Adult Children's Contacts with Mother in Cross-National Perspective: Does Technology Matter?

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Abstract

Using large representative sample, this paper analyzes the frequency of visits and contacts with mother in 24 countries, and formally tests whether the macro-level factors, specifically – affluence, culture, and technology – help explain the cross-national variations in maternal contacts. Consistent with the previous research, adults who are female, young, with fewer siblings, better educated, religious, reside in close proximity to mother, and hold positive attitudes toward parental support tend to visit and contact their mothers more frequently. The measures of familism are important country-level predictors of the frequency of visits but not other contacts, for which GDP per capita and the number of mobile phone subscriptions are much stronger predictors. The results suggest that the increase in other contacts with mother found in the previous studies is driven not so much by changes in attitudes, values, or preferences but rather by rapid development and proliferation of new communication technologies.

The fortunes of the extended kin ties in postindustrial societies are highly debated. On one hand, classical theories of modernization and family nucleation suggest that the extended family relations have become less important (Burgess 1926; Le Play 1982(1872)). The cross-national differences as well as changes in intergenerational relations over time are usually explained by the decline in familism caused by economic (post)modernization (Inglehart 1997), changes in values (Lesthaeghe and Surkyn 2004; van de Kaa 2002), and the development of the welfare state (Esping-Andersen 1990; Esping-Andersen 1999). The well-documented decline in intergenerational co-residence seems to support this argument (Ruggles 2007; Wall 1989; Wolf 1995). On the other hand, studies that find high levels of affection, consensus, contact, and exchanges between the adult generations in contemporary families (e.g. Swartz 2009) suggest the persistent salience or even "resurgence" of intergenerational relations.

The recent research on changes in interaction patterns of adult children with mother does not help to solve this puzzle: several studies have shown no change (Treas and Gubernskaya forthcoming) or even decrease in visits (Kalmijn and De Vries 2009) but an increase in contacts with mother over time (Grundy and Shelton 2001; Kalmijn and De Vries 2009; Pas, Tilburg, and Knipscheer 2007; Treas and Gubernskaya forthcoming; Vollenwyder, Bickel, d'Epiney, and Maystre 2002), which none of the existing theories could adequately explain.

One of the possible explanations of these seemingly inconsistent findings is related to the diffusion of the new communication technologies. It is likely that proliferation of mobile phones accounts for the observed increase in other contacts with mother over time as well as at least some cross-national differences in the frequency of the maternal contacts. Using large representative sample, this paper analyzes the frequency of visits and contacts with mother in 24 countries, and formally tests whether the macro-level factors – specifically, affluence, culture, and technology – help explain the cross-national variations in maternal contacts.

Background

Adult intergenerational relationships are important for the well-being of both generations. The two-way exchange of money, goods, and informal services between grown children and their parents constitute a valuable resource, which is often activated in time of need (Attias-Donfut, Ogg, and Wolff 2005; McGarry and Schoeni 1995). Intergenerational relationships can be a source of companionship and social support. For older adults, being an active provider in

intergenerational exchange translates to higher levels of life satisfaction (Lowenstein, Katz, and Gur-Yaish 2007), and the receipt of social support moderates the effects of widowhood and declining health on subjective well-being (Silverstein and Bengtson 1994).

There is a long history of research on changes in intergenerational relationships emphasizing the structural and ideational changes in society said to lead to a decline in extended family functions and a weakening of kin control over the individual, although empirical evidence is mixed. Numerous studies show decline in co-residence of adult children with their parents (Ruggles 2007; Wall 1989; Wolf 1995). Research that focuses on other aspects of intergenerational solidarity, however, often reports high levels of affection, consensus, contact, and exchanges between the adult generations in contemporary families (Albertini, Kohli, and Vogel 2007; Attias-Donfut, Ogg, and Wolff 2005; Connidis 2001; Lawton, Silverstein, and Bengtson 1994).

The recent research on changes in interaction patterns of adult children with mother contributes does not help to solve the puzzle: several studies have shown no change or even decrease in visits but an increase in contacts with mother over time, which none of the existing theories could adequately explain (Grundy and Shelton 2001; Kalmijn and De Vries 2009; Pas, Tilburg, and Knipscheer 2007; Treas and Gubernskaya forthcoming; Vollenwyder, Bickel, d'Epiney, and Maystre 2002).

Cross-national research on co-residence patterns and visits show that the degree of familism approximated as public opinion about family issues or welfare regimes typology explains relatively well variations in intergenerational relations between countries (Treas and Cohen 2006). Decline in familism is also consistent with the declining co-residence rates and visits with mother over time. However, the increase in other contacts over time runs against the popular narrative of declining familism, and there is no theoretical perspective that would explain the resurgence in the salience of the extended kin ties.

The goal of this paper is to shed some light on the factors behind the inconsistent research findings and contribute to the "decline-resurgence" of intergenerational relations debate by analyzing the frequency of visits and other contacts with mother in 24 countries. Going beyond explaining individual variations, we consider the effects of macro-level factors on frequency of maternal visits and contacts. We hypothesize that the proliferation of the new communication technologies, namely the mobile phones, rather than resurgence of familism, is behind the

observed increase over time and at least some cross-national variations in other contacts with mother.

Individual-level variations in maternal contact

The life-course perspective and the exchange theories suggest that the extent to which parents and children exchange services depends on their needs for support (both material and psychological) and available resources. These needs can be approximated to a certain degree by socio-demographic factors such as age, gender, marital status, number of siblings, and socio-economic status.

Age: The frequency of intergenerational contacts and the extent of exchange clearly depend on age (Grundy and Shelton 2001; Treas and Cohen 2006). Co-residence rates are high and contacts are relatively frequent between parents and young adults in their late teens and early twenties. When young adults leave parental home – either for work or education – their contacts with mother become less frequent and they decrease even more once the adult children have married and started their own families. Later in life-cycle contacts with mother increase again reflecting the greater need for support of aging parents although it rarely matches the high levels of interaction in young adulthood.

Gender: Women often establish stronger bonds with relatives, especially mothers, as socialization of children and cultural expectations of who within family becomes a caregiver are highly gendered in most societies. Previous studies have found that daughters contact their mothers more frequently compared to sons (Dewit, Wister, and Burch 1988; Spitze and Logan 1991; Treas 1977; Treas and Cohen 2006). Women also tend to perform the role of "kin keeper" (Rosenthal 1985) maintaining contacts not only with parents and siblings but also with other, more distant family members. However, some studies report no gender differences in frequency of face-to-face interactions (Rossi and Rossi 1990).

Marital status: Married adult children contact their parents less frequently (Dewit, Wister, and Burch 1988; Grundy and Shelton 2001) presumably because of the competing obligations to their own families. The need for childcare might intensify contacts with parents when grandchildren are present, especially if parents and adult children live in close proximity. Even if childcare could be arranged, grandparents generally seek contacts with their grandchildren, which can also intensify adult child-parent interaction later in the lifecycle.

Siblings: Presence of siblings reduces contacts with parents because of the shared responsibility for parental support, and the larger the number of siblings an adult child has, the less frequently he or she contacts the mother (Greenwell and Bengtson 1997; Grundy and Shelton 2001; Rossi and Rossi 1990; Spitze and Logan 1991). Large siblingship also increases the chances that at least one of the adult children will live in close proximity to parents (Crimmins and Ingegneri 1990; Lin and Rogerson 1995).

Proximity: One of the most important determinants of adult parent-child contacts is geographic proximity (Crimmins and Ingegneri 1990; Dewit, Wister, and Burch 1988; Greenwell and Bengtson 1997; Lawton, Silverstein, and Bengtson 1994; Rossi and Rossi 1990; Shelton and Grundy 2000). Physical distance obviously imposes great constraints on frequency of face-to-face interaction. Other contacts (by phone or letter) seem to compensate for infrequent visits only to a certain degree (but see Litwak and Kulis 1987). The effect of geographic proximity on frequency of other contacts weaker although at least in Western developed countries it is in the same direction (Rossi and Rossi 1990). It is vital to account for proximity because it is associated with many predictors of kin interaction such as age, marital status, socio-economic status, and religiosity.

Religiosity: Another important predictor of frequency of kin contact is religiosity. Most religions stress the importance of family and parental support, and indeed, religious adult children contact their parents more frequently (Kalmijn and De Vries 2009). But the effect of religiosity is also indirect as it works through the geographic proximity: religious individuals more likely to live very close to or co-reside with their parents (Glaser and Tomassini 2000; Hank 2007).

Attitudes: The frequency of interaction with mother is shaped by children's attitudes and norms about the importance of family relations in general and parental support in particular. Familistic attitudes are strongly associated with co-residnce and high levels of support and exchange between mothers and children.

SES: There are several mechanisms by which socio-economic status shapes the frequency of contacts with mother. First, higher socio-economic status is associated with increased physical distance between generations (Lin and Rogerson 1995). Adult children from upper- and middle-class families attend prestigious colleges irrespective of their location while children from low-income families are more likely to go to the local community colleges to be closer to parental

home. Highly educated young adult also compete on a national or even international job market and move to live closer to their job location. Second, high income reduces the need for financial support (in either direction) and enables purchase of care services that cannot be provided by family because of the distance. But it also makes expensive long distance trips and telephone calls more readily available, which can at least partly compensate for the lack of proximity. Nevertheless some studies that control for proximity still find direct negative effect of education on frequency of adult child-parent contacts (Spitze and Logan 1991). Finally, socio-economic status might influence frequency of contacts with mother through tastes, attitudes and preferences for kin contact. Better educated hold less familisitc attitudes and values () and have somewhat less close affective relations with mothers. However, it remains to be seen whether higher education translates into less frequent maternal contacts once the attitudes are taken into account.

Cross-national variations in maternal contact

"Familism"

Intergenerational relations in different countries are also shaped by cultural, social, economic, and political factors. A simplified but analytically useful approach is to differentiate countries by the importance of family for economic and social security of an individual or the degree of "familism". Familism both reflects and shapes public opinion about family issues, demographic indicators, public policies, and welfare state regimes (). Adult children residing in countries ranked high on familism on average demonstrate higher levels of contact with mother compared to the residents of less familistic countries.

Public opinion: Since 1960s the economic development in most developed countries has been accompanied by changes in norms and values toward greater individualism, which emphasize nuclear family, individual welfare and human capital over extended family, collective welfare, and family networks (Inglehart and Baker 2000; Inglehart 1997). According to Inglehart, economic security gives individuals the luxury of pursuing self-realization and liberates them from the normative constraints that go along with economic dependence on family and community. The Second Demographic Transition (SDT) theory argues that changes in family organization, including intergenerational relations, have largely been due to the rise of individualism linked to increased levels of education and secularization (Lesthaeghe and

Meekers 1986; Lesthaeghe and Surkyn 2004; van de Kaa 1987; van de Kaa 2002).Both theories suggest that cross-national differences in intergenerational relations reflect the differences in the timing of the onset and uneven pace of this transition, which in turn has historical and cultural roots. Nevertheless, in most countries today there are still normative expectations for adult children to support their aging parents although types and extent of the assistance that are deemed desirable vary (Daatland and Herlofson 2003).

Welfare state: According to Esping-Andersen (Esping-Andersen 1990; 1999), welfare regimes differ by the degree of decommodification (independence from the market) and defamilization (independence from the family). Defamilization means that modern welfare state has taken over some functions – specifically, care for young, disabled, and elderly – that used to be performed within families. Most developed countries introduced some form of old-age pensions and social care services for elderly, which significantly improved welfare of elderly and decreased their dependence on children. On the other hand, support for young adults, namely students, facilitates independence from parents at younger ages despite prolonged education.

There are marked cross-national differences in the extent of intergenerational support even within western developed countries. The welfare provision in liberal states (e.g. Australia, Great Britain, U.S.) may not have been very generous to make family irrelevant, but their laissez faire policies promote market based alternatives to family support (private health insurance, private care, volunteer organizations). Conservative-corporatists countries (e.g. Germany, Austria) have more generous public service provision compared to liberal countries. However the benefits are tied to the employment and the policies promote the male breadwinner family type with half-day childcare, child allowances, and taxation discouraging second earners in the family, which imply gendered division of labor and reliance on family for un- or underemployed. Also, their long-standing individualistic values emphasize self-reliance, not familism. Southern European countries (e.g. Italy, Spain) are gender conservative and characterized by heavy reliance on family in providing elderly care, specifically. Socialism introduced more social provisions in Eastern European countries (e.g. Hungary, Poland), but low living standards, shortages of housing and consumer goods, undeveloped service markets kept people depending on kin.

Modern communication technologies

Another factor that has been previously ignored although it might at least partly explain the cross-national differences in the frequency of contacts with mother is the level of development of communication technologies. Modern communication technologies – such as mobile phones but also email, fax and the internet – alleviate the structural constrains imposed by geographic distance, and thus they should impede or facilitate contacts. For example, mobile phones and the internet that have rapidly developed in the past thirty years have enabled frequent communication over long distances that was not possible before.

The cross-country differences in the development of communication technologies are quite substantial and they are only partially explained by the differences in the economic development. We expect that individuals residing in countries with better developed communication technologies will contact their mothers more often.

GDP

Even the developed western countries vary by the degree of affluence and wealth. However, it is difficult to theorize the effect of affluence on the frequency of visits and contacts with mother. On one hand, rich countries are more likely to have generous welfare policies that lessen the need for extended family support. On the other hand, rich countries are also more likely to have better developed and more accessible communication technologies that enable frequent contacts. Thus, it is important to control for affluence while trying to assess the importance of welfare state or technologies for understanding variations in maternal visits and contacts.

Data and Methods

This paper uses the data from the International Social Survey Program (ISSP) 2001 "Social Networks" module. The ISSP data offers a unique opportunity to analyze frequency of visits and contacts with mother in 24 countries: Australia, Austria, Brazil, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Israel, Italy, Japan, Latvia, New Zealand, Norway, Poland, Russia, Slovenia, Spain, Switzerland, and the U.S.

The sample is limited to adult children 18 and older with a surviving mother who do not share a household. The country-specific sample sizes are presented in Appendix A.

The frequency of visits with mother was measured with the question: "How often do you see or visit your mother?" The response categories were: 6 "daily", 5 "at least several times a week", 4 "at least once a week", 3 "at least once a month", 2 "several times a year", 1 "less often", and "never". One way to construct the dependent variable is to assign the average number of visits per year to each category (e.g., 365 for daily, 12 for "at least once a month"). However, the distribution of the resulting variable was extremely skewed. To construct the dependent variable we assigned the numbers 1 to 6 to the response categories with higher numbers indicating more visits. Although, it makes the interpretation of frequency of visits less straightforward, it produces meaningful comparisons between the countries, which is the ultimate goal of this research.

The frequency of other contacts with mother was measured with the question: "How often do you have any contact with your mother, besides visiting, either by telephone or letter?" The response categories were the same as for the question about visits, and we also recoded them into a 1 to 6 scale. The missing values on both dependent variables do not exceed 2% and we exclude them from the analysis.

Individual-level variables

Gender is a dummy variable (female = 1, male = 0). Age is coded into categories with the middle aged adults 35-44 being a reference group. Marital status is a categorical variable with three categories: single/never married (reference), married, and formerly married, which includes widowed, divorced and separated. Education is recoded from the years of schooling into four categories: less than 8 years, between 8 and 12 or still at school, between 12 and 15 or still in college, and more than 15. Employment status is a dummy variable (employed either part- or full-time = 1, else=0). Religiosity is measured as a frequency of the attendance of religious services, and it is a 6-category variable coded from 1 "never" to 6 "once a week". Proximity to mother is measured as travel time to the place where mother lives and it is an 8-category variable coded as follows: 1 "less than 15 minutes", 2 "15 to 30 minutes", 3 "30 minutes to 1 hour", 4 "1 to 2 hours", 5 "2 to 3 hours", 6 "3 to 5 hours", 7 "5 to 12 hours", and 8 "over 12 hours". Attitudes toward family support were measured with the question: "How much do you agree or disagree with the statement "Adult children have a duty to look after their elderly parents"". The standard Likert-scale responses were coded from 1- strongly agree to 5-strongly disagree. we treat frequency of the attendance of religious services, travel time to mother, and attitudes toward

parental support as continuous variables. The detailed descriptive statistics by country and year is presented in Appendix A.

Country-level variables

The familism indicators include public opinion about support for elderly parents, co-residence rate, and the welfare state regime. Public opinion regarding support for elderly parents is an aggregated across countries mean of individual attitudes toward parental support. Co-residence is measured as the percent of adult children with a surviving mother who reside in the same household. Welfare state is a categorical variable. We distinguish between social-democratic (reference), liberal, conservative, Eastern European, and Southern (combines Southern European and Latin American) states.

The technology indicators include the number of telephone landlines per 100 people and the number of mobile phone subscriptions per 100 people. The data comes from the World Bank's online database. Logged GDP per capita is also included as a control variable.

Analytical strategy

First, we analyze the descriptive patterns of visits and contacts across countries. Then, we construct random intercept multilevel models that predict the frequency visits and contacts with mother. First models include only individual-level variables. In the second set of models we add the country-level variables to test whether they help explain cross-national differences in maternal visits and contacts. Because the measures of "familism" and the indicators of technological development might not independent, we specify several alternative models, each containing only one country-level predictor apart from the control variable – GDP per capita.

Results

Figure 1 presents the mean frequency of visits and other contacts with mother in 24 nations. The countries are sorted by the mean frequency of visits from the lowest in the left to the highest in the right. First, cross-national variations in visits and contacts are substantial. Adult children in New Zealand, Japan, Australia, and Canada visit their mother, on average, once a month while Slovenians, Italians, Spaniards, and Israelis, on average, visit their mother more than once a week. Second, in most countries adult children contact their mother by phone or email more often than visit although the frequency of other contacts varies by country as well.

Israelis contact their mother several times a week, on average, but in most countries adult children call or email their mothers at least once a week. However, in Eastern European countries and Chile and Brazil, other contacts are infrequent compared to the visits. For example, Brazilians visit mother at least once a week while contact only about once a month, on average.

Table 1 presents the results from the random-effects models predicting the frequency of visits and other contacts with mother. Model 1 is the baseline model with no covariates. Model 2 adds individual level variables. Overall, the results are consistent with the hypotheses and the previous research on the adult children-mother relations. Women are more likely to visit – and even more likely to call – their mothers compared to men. Younger adults interact with their mothers more compared to older adults. Married adult children are less likely to visit their mother but there are no differences in other contacts by marital status. Number of siblings decreases both contacts and visits. Employed visit mother less frequently. Better educated have more frequent interactions with mother as well as religious individuals and those with positive attitudes toward parental support. Travel time has strong negative relationship with the frequency of visits and contacts: the longer it takes to get to the place where mother lives the fewer visits adult children pay and the fewer phone calls they make. The relationship with visits is nonlinear, and the relative importance of travel time declines as travel time increases.

Table 2 presents the results from the random-effects models predicting frequency of visits with mother using the country-level covariates. Model 1 apart from the individual-level predictors includes GDP per capita. Consistent with the postmodernization thesis, people in affluent countries tend to visit their mothers less frequently. However, this relationship become insignificant once the measure of public opinion about parental support is added in Model 2. This gives support for the second demographic transition argument as non-traditional public opinion about support for parents is a stronger predictor of less frequent maternal visits than country wealth. Model 3 adds co-residence rates further testing the hypothesis about the importance of familism for understanding cross-national differences in visits with mother. Not surprising, adult children residing in countries with higher coresidence rate visit their mothers more often that adult children living in countries where co-residence is rare. Finally, Model 4 includes the welfare regimes dummies. As expected, residents of the countries that belong to the welfare regimes ranked higher on familism – Southern and Eastern European – see their mothers more frequently.

Table 3 shows the results from the random-effects models predicting frequency of other contacts with mother using country-level covariates. As with visits, Model 1 includes GDP per capita. The coefficient is positive and significant, which means that, unlike with visits, people in wealthier countries call or email their mothers more often. Model 2 includes the measure of public opinion about parental support, and it is not statistically significant while GDP per capita is. Model 3 includes the dummies for the welfare regimes. Only residents of the countries that belong to Southern regime contacts their mothers more often than the residents of the other countries while GDP per capita is also strongly significant. This provides only weak support for our hypothesis that familism increases other contacts with mother.

Finally, Model 4 and Model 5 include the number of landline telephones per 100 people and the number of mobile phone subscriptions per 100 people, respectively. Controlling for GDP, only the number of cell phone subscriptions is statistically significant – the more mobile phone subscriptions in a country, the more often adult children contact their mothers. It is important to note though that the GDP per capita is no longer significant in both Model 4 and Model 5. Although highly correlated, the level of cell phone proliferation better predicts the frequency of other contacts with mother compared to overall country wealth.

Conclusion and Discussion

There are considerable variations in frequency of visits and contacts with mother that are largely reduced by taking into account the demographic differences as well as individual variations in residential proximity to mother and attitudes toward parental care. Consistent with the previous research, adults who are female, young, with fewer siblings, better educated, religious, residing in close proximity and holding positive attitudes toward parental support tend to visit and contact their mother more frequently. Not married and unemployed individual also visit mother more often.

At the macro level, familism is a strong predictor of high frequency of visits: public opinion strongly supportive of parental care, high incidence of co-residence, and Eastern European or Southern welfare regime types are all significantly and positively related to the frequency of visits with mother. With respect to other contacts, which are most likely to be phone calls, the picture is quite different. Familism has low predictive power as public opinion toward parental support does not seem to matter, and only Southern welfare regime is positively

associated with high levels of interactions with mother. However, affluence and technology do play a role. Higher GDP per capita and more mobile phones are predictive of high frequency of other contacts with mother.

The results suggest that the increase in other contacts with mother found in the previous studies is driven not so much by changes in attitudes, values, or preferences but rather by rapid development and proliferation of new communication technologies.

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Figure 1: Mean frequency of visits and other contacts with mother by country

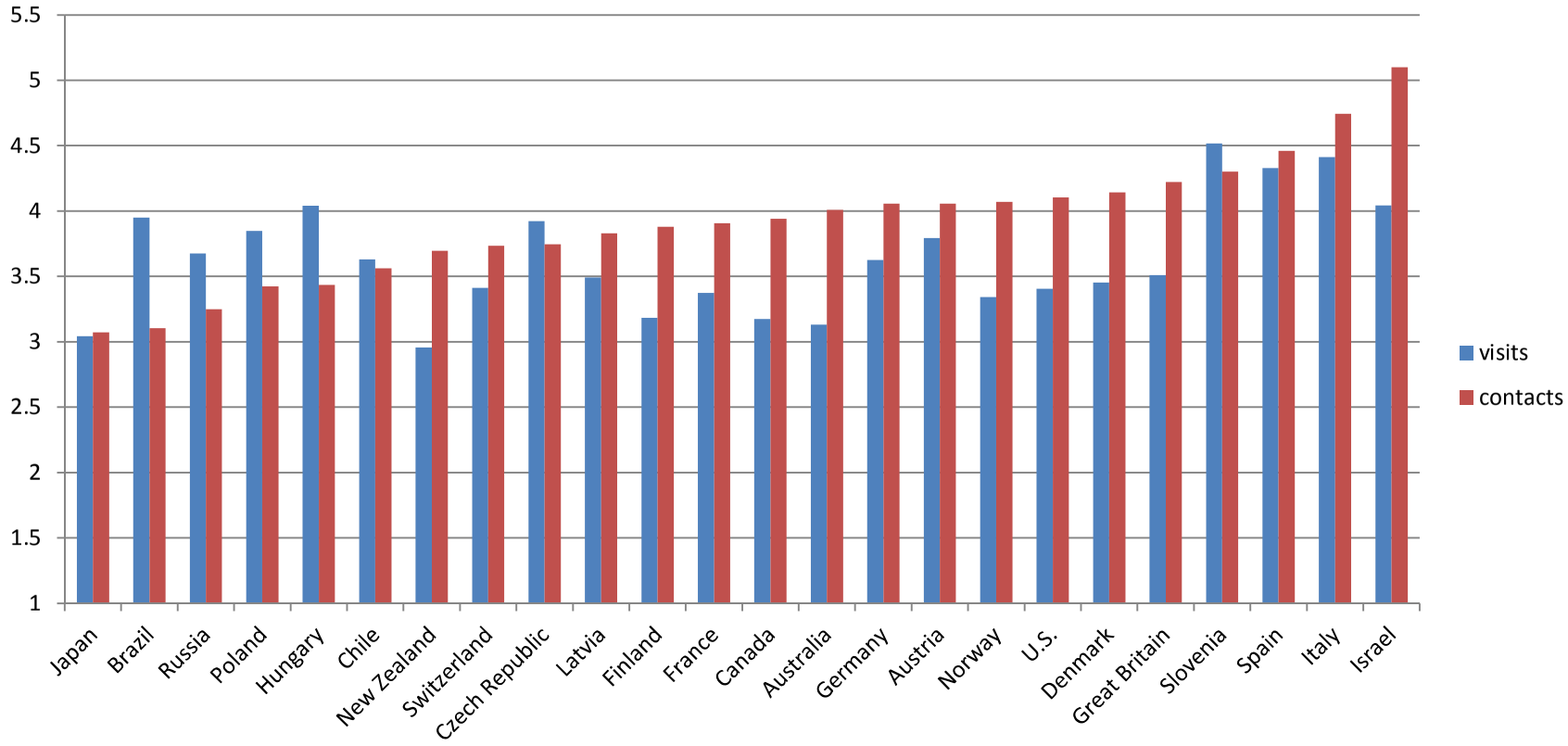

Table 1. Results from the random-effects models predicting visits and contacts with mother

Variables	Visits		Contacts	
	(Model 1)	(Model 2)	(Model 1)	(Model 2)
Female		0.158***		0.434***
		(0.018)		(0.027)
(Age 35-44 ref.)				
Age 18-24		0.322***		0.306***
		(0.036)		(0.054)
Age 25-34		0.174***		0.169***
		(0.023)		(0.034)
Age 45-54		-0.002		-0.039
		(0.024)		(0.035)
Age 55 +		-0.003		-0.112*
		(0.033)		(0.049)
(Never married ref.)				
Married		-0.106***		-0.008
		(0.025)		(0.037)
Widowed		0.045		-0.001
		(0.068)		(0.101)
Divorced/Separated		-0.039		0.027
		(0.036)		(0.054)
Number of siblings		-0.027***		-0.066***
		(0.005)		(0.007)
Employed		-0.063**		0.024
		(0.019)		(0.028)
Education		0.026*		0.187***
		(0.012)		(0.018)
Religiosity		0.031***		0.024**
		(0.006)		(0.009)
Travel time		-0.726***		-0.127***
		(0.017)		(0.006)
Travel time2		0.025***		0.119***
		(0.002)		(0.013)
Att. parental care		0.096***		
		(0.009)		
Constant	3.642***	5.566***	3.909***	3.275***
	(0.085)	(0.096)	(0.095)	(0.121)
Variance intercept	0.169***	0.112***	0.215***	0.162***
	(0.050)	(0.033)	(0.063)	(0.048)

Variance residual	2.171***	0.897***	2.178***	1.953***
	(0.026)	(0.011)	(0.026)	(0.025)
ICC	0.072	0.111	0.090	0.077
LL	-25728	-16862	-25413	-21514
R-squared (total)	.	0.569	.	0.116
R-squared (individual)	.	0.587	.	0.103
R-squared (country)	.	0.337	.	0.247
Observations	14215	12321	14029	12242
Number of groups	24	24	24	24

*** p<0.001, ** p<0.01, * p<0.05 Standard errors in parentheses

Table 2: Random-effect models predicting visits with mother using country-level covariates

	(Model 1)	(Model 2)	(Model 3)	(Model 4)
GDP per capita (ln)	-0.405***	-0.170	-0.227	-0.042
	(0.114)	(0.148)	(0.131)	(0.159)
Public att. parental support		0.459**		
		(0.163)		
Co-residence rate			1.225*	
			(0.551)	
(Social-democratic)				
Liberal				0.098
				(0.165)
Conservative				0.146
				(0.177)
Eastern European				0.556*
				(0.223)
Southern				0.536**
				(0.203)
Constant	9.621***	5.852**	7.566***	5.694***
	(1.143)	(1.987)	(1.394)	(1.663)
Variance intercept	0.270***	0.245***	0.246***	0.228***
	(0.040)	(0.036)	(0.037)	(0.034)
Variance residual	0.947***	0.947***	0.947***	0.947***
	(0.006)	(0.006)	(0.006)	(0.006)
ICC	0.075	0.063	0.063	0.055
LL	-16857	-16855	-16855	-16853
Observations	12321	12321	12321	12321
Number of groupsM	24	24	24	24

Controlling for individual-level characteristics: age, gender, marital status, employment status, education, religiosity, attitudes toward parental support, and travel time.

*** p<0.001, ** p<0.01, * p<0.05 Standard errors in parentheses

Table 3: Random-effects models predicting other contacts with mother using country-level covariates

	(Model 1)	(Model 2)	(Model 3)	(Model 4)	(Model 5)
GDP per capita (ln)	0.414**	0.601**	0.783***	0.585	0.073
	(0.147)	(0.203)	(0.176)	(0.318)	(0.196)
Public att. parental support		0.409			
		(0.224)			
(Social-democratic)					
Liberal			0.027		
			(0.182)		
Conservative			-0.023		
			(0.196)		
Eastern European			0.349		
			(0.247)		
Southern			0.774***		
			(0.225)		
Telephone lines				-0.006	
				(0.010)	
Mobile subscriptions					0.010*
					(0.004)
Constant	-0.871	-3.866	-4.816**	-2.288	1.957
	(1.477)	(2.724)	(1.844)	(2.757)	(1.790)
Variance intercept	0.347***	0.336***	0.249***	0.345***	0.312***
	(0.052)	(0.050)	(0.038)	(0.052)	(0.047)
Variance residual	1.398***	1.398***	1.398***	1.398***	1.398***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
ICC	0.058	0.055	0.030	0.057	0.047
LL	-21511	-21510	-21503	-21510	-21508
Observations	12242	12242	12242	12242	12242
Number of groups	24	24	24	24	24

Controlling for individual-level characteristics: age, gender, marital status, employment status, education, religiosity, attitudes toward parental support, and travel time.

*** p<0.001, ** p<0.01, * p<0.05. Standard errors in parentheses