

# Is grandparenting socio-economically patterned? Evidence from ELSA

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**Abstract.** Grandparents play a vital role in providing childcare to families. Qualitative research and evidence from parents raise concerns that it is grandparents who are socio-economically disadvantaged who provide grandchild care more regularly, perform more intensive tasks, and care out of financial necessity. However, no European studies have investigated these issues at population level. This study is based on grandparents aged 50+ who looked after grandchildren. Data is from wave 8 of the nationally-representative English Longitudinal Study of Ageing (2016/2017). We exploit newly-collected information on frequency of grandchild care, activities, and reasons for care. Using multinomial regressions, we first examined the extent to which grandparents' socio-economic characteristics (wealth and education) are associated with frequency of grandchild care. Second, using logistic regressions, we investigated whether wealth and education are associated with activities and reasons for grandchild care. Overall, grandparents from disadvantaged socio-economic backgrounds were more likely to provide more regular childcare. Similarly, grandparents in the lowest wealth quartile were more involved in caring-related activities (cooking, taking/collecting grandchildren to/from school) whereas highly-educated grandparents are more likely to help grandchildren with homework. Finally, better-off grandparents were more likely to look after grandchildren to engage in grandchildren's development and to provide social support to their parents and less likely to

report difficulty in refusing to provide care. This suggests that grandparents' roles in their grandchildren's lives vary greatly by socio-economic backgrounds.

**Keywords:** grandparents; grandchild care; frequency; activities; reasons; socio-economic position; education; wealth.

## **Declarations**

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**Availability of data and material:** Researchers can download ELSA data from all waves, from the UK Data Service. For more information, please visit <https://www.elsa-project.ac.uk/accessing-elsa-data>

**Code availability:** All analyses were performed using Stata.

**Authors' contribution:** G Di Gessa conducted analyses, drafted the paper, and co-led the interpretation of data with K Glaser and P Zaninotto. K Glaser and G Di Gessa led the conception and design of the study. P Zaninotto contributed to the study design. All authors contributed to the interpretation of data and to manuscript revisions. All authors have read and approved the final version.

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## **Introduction**

The role grandparents play in family life as providers of financial, emotional, and practical support has become increasingly important over the last decades (Herlofson & Hagestad, 2012). However, more intensive childcare tasks may be falling disproportionately on grandparents with the fewest resources, and this may exacerbate existing socio-economic inequalities in later life. For example, data from Europe and the US suggests that grandparents living in households with their grandchildren as well as those who have ‘primary responsibility’ for raising a grandchild are more likely to be socio-economically disadvantaged compared to other grandparents (Fuller-Thomson & Minkler, 2001; Glaser et al., 2018; Hayslip, Fruhauf, & Dolbin-MacNab, 2019). Moreover, researchers have suggested that grandparents providing regular care undertake more demanding activities and help their grandchildren for financial reasons, highlighting further socio-economic disadvantage (McGarrigle, Timonen, & Layte, 2018; Peyton, Jacobs, O'Brien, & Roy, 2001; Wheelock & Jones, 2002). Although family experiences are important for understanding inequality, studies have largely ignored socio-economic differences in grandparenting and more generally in kinship roles of older generations (McGarrigle et al., 2018; McLanahan & Percheski, 2008).

Our study examines whether, and to what extent, grandparents’ socio-economic factors are associated with both the frequency of childcare and the experience of grandparenting. We use novel and recently collected data from the 2016/17 English Longitudinal Study of Ageing (ELSA). New and robust evidence is critical to understand if the role grandparents play in family life reflects socio-economic inequalities in later life.

### *Background*

A considerable body of work shows that around the globe grandparents are significant providers of secondary grandchild care (Grundy et al., 2012; Knodel & Nguyen, 2014; Ko & Hank, 2014; Ku et al., 2013; Laughlin, 2013). In Europe, in 2004/05, 58% of grandmothers

and 49% of the grandfathers looked after at least one of their grandchildren under the age of 16 (Hank & Buber, 2009), with 12% providing care almost daily or at least 15 hours a week (Di Gessa, Glaser, & Tinker, 2016). Given widespread involvement of grandparents in grandchild care, research on this topic has thrived in recent decades and several recent reviews have taken stock of the current state of knowledge on the causes and consequences of grandparental childcare. Grandchild care is seen as important in shaping both grandparents' as well as the middle-generation's (and mothers' in particular) participation in the labour market; in affecting grandchildren's educational attainment and well-being; and in influencing the health and well-being of grandparents themselves (Aubel, 2012; Hank, Cavrini, Di Gessa, & Tomassini, 2018; Pulgaron, Marchante, Agosto, Lebron, & Delamater, 2016). However, little is known about whether grandparents from different socio-economic backgrounds enact their roles differently, and for different reasons.

### *Grandparenting and socio-economic characteristics*

Generally, it is argued that extended family relationships constitute a latent network of kin and linkages which provide a potential for activating in times of need (Riley, 1983). Under this perspective, the use of informal grandchild care might be an adaptive strategy to cope with the cost of formal childcare. In particular, more economically disadvantaged grandparents may not have the financial resources to help their children with formal childcare and may end up giving more practical help by looking after grandchildren (Gray, 2005). Studies on informal care provision support the assumption that poorer families are more likely to provide regular informal care than those better off who have more resources to access, purchase, and use formal care services (de Zwart, Bakx, & van Doorslaer, 2017; Saito, Kondo, Shiba, Murata, & Kondo, 2018). Similarly, education may impact how grandparents think about their roles, including their motivation to become involved in their grandchildren's lives as well as the way they enact and experience grandparenting (King & Elder, 1998). More educated grandparents might be less involved in grandchild care provision or more selective of what activities they undertake

with their grandchildren as they have more active lives outside the family (e.g. through work or volunteering) as well as greater agency to choose their level of involvement (McGarrigle et al., 2018; Mueller, Wilhelm, & Elder, 2002).

Although it is possible that the heaviest inputs into grandchild care are being made by grandparents with the least resources, there has been relatively little examination of the associations between socio-economic characteristics and grandparenting in Europe. Most of the evidence is based on families receiving childcare from grandparents, rather than on the providers themselves (Arpino, Pronzato, & Tavares, 2014; Huskinson et al., 2016; Kanji, 2018). Also, many of the studies which have investigated this issue are qualitative and have mostly focused on socio-economic differences between grandparents who look after grandchildren and those who do not, overlooking differences among grandchild care providers (Airey, Lain, Jandrić, & Loretto, 2020; Glaser et al., 2013; Hank & Buber, 2009; McGarrigle et al., 2018).

Evidence based on parental/family circumstances broadly suggests that, although families across all socio-demographic groups rely on grandparents, there is a greater propensity for those in the lower socio-economic groups to use informal childcare. For example, low-income households with young children in England use more hours of grandparental childcare than wealthier ones (Huskinson et al., 2016), even after controlling for working status (Speight et al., 2009). In Italy, Arpino et al. (2014) found that it is mostly socio-economically disadvantaged mothers who rely on grandparents as primary sources of childcare.

There is less research on socio-economic variations in the extent to which European grandparents look after grandchildren, that is on those who *provide* rather than receive grandchild care. Qualitative work sheds some light on this issue. For example, a qualitative study based on 73 British grandparents suggested that the family's socio-economic circumstances influenced the amount and nature of childcare provided, with grandparents providing more frequent grandchild care in families where mothers were in low-paid or

insecure jobs (Airey et al., 2020). Similarly, in their qualitative interviews with Irish grandparents, McGarrigle et al. (2018) indicated that grandparents from higher socio-economic groups were less likely to provide intensive grandchild care as they preferred and were 'busy with' social and leisure activities; these better-off grandparents also reported adult children who were higher earners and thus better able to pay for formal child care.

The body of quantitative evidence on the association between grandparents' socio-economic characteristics and their involvement in childcare is also scarce in contemporary European societies. In Britain, Dench and Ogg (2002), using data from the 1998 British Social Attitudes Survey, found that working grandmothers in non-managerial jobs were more likely than professional working grandmothers to be involved in childcare. More recent work from Europe based on the Survey of Health, Ageing, and Retirement in Europe (SHARE) suggests that the likelihood of grandparental childcare provision is positively associated with education although a reversed association emerged when intensity of care was considered, with grandparents with higher levels of education less likely to look after grandchildren intensively (Di Gessa, Glaser, Price, Ribe, & Tinker, 2016; Igel & Szyklik, 2011). Moreover, grandparents in the lowest wealth quintile reported lower odds of providing any grandparental childcare in comparison to their counterparts in the higher wealth quintiles (Glaser et al., 2013). However, a recent study on Italian grandparents (which distinguished between childcare provided intensively, occasionally, and during holidays) found few education and wealth differences among grandparents, and suggested that it is those in the higher rather than lower status groups who are taking on such additional family responsibilities (Zamberletti, Cavrini, & Tomassini, 2018).

To our knowledge, no evidence exists at a population level in Europe on whether grandparents' socio-economic characteristics are associated with experiences of grandparenting (activities undertaken and reasons for care). This is mostly because previous European studies were only able to consider limited data about grandparenting due to the lack

of detailed survey questions (Hank et al., 2018). The activities grandparents and grandchildren do together, however, might vary by socio-economic factors. For instance, evidence from the US suggest complex relationships between education and grandparenting, with those less educated more likely to worry about their grandchildren's future, to view grandchildren important for family continuity, as well as to report more contacts and feel closer to their grandchildren. Grandparents from higher levels of education were more engaged in "activities they are more likely to be good at by virtue of having more education" such as giving advice and participating in activities including going to a museum or attending events (King & Elder, 1998, p. 469). Similarly, grandparents' reasons for looking after grandchildren might include financial reasons as well as family values, building a relationship, or personal well-being for which socio-economic statuses might represent differential expectations and levels of choice. For instance, McGarrigle et al. (2018) found among grandparents from higher socio-economic groups their involvement with grandchildren is typically a choice that arises from motives such as having a positive impact on the grandchild's developmental outcomes, whereas grandparents in lower socio-economic groups are more constrained and were often less able to 'say no'.

### *Aim and research questions*

Our work aims to fill an important gap by examining whether and to what extent grandparents' socio-economic characteristics are associated with both the frequency of grandchild care provision and the experience of grandparenting (activities and reasons for care). Based on previous empirical research providing some insight into such associations, we expect to find that grandparents with the fewest resources provide more frequent grandchild care, undertake the heaviest caring tasks, and care mostly out of necessity and involuntary reasons. To date and to our knowledge, no previous European studies have investigated these issues at a population level. Taken together, our study –exploiting newly collected data on grandparenting experiences in England (see below) –aims to better understand socio-economic differences in grandparental childcare.

## Methods

### *Study population*

We based our study on ELSA, an ongoing multidisciplinary longitudinal biennial survey of individuals aged 50 and over (Step toe, Breeze, Banks, & Nazroo, 2012). In the first wave collected in 2002/03, around 12,000 respondents were recruited to provide a representative sample of the population aged 50 and over living in private households in England (household response rate was 70%). More details of the survey's sampling frame, methodology, and questionnaires have been reported elsewhere ([www.elsa-project.ac.uk](http://www.elsa-project.ac.uk)). Data was drawn from the eighth wave of the study, collected in 2016/17, based on 8,445 individual interviews. Wave 8 was the first wave of ELSA which introduced a new module on grandparenting, hence the focus on this wave of the study. Analyses were restricted to respondents who had at least one grandchild under the age of 16 and who provided childcare, resulting in a sample of 2,769 grandparents.

### *Frequency of grandchild care*

All grandparents were asked whether they looked after any grandchildren without their parents being present during the 12 months prior to the interview. Those who reported to have looked after grandchildren were then asked a battery of questions on the periodicity of care (with categories including weekdays, weekends, school holidays, throughout the year, or difficult to say). For each of the categories selected, grandparents were asked to report the frequency. For instance, those who reported looking after grandchildren at weekends were asked if that was mostly 'every weekend', 'every other weekend', or 'less often'. Similarly, if a grandparent looked after grandchildren throughout the year or said that it was 'difficult to say', they were then asked if this had mostly been '4 to 7 days a week', '2 to 3 days a week', '1 day a week', 'up to a few days a month but not each week' or 'less often than once a month'. About 83% of grandparents selected only 1 category, with the remaining combining between



two (9%) and four options (4%). Given that most grandparents reported looking after grandchildren throughout the year, we focused on the highest frequency of grandchild care among grandparents who selected more than one category of periodicity of care. This resulted in five types of grandparental childcare: (i) between 4 and 7 days a week; (ii) 2 to 3 days a week; (iii) 1 day a week; (iv) a few days a month; (v) less often than once a month or only on holidays.

### *Grandchild care activities and reasons for care*

Grandparents were also asked to provide information on the activities undertaken with and for grandchildren. Grandparents who care for grandchildren were given a card listing a number of activities and were then asked which of them they did when they were looking after grandchildren. The following activities were included: having grandchildren stay overnight; caring for them when sick; playing with them and/or taking part in leisure activities; preparing meals for them; helping them with homework; taking them to (or collecting them from) the nursery or school; or just being around in case the grandchildren need them for anything. For each of the activities selected, grandparents were then asked if they were involved frequently, occasionally, or rarely. In our models, we distinguished between tasks performed frequently versus those done less often or not selected at all.

Finally, grandparents were asked to report the main reasons for looking after grandchildren. The following activities were read out: to help them develop as people; it keeps me young and active; it makes me feel engaged with young people; to help his/her/their parents go out to work; to give his/her/their parents a break; to give my grandchild/grandchildren a break; so his/her/their parents can go out in the evening; to help out financially; our family prefers family care; and it is difficult for me to refuse. Respondents could report all the reasons that applied to them, and less than 40 grandparents did not report any of them. In our analysis, we considered all the reasons as binary indicators, with 1 indicating whether the respondent mentioned it and 0 otherwise.

### *Other covariates*

In line with extensive previous studies investigating individual characteristics associated with grandparental childcare, we considered several grandparents' characteristics in our study (Bordone, Arpino, & Aassve, 2016; Di Gessa, Glaser, Price, et al., 2016; Di Gessa, Zaninotto, & Glaser, 2020; Fuller-Thomson & Minkler, 2001; Hank & Buber, 2009; Herlofson & Hagestad, 2012; Igel & Szyklik, 2011). As indicators of socio-economic circumstances, we included education and wealth. Educational level was recoded into three categories (low, middle, high) using the International Standard Classification of Education (<http://www.uis.unesco.org/>), where low education refers to no qualifications or less than O levels (or equivalent) and a high educational level is defined as having a university education or above. Wealth –computed by the Institute for Fiscal Studies (Oldfield, 2018) as the sum of savings, investments, and physical wealth minus debt –was categorised into quartiles.

We also controlled for grandparents' gender as grandmothers are more likely to provide care; and for their marital status (married/cohabiting vs unpartnered) as previous studies found that the presence of a partner is an important resource, as a partner can support and help to organise grandchild care. Given that participation in social activities and paid work has been shown to negatively affect regular provision of grandparental care, we also controlled for whether grandparents volunteered at least monthly (versus less often or not at all) and for their employment status, distinguishing between grandparents in paid work (part-time or full-time) and those retired or in 'other occupations' (including unemployed and homemakers). Moreover, given that younger grandparents (and grandmothers in particular) are more likely to look after their grandchildren and do it more frequently, we controlled for age (as a continuous variable) as well as a quadratic term to account for a non-linear relationship as well as for gender. Also, prior studies suggest that grandparent health is an important factor affecting their ability to look after grandchildren. In our analysis, we then controlled for two indicators of health, that is depression measured by the validated Centre for Epidemiologic Studies

Depression Scale (Beekman et al., 1997), with respondents reporting 3+ depressive symptoms in the week prior to interview classified as depressed, and number of limitations defined as number of difficulties with basic as well as instrumental activities of daily living (ADL).

We also included several children's and grandchild's characteristics, as family structures have been associated with the provision of grandparental childcare (Aassve, Meroni, & Pronzato, 2012; Di Gessa, Glaser, Price, et al., 2016; Herlofson & Hagestad, 2012; Igel & Szyklik, 2011). We included the total number of children and grandchildren grandparents had, as grandparents with more children/grandchildren may limit the amount of support they are able to provide to each. As previous studies indicate that geographical distance plays a substantial role in grandparents' decision to help with grandchild care, we controlled for time to travel to their nearest grandchild (living in the same household or less than 15 minutes away; between 15 and 30 minutes away; more than 30 minutes away). As only 53 grandparents (<2% of the sample) were living with their grandchildren, it was not possible to consider these co-residential grandparents separately in our analysis. Finally, given that previous studies show that grandparents are more likely to look after their grandchildren when they are aged up to 5, to then generally decrease with grandchild's age, we considered the age of the youngest grandchild distinguishing between 0 to 2, 3 to 5, and 6 to 15 years. However, it is worth mentioning that the grandchildren's characteristics in our sample (that is their distance and youngest age) do not necessarily refer to the grandchild grandparents were looking after.

### *Statistical analysis*

A multinomial logistic regression model was employed to investigate the associations between grandparents' socio-economic characteristics and frequency of grandchild care provided, while adjusting for socio-demographic and health covariates and children's and grandchildren's characteristics. To investigate the socio-economic gradient in the experience of grandparenting, we run logistic regressions for each of the activities and reasons for care described above. All analyses were performed using Stata 15.

## Results

### *Descriptive findings*

Table 1 shows the descriptive characteristics of the sample. About a quarter of them were in paid work and had partaken voluntary activities. Almost three out of four caring grandparents lived less than a half hour away from their closest grandchild, and about two third reported having a youngest grandchild aged less than 6 years old.

Table 2 describes the frequency of grandchild care, activities undertaken and reasons for care. More than one quarter of grandparents (28%) reported 2 or more days a week of grandchild care, with eight percent looking after grandchildren almost daily. About one in six grandparents provided care to their grandchildren one day a week, whereas about one third looked after grandchildren less often than a few days a month or during the school holidays. This table also shows that the most reported frequent activities were engaging in leisure activities and preparing meals for grandchildren (~40%). As for reasons, the two most common ones mentioned were ‘to help parents go to work’ (65%) and ‘to give parents a break’ (63%). ‘Preference for family care’ and ‘It is difficult to refuse’ (two options which capture a feeling of obligation towards grandchild care) were the reasons mentioned less often.

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### *Multivariate findings*

Table 3 presents the main effects for the fully adjusted relationship (Model 3) between socio-economic characteristics and frequency of grandchild care. Overall, even after adjusting for grandparents’ socio-demographic and health characteristics and for their family structures,

results suggest an association between socio-economic characteristics and frequency of care. When we consider wealth, results suggest that grandparents from the lowest quartile groups were more likely to provide grandchild care at least 2 days a week, with a clear wealth gradient that was particularly noticeable among grandparents who provided care almost daily. Table 3 also shows that looking after grandchildren only once a week was higher for grandparents in the second highest wealth quartile. Similarly, education was only associated with grandchild care provision once a week, suggesting that it is grandparents in higher education who are more likely to report this intensity of care.

< Insert Table 3 about here >

Associations between grandparents' socio-economic characteristics and activities (Table 4) show that education was generally not associated with the activities grandparents undertake frequently with their grandchildren, with the exception of highly educated grandparents more likely to help with homework. Also wealth, overall, is not directly associated with the activities grandchildren undertake frequently with their grandchildren. A few exceptions, however, are noticeable: grandparents in the lowest wealth quartile are more likely than those in the highest wealth quartile to prepare meals for them and to collect/take them from/to school/nurseries.

< Insert Table 4 about here >

Finally, Table 5 presents the main associations for the fully adjusted relationship between grandparents' socio-economic characteristics and reasons for grandchild care provision. Overall, compared to grandparents in low education, those with higher education levels are more likely to declare that they care for their grandchildren because they want to

help them develop as people, to feel engaged with young people, to help parents (giving them a break or allowing them to go out at night) but also because their family prefers family care. Wealth seems to mirror some of the associations found for education, with grandparents in the lowest wealth quartiles less likely to help parents by giving them a break or helping them to go out at night and to report engagement with the youth. Also, grandparents in the bottom wealth quartile were more likely to report difficulty to refuse grandchild care provision. Table 5 does not show any direct association between grandparents' socio-economic circumstances and financial reasons to help, with only those in the second top highest quartile more likely to mention this reason than the wealthiest group. Similarly, wealth does not relate directly with wanting to help parents to undertake paid work. However, additional analyses (see Supplementary Table 1) which also controlled for the frequency of care show that grandparents providing higher frequency of grandchild (that is at least one day a week) were more likely to report care because they wanted to help financially and help parents go to work as well as because they found it was difficult for them to refuse and because they prefer family care.

< Insert Table 5 about here >

## **Discussion**

Grandparents play a significant role in family life, particularly those looking after grandchildren: it is therefore important to understand whether and to what extent socio-economic inequalities in the provision of grandparental childcare exist. Using a suite of new questions on grandparenting that have been included in the most recent wave of the nationally representative English Longitudinal Study of Ageing, our aim was to understand the contribution of grandparental childcare to socio-economic inequalities among older people. In particular, we aimed to understand whether grandparenting is socio-economically patterned.

In line with earlier studies, our findings show a high level of support in terms of frequency of childcare provided by grandparents, with 46% providing care at least one day a week (and 8% 4 to 7 days a week) (Glaser et al., 2013; Hank & Buber, 2009). We found significant socio-economic inequalities in the frequency of grandparental childcare. Grandparents who are financially worse off were more likely to provide care 2 or more days a week. These findings mirror studies which –investigating the middle-generation rather than grandparents –found that it is the mostly socio-economically disadvantaged parents (and mothers in particular) who rely on grandparents as primary sources of childcare (Arpino et al., 2014; Kanji, 2018; Laughlin, 2013). They are also in line with qualitative studies suggesting a link between intensity of grandchild care and grandparents’ socio-economic position (Airey et al., 2020; McGarrigle et al., 2018). As hypothesised by Gray (2005), more socio-economically disadvantaged grandparents may not have the financial resources available to help adult children with formal childcare (or other related) expenses and may end up giving more practical help by looking after grandchildren. Grandparents who look after grandchildren on a regular basis but only once a week are however more likely to be highly educated and better off. This is in line with McGarrigle et al. (2018) who also found that higher-educated grandparents generally felt they had complete control over their level of involvement in grandchild care, with most choosing relatively lower levels of involvement.

Moreover, our findings (see Supplementary Table 2) confirm a greater involvement of grandmothers as providers of more frequent childcare (Di Gessa, Glaser, Price, et al., 2016; Di Gessa et al., 2020). Associations with the age of grandchildren also may suggest that daily grandparental care reflects arrangements between parents and grandparents particularly when the former have no regular weekly work shifts, or when grandmothers are asked to ‘keep’ the grandchildren (daily) after school until one or other parent arrived home from work (Airey et al., 2020; Wheelock & Jones, 2002). However, having more children/grandchildren may limit the amount of childcare support grandparent are able to provide regularly to each of them, in

line with other studies (Aassve et al., 2012; Di Gessa, Glaser, Price, et al., 2016; Zamberletti et al., 2018).

The associations between grandparents' socio-economic characteristics and activities frequently undertaken for/with their grandchildren suggest highly educated grandparents are more likely to help with homework, in line with studies which found that parents' involvement in children's education was higher among more educated ones (Guryan, Hurst, & Kearney, 2008). Finally, we found some evidence that grandparents in the lowest wealth quartile were more involved in caring-related activities (namely, taking/collecting grandchildren to/from school/nurseries, and cooking for them). Although this is in line with qualitative studies which found that grandparents tend to step in when parents are not available (Airey et al., 2020; Wheelock & Jones, 2002), our analysis suggests that this disproportionately falls on those more economically disadvantaged. However, it is also likely that the adult children of grandparents from lower socio-economic groups are themselves from similar backgrounds, and therefore less able to pay for formal childcare.

Our findings also suggest that grandparents' socio-economic characteristics are associated with the reasons why they provide grandchild care. In particular, we found that those better-off (highly educated and in the highest wealth group) were more likely than those worse-off to report grandparenting as a positive experience for themselves (to feel engaged), their grandchildren (to help them develop), and their children (to give them a break and allow them to go out at night). We also found some evidence to suggest that grandparents in the highest wealth quartile were less likely to report difficulty to refuse to provide care. Additional analyses also suggest that grandparents' socio-economic characteristics might indirectly relate to reasons for care via the frequency of grandchild care provided. Indeed, grandparents who care more frequently for their grandchildren want to support parents financially or to help them go to work, in line with findings that grandparents provide more frequent childcare when parents (and mothers in particular) work irregular hours or undertake ad hoc work making formal



childcare arrangements difficult (Airey et al., 2020; Wheelock & Jones, 2002), or where little formal childcare is available (Bordone et al., 2016; Di Gessa, Glaser, Price, et al., 2016; Igel & Szyklik, 2011). Furthermore, grandparents who look after grandchildren almost daily find it more difficult to refuse and prefer family care, in line with qualitative studies which found that regular provision of grandparental childcare is influenced not only by material circumstances, but also by choice and family values (Airey et al., 2020; McGarrigle et al., 2018; Wheelock & Jones, 2002).

### *Strengths and limitations*

We investigated associations between grandparents' socio-economic characteristics, frequency of grandchild care, activities undertaken for and with their grandchildren, and reasons for care. To our knowledge, this was the first study to investigate this issue among European grandparents using a large scale nationally representative survey, and to use a new module on grandparenting that also includes activities and reasons for care.

Our analyses, however, also have some limitations. First, as mentioned above, ELSA does not collect detailed information about the childcare provided to each grandchild, but rather asks a more generic question related to all grandchildren and 'all the time' spent looking after them. Although in our analyses we considered several grandchildren's characteristics (such as the age of the youngest grandchild and where the nearest grandchild lives), we do not know if that is the grandchild grandparents had in mind when they answered questions about provision of grandchild care. Moreover, although the intergenerational decision-making process is generally related to opportunities and resources of three generations (Price, Ribe, Glaser, & Di Gessa, 2018), and parents' characteristics and employment status are important determinants of the need for grandparents as providers of childcare (Di Gessa, Glaser, Price, et al., 2016; Hank & Buber, 2009; Igel & Szyklik, 2011), ELSA does not collect any information on parents. Moreover, as the information was not collected, we could not explore the quality of the intergenerational relationship between parents and grandparents which is also an important

factor to consider when analysing intergenerational transfers. Furthermore, we did not have information on the availability and use of formal childcare (particularly for those aged 6 and younger). Finally, given findings by Zamberletti et al. (2018), we acknowledge that the associations found in our study may vary across countries with different formal childcare settings, family-norms, and employment policies; future studies using country-specific data sets are encouraged to explore this aspect.

To conclude, our study shows that grandparents play an important role in family life, with most grandparents looking after their grandchildren at least weekly. However, grandparents who provide more frequent grandchild care are more likely to be socio-economically disadvantaged. Also, the role grandparents play in their grandchildren's lives vary depending on their wealth and education, with higher socio-economic groups more likely to engage in grandchildren's development and to provide social support to their parents. These findings suggest that the experience of grandparenting is not similar across grandparents of different socio-economic backgrounds. Future research should aim to investigate how these differences affect intergenerational transmissions of socio-economic inequalities to grandchildren, as well as how activities, frequencies, and motivations for grandchild care interact with socio-economic status to affect grandparents' health and well-being.

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## Tables

*Table 1. Sample Characteristics*

<b>Sociodemographic and health characteristics</b>	
Mean Age (SD)	67.37 (6.76)
Mean ADL/IADL Limitations (SD)	0.46 (1.25)
	% (N)
In paid work	26.4 (731)
Retired or in other occupation	73.6 (2,038)
High Educational Qualification	18.6 (508)
Middle Educational Qualification	45.3 (1,234)
Low Educational Qualification	36.1 (984)
Highest wealth quartile	27.6 (758)
2 <sup>nd</sup> wealth quartile	27.3 (478)
3 <sup>rd</sup> wealth quartile	22.4 (614)
Lowest wealth quartile	22.8 (625)
Married/Partnered	76.4 (2,114)
Volunteered	26.8 (743)
Depressed	9.0 (248)
<b>Children's &amp; Grandchildren's characteristics</b>	
Mean number of children (SD)	2.50 (1.31)
Mean number of grandchildren (SE)	4.38 (3.63)
	% (N)
Distance: Co-residing or less than 15m away	51.8 (1,433)
Distance: Between 15 and 30 minutes away	22.2 (615)
Distance: More than 30 minutes away	26.0 (721)
Age youngest grandchild: 0-2	38.4 (1,062)
Age youngest grandchild: 3-5	25.5 (707)
Age youngest grandchild: 6-15	36.1 (1,000)
<b>Total number of respondents (N)</b>	<b>2,769</b>

Source: ELSA, Wave 8 (2016-2017).

*Table 2. Frequency of grandchild care, activities, and reasons*

<b>Frequency of grandchild care</b>	<b>% (N)</b>
4 to 7 days a week	7.8 (215)
2 to 3 days a week	20.5 (567)
1 day a week	17.0 (470)
A few days a month	22.8 (629)
Less than monthly	31.9 (880)
<b>Frequent Activities</b>	
Leisure activities	40.8 (1,129)
Looked after them when ill	4.3 (120)
Prepared meal	39.7 (1,099)
Just around in case needed	34.5 (956)
Taken to/ collected from nursery/ playgroup/ school	25.5 (705)
Stay overnight without parents	15.6 (432)
Helped with homework	12.6 (350)
<b>Reasons</b>	
To help parents to go to work	64.9 (1,796)
To give parents a break	63.0 (1,744)
So parents can go out at night	54.0 (1,494)
It keeps me young and active	45.0 (1,246)
To help them develop as people	42.8 (1,186)
I feel engaged with young people	33.5 (928)
To help out financially	32.0 (885)
To give grandchildren a break	29.1 (807)
Our family prefers family care	22.7 (628)
It is difficult for me to refuse	17.3 (478)
<b>Respondents (N)</b>	<b>2,769</b>

Source: ELSA, Wave 8 (2016-2017).

**Table 3. Associations between socio-economic characteristics and frequency of grandparental childcare. Results from fully-adjusted multinomial regression models – Relative Risk Ratio (and 95% CIs)**

	<b>4 to 7 days/ week</b>	<b>2 to 3 days/ week</b>	<b>1 day/ week</b>	<b>Less than monthly</b>
<b>Education (Ref: Low)</b>				
High Education	1.24 0.84,2.18	1.12 0.77,1.63	2.06*** 1.42,2.99	1.06 0.77,1.46
Medium Education	0.88 0.61,1.26	1.00 0.77,1.30	1.34* 1.01,1.78	0.97 0.76,1.24
<b>Wealth (Ref: Highest quartile)</b>				
2 <sup>nd</sup> quartile	2.21** 1.28,3.80	1.86*** 1.34,2.57	1.65** 1.15,2.35	1.15 0.87,1.52
3 <sup>rd</sup> quartile	3.08*** 1.78,5.33	1.98*** 1.39,2.81	1.32 0.95,1.85	1.06 0.78,1.44
Lowest quartile	4.58*** 2.62,7.98	1.70** 1.16,2.48	1.28 0.86,1.90	1.11 0.79,1.54
<i>Number of Observations</i>			2,693	

Notes. CI = confidence interval; RRR = relative risk ratio. RRRs and 95% CIs obtained from fully adjusted multinomial regression model (with monthly care as reference category). The fully-adjusted model presented here (and available as Supplementary Table 2) adjusted for gender, age, age squared, marital status, employment status, volunteering, depression, functional limitations, number of children, number of grandchildren, distance to the closest grandchild, and age of the youngest grandchild. Source: ELSA, Wave 8. These analyses are restricted to grandparents who reported grandparental childcare. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .



*Table 4. Associations between socio-economic characteristics and frequent childcare activities. Results from fully-adjusted logistic regression models – Odds Ratios (and 95% CIs)*

	<b>Overnight without parents</b>	<b>Looked after them when ill</b>	<b>Leisure activities</b>	<b>Prepared meals</b>	<b>Help with homework</b>	<b>Taken to/from nursery/school</b>	<b>Around in case needed</b>
Education (Ref: Low)							
High Education	0.76 0.53,1.09	0.93 0.51,1.70	1.07 0.84,1.37	1.03 0.80,1.32	1.29* 1.01,1.68	1.27 0.96,1.68	0.92 0.71,1.19
Medium Education	1.18 0.94,1.49	1.06 0.70,1.60	1.13 0.94,1.35	1.07 0.89,1.29	1.25 0.87,1.79	1.21 0.98,1.49	0.94 0.79,1.13
Wealth (Ref: Highest)							
2 <sup>nd</sup> quartile	1.07 0.80,1.45	1.03 0.62,1.70	1.10 0.89,1.37	1.13 0.90,1.41	1.07 0.79,1.47	1.20 0.90,1.61	1.00 0.80,1.26
3 <sup>rd</sup> quartile	1.09 0.79,1.49	0.83 0.48,1.46	1.10 0.87,1.38	1.20 0.93,1.56	1.07 0.77,1.50	1.27+ 0.99,1.63	1.12 0.88,1.42
Lowest quartile	0.98 0.70,1.37	0.63 0.35,1.16	0.96 0.74,1.24	1.30* 1.03,1.65	0.78 0.53,1.14	1.31* 1.01,1.72	1.04 0.80,1.35
Observations	2701	2701	2701	2701	2701	2701	2701

Notes. CI = confidence interval. Odds ratios and 95% CIs obtained from logistic regression models. The fully-adjusted model presented here adjusted for gender, age, age squared, marital status, employment status, volunteering, depression, functional limitations, number of children, number of grandchildren, distance to the closest grandchild, and age of the youngest grandchild. Source: ELSA, Wave 8 (2016-2017). These analyses are restricted to grandparents who reported grandparental childcare. + p < 0.10, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001.

*Table 5. Associations between socio-economic characteristics and reasons for grandchild care. Results from fully-adjusted logistic regression models – Odds Ratios (and 95% CIs)*

	<b>It keeps me young and active</b>	<b>Difficult to refuse</b>	<b>To help grandchildren develop</b>	<b>To engage with young people</b>	<b>Prefer family care</b>	<b>To help out financially</b>	<b>To give grandchildren a break</b>	<b>To give parents a break</b>	<b>So parents can go out at night</b>	<b>To help parents go to work</b>
Education (Ref: Low)										
High Education	1.00 0.79,1.27	0.85 0.62,1.17	2.36*** 1.86,3.00	1.35* 1.06,1.72	1.43* 1.09,1.88	1.23 0.96,1.60	1.18 0.91,1.52	1.33* 1.04,1.71	1.42** 1.12,1.80	0.96 0.75,1.23
Medium Education	0.99 0.83,1.17	0.87 0.70,1.09	1.43*** 1.19,1.71	1.14 0.95,1.37	1.09 0.88,1.34	1.15 0.95,1.39	1.17 0.97,1.42	1.11 0.93,1.33	1.15 0.96,1.37	0.99 0.82,1.19
Wealth (Ref: Highest)										
2 <sup>nd</sup> quartile	1.15 0.93,1.41	1.34 <sup>+</sup> 0.99,1.82	1.00 0.81,1.23	1.02 0.82,1.26	1.22 0.95,1.57	1.27* 1.01,1.58	1.02 0.82,1.28	1.03 0.83,1.28	0.96 0.78,1.19	1.16 0.93,1.45
3 <sup>rd</sup> quartile	1.13 0.91,1.42	1.39* 1.04,1.85	0.87 0.69,1.10	0.87 0.67,1.12	1.07 0.81,1.40	1.10 0.86,1.40	0.89 0.69,1.13	0.86 0.68,1.09	0.89 0.71,1.12	1.21 0.95,1.54
Lowest quartile	1.11 0.87,1.42	1.33* 1.01,1.84	1.01 0.79,1.30	0.78* 0.61,0.98	1.14 0.85,1.53	0.96 0.74,1.26	0.94 0.72,1.23	0.78* 0.60,0.99	0.58*** 0.46,0.75	0.90 0.69,1.15
Observations	2701	2701	2701	2701	2701	2701	2701	2701	2701	2701

Notes. CI = confidence interval. Odds Ratios and 95% CIs obtained from logistic regression models. The fully-adjusted model presented here adjusted for gender, age, age squared, marital status, employment status, volunteering, depression, functional limitations, number of children, number of grandchildren, distance to the closest grandchild, age of the youngest grandchild. Source: ELSA, Wave 8 (2016-2017). These analyses are restricted to grandparents who reported grandparental childcare. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.