

# **Cross-national Comparison of Patterns of Intergenerational Relations**

## **Abstract**

This study identified and compared patterns of intergenerational relations across China, South Korea, and the U.S. that have different family culture and policies. We examined factors associated with various intergenerational relations. Data came from three harmonized datasets of international aging and retirement studies collected between 2010 and 2011. We restricted our sample to family respondents over 60-years with at least one child (N=4,937 China; N=5,095 South Korea; N=3,625 the U.S.) Nine variables related to intergenerational relations were used: the number of sons and daughters, living arrangements, contact frequency (face-to-face and email/phone contact), physical and financial help from/to children. Latent Class Analysis identified four or five clusters as the most optimal classification including *Interdependent, Helping, Dependent, Independent, and Separated Parents*. The proportions and the characteristics of each intergenerational profile cluster significantly differed across countries. This study confirms that various perspectives of intergenerational relations were influenced by social and cultural contexts.

## **Extended abstract**

### **Purpose and Background**

Family has been considered as a major social support system for older adults. However, intergenerational ties and exchanges vary across countries depending on their social and cultural contexts. Each country has different expectations for intergenerational family support, which is influenced by the interplay between traditional family culture and recent family policies. This study aims to identify and compare various patterns of intergenerational relations across three countries with different family cultures and policies and to examine what factors are associated with these distinct patterns of intergenerational relations.

### **Methods**

Data came from three harmonized datasets of international aging and retirement studies from China (China Health and Retirement Study: CHARLS, Wave1), South Korea (Korean Longitudinal Study of Aging: KLoSA, Wave3), and the United States (Health and Retirement Study: HRS, Wave11), which collected their samples between 2010 and 2011. These three countries have their own unique social and cultural contexts in terms of intergenerational family relations. China and South Korea have a long tradition of cultivating strong intergenerational ties and support based on filial piety. While China still relies on family as a primary old-age support system, South Korea has

experienced rapid changes in perceptions on family responsibilities on support for older adults, and various social services and policies for older population have developed in the recent decades. Although family is considered the closest and the most important social environments for older people in Western society, most Western countries have developed public services and policies supporting for independence of older adults. However, the U.S. has ranked low in de-familiarization, characterized by limited public services and social support for caregiving.

We restricted our sample to family respondents (i.e. one person from one household) who were 60 years or older and had at least one child (N=4,937 in China; N=5,095 in South Korea; N=3,625 in the U.S.) For cross-national comparisons, most measures used in this study were identically defined across countries. This study focused on nine variables related to intergenerational relations such as the number of sons and daughters, living arrangements, contact frequency (face-to-face and email/phone contact), physical and financial help from/to children. A series of demographic, socioeconomic, and health characteristics were included to examine how these variables were associated with intergenerational relations clusters in each country.

Latent Class Analysis was used to categorize individuals into groups where the individuals within a group were similar to one another and different from individuals in other groups. After discernible patterns of intergenerational relations were derived, we compared the characteristics of clusters of intergenerational relations by using chi-square and one-way ANOVA tests.

## Results

Table 1 presents profiles for the total sample and for each of the intergenerational relations cluster by country. Based on four criteria including Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Entropy's score and Vuong-Lo-Mendell-Rubin (VLMR), an optimal classification of intergenerational relations was decided. The four-class solution was the most optimal classification in China and the U.S., and the-five-class solution was the most optimal in South Korea.

Characteristics of clusters identified in three countries were significantly different from each other. More than a half of Chinese older adults were identified as *Interdependent Parents* (Class 4, 53.7%), characterized by frequent in-person and phone/email interactions, reciprocal physical and financial help between parents and children. We named Class 1 from Chinese sample as *Helping Parents* (15.1%) who lived relatively far from their children, less frequently met with their children, and tended not to receive physical help from children. However, they frequently contacted with children via phone or email and provided childcare and financial help with their children. *Dependent Parents* (Class 2, 13.9%), the smallest group in China, represented living nearby, the greatest in-person contact frequency, the least frequent phone/email contacts, the greatest physical help from children, and the lowest grandparenting. The last group is *Independent Parents* (Class 3, 17.4%) who had the smallest number of children and the least exchange in both physical and financial support.

Five clusters of intergenerational relations were identified in South Korea. There were two big clusters identified in South Korea: *Interdependent Parents* (Class 2, 36.5%) and *Independent Parents* (Class 4, 38.5%). *Interdependent Parents* lived close to their children, contacted with children frequently, and received and provided physical and financial help with children. On the other hand, *Independent Parents* tended to live far from their children, but kept frequent contacts with them through phone/emails. They were less likely to exchange physical and financial help with children. *Separated Parents* (Class 1, 2.3%) was the smallest cluster, characterized by having the smallest number of children, further distance to children, the least frequent contacts both in person and through phone/email, and the least physical and financial exchanges. *Helping Parents* (Class 3, 18.5%) had relatively less contacts with their children, but they were more likely to provide financial help to children. Lastly, *Dependent Parents* was another small group (Class 5, 4.2%), which represented having the greatest number of daughters, the most frequent in-person and phone/email contacts, and the greatest physical and financial help from their children.

The most prevalent cluster of intergenerational relations in the U.S. was *Interdependent Parents* (Class 3, 59.8%). They lived close to their children and had frequent contacts with them both in-person and phone/emails. They received financial help from children, and at the same time they also provided physical and financial help to children. Approximately a quarter of American older adults were identified as *Helping Parents* (Class 1, 26.0%) characterized by high level of physical and financial help to their children and frequent contacts with children. *Separated Parents* (Class 2, 11.5%) lived far from their children, and the least contacts and exchanges with them. *Dependent Parents* (Class 4, 2.7%) was the smallest group, which had the smallest number of children, the longest distance, and the least contacts with children. While they were most likely to receive physical and financial support from children, they were least likely to provide help with children.

Tables 2~4 describes the characteristics of our sample by country and by cluster of intergenerational relations. Sociodemographic and health conditions among older adults across three countries were significantly different. Also, the differences were found across clusters of intergenerational relations even within the same country. Chinese older adults were the youngest, included the smallest proportions of those female, and tended to live in rural areas. They had the lowest educational level and rated their health worst. Korean older adults tended to be married and to live in urban areas. While they had the smallest proportion of respondents having at least one ADL or IADL, more than a half of them were depressed. Older Americans were the oldest and had the greatest proportion of female and the highest educational level. Although they showed the greatest proportion of respondents having functional limitations, the proportion of depressed was the smallest and they rated their health best.

In China, it was very clear that *Dependent Parents* (Class 2, 13.9%) was the most vulnerable group: the oldest, single, rural residence, the lowest education and income, and the worst functional and mental health. *Independent Parents* (Class 4, 38.5%) was the youngest and the healthiest group. *Independent Parents* (Class 3, 17.4%) had the highest socioeconomic status (SES) and was least likely to live in rural area. *Helping Parents* (Cluster 1, 15.1%) in China was not the highest SES group, and they tended to be

male and to live in the rural area. In South Korea, *Independent Parents* (Class 4, 38.5%) was the most likely to be married and to live in suburban and had the best functional and mental health. *Interdependent Parents* (Class 2, 36.5%) was the youngest, had the highest SES, and reported their health best. *Separated Parents* (Class 1, 2.3%) was found to be the most vulnerable group: the lowest proportion of female and married, the greatest urban residency, the lowest SES, and the worst physical and mental health. In the U.S., *Interdependent Parents* (Class 3, 59.8%), the most prevalent cluster of intergenerational relations, was the youngest, female, and the lowest functional problem. *Helping Parents* (Class 1, 26.0%) showed the highest SES and the best self-rated health and mental health. They were more likely to be White, to be married, and to live in rural area. *Separated Parents* (Class 1, 2.3%) was found to be the most vulnerable group including the greatest proportions of minority, single, urban residency, and the lowest SES, and the worst self-rated, physical, and mental health.

## Discussion

This study found discernible types of intergenerational relations across China, South Korea, and the U.S. Although the detailed characteristics varied, we found was *Interdependent Parents*, *Helping Parents*, and *Dependent Parents* in common across three countries (Table 5). However, proportions of each cluster significantly differed. *Interdependent Parents* was the most prevalent cluster in China and the U.S. (more than a half of our sample were included in this group). The proportion of *Interdependent Parents* was not small in South Korea, but *Independent Parents* was found to be another big group in South Korea. *Helping Parents* was more prevalent in the U.S. compared to other two countries, and the proportion of *Dependent Parents* in China was significantly greater than those in other two countries.

*Independent Parents*, who had frequent contacts with children but had less physical and financial exchanges, were found only in South Korea and China. The common characteristics of *Independent Parents* in China and South Korea were relatively young age, married, non-rural residency, high education, and good physical and mental health. It may show a recent tendency of Asian young-olds who put a greater value on independence than traditional family roles and expectations. *Separated Parents* were found only in South Korea and the U.S. Family structure, interactions, and functions (supports) of this group was very loose, and older adults in this group were the least likely to interact with their children. In South Korea, this group was found to be the most vulnerable in terms of their SES and health. The proportion of this group was much larger in the U.S.

This study contributes to understanding of various patterns of intergenerational relations by employing a pattern-centered approach assessing various perspectives of intergenerational relations in a more comprehensive manner. This study confirms that various perspectives of intergenerational relations were influenced by social and cultural contexts.

**Table 1. Profiles for each of the intergenerational relations cluster by country**

	<b>China (N=4,937)</b>					<b>South Korea (N=5,095)</b>						<b>The U.S. (N=3,625)</b>				
	<b>Total</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Total</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 5</b>	<b>Total</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>
	100.0%	15.1%	13.9%	17.4%	53.7%	100.0%	2.3%	36.5%	18.5%	38.5%	4.2%	100.0%	26.0%	11.5%	59.8%	2.7%
	4937	743	684	861	2649	5,095	118	1860	942	1960	215	3625	941	418	2167	99
<b>Family Structure</b>																
# of Sons (0- 12)	1.78 (1.14)	1.55 (0.96)	2.28 (1.31)	1.26 (0.93)	1.89 (1.12)	1.96 (0.95)	1.64 (0.77)	1.94 (0.94)	1.87 (0.84)	2.11 (1.02)	1.34 (0.63)	1.82 (1.42)	1.93 (1.44)	2.03 (1.51)	1.75 (1.38)	1.61 (1.45)
# of Daughters (0- 12)	1.58 (1.25)	1.43 (1.08)	1.67 (1.32)	0.82 (0.92)	1.84 (1.26)	2.08 (1.19)	1.66 (0.83)	1.93 (1.13)	1.79 (0.95)	2.01 (0.92)	4.86 (0.91)	1.79 (1.42)	1.71 (1.38)	1.69 (1.51)	1.86 (1.42)	1.38 (1.25)
Distant to the closest child 0=core residence 1=proximate residence 2=distant residence	0.78 (0.57)	1.24 (0.61)	0.87 (0.39)	0.32 (0.57)	0.78 (0.47)	1.02 (0.87)	1.08 (0.97)	0.93 (0.91)	0.97 (0.95)	1.15 (0.79)	0.95 (0.77)	1.15 (0.72)	1.22 (0.74)	1.24 (0.77)	1.10 (0.69)	1.10 (0.80)
<b>Contact Frequency</b>																
In-person (1-6)	4.80 (1.47)	2.93 (0.85)	5.63 (0.69)	3.21 (1.76)	5.43 (0.93)	4.18 (0.98)	2.89 (0.96)	4.03 (0.78)	3.47 (0.69)	4.65 (0.96)	4.88 (0.84)	4.00 (1.48)	3.70 (1.21)	2.82 (1.26)	4.51 (1.34)	1.80 (1.61)
Email or Phone (1-6)	4.10 (1.87)	4.50 (0.84)	1.27 (0.75)	2.63 (1.90)	5.15 (1.13)	5.20 (0.85)	2.69 (0.52)	5.0 (0.0)	4.0 (0.0)	6.0 (0.0)	6.0 (0.0)	5.31 (1.05)	5.00 (0.00)	3.79 (0.41)	6.00 (0.00)	1.20 (0.40)
<b>Help FROM children</b>																
Physical help from child	8.0%	5.5%	16.1%	6.2%	6.6%	5.6%	5.9%	4.1%	7.8%	5.6%	8.8%	9.5%	8.2%	11.5%	9.4%	17.2%
Financial help from child	50.9%	59.6%	57.4%	5.3%	61.6%	87.1%	62.7%	89.0%	85.6%	86.7%	94.0%	9.9%	9.1%	7.9%	10.3%	16.2%
<b>Help TO children</b>																
Grandparenting	16.5%	29.0%	11.3%	15.5%	14.6%	3.1%	3.0%	3.3%	1.8%	3.5%	3.3%	22.4%	19.5%	13.4%	25.8%	14.1%
Financial help to child	18.1%	21.1%	13.8%	1.3%	23.8%	41.4%	43.2%	47.9%	48.5%	31.7%	40.9%	35.4%	39.0%	32.5%	35.0%	21.2%

**Table 2. Characteristics of different patterns of intergenerational relations in China**

	China (N=4,937)					Statistics
	Total	Class1	Class2	Class3	Class4	
	100.0%	15.1%	13.9%	17.4%	53.7%	
	4937	743	684	861	2649	
Age	68.58 (7.37)	66.96 (6.44)	72.76 (7.95)	66.84 (7.45)	66.52 (7.01)	F(3,4933)=107.79***
Female	50.52%	40.92%	64.33%	43.44%	51.96%	Chi2(3)=99.07***
Married	68.14%	60.97%	39.77%	75.03%	75.24%	Chi2(3)=351.51***
Rural	75.61%	81.67%	83.33%	72.71%	73.45%	Chi(3)=47.64***
Education						Chi2(6)=34.21***
less than high school	93.54%	94.34%	97.37%	90.79%	93.22%	
High school	5.60%	5.26%	2.05%	7.46%	6.02%	
More than College	0.85%	0.40%	0.58%	1.75%	0.76%	
Income	1.56 (2.44)	1.79 (3.72)	1.13 (1.83)	1.87 (2.32)	1.53 (2.13)	F(3,34933)=10.82***
Self-rated health	3.99 (0.90)	3.99 (0.88)	4.02 (0.92)	4.00 (0.90)	3.98 (0.89)	F(3,4933)=0.26
Functional limitations	18.74%	17.77%	25.00%	18.23%	17.55%	Chi2(3)=20.66***
Depressive symptoms	25.32%	25.98%	31.87%	25.55%	23.37%	Chi2(3)=21.06***

Note: †p<.01; \*p<.05; \*\*p<.01; \*\*\*p<.001; Several variables including urban/suburban, religion, work for pay are not available from CHARLS. Race/ethnicity is not included.

**Table 3. Characteristics of different patterns of intergenerational relations in South Korea**

	South Korea (N=5,095)						Statistics
	Total	Class1	Class2	Class3	Class4	Class5	
	100%	2.32%	36.51%	18.49%	38.47%	4.22%	
	5,095	118	1860	942	1960	215	
Age	71.30 (7.68)	73.44 (9.13)	70.70 (7.80)	71.85 (8.19)	71.16 (7.15)	74.10 (7.09)	F(4,5090)=13.63***
Female	56.78%	54.24%	55.72%	54.40%	58.27%	63.85%	Chi2(4)=9.36+
Married	73.27%	51.69%	74.68%	68.51%	76.27%	66.67%	Chi2(4)=54.15***
Region							Chi2(8)=14.28+
Urban	40.62%	51.69%	42.12%	40.07%	39.40%	35.21%	
Suburban	29.59%	25.42%	28.63%	29.21%	30.97%	29.11%	
Rural	29.79%	22.88%	29.24%	30.73%	29.63%	35.68%	
Religion							Chi2(12)=12.68
Protestant	19.32%	18.64%	19.96%	18.35%	19.54%	16.43%	
Cathoric	7.65%	5.93%	8.24%	8.14%	6.88%	8.45%	
Buddist	25.01%	19.49%	25.59%	23.02%	25.70%	25.35%	
Others	48.03%	55.93%	46.21%	50.49%	47.88%	49.77%	
Education							Chi2(8)=24.40**
less than high school	76.76%	71.19%	74.39%	79.91%	76.84%	85.45%	
High school	16.46%	19.49%	17.87%	13.90%	16.65%	12.21%	
More than College	6.79%	9.32%	7.74%	6.19%	6.51%	2.35%	
Income	1.127 (0.953)	0.871 (0.874)	1.241 (1.023)	1.160 (1.011)	1.039 (0.848)	0.961 (0.884)	F(4,5090)=14.79***
Work for pay	31.87%	26.27%	34.33%	29.21%	31.33%	30.52%	Chi2(4)=10.18*
Self-rated health	3.16 (0.89)	3.49 (0.93)	3.11 (0.89)	3.19 (0.88)	3.17 (0.89)	3.25 (0.90)	F(4,5090)=6.34***
Functional limitations	14.21%	22.03%	13.49%	17.37%	12.20%	20.66%	Chi2(4)=27.90***
Depressive symptoms	52.41%	66.95%	53.50%	60.09%	46.80%	59.81%	Chi2(4)=61.22***

Note: †p<.01; \*p<.05; \*\*p<.01; \*\*\*p<.001; Race/ethnicity is not included, because South Korea is racially homogeneous society.

**Table 4. Characteristics of different patterns of intergenerational relations in the U.S.**

		The U.S. (N=3,625)				
	Total	Class1	Class2	Class3	Class4	Statistics
	100%	25.96%	11.53%	59.78%	2.73%	
	3625	941	418	2167	99	
Age	72.86 (8.66)	73.17 (8.50)	73.99 (9.02)	72.50 (8.53)	73.14 (10.88)	F(3,3621)=4.09**
Female	78.43%	75.45%	59.81%	84.40%	54.55%	Chi2(3)=169.67***
Race/ethnicity						Chi2(9)=41.22***
White	75.17%	81.83%	77.75%	72.27%	64.65%	
Black	15.20%	11.05%	12.44%	17.26%	21.21%	
Hispanic	7.81%	5.84%	7.66%	8.54%	11.11%	
Others	1.82%	1.28%	2.15%	1.94%	3.03%	
Married	47.70%	49.73%	46.17%	47.85%	31.31%	Chi2(3)=12.63**
Region						Chi2(6)=10.68+
Urban	46.32%	44.85%	43.96%	47.25%	50.00%	
Suburban	21.95%	19.85%	25.12%	22.27%	21.43%	
Rural	31.73%	35.30%	30.92%	30.49%	28.57%	
Religion						Chi2(6)=17.08**
Protestant	65.52%	65.04%	68.90%	65.07%	65.66%	
Cathoric	26.32%	26.89%	21.05%	27.41%	19.19%	
Others	8.17%	8.08%	10.05%	7.52%	15.15%	
Education						Chi2(9)=42.97***
less than high school	18.79%	15.09%	19.14%	19.52%	36.36%	
High school	63.14%	63.66%	64.11%	63.17%	53.54%	
More than College	18.07%	21.25%	16.75%	17.31%	10.10%	
Income	3.55 (4.36)	3.83 (4.60)	3.24 (4.07)	3.54 (4.36)	2.29 (2.57)	F(3,3621)=4.77**
Work for pay	21.82%	21.62%	22.30%	22.09%	17.17%	Chi2(3)=1.42
Self-rated health	2.85 (1.06)	2.76 (1.03)	2.98 (1.09)	2.84 (1.06)	3.37 (1.13)	F(3,3621)=12.74***
Functional limitations	24.83%	24.34%	33.97%	22.29%	46.46%	Chi2(3)=51.16***
Depressive symptoms	16.47%	1.38 (1.96)	1.45 (1.89)	1.49 (1.95)	2.19 (2.37)%	F(3,3621)=4.49**

Note: †p<.01; \*p<.05; \*\*p<.01; \*\*\*p<.001; Buddhist is included in the category of 'others' in the variable of religion.



**Table 5. Comparisons of cluster types and their proportions in China, South Korea, and the U.S.**

<b>Cluster types</b>	<b>China</b>	<b>South Korea</b>	<b>The U.S.</b>
<b>Interdependent</b>	53.7%	36.5%	59.8%
<b>Helping</b>	15.1%	18.5%	26.0%
<b>Dependent</b>	13.9%	4.2%	2.7%
<b>Independent</b>	17.4%	38.5%	Not identified
<b>Separated</b>	Not identified	2.3%	11.5%