.046	0	65	3720	8.675	7.263	0	62.5	4322	10.407	8.584	0	65
Depression	8042	1.762	1.844	0	11	3720	1.416	1.665	0	11	4322	2.059	1.937	0	11
Grip strength	8042	36.09	11.601	3	80	3720	45.14	9.364	4	80	4322	28.299	6.614	3	59
Age	8042	64.727	9.08	50	98	3720	65.327	9.057	50	95	4322	64.211	9.069	50	98
Number of children															
Childless	691	8.59				348	9.35				343	7.94			
1	901	11.2				408	10.97				493	11.41			
2	3415	42.46				1610	43.28				1805	41.76			
3+	3035	37.74				1354	36.4				1681	38.89			
Gender															
Men	3720	46.26													
Women	4322	53.74													
Current job situation															
Retired	3587	44.6				2224	59.78				1363	31.54			
Employed or self-employed	2359	29.33				1211	32.55				1148	26.56			
Non-employed	2096	26.06				285	7.66				1811	41.9			
Marital Status															
Married	6538	81.3				3214	86.4				3324	76.91			
Never married	251	3.12				138	3.71				113	2.61			
Divorced	446	5.55				151	4.06				295	6.83			
Widowed	807	10.03				217	5.83				590	13.65			
Wealth (quartiles)															
First	2013	25.03				872	23.44				1141	26.4			
Second	2011	25.01				932	25.05				1079	24.97			
Third	2009	24.98				942	25.32				1067	24.69			
Fourth	2009	24.98				974	26.18				1035	23.95			
Income (quartiles)															
First	2016	25.07				835	22.45				1181	27.33			
Second	2007	24.96				994	26.72				1013	23.44			
Third	2011	25.01				965	25.94				1046	24.2			
Fourth	2008	24.97				926	24.89				1082	25.03			
Wave															
[1] 2004-05	1797	22.35				834	22.42				963	22.28			
[2] 2006-07	2026	25.19				941	25.3				1085	25.1			
[4] 2011-12	2189	27.22				1007	27.07				1182	27.35			
[5] 2013	2030	25.24				938	25.22				1092	25.27			

Note: the dataset will be enriched using register data from Statistics Netherlands (CBS) for what concerns children's variables.

References

- Allison, Paul D. 1994. 'Using Panel Data to Estimate the Effects of Events'. *Sociological Methods & Research* 23(2):174–199.
- Bakker, Bart F. M., Johan van Rooijen, and Leo van Toor. 2014. 'The System of Social Statistical Datasets of Statistics Netherlands: An Integral Approach to the Production of Register-Based Social Statistics'. *Statistical Journal of the IAOS* 30(4):411–24.
- Börsch-Supan, Axel, Martina Brandt, Christian Hunkler, Thorsten Kneip, Julie Korbmacher, Frederic Malter, Barbara Schaan, Stephanie Stuck, and Sabrina Zuber. 2013. 'Data Resource Profile: The Survey of Health, Ageing and Retirement in Europe (SHARE)'. *International Journal of Epidemiology* 42(4):992–1001.
- Brüderl, Josef and Volker Ludwig. 2015. 'Fixed-Effects Panel Regression'. *The Sage Handbook of Regression Analysis and Causal Inference* 327–357.
- Drew, Linda M. and Merrill Silverstein. 2007. 'Grandparents' Psychological Well-Being after Loss of Contact with Their Grandchildren.' *Journal of Family Psychology* 21(3):372–79.
- Goisis, Alice, Berkay Özcan, and Philippe Van Kerm. 2019. 'Do Children Carry the Weight of Divorce?' *Demography* 56(3):785–811.
- Kalmijn, Matthijs. 2013. 'Long-Term Effects of Divorce on Parent-Child Relationships: Within-Family Comparisons of Fathers and Mothers'. *European Sociological Review* 29(5):888–98.
- Kalmijn, Matthijs. 2016. 'Children's Divorce and Parent-Child Contact: A Within-Family Analysis of Older European Parents'. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 71(2):332–43.
- Kalmijn, Matthijs and Paul M. de Graaf. 2012. 'Life Course Changes of Children and Well-Being of Parents'. *Journal of Marriage and Family* 74(2):269–80.
- Knoester, Chris. 2003. 'Transitions in Young Adulthood and the Relationship between Parent and Offspring Well-Being'. *Social Forces* 81(4):1431–58.
- Leopold, Thomas and Matthijs Kalmijn. 2016. 'Is Divorce More Painful When Couples Have Children? Evidence From Long-Term Panel Data on Multiple Domains of Well-Being'. *Demography* 53(6):1717–42.
- Liefbroer, Aart C. and Francesco C. Billari. 2009. 'Bringing Norms Back in: A Theoretical and Empirical Discussion of Their Importance for Understanding Demographic Behaviour'. *Population, Space and Place* 16(4):287–305.
- Milkie, Melissa A., Alex Bierman, and Scott Schieman. 2008. 'How Adult Children Influence Older Parents' Mental Health: Integrating Stress-Process and Life-Course Perspectives'. *Social Psychology Quarterly* 71(1):86–105.
- Monden, Christiaan W. S. and Wilfred J. G. Uunk. 2013. 'For Better and for Worse: The Relationship Between Union Dissolution and Self-Assessed Health in European Panel Data: Pour Le Meilleur et Pour Le Pire: La Relation Entre Les Dissolutions d'union et La Santé Perçue à Partir Des Données d'un Panel Européen'. *European Journal of Population / Revue Européenne de Démographie* 29(1):103–25.
- Romero-Ortuno, Roman and Rose Anne Kenny. 2012. 'The Frailty Index in Europeans: Association with Age and Mortality'. *Age and Ageing* 41(5):684–89.
- Spitze, Glenna, John R. Logan, Glenn Deane, and Suzanne Zerger. 1994. 'Adult Children's Divorce and Intergenerational Relationships'. *Journal of Marriage and the Family* 56(2):279.
- Strohschein, Lisa. 2005. 'Parental Divorce and Child Mental Health Trajectories'. *Journal of Marriage and Family* 67(5):1286–1300.
- Tosi, Marco and Marco Albertini. 2018. 'Does Children's Union Dissolution Hurt Elderly Parents? Linked Lives, Divorce and Mental Health in Europe'. *European Journal of Population*.