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Social Relationships in Later Life: The Role of Childhood Circumstances[†]

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Abstract

Social relationships predict health and emotional wellbeing across the life course. However, it is not known whether gradients in social engagement, social network size or quality in later life mirror socio-economic and health gradients in childhood. This study investigates the long-term impact of childhood circumstances on social relationships.

Data are from the Survey of Health, Aging and Retirement in Europe; a panel survey of people aged 50+. Current social network attributes (size, satisfaction and emotional closeness) and retrospective life history data on childhood health, cognition, SES, and parental characteristics are utilized.

Regression analysis indicates that childhood circumstances predict social network attributes in later life. Emotional closeness partly mediates the relationship between childhood circumstances and social network satisfaction. A strong but differential association between aspects of childhood circumstance and social network attributes was evident. Therefore we critique the index measurement approach which conflates diverse pathways linking childhood and late-life outcomes.

Keywords: Childhood Conditions, Social Engagement, Loneliness, Life Course Effects

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1. Introduction

There is an established body of research in social epidemiology which links both health and emotional wellbeing to social interactions (Berkman, 1984; Berkman and Syme, 1979; Ertel et al., 2009; Kawachi and Berkman, 2001). Social relations, particularly social engagement are associated with current health and future health, and are comparable to other risk factors for future mortality (such as smoking, alcohol consumption and lack of physical exercise) in terms of their robustness and degree of association (Holt-Lunstad et al., 2010). Those with fewer social ties and lower levels of social engagement are also more at risk of depression, and this is particularly the case for older individuals (Zunzunegui et al., 2003). These differences in social relationships are partly related to socio-economic disparities, for example, a sense of personal control, optimism, social support, and ways of coping have been shown to be associated with socio-economic status (SES) (Taylor and Seeman, 2003).

There is also a growing body of literature which links early life environment to later life outcomes. Childhood and infant attributes including socio-economic status (Cohen et al., 2010), psychological problems (Smith and Smith, 2010), health (Delaney et al., 2011) and cognitive and non-cognitive ability (Doyle et al., 2009) have all been linked to a variety of health and economic outcomes across the life course. The best evidence supports that these relationships are causal (Currie, 2011). The effects of health, SES and human capital investments in childhood are likely to be correlated, but distinct (Almond and Currie, 2011a; Almond and Currie, 2011b).

Recent longitudinal ageing studies such as SHARE, ELSA and the HRS have allowed researchers to take a life course perspective by incorporating data collection on retrospective life histories. However, to date there has been little research on how social relationships in adulthood are impacted by childhood circumstances. Indeed, differences in personality, which may influence social and emotional bonds and preferences, arise early in life (Delaney and Doyle, 2012). Furthermore, poor childhood environment, including low socio-economic status and poorer health, may predict the accumulation of social and economic capital across the life course, and early childhood trauma may be associated with relationship trajectories including union and family formation. Despite the proven importance of childhood effects in these domains, there are few empirical investigations and little evidence on how social relationships are affected by childhood experience. It is not known, for example, whether current social gradients in the prevalence of social network size and quality mirror social, economic and gradients in childhood.

This paper merges these existing, but separate, literatures. Using nationally representative data on older Europeans in 13 countries from SHARE (the Survey of Health, Aging and Retirement in Europe); we investigate the long-run influence of childhood circumstance on various aspects of social relationships in later life. We contribute to the literature by capitalizing on two unique features of the data; 1) a retrospectively reported life history module in wave 3 which provides detailed information on childhood health, cognitive ability, household

facilities and family characteristics; and 2) a module on social networks on wave 4 which provides the most up-to-date methods of examining social relationships through direct and indirect means. This includes objective, structural measurement of social network size and direct appraisal of social network function vis-à-vis network satisfaction and emotional closeness. Additionally, focusing on emotional closeness and adult health, we provide some evidence on the mechanisms through which these life course effects are operating.

The rest of this paper is structured as follows. We provide an overview of the existing literature on social relationships and health in section 2. We discuss the data and methodology in section 3, and present results in section 4. Section 5 concludes the paper with a discussion of the findings and direction for future research.

2. Background

Social Relationships and health

The absence of social ties has now been frequently linked to mortality among older people and stronger social ties have been illustrated as reducing mortality among those who have diagnosed conditions (Berkman and Syme, 1979). In a meta-analysis of the extent to which social relationships influence mortality risk Holt-Lundstad et al. (2010) highlight that certain aspects of social relationships are more predictive of mortality than others, namely more complex measures of social integration compared with a single, proxy measure of social relationships such as living alone. Age, gender, initial health status, cause of death and the follow-up period were not found to moderate this relationship. Overall, they find a 50 per cent increased likelihood of survival for participants with stronger social relationships. The magnitude of the effect for social relationships is larger than that for many behavioral and environmental risk factors, such as smoking and air pollution.

Poor social relationships are also associated with negative health behaviors. Health behaviors in themselves are predictive of health, morbidity and mortality, and include, but are not limited to, positive aspects such as, exercise, consuming a nutritionally balanced diet, adherence to medical regimens and negative aspects such as smoking, excessive weight gain, drug abuse and heavy alcohol consumption (Umberson and Montez 2010). Specific studies using Health and Retirement Survey (HRS) data on older people in the USA have illustrated that those who were lonely were more likely to report less exercise, more tobacco use, less alcohol use and greater average number of nursing home stays (Theeke et al., 2010).

Social isolation and loneliness represent objective and subjective outcomes of the absence of social ties and the absence of defined and needed relationships respectively. Increasing attention is being paid to the prevalence and antecedents of both social isolation and loneliness given strong evidence linking these experiences to impaired physical health outcomes (House, 1988; Seeman,

2001). In older adults specifically, loneliness has been found to be predictive of hypertension, poor sleep and abnormal stress responses (Cacioppo, 2006; Steptoe, 2004). Loneliness is also considered to accelerate the rate of age-related physiological declines through mechanisms such as health behaviour, stress-exposure, physiological stress response, appraisal and coping and restorative processes (Hawkley, 2007). Loneliness also interacts with other subjective emotional states, such as depression, to increase mortality risk among older people (Luanaigh, 2008).

Bearing all these associations in mind, sociological commentators have profiled the mechanisms through which social relations are associated with health. Broadly speaking, these include behavioral pathways whereby social networks influence both positive and negative health behaviors; psychosocial explanations whereby health is promoted via social support, personal control, symbolic meaning, norms and mental health (Umberson, 2010). The physiological mechanism through which social relationships, and by association loneliness, are linked with health are still not well understood. However, such explanations have focused on the role of supportive interactions in benefitting endocrine responses and cardiovascular functions and reduce allostatic load which all represent wear and tear on the body can be amplified under conditions of chronic stress (Umberson, 2010).

Measuring social relationships

The measurement of social networks has been in a constant state of development, and largely data driven. Broadly speaking approaches are either direct or indirect. Indirect measures have been employed in previous wave of SHARE, the English Longitudinal Study of Ageing (ELSA), and the Health and Retirement Survey (HRS). This requires profiling of a collection of ties or demographic proxies (Pescosolido, 2001), and the function of this social network is subsequently inferred (Litwin, 1996). This has been argued to provide an objective delineation of the social network phenomenon (Litwin et al., 2013). Conversely, direct measures constitute an investigation of who is important to the individual and usually involves the naming of members of the network. This reflects the view that social networks are subjective phenomenon and serve a positive function only if they are perceived to be meaningful or important to the individual.

The most recent methodological advances in direct measurement were incorporated into data collection for SHARE wave 4 with the inclusion of the name generator approach, which is augmented by additional measures of network closeness and satisfaction. These appraisals give a respondent-led indication of social network quality. Prior to this, network quality was assumed via various proxy measures such as the presence of reciprocity in the provision of support (Wahrendorf et al., 2010), or the presence of a close confidant. This measurement approach is an important development in social network appraisal due to the fact that it allows researchers to explicitly separate structural and functional aspects of social networks, and places network appraisal in the

control of the respondent. The social network module in SHARE wave 4 builds significantly on earlier applications of the name generator approach contained in the American General Social Survey (Burt 1986; Burt & Guilarte 1986), the Longitudinal Aging Study Amsterdam (van Tilburg 1995), the National Social Life, Health and Ageing Project (NSHAP) (Cornwell, Schumm, Laumann, & Graber, 2009).

Childhood conditions and adult social engagement

The impact of early childhood conditions on both physical and mental health in adulthood and later life has been widely illustrated. Two aspects of early childhood have emerged as particularly influential: health and socio-economic status, both of which affect health in later life, indirectly and directly (Brandt et al., 2012). A number of recent papers using SHARE data have contributed to this topic in a European context, including examining the role of child health in determining adult health and behavior (McGovern, 2012), the effects of early environment on changes in adult health (Hank et al., 2013), and the effects of exposure to World War 2 (Kesternich et al., 2013). Overall, these papers are consistent with the previous literature in finding significant effects of childhood circumstance on adult outcomes.

There is a broad literature discussing the effects of social engagement on the welfare of older age groups, although very few to date which take a life course perspective on this particular issue. This is partly due to limitation in available, reliable data heretofore. A small number of existing papers have examined the effect of childhood SES on later psychological wellbeing (other than health and economic outcomes), such as depression (Gilman et al., 2002), and a bio-psycho-social model of successful aging (Brandt et al., 2012; Pruchno et al., 2010). There is dearth of literature examining the link between childhood factors and social relationships in later life. In our literature review we have only been able to locate one paper which does so (Beatty et al., 2011). However, the authors rely on a relatively small sample from non-representative data, and employ education as their measure of childhood SES.

One of the dimensions of successful ageing measure employed by Brandt et al. (2012) is being actively engaged in socially productive activities (participating in employment, voluntary activities, providing help to grandchildren, living with a partner, or participation in a sports or other type of club). Net of current adult health and socio-economic factors, they find a positive effect of childhood conditions (self-reported childhood health, higher parental SES, above average ability in mathematics and language, favorable living conditions) on the odds of fulfilling all criteria for the bio-psycho-social model of successful ageing adopted in their study. In contrast to this broad measure of activity based social engagement, our data allow us to directly measure both objective and subjective characteristics of the respondents' social networks. Similarly, we differentiate the aspects of childhood environment which affect later outcomes, which allows us to provide some insight into the pathways through which these effects operate.

Research objective

Bearing in mind the wealth of empirical evidence linking childhood environment and later life health outcomes, and the literature which links social relationships and later life health outcomes, the purpose of this study is to investigate whether there is a relationship between childhood environment and social relationships in later life. Three questions are addressed: 1. What is the effect of childhood environment on both direct and indirect aspects of social relationships in later life (social network size and social network satisfaction), 2. Can we separately identify the correlated, but distinct, components of childhood conditions which affect these outcomes, and 3. What are the potential mechanisms present in this relationship?

3. Method

Data and sample

We use data from SHARELIFE (an interim life history wave of SHARE conducted in round 3) which contains information on respondents' childhood conditions (from birth up to and including age 16). This is merged with the social networks module collected in Wave 4. The analytical sample size by country is illustrated in Table 1. Approximately 25,000 individuals were interviewed for wave 3, and approximately 19,000 were interviewed again in wave 4.

Table 1 SHARE Analysis Sample

Country	No.	%
Austria	616	3.2
Germany	1,416	7.5
Sweden	1,378	7.3
Netherlands	1,721	9.1
Spain	1,595	8.4
Italy	2,086	11
France	1,971	10.4
Denmark	1,763	9.3
Switzerland	1,129	6
Belgium	2,247	11.8
Czech Republic	1,359	7.2
Poland	1,685	8.9
Total	18,966	100

Source: SHARE (2010 & 2012)

Measures

The key independent variables of interest are the indicators of childhood circumstance. We construct an index of childhood socioeconomic status using principal components analysis based on parental occupation, rooms per capita,

household facilities, and books in the household (Mazzonna, 2011). This has been previously adopted in research on SHARE (Kesternich et al., 2013; McGovern, 2012), and has been shown to be well correlated with aggregate indicators of economic status (Mazzonna, 2011). We also consider the effects of self-reported childhood health (ranging from excellent to poor), whether the respondents' parents drank heavily or had mental health problems during childhood and the respondent's self-reported language ability aged 10 as a measure of childhood cognition. Although based on retrospective self-reports, this life history data has been shown to be a reliable measure of childhood environment (Haas, 2007, Smith 2009a).

In addition to the name-generator approach employed for the identification and measurement of social and confidant networks in SHARE wave 4, respondents are asked to describe the characteristics of each of their main relationships. The dependent measures of social network size and network satisfaction are investigated in this paper. Emotional closeness to the total social network of the respondent is investigated as a mediating factor between childhood circumstance and social network attributes. Social network size and satisfaction are measured on a scale of 0-10; the latter is defined as the average satisfaction of the respondent with the relationships in their social networks.

Analytic strategy

In order to investigate the extent to which childhood environment predicts social network size and satisfaction, we model each of the social relationship outcome variables as a function of childhood circumstance, and a set of country fixed effects which account for any factors which are common to respondents in a particular country. We also control for years of education, year of birth and year of birth squared (year of birth is equivalent to age as we use a single cross section of data). For illustrative purposes, this model is summarized below with social network size as the dependent variable. The subscript i refers to the individual respondent, and μ_i is the corresponding individual level error term:

$$\begin{aligned} \text{Social network size}_i &= \text{Childhood SES}_i + \text{Childhood Health}_i \\ &+ \text{Childhood Parental Problems}_i \\ &+ \text{Childhood Language Ability}_i + \beta X_i + \text{Country}_i + \mu_i \end{aligned}$$

We account for missing values using the multiple imputations procedure implemented by SHARE (see Christelis, 2011, and the SHARE release guide http://www.share-project.org/fileadmin/pdf_documentation/SHARE_wave_4_release_guide_1.1.1.pdf for further information).

4. Empirical results

Descriptive statistics

Descriptive bivariate statistics for each dependent and independent variable are presented, followed by the results for the Ordinary Least-Squares (OLS) regression analyses. Tables 2 presents descriptive statistics for these variables, along with other demographic controls included in the empirical model.

Table 2 Descriptive Statistics

Gender	No.	%	Language Ability Age 10	No.	%
Male	7,974	43.7	Worse than average	12,127	63.9
Female	10,262	56.3	Better than average	6,839	36.1
Total	18,236	100	Total	18,966	100
Childhood Health Status			Parents Mental Health Difficulties/Drank		
Don't know	11	0.1	No	16,863	89.5
Excellent	6,205	32.9	Yes	1,977	10.5
Very good	6,261	33.2	Total	18,840	100
Good	4,652	24.6			
Fair	1,215	6.4	Childhood SES Index Tertile		
Poor	449	2.4	Lowest SES Tertile	6,252	34.1
Health varied a great deal	85	0.5	Middle SES Tertile	5,944	32.5
Total	18,878	100	Highest SES Tertile	6,120	33.4
			Total	18,316	100

	Median	Mean	SD	N
Age in 2010	67	68.55	9.5	18,236
Years of education	10	10.24	4.6	17,183
Social Network Emotional Closeness	3.2	3.1	0.9	17,993
Size of Social Network	2	2.53	1.6	18,236
Social Network Satisfaction	9	8.83	1.4	17,852

Source: SHARE (2010 & 2012)

The proportion of respondents in SHARE who are female is slightly higher than those who are male. In relation to self-reported childhood health, the greatest proportion of respondents reported having either very good or excellent health (33.2 per cent and 32.9 per cent respectively). A small proportion of respondents reported fair or poor health (6.4 per cent and 2.4 per cent respectively). In relation to language ability at age 10, a large majority of respondents reported their ability as worse than average (63.9 per cent). A total of 10.5 per cent of respondents reported that their parents either drank heavily or experienced

mental health difficulties. These responses were pooled in further analysis given the low numbers reported for each specific item. The mean number of years of education was 10.24 (SD= 4.6) and the mean age of the sample in 2010 was 68.55 (SD= 9.5).

For the outcome variables of interest, the mean network size in the sample was 2.5 (SD= 1.6). This partly reflects the sampling strategy employed in SHARE, whereby the partner of the index (first) household respondent is also eligible to participate irrespective of age, which is associated with an overrepresentation of married or partnered couples in the sample. However, social network size is reported directly by the respondents rather than measured by the researcher based on other network information. Therefore this figure is not open to distortion by the researcher. Social network satisfaction on a scale of 0-10; low to high levels of satisfaction. The mean level of satisfaction is high; 8.33 (SD= 1.4). Finally, emotional closeness to the entire network rated on a 1-4 scale (not very close, somewhat close, very close, and extremely close) was 3.1 (SD= 0.9).

Reflecting the high mean level of network satisfaction, Figure 2 illustrates the distribution of responses. The distribution of social network size is shown in Figure 2. Figure 3 demonstrates the average network satisfaction by country, and illustrates that France has the lowest score, with Denmark having the highest. However, there is relatively little cross country difference in the average score. Figure 4 gives the average size of a social network by country. Networks are largest in Switzerland and smallest in Poland, with the difference being almost a person, on average. Interestingly, the country level patterns illustrated in Figure and 3 and 4 differ.

Figure 1

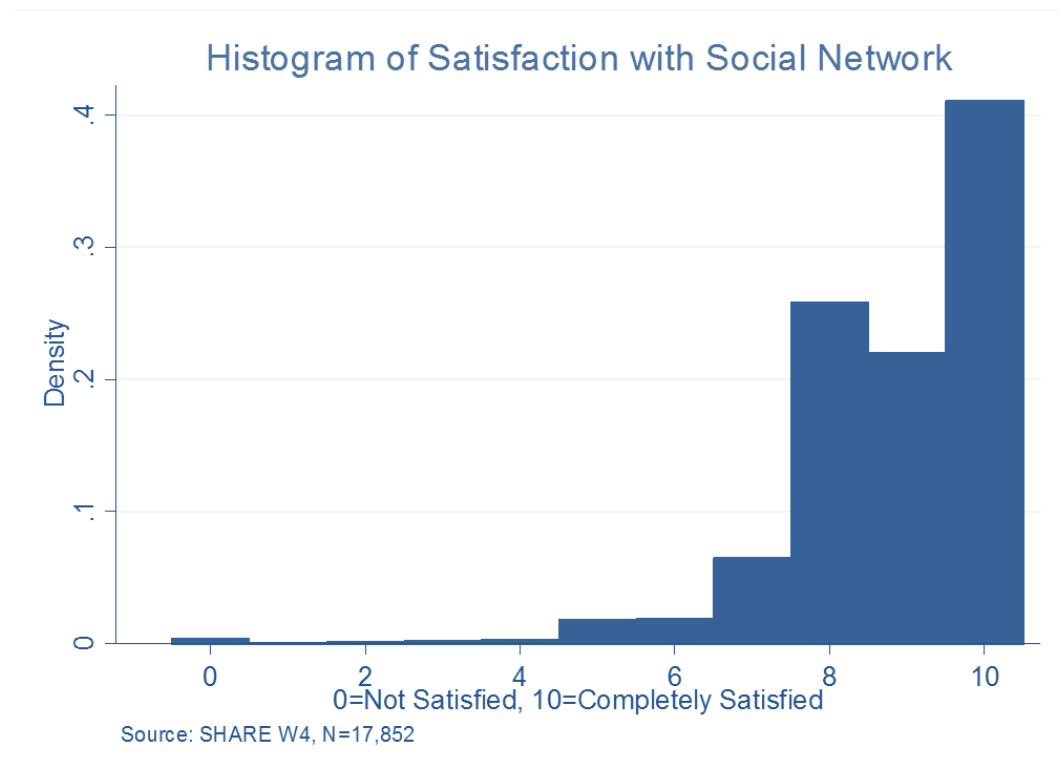


Figure 2

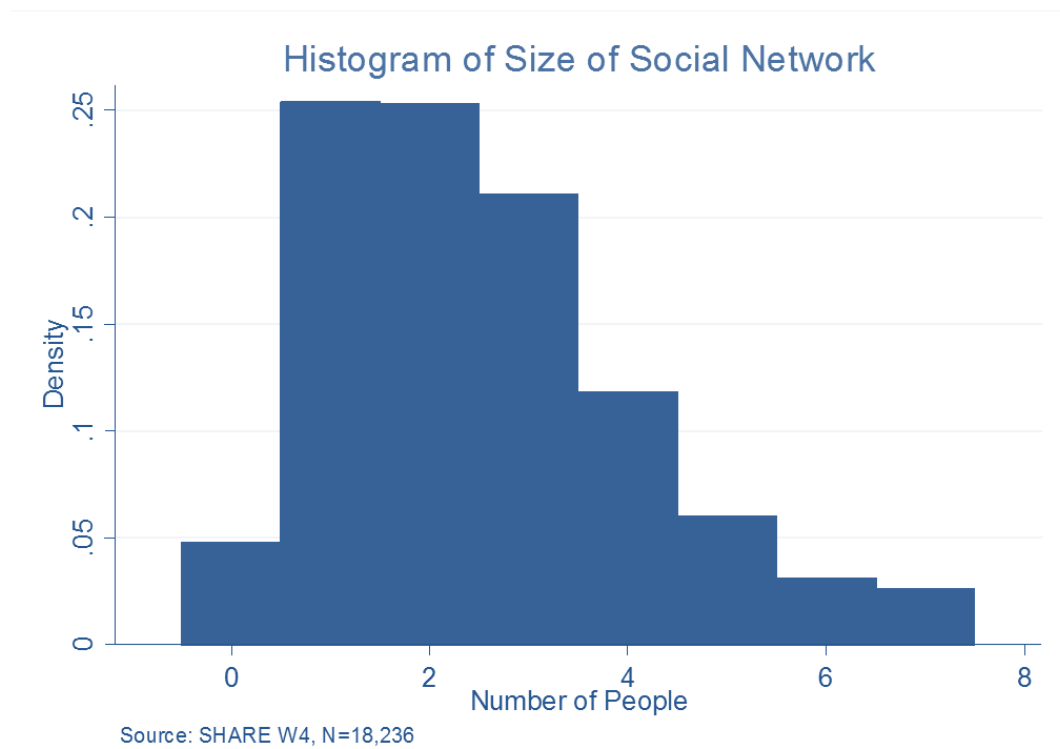


Figure 3

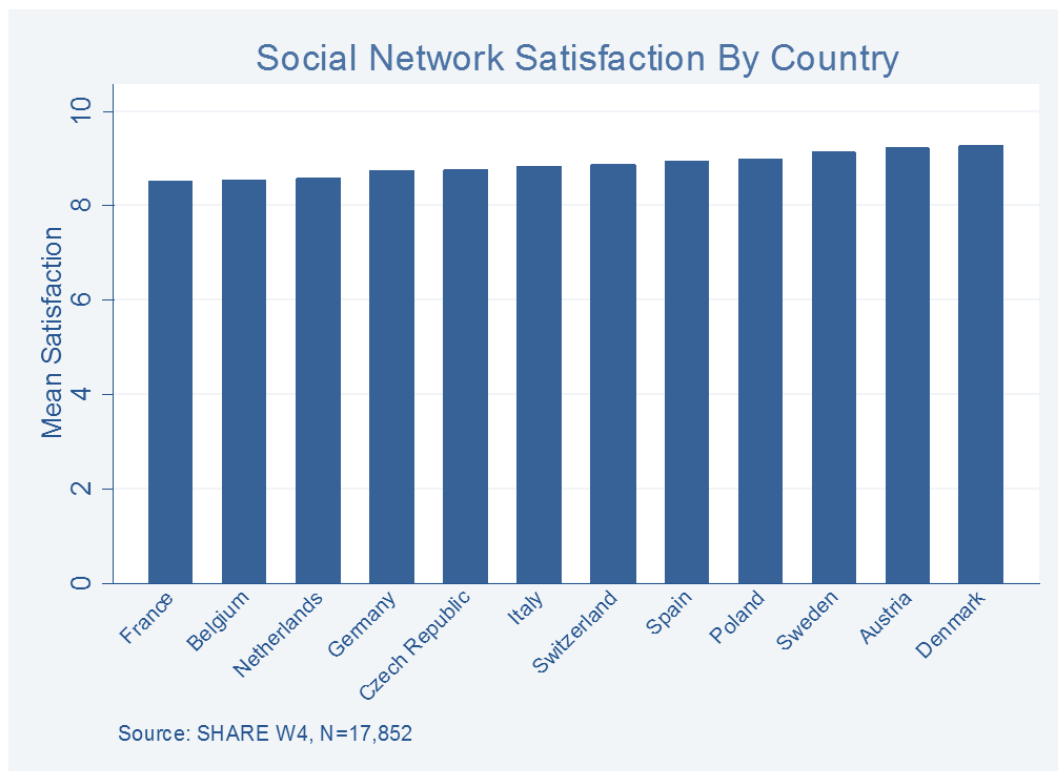
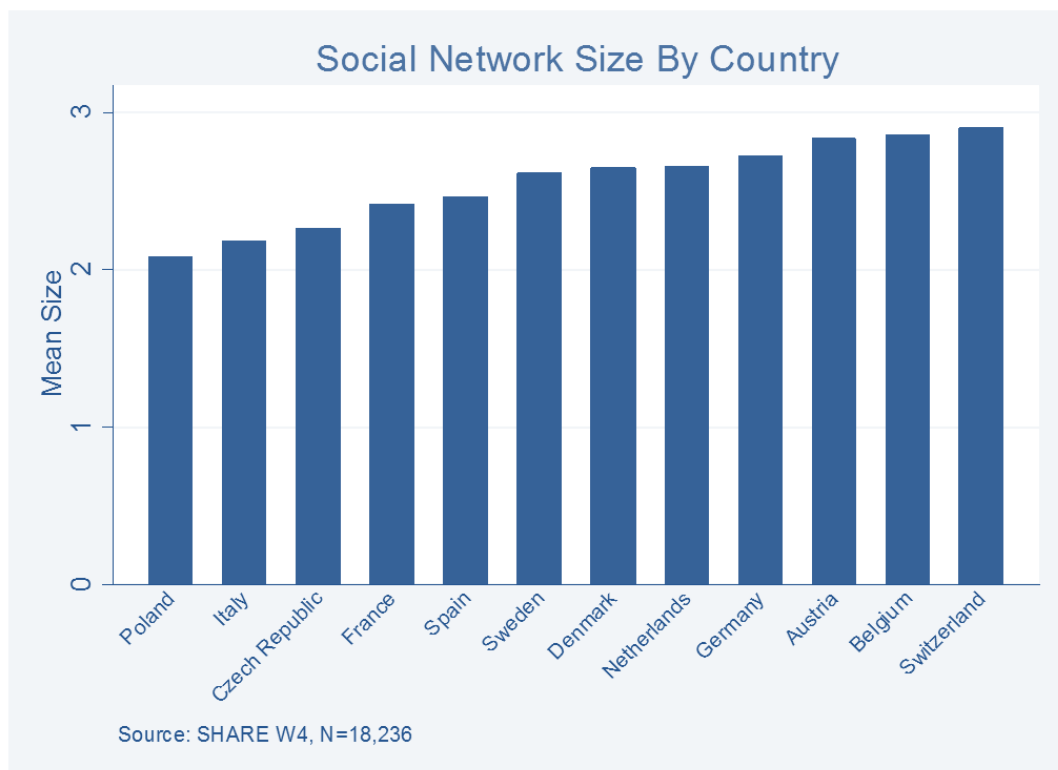


Figure 4



Social network size and satisfaction

Table 4 presents regression results for each social network attribute. In addition to the coefficients shown, we also include country fixed effects which are omitted from the table.

Table 4 Regression Results for Network Satisfaction and Network Size

Variables	OLS Social Network Satisfaction	OLS Social Network Size
Childhood SES: Omitted - Lowest Tertile		
Middle SES Tertile	0.0603** (0.0271)	0.0976*** (0.0297)
Highest SES Tertile	0.0708** (0.0282)	0.2011*** (0.0317)
Good or Excellent Childhood Health	0.0899*** (0.0227)	0.0334 (0.0254)
Average or better at language age 10	0.1048*** (0.0338)	0.1713*** (0.0335)
Parents Had No Mental Health Problems/Drank Heavily	0.0545 (0.0365)	-0.0715* (0.0398)
Years of Education	-0.0040 (0.0028)	0.0278*** (0.0033)
Female	0.0759*** (0.0214)	0.4194*** (0.0242)
Age	0.0395*** (0.0145)	0.0771*** (0.0156)
Age Squared	-0.0003*** (0.0001)	-0.0006*** (0.0001)
Constant	7.6745*** (0.5017)	-0.1044 (0.5564)
Observations	17,290	17,615

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note to table 4: Missing values are imputed with 5 replications. Country fixed effects are also included in the analysis but not shown.

Childhood SES is related to both outcomes; for social network satisfaction being in the highest SES tertile is associated with an increase in satisfaction of .07 points. For network size the highest SES tertile is associated with an extra .2 people. Childhood SES has previously been found to affect child development via access to material and social resources it's influence on reactions to stress-inducing conditions, health, cognitive and socio-emotional outcomes (Bradley and Corwyn 2002). McLoyd (1998) has also show that persistent poverty in childhood has a lasting effect on socio-emotional functioning. Importantly, the relationship between childhood SES and health has previously been shown to be reciprocal over the life course and in combination, predictive of a diverse range of health and wellbeing outcomes, including social wellbeing (Case, Fertig et al.

2005). It is possible that both the quantity and quality of an individual's social network could be negatively influenced by a cumulative interaction between poor childhood SES and health over time.

Being in excellent or good childhood health is associated with an extra .09 satisfaction points, but is unrelated to network size. Poor childhood health has previously been linked to lower educational attainment, poorer health in adulthood and lower SES in adulthood (Case, Fertig et al. 2005). These adult outcomes are also predictive of lower social engagement; however this does not explain the issue of relationship quality evidenced. The direct relationship between favorable childhood health and network satisfaction lends itself to the interaction of the theories of both health selection and socio-emotional selectivity (Carstensen 1992; Lansford, Sherman et al. 1998). Favorable health in childhood is predictive of favorable adult health and longevity. It is therefore possible that the older respondents in the sample experienced more favorable health in childhood. According to socio-emotional selectivity theory, as people reach advanced age they narrow their social network size, concentrating on strong emotional bonds and therefore report increasing levels of network satisfaction (Lansford, Sherman et al. 1998). This may explain the lack of a significant positive relationship between favorable childhood health and network size but instead, a relationship between the former and network satisfaction. Further investigation of predictors of network satisfaction among those who are the oldest old in the sample may advance the understanding of a potential combined process of health selection and socio-emotional selectivity.

Respondents who report they were not below average in language ability at age 10 and are also more satisfied with their social network (by .1 points) and have larger networks (.17 people). Language ability is employed as an indicator of childhood cognition which is important to an individual's sense of coherence; the way they comprehend, problem solve and experience a sense of satisfaction in every-day life (Lundberg 1997). Furthermore, a strong relationship between sense of coherence and adult health has been evidenced (Lundberg 1997).

Family environment has been shown to be central to understanding both mental and physical health outcomes across the life course insofar as family environment can create vulnerabilities and/or interact with genetically based vulnerabilities in children which produce disruption in psycho-social function (emotional processing and social competence) over time (Repetti, Taylor et al. 2002). However, in this study, parental problems are not significantly associated with network satisfaction, and are only marginally associated with network size. It may be the case that the identification of parental problems is not synonymous with negative childhood environment. In this case, the level of exposure the respondent experienced to these problems and/or the consequences of these problems for family stability and wellbeing during their childhood are not known.

Finally, gender is associated with higher satisfaction and size, as is years of education for size. The effect of age is quadratic, and the marginal effect is negative for the sample aged over 50 in these data.

Potential mechanisms

The following section considers the magnitude of the effects presented in Table 4, and the potential mechanisms through which the effects of early environment are operating. The first column of table 5 shows the base specification from Table 4. To evaluate the magnitude of these effects, we also present the total effect of childhood environment as measured by the sum of each of the four indicator variables (health, SES, language ability, and parental difficulties).

Table 5 Regression Results for Network Satisfaction and Mechanisms

Variables	OLS Social Network Satisfaction					
Childhood SES: Omitted - Lowest Tertile						
<i>Middle SES Tertile</i>	0.0603**	0.0466*	0.0454*	0.0401	0.0402	0.0435*
	(0.0271)	(0.0245)	(0.0245)	(0.0246)	(0.0245)	(0.0245)
<i>Highest SES Tertile</i>	0.0708**	0.0528**	0.0490*	0.0427	0.0397	0.0458*
	(0.0282)	(0.0255)	(0.0259)	(0.0260)	(0.0260)	(0.0260)
<i>Good or Excellent Childhood Health</i>	0.0899***	0.0388*	0.0352*	0.0351*	0.0157	0.0120
	(0.0227)	(0.0206)	(0.0207)	(0.0207)	(0.0209)	(0.0209)
<i>Average or better at language age 10</i>	0.1048***	0.0639**	0.0591*	0.0517*	0.0486	0.0496
	(0.0338)	(0.0307)	(0.0306)	(0.0306)	(0.0306)	(0.0306)
<i>Parents Had No Mental Health Problems/Drank Heavily</i>	0.0545	0.0323	0.0266	0.0238	0.0165	0.0171
	(0.0365)	(0.0324)	(0.0324)	(0.0324)	(0.0322)	(0.0322)
Total Effect (Sum of Childhood Effects)	0.320***	0.188***	0.170**	0.153**	0.120	0.124
F Test for Total Effect	9.551	3.700	3.012	2.455	1.535	1.711
F Test P Value for Total Effect	0.000	0.005	0.017	0.044	0.189	0.144
Table 3 Controls	Yes	Yes	Yes	Yes	Yes	Yes
<i>Social Network Closeness</i>	No	Yes	Yes	Yes	Yes	Yes
<i>Adult SES</i>	No	No	Yes	Yes	Yes	Yes
<i>Behaviour and Cognition</i>	No	No	No	Yes	Yes	Yes
<i>Adult Health</i>	No	No	No	No	Yes	Yes
<i>Family and Relationships</i>	No	No	No	No	No	Yes
Observations	16,847	16,661	16,661	16,661	16,661	16,661

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Note to table 5: Missing values are imputed with 5 replications. Country fixed effects are included in the analysis but not shown.

The total effect of the childhood conditions index is .32 in the base specification, which represents an important effect size, given the mean and standard deviation of the dependent variable (social network satisfaction). In order to investigate the mechanisms, we add further control variables for current adult circumstance. As these variables should more correctly be viewed as outcomes of early environment (McGovern, 2013; Smith, 2009b), these results should be interpreted with caution as the coefficients on these variables could reflect at least some of the effects of interest. Nevertheless, the inclusion of these variables provides some guidance as to whether the long run impact of childhood circumstance is operating solely through (for example) adult SES, or health.

We find that adding controls for emotional closeness to the entire social network reduces the effect of childhood conditions index by almost 50 per cent to .188. Controls for adult SES and health reduce the effect further to .12. The total effect of childhood conditions is no longer statistically significant when we control for the emotional closeness to the social network and current adult health.

5. Discussion

This paper contributes to the literature by evaluating the long-term impact of childhood conditions on objective and subjective attributes of social relationships in older using a nationally representative sample of older Europeans. We merge life history data on childhood circumstance with a new and unique module which collected detailed information on respondents' social networks in the Survey of Health, Ageing and Retirement in Europe (SHARE). Our analysis allows us to differentiate between the different aspects of early life conditions which affect socialization in later life. We find consistent effects of early life conditions on both objective and subjective measures of social networks, although the effect differs according to the outcome used. Childhood SES appears to have a direct effect on both network satisfaction and network size, while health primarily effects network satisfaction.

There is some evidence that the effects on network satisfaction are mediated through emotional closeness and adult health. Focusing on emotional closeness, theoretical perspectives which have been used to interpret the causes of loneliness in later life (Victor, 2011) may be of use. In particular, psychodynamic or pathological theory which is based on the Freudian approach proposes that loneliness stems from childhood experiences and development of interpersonal attachment. In this way we can conceive that childhood factors influence network satisfaction through their role in how an individual's develops interpersonal attachment.

The role of adult health as a mediator in the relationship between childhood conditions and social network satisfaction is complex. Childhood health and adult health are highly correlated, and SES gradients childhood have been show to endure throughout adulthood (Case, 2005; Haas, 2011; Hayward, 2004; Kuh and Wadsworth 1993). The presence of reciprocity in a relationship has previously been indicated as underpinning relationship quality (McMunn, Nazroo et al. 2009; Wahrendorf, 2010). Those in poor health are more likely to require increasing amounts of support and informal care from their network. At

the same time, opportunities and capacity to reciprocate through similar means may diminish. Furthermore, the presence of a care-relationship within a social and indeed a family network can be stressful and negative. In this way, it may be that we are observing a relationship between poor health and network satisfaction over the life course.

Finally, the differential effect of aspects of childhood conditions is particularly interesting from a methodological standpoint. Previous studies have controlled for childhood conditions via an index approach which gives equal weight to various, and distinctly different, experiences and circumstances. Our analysis shows that the long-run effects of childhood conditions are not universal. Other approaches have been to take a proxy approach, for example using parental occupation or health isolation as a single measure of childhood conditions. While the different components of childhood health utilized in this study are highly correlated, we show that it is possible to distinguish between their effects. Their differential relationship with social network size and satisfaction reiterates the importance of evaluating a diverse range of childhood indicators if we are to truly understand the long-arm of childhood.

Disclaimer

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