

**Becoming a first-time grandparent and subjective well-being.**

**A fixed effects approach.**

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## ABSTRACT

**Objective:** In this study, we examine how individuals are affected by the change in status to grandparenthood for the first time.

**Background:** Being a grandparent, especially an active and involved grandparent, is positively linked to the well-being of individuals with grandchildren, however little is known about how *becoming* a grandparent affects well-being.

**Method:** We use longitudinal data pooled from fifteen countries in Europe (Survey of Health, Ageing and Retirement in Europe - SHARE) to analyze if becoming a grandparent is associated with three measures of subjective well-being. We use fixed effects models to account for unobserved heterogeneity.

**Results:** Becoming a first-time grandparent is associated with fewer depressive symptoms among women, although there was no evidence for an effect on subjective life expectancy or life satisfaction. For men, we found no evidence for an impact on any outcome tested, although there is an association with increased subjective life expectancy conditional on employment status; only if men were employed when transitioning to grandparenthood. We also found no evidence that actively looking after the grandchild is important for either gender.

**Conclusion:** These results suggest that, at least for women, it is the life transition itself that impacts on some aspects of well-being, rather than active grandchild-care. More research is needed to verify these findings in other contexts, and over longer periods of time.

### *Keywords*

grandparents; well-being; satisfaction; fixed effects models; retirement

## INTRODUCTION

Active grandparenting is associated with benefits to both the grandchildren and the grandparents. Empirical studies repeatedly show that having grandchildren, and especially spending time with them, is associated with increased well-being and happiness (Arpino, Bordone, & Balbo, 2018; Danielsbacka & Tanskanen, 2016). But this body of research largely focusses on active grandparenting rather than the impact of the actual life transition: little is known about how *becoming* a grandparent affects well-being. Here we study how individuals are affected by the change in status to grandparenthood for the first time.

The literature on becoming a grandparent in relation to happiness, or other measures of well-being, is surprisingly scant. As far back as the 1980s, there have been calls to investigate the *transition* to grandparenthood (Cunningham-Burley, 1986; Hagestad & Lang, 1986). More recently psychologists interested in the nature of the social role of grandparenthood made a similar call (Thiele & Whelan, 2006). So far there have been only a few small-scale studies that focus on the transition itself - they suggest there might be a positive effect of the change in status – but whether the transition to grandparenthood is associated with positive well-being outcomes has yet to be tested in a large representative sample. The bulk of the current quantitative literature focusses on grandchild care, or grandparents who fill custodial, parenting, roles for grandchildren. Important though these types of questions are, they leave unanswered how the life course transition itself affects people.

Why might we expect a positive effect of simple the transition to grandparenthood? From an evolutionary perspective emotional benefits are expected because of the direct influence of grandparenting on genetic fitness (Hilbrand, Coall, Gerstorf, & Hertwig, 2017). Mothers rely on others for help raising children (in evolutionary terms, humans are cooperative breeders) and one of the most influential helpers is a grandmother, especially a maternal grandmother

(Hawkes, O'Connell, Jones, Alvarez, & Charnov, 1998). Post-menopausal women gain more in terms of genetic legacy by helping their daughters to raise their grandchildren than by continuing to reproduce themselves – this explains the adaptive value of human menopause and the evolution of longer lifespans. Ancestral women who lived long enough to contribute to their inclusive fitness (by investing in grandchildren) passed their longevity genes on to both male and female descendants. The fitness benefit to all three generations, coupled with the lower cost of grandparenting compared with parenting, selects for traits that encourage active grandparenting behavior and emotional rewards for doing so. While this explanation provides an ultimate (adaptive) causal argument, what are the more proximate mechanisms likely to be?

We differentiate two broad mechanisms that are not mutually exclusive: one on the change in status or role itself and one emphasizing the importance of contact and interaction. The arrival of grandchildren might instill values of 'having something to live for' (Cunningham-Burley, 1986). New grandparents report feeling a sense of achievement and pride, more so than being a parent, with more free time to nurture special bonds with grandchildren (Cunningham-Burley, 1986). Kaufman & Elder, (2003), for instance, report that older people from rural Iowa who expressed joy at being a grandparent, also felt younger. Becoming a grandparent confers a status on the new grandparent and an elevated social standing among peers (Noy & Taubman – Ben-Ari, 2016). However, becoming a grandparent might also be costly and have a potentially negative influence, where the grandparents provide intensive childcare. For instance, a small qualitative study of 29 Canadian grandparents found that most (20/29) new grandparents suffered 'turbulent' and 'dipped' (i.e. a drop in satisfaction that then recovers) experiences during the process of becoming a grandparent (from the announcement of the pregnancy until the birth), highlighting that this life transition is often characterized by stress as well as joy (Dun & Sears, 2017).

Studies that examine the effects of *being* a grandparent (though not *becoming* a grandparent) using large-scale data have reported mixed results. In Europe, based on a cross-sectional analysis of SHARE data, Arpino and colleagues (2018) found weak evidence for a positive effect of having grandchildren, but with substantial variation across countries. On the other hand, in a Finnish cross-sectional study Danielsbacka and Tanskanen (2016) found no evidence that being a grandparent is associated with happiness, although they found some evidence that having contact with grandchildren is, but only for maternal grandmothers. A review paper from the psychological literature suggests that there might be positive psychological implications to being a grandparent, but again these studies compare grandparent typologies and do not study the transition per se (Thiele & Whelan, 2006). The only longitudinal study of the transition to grandparenthood that we are aware of found that new grandparents who were re-surveyed one to two years after the birth of the baby reported that their “expected satisfaction of grandparenthood” was met, in particular for maternal grandmothers (Somary & Stricker, 1998), but this US sample was small (n=103) and not nationally representative. Our primary interest is in the transition per se, regardless of contact, but as previous research has highlighted the potential importance of grandparent-grandchild involvement, we will also take this into account.

We contribute to this literature by investigating if becoming a grandparent for the first time has an impact on one’s subjective well-being, life satisfaction, and subjective life expectancy. We use longitudinal data from a large, European dataset, and we estimate fixed effects models in which we compare people’s well-being as a new grandparent to their earlier well-being before the arrival of their first grandchild. This within-individual design adds significantly to the current literature which almost exclusively compares grandparents to non-grandparents or compares grandparents with different levels of grandparental involvement.

There is a considerable literature that studies the link between grandparental employment, childcare availability, and grandparents' involvement in childcare (especially of grandmothers) (Leopold & Skopek, 2014; Van Bavel & De Winter, 2013) but there is little research on the value of the grandparental role for employed compared with retired or home-maker grandparents. Across most European countries becoming a grandparent more often than not precedes retirement for both men and women (Leopold & Skopek, 2015). In light of these patterns, the second question we address is whether becoming a grandparent has different consequences for those new grandparents still in employment compared with retired, or otherwise non-working individuals.

Evolutionary arguments suggest that (maternal) grandmothers might be more affected than grandfathers, and this has been empirically supported not just in small-scale societies (where much of this research takes place) but also in contemporary UK. David Waynforth (2011) found that women who had support from, and were close to, their own mothers (but not their in-laws) were more likely to have more children. Sociologists argue that women are the 'kin-keepers' of the family, meaning they spend more time with relatives (especially female ones) and invest in maintaining intergenerational relationships (Eisenberg, 1988). This might be especially true where women are not employed in the work force, or have retired by the time they become grandmothers. The literature on this is not consistent; some studies find that women derive more satisfaction from grandparenting than men do, and some find no difference (Kaufman & Elder, 2003; Peterson, 1999). The two arguments are not incompatible but explain the female-bias at different levels (ultimate and proximate).

In light of these three points, we investigate whether becoming a first-time grandparent is associated with subjective well-being, life-satisfaction, and subjective life expectancy (RQ 1).

We test whether there are differences between retired and labor-force-employed grandparents (RQ 2). We investigate if either of these first two questions vary by gender (RQ 3) (and so perform all analyses for men and women separately).

## METHODS

### *Data*

We use data from the Survey of Health, Ageing, and retirement in Europe (SHARE) (<http://www.share-project.org/>). SHARE is based on probability samples representative of the non-institutionalized population aged 50 and over (Börsch-Supan et al., 2013). We use waves four, five, and six (release 6.0.0) which were collected every two years from 2011 to 2015. We do not use waves one to three because wave three collected retrospective data only creating a 4-year gap between waves two and four, which is too long to estimate the impact of the birth of a grandchild. Initial response rates in SHARE are low in some countries but we have no evidence of systematic bias relevant to our design and retention rates are generally good (Bergmann, Kneip, De Luca, & Scherpenzeel, 2017; Kneip, Malter, & Sand, 2015). We pool data from 15 countries: Austria, Belgium, Czechia, Denmark, Estonia, France, Germany, Italy, the Netherlands, Portugal, Slovenia, Spain, Sweden, Switzerland, and Israel to have a sufficiently large sample where a respondent makes the transition to grandparenthood.

We constructed our analytical sample in the following steps. First, we selected only respondents who were interviewed in at least two adjacent waves, i.e. waves four and five, waves four, five and six, or waves five and six (n=57,060). We then excluded people who reported having no living children (~11 %). Of the remaining 50,533 we excluded those who were already a grandparent at the first available wave (~75%), leaving 13,768 respondents at risk of becoming a grandparent. Another 119 cases were removed as they provided no information on grandchildren. We also eliminated those respondents who experienced the

loss of a grandchild over the survey period (143 people, ~1%). This gave us a final analytic sample of 13,506 respondents, of which 3,511 (26%) transitioned to grandparent status at some point in between the three waves. Note that this may include step-grandchildren as the question is phrased as: “Talking about grandchildren, how many grandchildren do you [and your] [husband/ wife/ partner/ partner] have altogether?”.

## *Variables*

### *Outcome Variables*

SHARE contains two well-established measures that capture different aspects of a sense of well-being: the Euro-D scale of depressive symptoms, and life satisfaction. We also use a variable for subjective life expectancy as an indicator of longevity which is an important element of the grandmother hypothesis.

#### *Euro-D*

So far we have talked of well-being and positive emotions but the first variable we use is in fact a measure of depressive symptoms: the Euro-D scale (Prince et al., 1999). Respondents are asked a battery of 12 questions about their feelings of depression, pessimism, suicidality, guilt, sleep, interest, irritability, appetite, fatigue, concentration, enjoyment, and tearfulness, “in the past month”. These are added up to derive a 13-point scale ranging from 0 to 12 with higher values denoting more depressive symptoms (Alpha scores range from 0.7 to 0.8 depending on the wave). We treat this variable as continuous in our models.

#### *Life satisfaction*

Respondents were asked “On a scale from 0 to 10 where 0 means completely dissatisfied and 10 means completely satisfied, how satisfied are you with your life?”. We also treat this as continuous in our statistical models.

#### *Subjective life expectancy*



Respondents were asked “What are the chances that you will live to be age [75/80/85/90/95/100/105/110/120] or more?”. The value provided was a function of the respondent’s age at the time of interview, calculated by rounding their current age up to the next five years and then adding 10 years (Munich Center for the Economics of Aging, 2017). For example, if the respondent was aged 66, they would be asked their expected chances of living until age 80 (66 rounds up to 70, then add 10). For the youngest respondents however, those aged up to 60 years, the target age would have been more than 15 years because the starting life expectancy age asked was 75 years. Answers were recorded in percentages from 0 to 100; this is modelled as a continuous variable.

#### *Independent variables*

##### *Grandparental status*

Our primary independent variable is grandparental status. Respondents who report no current grandchildren score 0, and regardless of the number of grandchildren, respondents who report having one or more grandchildren score 1. Note that a transition from 0 to 1 always means that the respondent has become a grandparent for the first time during the time in between the two waves. We refer to the first time that respondents are observed after becoming a grandparent as time zero ( $t=0$ ). Given the amount of time between interviews, it is possible that the respondent has more than one grandchild (about 8% do) by the first time they are interviewed as a grandparent.

##### *Looking after grandchildren*

Respondents were asked “During the last twelve months, have you regularly or occasionally looked after [your grandchild/your grandchildren] without the presence of the parents?” We therefore have a 3-category variable indicating: (0) no grandchild, (1) has a grandchild but does not look after her, or (2) does look after the child. Around half the new grandparents

reported looking after the grandchild. Note that this variable is not simply about face-to-face contact, it is about unsupervised hands-on taking care of the infant, i.e. babysitting.

#### *Work status*

We derived a binary variable coded 1 for those who reported being employed and 0 for all the others (retired, home-maker, long-term ill or disabled). Note that when we test for differences conditional on employment status, we restrict the models to a subsample of respondents who did not change their work status over the course of the two or three waves they participated in (around 86% of our full sample) to exclude simultaneous changes in work status and grandparenthood.

#### *Time-varying control variables*

##### *Marital status*

We included a measure of marital status (binary coded: married or in a legal partnership = 1, or not, i.e. never married, divorced or separated, or widowed = 0).

##### *Subjective Financial Security*

This is from the question: “How easily are you able to make ends meet?” with four possible answers of ‘with great difficulty’, ‘with some difficulty’, ‘fairly easily’, and ‘easily’. This subjective proxy variable has been shown to be a robust indicator of actual financial security in SHARE respondents (Litwin & Sapir, 2009) and also aids comparisons with other papers in this literature where it is commonly used. This is a categorical variable.

##### *Health*

This is also self-rated and the question is phrased as “How would you rate your health in general?” with five possible answers: ‘poor’, ‘fair’, ‘good’, ‘very good’, and ‘excellent’. We included this as a categorical variable.

We used multiple imputation to account for missing values on the independent variables, with 37 imputations. This number was chosen based on a post-estimation test performed on a pilot run of all the models with, at first, ten imputations. We apply von Hippel's (2018) two-stage procedure for choosing the most appropriate number of imputations to ensure replicability of these results. A commonly used rule-of-thumb is that 2 – 10 imputations is sufficient. While this may be the case to reproduce similar beta coefficients, to reproduce standard errors it is more appropriate to use a quadratic function to estimate the proportion of missing information (von Hippel, 2018). This means that more imputations are required to generate similar standard errors in replication analyses. It also prevents 'fishing' for p-values based on running numerous imputations. Results from analyses with list-wise deletion of data with missing values are almost identical. All analyses were performed using Stata v. 13 ©.

#### *Analytical approach*

We used a fixed effects linear regression approach to model changes in scores of depressive symptoms, subjective life expectancy, and life satisfaction given changes in grandparent status; going from having no grandchildren to gaining one or more between waves. This way we control for all the unobserved attributes that are fixed within an individual such as personality, genetic factors, and family-orientation, which may confound the relationship between becoming a grandparent and our outcomes. Fixed effects methods do however have some limitations. It is not possible to control for unmeasured time-varying traits, so in this case, if there are factors that influence an individual's sense of well-being, that have changed over the waves, and this change coincides with becoming a grandparent, then the results may be biased. We are able to include some time-varying variables such as health, financial security, and marital status, and we also controlled for the age of the respondents in all models. We examined differences in outcomes by gender.

We make an assumption about the direction of the purported causal effect: that becoming a grandparent influences well-being. It is possible however that adult children might delay starting a family if one of their parents (i.e. the new grandparent-to-be) has particularly low well-being such as suffering from depressive symptoms. Although much less likely than an effect of grandparenthood on well-being, such reversed causality cannot be ruled out completely.

Time is defined as 0 for the first wave when a grandchild is observed. It is -1 or -2 for the previous or second previous waves before the baby was born. We assign time 0 randomly for non-grandparents, thereby creating an artificial baseline from which to compare those individuals who did become grandparents. Depending on the number of waves respondents are observed for, their time window can be -2 to 0, -1 to 1, -1 and 0, or 0 and -1.

## RESULTS

### *Descriptive statistics*

Twenty-six percent (n=3,511) of the respondents in our analytical sample became a grandparent for the first time during the three waves (47% men and 53% women). Table 1 presents the sample characteristics taken at time -1 (the wave before the grandchild arrives), for new grandparents and for those who were at risk but did not become grandparents (at a randomly-assigned time -1), for all variables in our models.

Table 1: Descriptive statistics taken at time -1 for new grandparents and for non-grandparents.

<b>Variables</b>	<b>Grandparents</b>		<b>Non-Grandparents</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
N - % of 3,511	46.4	53.6		
N - % of 9,995			46.6	53.4
Euro-D score [mean (s.e.)]	1.8 (1.9)	2.5 (2.2)	1.8 (1.9)	2.5 (2.2)
% chance of survival [mean (s.e.)]	67.0 (28.3)	69.4 (27.4)	68.8 (27.4)	70.4 (26.7)

Life satisfaction [mean (s.e.)]	7.7 (1.7)	7.7 (1.7)	7.8 (1.6)	7.7 (1.7)
Self-reported health (%)				
Excellent	10.7	12.8	11.9	11.5
Very good	22.1	22.6	25.5	23.7
Good	40.7	36.3	38.2	37.7
Fair	20.2	22.2	18.0	20.6
Poor	6.4	6.1	6.4	6.5
Make ends meet (%)				
Easily	38.8	37.2	38.9	36.3
Fairly easily	30.4	31.4	30.8	31.1
With some difficulty	23.1	23.0	22.6	23.6
With great difficulty	7.7	8.4	7.7	9.0
% married	81.4	73.5	81.9	71.7
% employed	49.7	50.6	57.5	52.2
Age [mean (s.e.)]	61.4 (7.5)	59.4 (8.1)	59.9 (7.8)	58.4(8.7)

Note that statistics are from raw data, before imputing missing values.

### *Fixed effects models*

Table 2 shows summary results for all three models; for fixed effect (and random effects models to compare), for both men and women. The full results with point estimates and standard errors for all variables, including the control variables, can be found here:

<https://osf.io/n7e59/>. For interactions with employment status, we used only those people who did not change their work status over the period that they became a grandparent (i.e. between time -1 and time 0), to ease interpretation (~86%). Using only this subsample in the main models, without interactions, does not change the results. For robustness checks we also performed the analyses omitting those who became a new grandparent to more than a single grandchild over adjacent waves (~8%), and the results remain the same.

Table 2: Coefficients for fixed effects models and random effects models with Hausman tests for comparison.

	<b>Fixed effects</b>	<b>Random effects</b>	<b>Hausman's test (<math>\chi^2</math>)</b>	<b>N</b>
	Coef. (s.e.)	Coef. (s.e.)		

<b>Women</b>					
Euro-D score	-0.12* (0.05)	-0.15*** (0.04)	261.61***		7,174
Subjective life expectancy	1.25 (0.73)	3.82*** (0.52)	366.57***		7,031
Life satisfaction	-0.02 (0.04)	0.03 (0.03)	477.69***		7,174
<b>Men</b>					
Euro-D score	-0.02 (0.05)	-0.06 (0.04)	212.92***		6,241
Subjective life expectancy	0.68 (0.82)	3.08*** (0.58)	381.26***		6,152
Life satisfaction	0.01 (0.04)	-0.01 (0.03)	399.17***		6,249

\*\*\*=p<0.001, \*=p<0.05

All models control for self-reported financial security, health, age, marital status, and employment status.

### Women

#### *Becoming a grandmother*

Becoming a grandmother is associated with small but significant decrease in reporting depressive symptoms during the previous month (table 2), controlling for age, health, financial security, employment, and marital status. We found no evidence for an association between becoming a grandmother and either subjective life expectancy or for life satisfaction, neither did we find evidence for differences in any outcome between employed and non-working women. Hausman tests confirm that, for all these models, the fixed effects method is more appropriate than random effects.

We found no evidence for associations between new grandmothers who take care of, or do not take care of grandchildren and any of the three outcomes (table 3), nor do we find any evidence for interactions with work status with any of these outcomes.

Table 3: Coefficients (std. errors) for fixed effects models where grandparents are split into those who spend unsupervised time with grandchildren, and those who do not.

	<b>Euro-D score</b>	<b>Subjective life expectancy</b>	<b>Life satisfaction</b>
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<b>Women</b>			
No grandchildren	0	0	0
Does not look after	-0.10 (0.08)	0.45 (1.12)	-0.11 (0.06)
Looks after	-0.12 (0.07)	1.00 (0.99)	0.05 (0.05)
<b>Men</b>			
No grandchildren	0	0	0
Does not look after	-0.09 (0.07)	0.45 (1.16)	-0.01 (0.06)
Looks after	0.04 (0.08)	1.31 (1.27)	-0.03 (0.07)

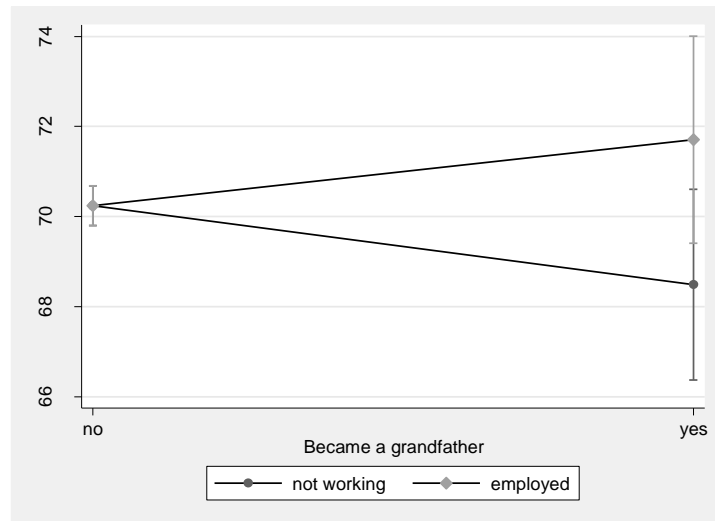
All models control for self-reported financial security, health, age, marital status, and employment status.

## Men

### *Becoming a grandfather*

We found no evidence for an association between becoming a grandfather and depressive symptoms, subjective life expectancy, or life satisfaction (table 2). However, when we tested this for sub-groups of men, we observed one difference conditional on work status: employed men report higher levels of expected longevity (but not sadness or life satisfaction) upon becoming a grandfather, while those not working (retired or otherwise) report a decrease in expected longevity after the arrival of the grandchild (figure 1). The interaction was only modelled for those men who did not change their work status over the period that they became a grandparent (i.e. between time -1 and time 0), to ease interpretation. The plot shows the predicted survival estimates for all men (70.2%, s.e. 0.22) and their predicted change on becoming a grandfather, conditional on employment status (not working: 68.5%, s.e. 1.1; employed: 71.7%, s.e. 1.17). We also found no evidence for an effect of becoming a grandfather when we took into account spending time looking after the new grandchild, and conditioning on employment status again did not make a difference here.

FIGURE 1. MEN'S PREDICTED SUBJECTIVE LIFE EXPECTANCY CONDITIONAL ON WORK STATUS.



## CONCLUSIONS

To summarize, we tested if becoming a grandparent is associated with depressive symptoms (Euro-D), subjective life expectancy, and life satisfaction (RQ 1), and if there are differences depending on the employment status at the time of becoming a new grandparent (RQ 2). We also tested if associations differed between men and women (RQ 3). We first RQ1 and how it differs by gender, and then we discuss retirement patterns (for men) in the next section. We expected to find that becoming a grandparent would be associated with lower scores on the Euro-D scale, increased subjective life expectancy, and increased life satisfaction, and that effects might be stronger for women, given evolutionary reasoning and ‘kin-keeper’ theory. We also expected differences conditional on employment status although we argued that the direction of the association might go either way. Our results show very limited evidence for an effect of the transition to grandparenthood. For women, new grandmothers reported slightly fewer depressive symptoms, but there was no statistical association with subjective life expectancy or life satisfaction. For men we found no evidence for a relationship between becoming a grandfather and any of our measures of well-being until we performed further analyses stratified by employment status. These suggest that the association between



becoming a grandfather and subjective life expectancy is positive for employed men but negative for non-working men (figure 1). We discuss this interaction further below.

The gender differences we found are in line with the kin-keeper argument. Women might derive more happiness from being a grandmother than do men, as women are argued to be the binding force in the family (Eisenberg, 1988). This might be especially true among female relatives and some evidence indicates that same sex intergenerational dyads are important, although this is not conclusive. Unfortunately, we were unable to test if the sex of the new grandchild influenced the grandparent's well-being as this information is not available in SHARE, but this might be a fruitful avenue for further research and could give strength of the kin-keeper argument. Evolutionary reasoning also predicts that women might benefit more from grandmothering. The grandmother hypothesis posits that postreproductive women can gain more, fitness-wise, from helping their daughters to raise children (i.e. her grandchildren) than to continue reproducing herself. This theory explains why menopause might be adaptive – the benefits of investing in grandchildren outweigh the costs (for both mother and baby) associated with reproduction in later life (e.g. pregnancy complications and congenital conditions). Although men too might greatly benefit from grandparenting, they do not face the same costs to reproduction at older ages. That we found no association between grandparenthood and life satisfaction for either gender, might be explained by the fact that there was little variation in this variable to start with (table 1). Arpino et al. (2018), however, report a small but statistically significant association with being a grandparent and life satisfaction but they do not look at the transition to grandparenthood, and they use a cross-sectional analysis which might be subject to confounding when comparing grandparents to non-grandparents.

Our results show that employed new grandfathers report higher survival chances while non-working men report lower survival chances, on becoming a grandfather. Why would employed new grandfathers be more positive and non-working men be less positive on becoming a grandfather (at least regarding subjective life expectancy)? It might be related to earning capacity, and the perception of men having to bear the responsibility of being a provider, even when no longer bearing the responsibilities of a father. We do control for self-reported financial security in our models, although this might be about a subjective perception and not related to actual wealth. Previous research has documented that employed grandparents are less burdened by child care than are retired grandparents (Szinovacz & Davey, 2006) but then we would expect to see this pattern in our childcare models, not only in the ‘transition to grandparenthood’ models, and we would also expect to see this for women, perhaps even more so if women are the normative care-givers especially of very young children. Another explanation could be that retired men might already ‘feel older’ than their employed counterparts and so becoming a grandfather accentuates the feeling of ‘oldness’. Working men on the other hand might feel that the demands of grandparenting on top of their usual employment demands requires considerable energy which then evokes feelings of competency and longevity. Again however, this does not explain why women do not fit the same pattern although some women spend a good part of their lives managing both work and parenting, and so the transition may be less of a burden to adapt to.

#### *Unsupervised care-giving*

Although this was not our primary objective, we also investigated looking after grandchildren is also associated with each of these outcomes. We found for both men and women there were no significant differences in well-being between those who looked after the grandchild and those who did not. As far as there are any effects of the transition to grandparenthood this suggests that there might be an intrinsic benefit to making the life transition, rather than there

being anything particularly consequential about taking care of the grandchild. This finding seems counter to previous research which reports positive associations between active grandparenting and well-being (Danielsbacka & Tanskanen, 2016; Hughes, Waite, LaPierre, & Luo, 2007). Bordone and Arpino (2016) found, using American data, that older grandparents felt younger than their grandchild-less counterparts, but only as long as they looked after the grandchildren. Again the difference might be that these studies compare across grandparents, while we look at the transition to first-time grandparenthood. Another possible explanation for our different finding is that the variable in SHARE refers to unsupervised care of the grandchild. The difference between passive and active contact is meaningful; looking after the young child is a responsibility and puts the grandparent in a position of trust. The grandparent also needs to be in good enough health to provide adequate care. Merely visiting the extended family periodically, where the new grandchild happens to be present is not what this variable captures. That said, the variable is measured quite crudely and a more fine-grained measure might be more revealing. Most research so far has suggested that there are benefits to being an actively involved grandparent. Our results question the notion that being actively involved is required for positive effects of grandparenting, at least insofar as babysitting is a proxy for active involvement. The transition to grandparenthood itself may have some small positive effects for women but hardly any for men. One enters a new life stage and a certain social status comes with it. Qualitative work has long made this case with examples from ethnographic interviews, for instance, Noy and Taubman – Ben-Ari (2016) quote from one of their grandmother interview respondents: “I feel more complete, I feel I’ve accomplished the most meaningful mission there is in life”(p. 19). A new grandparent feels a heightened sense of purpose in life (Thiele & Whelan, 2006). We believe our results are the first to provide some quantitative support for these findings from ethnographic research, but only for women.

By studying the transition, we focus, by definition, on the effect of becoming a grandparent to an infant (as opposed to a toddler or teenager). The benefits of grandparenting might well depend on the age of the grandchild(ren) as this affects the types of contact and interactions with the child(ren). Our results can thus be seen as adding to rather than contradicting previous, more positive, findings on grandparenting.

### *Limitations and future research*

Our design has a number of limitations that have to be taken into account and that may inform future research. It is possible that step-grandchildren are also included in our sample. If the evolutionary argument is correct then only genetically related grandchildren would be expected to impact on well-being. However, it is likely that step-grandchildren only constitute a very small proportion of this sample. It might well be that employed people who know they are about to become grandparents decide to retire early to be able to spend time with, or otherwise support, the new parents and grandchildren (Kridahl, 2017). We were unable to disentangle this in our models as we chose to model those individuals who did not change work status over the study period, and the data do not have detailed information on the timing of the birth of the grandchild. If retirement in anticipation of a grandchild is indeed the case, then our models are picking up on people who were unable to be flexible in their work situations (or chose not to be) and therefore show no or little effect of grandparenting. In other words, people who look forward to becoming a grandparent and being active in the lives of grandchildren, and who also choose to give up work, may be the ones who particularly benefit from this transition. Our analyses are restricted by the lack of a comparable wave three in the SHARE data, as such we were only able to look at the transition within a short time period. It would be interesting to empirically ascertain how long increased well-being endures after becoming a grandparent. Set-point theory in psychology maintains that life events that are associated with increased happiness return to a baseline

level of happiness after some period of time. The idea is that individuals have their own (largely heritable) predisposition to happiness which cannot readily be altered: some people are generally happier than others and even major life events such as getting married, being promoted, or even winning the lottery, confer only short-term boosts of happiness (Lykken & Tellegen, 1996). However the most convincing, and more recent, evidence tends to focus on adverse life events having a negative impact on happiness rather than life's happy events increasing happiness (Diener, Lucas, & Scollon, 2006). A longer time frame would also allow to test the idea that the benefits of grandparenthood only set in later when the grandchild is a bit older. In light of our findings and those in the literature about active grandparenting, this delayed effect seems worthwhile to explore.

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