

LIVING ARRANGEMENTS, HEALTH AND WELL-BEING: A European perspective

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Populations throughout Europe and the developed world are ageing, with growing proportions over aged sixty. Throughout Europe there have also been increases in the proportions of older people living alone and declines in proportions living with their children or other relatives. However, there are still large differences between European countries in this regard. Living with relatives is much more usual in Southern than Nordic countries. Many commentators interpret these changes positively, arguing that higher incomes enable older people to maintain desired residential independence. However, some negative effects of these trends have also been posited, a debate brought into prominence when the August 2003 heat wave in France led to large numbers of deaths among older people living alone (Tomassini *et al.*, 2004).

Research on how living arrangements influence health and well-being is complicated by the fact that health may also influence living arrangements (this is termed health selection). In one part of our research, we investigated this health selection effect using data on the same individuals over time. Additionally, other factors may influence the association between living arrangements and health status, such as cultural norms which vary between regions and social groups; level of wealth; and presence of friends or relatives outside the household (Grundy, 2001).

In this project, we investigated associations between the living arrangements of older people and their health and well-being across Europe and, in more detail, in England and Wales. Previous research has shown that those living with a spouse are generally better off than others in terms of health and well-being (Grundy, 2001), a finding generally confirmed in our analyses. However, there is less consistent evidence on differences in health and well-being among the non-married older population (never-married, widowed, divorced and separated) according to whether they live alone or with others (Michael *et al.*, 2001; Sarwari *et al.*, 1998). In this report we therefore focus on differences among the non-

married, specifically comparing those living alone and those living with others. We expected that those living alone would report better health than those living with others, at least in part due to health selection. However, as well-being and happiness may depend on the extent to which autonomy and independence are valued by older people, there might be differences between countries in associations between these indicators and living arrangements. We also examined whether the presence of social ties outside the household modifies the association between living arrangements and health and well-being.

Key findings

- Non-married older people are much more likely to live with others in Southern and Eastern Europe than in Nordic countries and Western Europe; married older people in the South and East were also more likely than those in the Nordic region and West to live with a spouse and others, rather than just a spouse.
- Among the non-married in our European data, older women reported being happier and more satisfied with life if living with others than alone. Analyses by region suggested that this was not the case for women in Nordic countries where there was no significant difference in happiness between those living alone and with others. This may be because autonomy and independence are particularly valued in Nordic countries (Tomassini *et al.*, 2004).
- We found no associations between living arrangements and well-being among non-married men. Lack of association may be a result of small sample sizes in our European dataset.
- Analysis of data for England showed that non-married women and men were less likely to have depressive symptoms if they lived with others than alone. This supports the finding from European data for women,

but demonstrates a difference for men not found in the European analysis.

- Using a dataset for England and Wales, both cross-sectional and longitudinal analyses indicated that non-married men and women living alone were more likely to rate their health as good and less likely to report a limiting long-term illness than those living with others. Among women, we also found higher mortality risks among those living with others in comparison with those living alone. These findings are likely to reflect the fact that moves to live with relatives may be prompted by poor health, as confirmed in our longitudinal analysis.
- However, analysis using other data for England and for Europe showed no consistent differences in self-rated health between non-married older men or women living with others and living alone. These differences in results may reflect the fact that measures of self-rated health were different in the different surveys and that sample sizes were smaller in the latter surveys.

Data and measures

We analysed three datasets: the European Social Survey (ESS); the Office for National Statistics Longitudinal Study (ONS LS); and the English Longitudinal Study of Ageing (ELSA). We examined how living arrangements were associated with health and well-being in the population aged 60 and over. We used four categories of living arrangement: living with a spouse only or living with a spouse plus others for those married; and living alone or with others for the non-married.

Our outcome variables included three indicators of psychological health and well-being: depressive symptoms, happiness, and satisfaction with life; and two measures of general health status: self-rated health status, and self-reported presence of limiting long-term illness (LLTI). In the LS analysis we also looked at proportions dying during a three year follow up.

Results

Living arrangements by region of Europe

Initially we analysed how living arrangements differed by region of Europe using the ESS, taking account of other factors including age, education, income, feelings about income, and health. Figure 1 shows the likelihood of living with others compared with alone among non-married women for each region compared with the Nordic region. The odds ratio is a measure of association between two factors and compares whether the probability of a certain event is similar for two groups. In Figure 1, for example, the odds ratio for the Southern region is 24, which implies that women in this region are 24 times more likely than in the Nordic region to live with others rather than to live alone.

This analysis demonstrated, consistent with a large body of other research, that non-married older people are much more

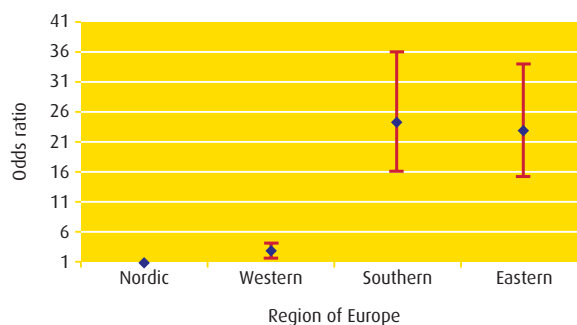


FIGURE 1: ODDS RATIOS FROM LOGISTIC REGRESSION OF LIVING WITH OTHERS VERSUS ALONE AMONG NON-MARRIED WOMEN AGED 60+, 19 EUROPEAN COUNTRIES BY REGION, 2002-4 *

Source: Authors' analysis of European Social Survey 2002-4.

* Controlled for age, education, income, feelings about income, health and widowhood.

Lines around points indicate 95 per cent confidence Intervals.

likely to live with others in Southern and Eastern Europe than in Nordic countries and Western Europe; married older people in the South and East were also more likely than those in Nordic countries and the West to live with a spouse and others, rather than just a spouse.

Living arrangements and well-being

Using the ESS, we examined associations between living arrangements and happiness for men and for women. Figure 2 shows odds ratios from ordinal regression of living arrangements on happiness, comparing the likelihood of happiness among those in other living arrangements with those living alone. The analysis took into account other factors including age, presence of illness, region, socio-economic status and social ties.

Figure 2 shows that those living with a spouse or spouse plus others were more likely to report being happy than those living alone. However, we were more interested in

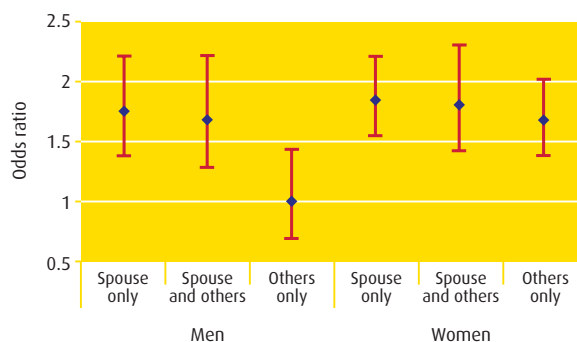


FIGURE 2: ODDS RATIO FROM ORDINAL LOGISTIC REGRESSION OF LIVING ARRANGEMENTS ON HAPPINESS, COMPARING OTHER LIVING ARRANGEMENT GROUPS WITH THOSE LIVING ALONE, AGED 60+, 19 EUROPEAN COUNTRIES, 2002-4 *

Source: Authors' analysis of European Social Survey 2002-4.

* Controlled for region, age, income, education, feelings about income, social ties, widowhood, limiting long-term illness.

Lines around points indicate 95 per cent confidence Intervals.



differences among the non-married, between those living with others compared with alone. Women living with others reported significantly higher levels of happiness and satisfaction with life than those living alone. For men, however, we found no significant difference for this association.

We examined this separately by region and obtained similar results for women as for all regions combined in the West, South and East regions. However, in Nordic countries, there was no significant difference in happiness between those living alone and with others (Table 1). In Nordic countries, where autonomy is highly valued, older people may be happier living alone than in other areas because it enables them to fulfil their desires for independence. Additionally, in Nordic countries there is extensive community support available which may mean that the very frail are able to continue to live alone if desired.

	Odds ratio (OR) (lower=less happy)
Living arrangement (living with others versus alone)	
All regions	1.7 ***
Nordic	1.1
Western	2.1 ***
Southern	2.1 *
Eastern	1.4 *

TABLE 1: ODDS RATIOS FROM ORDINAL LOGISTIC REGRESSION OF LIVING ARRANGEMENTS ON HAPPINESS, COMPARING LIVING WITH OTHERS AND LIVING ALONE AMONG NON-MARRIED WOMEN AGED 60+, 19 EUROPEAN COUNTRIES, ESS 2002-4¹

Source: Authors' analysis of European Social Survey, 2002-4.

* p<0.05 ** p<0.01 *** p<0.001

¹ Controlled for age, region, income, education, feelings about income, indicators of social contacts, whether currently widowed, & region for Europe-wide model.

Results from ELSA also showed differences in depressive symptoms by living arrangements. Among the non-married, those living with others were significantly less likely to be depressed than those living alone, after control for other factors including sex, age, wealth, social ties, general health status, and smoking (results not shown). There were no differences in outcome by gender among the non-married.

In summary, our analyses showed that among non-married older people, those living with others were more likely to report high levels of well-being than those living alone, with some regional variation (not in Nordic countries) and gender variation (more among women than men). We found an association between well-being and living alone among men using ELSA but not using the ESS. This lack of association in the ESS may be due to lack of statistical power due to small sample sizes in European regions – compared with women, there are relatively few men who do not live with a spouse. This would need further investigation.

Living arrangements, health and mortality

Using the LS, cross-sectional analyses showed that in 2001, non-married men and women living with others were more likely to rate their health as bad than good or fair and more likely to report an LLTI than those living alone. Women living with others were also significantly more likely to die in the three years following 2001 than if they lived alone. These results are shown in Table 2.

We also carried out longitudinal analysis using the LS to at least partially control for the fact that health status may influence living arrangements (health selection) and these results supported our cross-sectional findings. We examined changes in living arrangements for the non-married between 1991 and 2001 and association with health status in 2001, taking into account LLTI in 1991. Women who changed from living alone to living with others between 1991 and 2001 and who lived with others at both time points were more likely than women living alone at both 1991 and 2001 to report an LLTI in 2001, to report poor self-rated health and to die in the three years following the 2001 Census. We observed the same result for men who lived with others at both time points. However, there were no significant differences in health or likelihood of death between men changing to live with others and those living alone at both time points. The reason for this gender difference among the non-married would need to be explored further.

These findings were not supported by our analyses of the ESS or ELSA. Using the ESS, we found that non-married women living with others were significantly more likely to report good health than those living alone, (Odds Ratio 1.27; Confidence Interval 1.04-1.57). There was no such difference in self-rated health for men. When we examined these associations separately by European region, we found no significant associations for men or for women. In England using ELSA, we also found no associations between living arrangements and self-rated health among the non-married, for either gender.

We therefore obtained mixed results from our different datasets on the associations between living arrangements and self-rated health. Using the LS, we found that living alone was associated with better health than living with others, but in the other two datasets we found no consistent associations. These differences may result from

Health outcome	Odds ratio (OR)	
	Men	Women
Poor self-rated health status	1.3 ***	1.4 ***
Limiting long-term illness	1.2 ***	1.3 *
Death Census 2001 to end 2004	1.1	1.2 *

TABLE 2: ODDS RATIOS FROM LOGISTIC REGRESSION OF LIVING ARRANGEMENTS ON THREE HEALTH OUTCOMES, COMPARING LIVING WITH OTHERS AND LIVING ALONE AMONG THE NON-MARRIED AGED 60+, ENGLAND AND WALES, ONS LS, 2001¹

Source: Authors' analysis of ONS Longitudinal Study, 2001.

* p<0.05 ** p<0.01 *** p<0.001

¹ Controlled for age, region, housing tenure and car access in 1971 and 1981, and social class in 1971 for men.

different measurement methods for self-rated health in the different surveys used. Additionally, small sample sizes in the ESS and ELSA, especially for men who are less likely than women to live with others, may have limited the statistical power of our analyses.

Influence of social ties on the association between living arrangements and health

Previous studies have shown that the combination of living alone and having few social ties outside the household may be particularly health damaging (Fratiglioni *et al.*, 2000). We therefore examined whether the presence of social ties modified the association between living arrangements and health and well-being, using ELSA and the ESS. We found some evidence for this.

Using ELSA, we used contacts with children and relatives, and with friends as indicators of social ties. We found that contact with friends modified the association between living arrangements and self-rated health among the non-married. Those seeing friends more than once per week were less likely to rate their health as poor if they lived alone than with others and we found the opposite among those who saw friends less than once per week — they were more likely to rate their health as poor if they lived alone than with others. This may imply that seeing friends is protective for health among those living alone, however it could also reflect the fact that those who live alone and are more healthy are more able to socialise with friends. Longitudinal research would be needed to examine this association further.

Using the ESS, we examined whether having social meetings more or less than once per week influenced the association between living arrangements and health and well-being. However, we found no significant influence of having social meetings at least once per week on the association between living arrangements and health. The sample sizes for these analyses were small and more research would be needed to confirm this finding.

Policy implications and impacts

Our research shows that non-married older people living alone rate their health as better than those living with others but they are more likely to rate themselves as unhappy, dissatisfied with life and to have depressive symptoms. There are increases in the proportions of older populations living alone throughout Europe and these findings suggest that these increases may have some negative implications for the well-being of some.

We found some indication that for those living alone, contacts with friends may be protective for well-being. This indicates that supporting older people who live alone to maintain social ties may be beneficial. There is therefore a need for work on deriving and testing possible interventions that might enable this.

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