**Re-examining the benefits of becoming a grandparent: No evidence of positive
associations in the United States and England.**

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Abstract

Despite positive associations between active grandparenting and well-being, little evidence so far suggests that the transition to grandparenthood increases well-being. We extend previous work from Europe, where weak effects were found, in two ways. First, kin effects are likely to be context-dependent and differ by the type and generosity of the welfare state, and by mortality rates. Second, it may be that the grandparent derives more benefits from the grandchild as young child than a new-born or infant. We retest this hypothesis with longitudinal data from the US and England. Both these studies follow people for a longer time so we further test whether effects of grandparenting emerge later after the birth of the grandchild. We found no evidence for these hypotheses in either setting, with the exception of English women who reported higher subjective life expectancy after becoming a grandmother. These largely null findings have implications for theories of grandparenting.

Introduction

Research on grandparenting largely suggests that there are benefits to the subjective well-being of both the grandchild and the grandparent (1–4), although not always, (5). Most of this research is based on the premise that active, hands-on grandparenting is the mechanism behind the positive association for grandparents. While active grandparenting may be advantageous, we know very little about the impact of the life transition to grandparenthood.

Evolutionary and sociological theories of grandparenting predict that there should be beneficial impact on well-being when becoming a new grandparent but there is, so far, little evidence to support this claim, at least among welfare states in Europe (6). Here, we extend this literature and make two new contributions. First, we test the relationship between becoming a first-time grandparent and subjective well-being (measured as depressive symptoms, and subjective life expectancy) using data from two countries where this has not yet been studied on a large scale; England and the US. Second, we test for associations over longer time-periods to investigate if the benefits to grandparenthood are delayed, to help understand previously reported weak and null results.

Background

The empirical evidence with regard to the general hypothesis that there is a positive effect of becoming a new grandparent, is still at an early stage. Only a few studies have examined this specific hypothesis, and mostly in small samples or in qualitative designs. Qualitative work from Scotland suggests that there should be a positive impact of becoming a grandparent quoting new grandparents giving reasons such as the meaning grandchildren give to one's life, and having something to live for (7). People reported expecting to become grandparents once their own children married; the older generation expressed happiness and having

75 something to look forward to. On the other hand, those who did not become grandparents
76 spoke of their disappointment. These personal interviews also suggest that older individuals
77 gain status among their peers on becoming a grandparent. Similarly, one small longitudinal
78 study of 103 individuals from the US reports that prospective grandparents expect satisfaction
79 with the grandparent role (8).

81 In a recent study, Sheppard and Monden (9) investigated the association between becoming a
82 grandparent and subjective well-being in 15 countries across Europe and found little evidence
83 for an effect. Given the findings from the studies mentioned above which suggest that there is
84 a positive association, it is surprising that in this large multi-national study there was very
85 little supporting evidence. Their study was able to take advantage of the longitudinal nature
86 of the data and employ a strong analytical design; within-person fixed effects models that
87 control for unobserved heterogeneity. The majority of the literature that examines the
88 influence of grandparental care on either grandparent or grandchild outcomes uses cross-
89 sectional data which may be particularly problematic when using subjective measures such as
90 self-reported well-being. Fixed effects models provide a more stringent test of changes in
91 well-being by comparing the individual's well-being over time, before and after the event,
92 controlling for time-invariant unobserved heterogeneity. Recently there has been a call for
93 more rigorous methods to address questions about grandparenting (10) especially as the few
94 studies that do use fixed effects models have found that associations reported in cross-
95 sectional models disappear (11,12). Given the small number of longitudinal studies that
96 examine the transition to grandparenthood it would be premature, however, to conclude that
97 theories predicting a positive effect of becoming a grandparent have been refuted.

There are at least two possible explanations for the previous weak or null findings that do not require us to dismiss the general hypothesis altogether: (a) the study period in the European analysis (9) might have been too short to detect associations if the benefits to becoming a grandparent only emerge when the grandchild is a few years older, and (b) the effect of becoming a grandparent may be highly context-specific and difficult to detect in wealthy European welfare states. In other words, in other contexts the positive effects of the transition to grandparenthood may be stronger. We address both issues by re-examining the transition to grandparenthood hypothesis using panel data with more waves and in two new settings. The US sample also allows us to test our hypothesis among Black Americans who suffer higher mortality than the rest of the population.

Sheppard and Monden (9) used three waves from the Survey of Health and Ageing in Europe (SHARE) to model the transition to grandparenthood. As a consequence, first time grandparents were observed shortly after the transition when their first grandchild was still a new-born or infant. Only in a small number of cases where grandparents observed when their grandchild was a toddler (1-3) or young child (3 and older). It is plausible that the benefits to becoming a first-time grandparent are only observed once the grandchild is no longer a baby but is a little older and less dependent on its parents. In historical Québec, for instance, Jan Beise (2005) found that having a maternal grandmother was associated with improved child survival but only after the child was a year old, and less attached to its mother than very young, often breastfeeding, infants are. Although this study is from the grandchild's perspective, it suggests that perhaps the payoffs to the grandparent also come later, once the infant is less vulnerable and the grandparents can enjoy different types of interactions. Here we are able to test this hypothesis as we have data for much longer time periods than the SHARE data used in the European study (6).

The studies discussed so far (besides the one from Québec) are from low-risk family contexts; child survival and maternal health are not at stake in high-income countries. In low-risk contexts, grandparents are expected to provide so-called ‘soft benefits’ (e.g. psychological well-being) – grandparents should improve grandchild well-being and themselves reap such rewards. It is possible therefore that we would only detect positive associations in higher-risk situations (14). Poverty can create high-risk scenarios, even in wealthier states, where socioeconomic inequality is high. Perhaps grandparents are more effective in needy situations and we might only find evidence for an effect on their well-being under these particularly difficult circumstances. This would also make sense if high levels grandparental investment evolved in a much harsher conditions (more on this in the theory section). Among the US Black population both adult (15) and infant mortality is relatively high. In 2013 the infant mortality rate for Black Americans was 11.2 (out of 1000 live births) while the same statistic for White Americans was just 5 (16). The US is an interesting context for other reasons too; a lack of universal health-care insurance, and a limited welfare state with less parental leave and poorer access to high-quality child care, increases the wealth divide further. This contrasts with Europe where wealth inequality is less pronounced and citizens have access to subsidised health care and other welfare state benefits, including paid parental leave (although there is variation across Europe too). Here we use US data to investigate if there are differences in the transition to grandparenthood and subjective well-being between Black and White Americans.

Theoretical framework

Ultimate (adaptive) and proximate (mechanistic) theories of grandparenting predict beneficial outcomes associated with becoming a grandparent. Evolutionary reasoning provides an

adaptive explanation for the long post-reproductive lifespan observed in humans. Human females produce multiple highly-dependent offspring in quick succession compared to other primates. This means that mothers need help raising offspring, and this confers a fitness advantage to kin-helpers such as grandparents (17). Maternal help comes from both kin and non-kin networks but grandparents, and especially grandmothers, are of great importance, although there are differences by lineage (18). Evolutionary theory predicts that the maternal grandmother should be of the most assistance and have the most to gain by alloparenting. Behaviours such as helping kin (and non-kin) are reinforced by a reward system; nepotistic effort is an important “life effort” in later life and is therefore perceived as highly rewarding (19). We would expect therefore that becoming a grandparent is associated with both improved subjective well-being and possibly also longevity. Indeed, some evidence for increased longevity has been found in Norway (20) where becoming a grandmother after the age of 50 only, was associated with lowered mortality compared with those parents who remained grandchildless, although for men the found that there was a mortality *penalty* to being a grandfather. In Germany too, Hilbrand et al. (2017) observed that grandparents who actively took care of grandchildren lived on average five years longer compared to those who did not contribute childcare, and those who were not grandparents (they did not compare by gender).

Sociologists too agree that grandmothers are important kin for helping raise children: the kin-keeper theory holds that women play a pivotal role in nurturing the ties that keep families together (21). Kin-keeper theory emphasises the role of women’s socialisation into gender-typical roles, where fulfilment of this role can have positive effects and work to strengthen family networks. The prediction here is thus that women should benefit more from grandparenting than men. And indeed some empirical evidence does support this gender

difference (6,8). Becoming a grandparent might also insure against future loneliness. Strong family networks are argued to be beneficial to mental and physical health in older age (22–24). However, these relationships might be more nuanced than this; in Germany, Pashos (2016) found no effect of grandchildren on grandparents' life satisfaction but he found that they were less lonely, and that simply having grandchildren was given as a source of happiness.

Another argument is that grandparenting can be understood in terms of delayed reciprocal altruism. The idea is that help, or other types of investment, is provided by grandparents with the expectation that later in life, when they need it, the grandchildren (or their parents) return the investment (26). This is contrary to evolutionary reasoning that predicts investment to flow down the generations, not upwards. Evolutionary theory regards the relative reproductive value of the recipient; there is no fitness benefit to investing in the post-reproductive generation when in fact the fitness of the younger family members would be *reduced* (by definition there is a cost to investment), as well as the inclusive fitness of the grandparents (27). Further to this, Frans de Waal (28) argues that the delay between the altruistic act and the payback is too long to motivate reciprocally altruistic behaviour. He argues instead that empathy is the mechanism that promotes pro-social behaviour – grandparents care about their children's and grandchildren's well-being because their empathic understanding motivates them to attend to their family's needs which in turn produces psychological benefits from giving support. The prediction to both these arguments is that we should *not* find gender differences in well-being between grandparents.

Although these theoretical perspectives pertain to grandparental investment, by either active grandparenting or by investing in material ways, simply becoming a grandparent, in

expectation of active grandparenting should nevertheless also instil feelings of hope, happiness and solicitude towards the new grandchild and the new parents. In summary, we expect that there should be a positive impact of becoming a first-time grandparent on subjective well-being, and that women might benefit more than men. We further hypothesise that this association might only be observable after some period of time, i.e. once the grandchild is a few years older. In addition, in the US where we can explore harsher conditions (less generous welfare state and higher infant mortality among the Black population), we expect there to be a stronger, or more easily observed influence on grandparents' well-being.

Materials and Methods

Data and samples

We use data from the Health and Retirement Study (HRS) collected biennially in the US comprising an analytical sample of 4,732 (54% female) of whom 2,061 (1,097 women and 964 men) became a grandparent within the study period. The data we used from the English Longitudinal Study of Ageing (ELSA), also collected biennially, is comprised of 4,675 respondents, of which 1,964 (1,024 women, and 940 men) became new grandparents. A detailed description of the data and the sample selection process are provided in the supplementary material.

Analytical strategy

Within-person fixed effects methods are most appropriate for estimating the effects of an event on subjective well-being for two primary reasons. First, longitudinal data allow the measurement of a baseline level of subjective well-being and for a comparison to be drawn between that individual's own measure of well-being at a later stage. As such we avoid

comparing subjective well-being across individuals. Subjective well-being is, by definition, particular to an individual and comparing across cases leaves too much scope for finding differences where the differences are not substantive but merely a product of people's subjective ideas of what something like sad or happy means to them. Secondly, fixed effects models are able to adjust for unobserved time-invariant confounders.

The measurement of the event is simply that an individual goes from being a non-grandparent to becoming a grandparent between two consecutive waves, i.e. they report having no grandchildren at one wave (time = -1) and report having one (or more) grandchildren at the next wave (time = 0). For descriptive statistics, we assigned non-grandparents (i.e. those who did not transition) to a randomly allocated time of event (t=0). Due to very small numbers of survey respondents who are observed at the ends of the study period (i.e. many years before or after the event), we truncated the time span at five years on each side of the event.

Variables:

CES-D scale of depressive symptoms

Both surveys collect data with a battery of questions regarding depressive symptoms. The Centre for Epidemiologic Studies of Depression scale (CES-D) is an 8-item score which is the sum of the number of depressive symptoms reported. It is commonly used and is reasonably comparable to the Euro-D scale that was used in the SHARE study, although formal tests of their comparative value have shown that risk factors for CES-D tend to be a little stronger than for Euro-D (29).

Subjective life expectancy

This is a measure of people's expected survival chances over the following ten to fifteen years. In ELSA, the question is posed as "what is the expectation (%) that you will live to [age]?" ELSA uses a slightly different set of ages than the HRS, in particular, the ages used by ELSA range from 75-120 while the ages used in the HRS range from 80-100. Specifically, in ELSA, respondents are asked the probability (%) of living to 75 if the respondent is under 65; the probability of living to 80 if the respondent is aged 66 to 69; etc. for 5-year age intervals until age 109, and finally the probability of living to 120 if the respondent is aged 110-119.

We also control for the potential confounders of age, marital status, and employment status in the models, as these can vary over time.

Results

Table 1 presents the means and proportions for all variables for those who became a new grandparent during the survey period, at the time before the event (i.e. time -1), and for those who did not become a grandparent having a randomly-assigned time of event. Table 2 gives results for fixed effects models of the association between becoming a new grandparent and CES-D scores and subjective life expectancy, for men and women from both datasets. Table 2 also shows results from random effects models and Hausman tests, for comparison. The Hausman tests show that in all cases, the fixed effects approach was the appropriate model. Overall, our results from the fixed effects models show little convincing evidence that becoming a grandparent is associated with improved subjective well-being. Only in the case of subjective life expectancy, but only for women, and only in England, was positively and significantly associated with becoming a grandparent. These findings are almost identical to the findings from the European study that we are replicating (6). The CES-D score for HRS

women is also marginally significant ($p=0.049$) but we do not want to give much weight to this association as it does not stand up to robustness tests in the other analyses (with age of grandchild and ethnicity, as shown in tables 3 and 4).

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Table 1: Descriptive statistics taken at time -1 for those who become new grandparents and those who did not (with a randomly-assigned t-1)

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Variables	ELSA				HRS			
	Grandparents Men	Grandparents Women	Non-Grandparents Men	Non-Grandparents Women	Grandparents Men	Grandparents Women	Non-Grandparents Men	Non-Grandparents Women
N (%)	940 (43)	1,024 (41)	1,266 (57)	1,445 (59)	964 (44)	1,097 (43)	1,222 (56)	1,449 (57)
CES-D score [mean (s.d.)]	1.0 (1.6)	1.5 (1.9)	1.2 (1.9)	1.4 (1.9)	1.0 (1.7)	1.4 (2.0)	1.1 (1.7)	1.4 (1.9)
% chance of survival [mean (s.d.)]	64.8 (23.4)	67.2 (22.4)	62.2 (24.6)	65.6 (23.5)	46.7 (29.9)	55.5 (29.7)	47.3 (29.3)	51.4 (30.5)
% married	88.5	82.5	84.3	75.8	84.3	72.7	83.1	63.8
% employed	63.3	60.1	65.0	57.0	64.1	60.5	58.8	49.9
% Black (US only)					10.9	12.8	12.6	14.9
% White (US only)					80.2	79.5	77.0	75.6
Age [mean (s.d.)]	60.0 (6.7)	57.7 (6.3)	60.2 (8.7)	58.6 (9.6)	59.2 (6.9)	57.1 (7.3)	60.9 (9.2)	60.9 (11.4)
Waves [mean (s.d.)]	5.5 (1.6)	5.7 (1.6)			5.8 (2.0)	5.9 (2.0)	4.3 (1.9)	4.4 (2.0)
Post-transition waves [mean (s.d.)]	2.1 (1.67)	2.2 (1.7)	-	-	2.5 (2.0)	2.6 (2.0)	-	-

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

	Fixed effects	Random effects	Hausman test	N	N who became a GP
	Coef. (s.e.)	Coef. (s.e.)	(χ^2)		
ELSA					
Women					
CES-D score	-0.02 (0.05)	-0.10* (0.04)	59.1***	2,426	992
Subjective life expectancy	1.87**(0.57)	3.07*** (0.50)	57.4***	2,422	983
Men					
CES-D score	-0.05 (0.05)	-0.09* (0.04)	117.0***	2,160	894
Subjective life expectancy	1.14 (0.61)	2.10*** (0.55)	51.8***	2,210	891
HRS					
Women					
CES-D score	-0.10* (0.05)	-0.10* (0.06)	121.64***	2,480	1,064
Subjective life expectancy	-0.21 (0.75)	-0.06 (0.20)	45.68***	2,445	998
Men					
CES-D score	-0.02 (0.05)	-0.04 (0.04)	109.26***	2,101	879
Subjective life expectancy	-0.62 (0.80)	-1.55* (0.67)	105.94***	2,081	846

All models control for age, marital status, and employment status.

GP = grandparent

***=p<0.001, **=p<0.01, *=p<0.05

To investigate whether the impact of becoming a grandparent might only be discernible after a longer period of time (i.e. when the baby is older), we included an interaction term for time after the birth, set at two years in each case. Table 3 shows that there is no compelling evidence for differences between grandparent well-being in the first two years of being a grandparent, and later, after two years from the birth of the grandchild. In table 3, the coefficients can be interpreted as the direction and magnitude of the association between becoming a grandparent and subjective well-being, first for the first two years after the baby arrives, and then for the time thereafter. The p-value given is for the *difference* between those two associations. There is one significant interaction for English men's subjective life expectancy: it decreases in the first two years but once the grandchild is more than two years

old, grandfathers report higher survival chances; neither of these associations are significant from zero but the difference between them is significant. Overall, therefore the evidence for delayed effects is weak and so we are confident that this is not the reason for previous work not observing any associations. Results for other ages show similar findings; available in the supplementary material (table S1).

Table 3 Results for testing for delayed ‘effects’ of grandparenthood: up to and after two years after the arrival of the grandchild.

	CES-D score		Subjective life expectancy	
	Coef. (s.e.)	p-value of the difference	Coef. (s.e.)	p-value of the difference
ELSA				
Women				
GP effect 0 to 2 years	0.19 (0.11)	0.269	2.31 (1.24)	0.581
GP effect after 2 years	0.05 (0.12)		3.11 (1.38)*	
Men				
GP effect 0 to 2 years	-0.13 (0.10)	0.816	0.08 (1.39)	0.195
GP effect after 2 years	-0.16 (0.11)		-1.94 (1.48)	
HRS				
Women				
GP effect 0 to 2 years	0.04 (0.09)	0.249	-2.90 (1.38)*	0.356
GP effect after 2 years	-0.09 (0.11)		-1.26 (1.69)	
Men				
GP effect 0 to 2 years	-0.02 (0.09)	0.476	-1.86 (1.50)	0.015
GP effect after 2 years	0.07 (0.12)		3.25 (2.01)	

GP = grandparent

Note: Models are performed on a subset of individuals who were observed at least four times after the grandchild event. All models control for age, marital status and employment status.

**p<0.01 *p<0.05

We also hypothesised that perhaps grandparental effects are only discernible where need is more pronounced. In the US, Black Americans have higher mortality (both adult and infant) than do Whites, and are generally worse off than the general population. We expected therefore to find differences based on ethnicity among in our American sample. However,

results from analyses stratified by ethnic identification did not show any differences between the two groups (Black or White), as shown in table 4.

Table 4 Results for interactions with ethnicity (US only).

	CES-D score		Subjective life expectancy	
	Coef. (s.e.)	p-value of the difference	Coef. (s.e.)	p-value of the difference
HRS				
Women				
Black	-0.11 (0.12)	0.822	1.95 (1.90)	0.176
White	-0.08 (0.05)		-0.73 (0.80)	
Men				
Black	-0.08 (0.13)	0.512	0.33 (2.14)	0.771
White	0.01 (0.05)		-0.32 (0.86)	

Robustness tests

A potential limitation of this study (and to the SHARE study) is that these data come from surveys of ageing. This means that participants are selected on age – in each of these datasets, and in SHARE, only over-50-year-olds are surveyed (and sometimes their younger partners). Given that we select our sample on those who were not yet grandparents when they entered the survey, we eliminate a substantial proportion of the population who were already grandparents by age 50. In Europe, becoming a grandparent happens during early to mid-fifties, but during the late forties is not unusual, with the median age being 51 years. In the US, becoming a grandparent is an even earlier event with the national median age being 49 years (30). In this study, we are therefore limited by our sample comprising those who become grandparents a little later than average. It is difficult to know exactly how this might influence our findings but it is likely then that these participants were a little older when becoming parents and/or their children were a little older when they became new parents.

Later reproduction is associated with higher education, and although this is accounted for by using fixed effects analyses, we caution that our findings can only be generalised to this demographic range. To reassure ourselves that this bias does not affect our substantive conclusions, we further replicated these analyses using data from the UK Household Longitudinal Survey (UKHLS), which collects data from people of all ages. The data are not perfect for these analyses as the question about grandchildren is only asked in every other wave, and the outcome variables are slightly different because they use answers from the General Health Survey to derive a well-being scale. Nevertheless, the data are comparable in every other way. In the UKHLS, 12% of men and 11% of women became grandparents over the study period out of 24,429 respondents who were at risk (23% of all new grandparents were aged under 50). In the UKHLS, we found the same results; no evidence for an effect of becoming a new grandparent on subjective well-being. These results are available in the supplementary material (table S2).

It is also possible that associations may only be detectable for some subsamples in the data. We tested if employment status (at the birth of the grandchild, $t=0$) made a difference by including an interaction term for employment status in the models. Although we found no significant associations in the US data, we do see an interaction in the ELSA data; but only for subjective life expectancy: working men reported lower values of expected survival chances (but non-significant) while non-working (retired and otherwise not in the labour force) men had higher survival expectations (see table S3 in the supplementary material). We also tested if grandparental status was conditional on loneliness; perhaps associations are strongest for lonely people, but again we found no supporting evidence here. In the US, we might expect to find regional differences (Southerners are arguably more family-orientated) and other ethnic differences (e.g. Hispanics might differ from the rest of the population) but

when we tested for both of these, we still find no statistically significant associations. All of these results are available in the supplementary material (table S3). Finally, we re-ran the models with further controls for self-reported health and non-housing wealth to aid comparison with the SHARE study but this did not change our findings either (table S4). The results of all these robustness checks give us confidence that our results really do reflect a lack of, or at least a very weak association between the transition to grandparenthood and subjective well-being.

Discussion

So why would becoming a grandparent *not* be associated with well-being? We presented two possible reasons why data from Europe showed only weak evidence for an effect: the study was over a relatively short time period, and that perhaps grandparent well-being might only be visible after a few years, when the child is a little older. We posited too that perhaps grandparents might benefit more in higher-risk contexts. In this study, we replicated those weak (and null) findings using data from England and the US. These data, collected over a longer period, allowed us to examine the likelihood of delayed affects as well as, for the American sample at least, if effects are discernible for higher-risk groups. We discuss these in turn.

Delayed effect

In both datasets, we tested for evidence for an interaction with the baby's age (at two years after the birth) and found largely that this was not the case. We are thus fairly confident that the effects of becoming a grandparent are not dependent on the age of the grandchild. Perhaps this indicates that face-to-face contact with the grandchildren is necessary to have an association with grandparent well-being, and that the transition to grandparenthood is not in

itself strong enough to have an effect. The association between spending time babysitting new grandchildren and grandparent wellbeing was however tested in the European study but there was no support for this argument (6). In the same data (SHARE), and using an instrumental variable approach, Arpino and Bordone (31) also found little evidence that grandparents who provided childcare were better off in terms of cognitive function.

Low-risk context

Perhaps the problem is that all these studies and indeed much of the literature on active grandparenting is taken from high-income settings where risk is low (14). If the grandmother hypothesis is correct then the female post-reproductive lifespan, and high levels of cooperation, evolved under much harsher conditions than the grandparents in these studies face. Child survival and maternal health are much less salient in industrialised countries, and so perhaps the importance of grandparenting is less visible here too. Modern grandparents might offset risks when they are high, such as when very young motherhood occurs, and especially if the father is not present. One literature that does show strong benefits to grandchildren is where grandparents take on custodial roles, where for whatever reason the middle generation cannot cope with parenthood, grandparents (especially grandmothers) are beneficial for helping to raise the grandchild. Unfortunately, these circumstances tend to have a negative effect on grandparents' well-being (32). A natural extension of this work would be to widen it to low-income settings where harsher conditions might make grandparental advantage more visible. Although in such settings the costs to grandparenting are also higher and so we might not predict a higher payoff to the grandparents, only the grandchildren and possibly the middle generation.

Subjective life expectancy

We did find an association between becoming a grandmother and subjective life expectancy, but only in England and only for women, as was found in the SHARE study. Without overemphasising this finding, if this is a true effect then it supports the kin-keeper theory of grandparenting, which predicts that women should benefit more from grandparenting. It would also support the findings of one study that looked at actual mortality, where grandmothers (over 50 years old), although not grandfathers, had lowered mortality (20). The evolutionary-based grandmother hypothesis would also predict women living longer if they are grandmothers (33) because the argument is specifically to do with the adaptiveness of the post-reproductive lifespan (menopause) which does not directly apply to men. It is thought that the male lifespan extended in our evolutionary past as an adaptation to female lifespan extension. Unlike for women where reproductive costs are very high, the costs to male reproduction are low and so early cessation of the male reproductive career is unlikely to be selected against (17, 34).

Conclusion

Does becoming a grandparent improve subjective well-being? Our study with data from England and the US replicated the findings observed in Europe, that this is *not* the case. Tests for a delayed association with well-being, or that high-risk contexts might explain these results proved fruitless. Evolutionary and sociological theories of grandparenting suggest that there should be benefits to becoming a grandparent, as does the qualitative research on this topic, but perhaps true associations will only be discernible in harsher contexts such as sub-Saharan Africa, where the costs and benefits to prosocial care are more consequential.

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