



Time use on childcare in the inter-generational co-residing family —A comparative study of China and South Korea

TANG Jialu

Center for Time Use Research

University College London & South-West Jiaotong University

01 Background



Research Question and Theory

03

Data and strategy

04

Research Results

05

Conclusion

Contents

Background



aging population

population aged 65 or above:
14.9% (China) / 17.7% (South Korea) (2022)

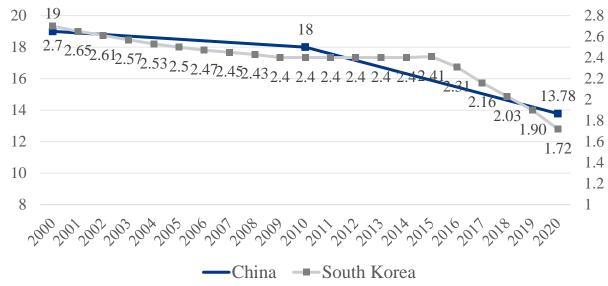
low fertility rate

- 1.16% (China) / 0.81% (South Korea) (2020)
- child-centered families

filial piety (cultural)

- seniors who live with their children or grandchildren: 70% (East Asia) / 26% (Europe) / 19% (North America)
- an unconditional duty \rightarrow some conditional

Proportion of three generation and more households in China and South Korea (%)



[·]National Bureau of Statistics: https://www.stats.gov.cn/sj/pcsj/

[·]KOSIS KOrean Statistical Information Service: https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1BZ0502&vw_cd=MT_ETITLE&list_id=A42_10&scrId=&language=en&seqNo=&lang_mode=en&obj_var_id=&itm_id=&conn_path = MT_ETITLE&path=%252Feng%252FstatisticsList%252Fstatist%252FstatisticsList%252Fstatis

[·]World Bank: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=KR

OECD: https://data.oecd.org/pop/fertility-rates.htm

[·]Martin, L.G. (1990). Changing intergenerational family relations in East Asia. Annals of the American Academy of Political & Social Sciences, 510, 102-11.

[·]United Nations. (2005). Living Arrangements of Older Persons Around the World. New York: United Nations publication.

[·]Cong, Z., & silverstein, M. (2008). Intergenerational time-for-money exchanges in rural China: Does reciprocity reduce depressive symptoms of older grandparents? Research in Human Development, 5, 6–25. doi:10.1080/15427600701853749

Research Question and Hypothesis



Question 1

In three generation co-residing families in China and South Korea, how much time do grandparents and parents invest in housework, no-study time, and study related childcare?

Question 2

How does the time invested by grandparents in housework, no-study childcare, and study-related childcare affect the time spent by parents on these activities?

Hypothesis 1:

Grandparents' support significantly influences parents' time use in both China and Korea, but the gender effect differs between the two countries.

Hypothesis 2:

Grandparents' support influences parents' time allocation, but geographical effect differs between urban and rural areas in China and Korea.

Hypothesis 3:

Grandparents' childcare support has different impacts on parents' no-study childcare time and study childcare time.

Theory

CENTRE FOR TIME USE RESEARCH

Normative-integrative approach

- Different generations support each other
- Norms of filial obligation
- Exert cohesion and solidarity between family members (Roberts, Richards, and Bengtson 1991; Silverstein, Gans, and Yang 2006)

Social exchange approach

• Provide support to reciprocate the help (Silverstein *et al.* 2002)

Altruistic approach

- Resources are allocated to those most in need, aiming to improve overall family well-being.
- Financial support/ health care support (Becker, G. S. 1981)

New home economic model

- Family's goal is to maximize income.
- Members who are relatively more efficient at market activities would use less of their time at consumption activities than would other member. (Becker, G. S. 1965)

Literature review



The help of grandparents at home reduces significantly women's time in family and increase their paid work time.

limit: only Beijing

Ta, Na & Liu, Zhilin & Chai, Yanwei. (2018). Help whom and help what? Intergenerational co-residence and the gender differences in time use among dual-earner households in Beijing, China. Urban Studies. 56.

Compared with those who do not live with parents, couples who live with relatively young parents spend less time on housework and adult care, and those who live with relatively old parents have less paid work time, more housework and adult care time, and those rural wives living with elderly parents even spend less time on childcare.

limit:not divided grand-parents' activities but only the age / CTUS 2008

Zhou, Muzhi & Kan, Man Yee & He, Guangye. (2021). Intergenerational co-residence and young couple's time use in China. Chinese Sociological Review. 54. 1-31. 10.1080/21620555.2021.1972285.

Grandparents' childcare support cannot narrow the gap between mother's actual childcare time and her preferred childcare time. Or the direction of the association could be the opposite.

limit: Family Survey for Child Care (n = 484)

Cha, Seung-Eun & Eun, Ki-Soo. (2021). Family Dynamics of Child Care in Korea: Strategies to Relieving the Gap Between Mother's Actual and Preferred Hours of Care. Journal of Population Ageing. 14. 1-20. 10.1007/s12062-020-09321-3.

The longer the grandparents spend on parenting, the shorter the parents of younger generation spend on parenting and household chores. limit: not distinguishing between no-study childcare time and study childcare time

은모, 성경 and 배호중. (2023). 조부모와의 동거가 유자녀 맞벌이 여성의 시간활용 및 시간부족감에 미치는 영향: 자녀돌봄, 수면, 가정관리 시간을 중심으로. 통계연구, 28(4), 25-53.

Data: China Time Use Survey (China-2017-CTUS)

-PPS sampling

-Time Diary: every 10-minute interval between 4 a.m. and 3:59 a.m. the next day

-Sample size: 12,484 households; 30,715 individuals; 29 provinces, cities, and autonomous

	Family	Activity	Activity	Main/Se	condary		Activity	Activity	1
Family ID	member ID	start time	end time	activity	Α	ctivity	place	particip	pant
2017000012	1	04:00	05:59	0		0101	1	1	
2017000012	1	06:00	06:10	0	1	0201	1	1	
2017000012	1	06:10	06:30	0	9	0101	6	1	•
2017000012	1	06:30	06:50	0	6	0101	1	1	
2017000012	1	06:50	07:10	0	2	0101	1	1	
2017000012	1	07:10	07:20	0	6	0201	1	1	
2017000012	1	07:20	10:59	0	1	00502	1	1	
2017000012	1	11:00	11:20	0	6	0101	1	1	
2017000012	1	11:20	11:40	0	2	0101	1	1	
2017000012	1	11:40	11:50	0	6	0201	_ 1	1	
2017000012	1	11:50	13:59	0	1	0103	1	1	
2017000012	1	14:00	14:30	0	6	0401	1	1	
2017000012	1	14:30	14:59	0	6	0301	1	1	
2017000012	1	15:00	15:59	0	1	10101	6	1	
2017000012	1	16:00	16:40	0/	6	0101	1	1	
2017000012	1	16:40	18:59	Ø	5	0101	1	1	
2017000012	1	16:50	18:59	1	9	0101	1	1	
2017000012	1	19:00	19:20	0	2	0101	1	1	
2017000012	1	19:20	19:30	0	6	0201	1	1	
2017000012	1	19:30	20:50	0	1	00502	√ 1	1	
2017000012	1	20:50 /	20:59	0	1	0201	V	1	
2017000012	1	21:00	03:59	0	1	0101	1	1	
							1	, ,	·
6	0	2	0	1	10		05		02
Housework	Washin	g dishes	Washing by hands		Entertainment and leisur		Watching		Watching satellite TV

coding scheme: example

- Big category activity: 11 big types of activities
- Medium category of activity
- Small category of activity: the last two digits

In each category, the last two digits of the code for 'waiting-related' activities is 77, for 'other' related activities is 88 and for 'transport-related' activities is 99.

CENTRE FOR

TIME USE RESEARCH

Data: China Time Use Survey (China-2017)

	China Time Use Survey 2017	China Time Use Survey 2008
more provinces and cities	29	10
more types of activity (11 vs. 8)	1 sleeping 2 eating-related activities 3 working 4 education 5 family production and management 6 household chores 7 caring for family members 8 shopping 9 exercise 10 entertainment 11 social networking and religious activities	 employment activities primary family production and operation activities family manufacturing and construction activities family service operation activities unpaid household chores taking care of family members and providing assistance to others earning and training entertainment, leisure, and social interaction
more detailed classification (example of childcare)	070101 Life care for children 070102 Tutoring kids homework 070103 Learning with children 070104 Reading with children 070105 Watching TV with children 070106 Playing with children 070107 Supervising children 070108 Staring at the babysitter who is looking after the child 070177 Care of minor family related waiting activities 070188 Other activities for caring for minors 070199 Related traffic activities	661611 Life care for children 661612 Providing education, training, and assistance to children 661613 Supervising children 661614 Accompany children for outdoor activities

Data: China Time Use Survey (CTUS-2017) and China Household Finance Survey (CHFS 2017)



- -China Time Use Survey (CTUS-2017) is conducted in conjunction with China Household Finance Survey (2017).(CHFS)
- -The latter supplements the former with demographic information and statistics on household expenditures, etc.
- -Two surveys can be matched one-to-one through Family ID (hhid_2017) and Family Member ID (pline).

Family ID (hhid_2017)	Family member ID (pline)	Activity start time (ts)	Activity end time (te)	Main/Secondary activity (ttype)	Activity (tdo)	Activity place (twhere)	Activity participants (twho)	Average monthly food expenses	Average monthly expenses on daily necessities	Annual education and training expenses	
2017000012	1	04:00	05:59	0	10101	1	1	200	5		0
2017000012	1	06:00	06:10	0	10201	1	1	200	5		0
2017000012	1	06:10	06:30	0	90101	6	1	200	5		0
2017000012	1	06:30	06:50	0	60101	1	1	200	5		0
2017000012	1	06:50	07:10	0	20101	1	1	200	5		0
2017000012	1	07:10	07:20	0	60201	1	1	200	5		0
2017000012	1	07:20	10:59	0	100502	1	1	200	5		0
2017000012	1	11:00	11:20	0	60101	1	1	200	5		0
2017000012	1	11:20	11:40	0	20101	1	1	200	5		0
2017000012	1	11:40	11:50	0	60201	1	1	200	5		0
2017000012	1	11:50	13:59	0	10103	1	1	200	5		0
2017000012	1	14:00	14:30	0	60401	1	1	200	5		0
2017000012	1	14:30	14:59	0	60301	1	1	200	5		0
2017000012	1	15:00	15:59	0	110101	6	1	200	5		0
2017000012	1	16:00	16:40	0	60101	1	1	200	5		0
2017000012	1	16:40	18:59	0	50101	1	1	200	5		0
2017000012	1	16:50	18:59	1	90101	1	1	200	5		0
2017000012	1	19:00	19:20	0	20101	1	1	200	5		0
2017000012	1	19:20	19:30	0	60201	1	1	200	5		0
2017000012	1	19:30	20:50	0	100502	1	1	200	5		0
2017000012	1	20:50	20:59	0	10201	1	1	200	5		0
2017000012	1	21:00	03:59	0	10101	1	1	200	5		0

1.Integration of CTUS and MTUS: Variable Benchmarking



Varaible		CTUS-China	MTUS-South Korea				
		0601 Cooking	F 1		Food preparation, cooking		
		0602 Washing dishes	Fooaprep	main18+19	+Set table, wash/put away dishes		
	Housework	0603 Cleaning			Cleaning		
Housework		0604 Laundry, sorting laundry, making clothes	Cleanetc	main20+21	Cleaning +Laundry, ironing, clothing repair		
Housework	0688 Other housework		main23	Other housework			
		0606 Do it yourself or supervise other					
		people's renovation, maintenance, repair		main22	Home/vehicle maintenance/improvement		
		070101 Life care for children					
		070107 Supervising children					
		070108 Staring at the babysitter who is					
Study		looking after the child	Pkidcare	main28+31	Physical, medical child care		
Childcare	0701	070177 Care of minor family related waiting activities	Riccare		+Supervise, accompany, other child care		
	Caring for	070188 Other activities for caring for minors					
	minor	070199 Related traffic activities					
	families	070102 Tutoring kids homework					
No-Study		070103 Learning with children			Teach, help with homework		
Childcare		070104 Reading with children	Ikidcare	main29+30	+Read to, talk or play with child		
Childcare		070105 Watching TV with children			+Read to, talk or play with child		
		070106 Playing with children					

- 1
- -Assign a **unique identifier** composed of household ID (hldid) and personal ID (persid)
- -Create a label to distinct the week-end/working day: is_workday



7

- -Identify three generation co-residing families:
- -Householder reference is one person in the family but the role is unclear, we need to identify the role of each family member according to the relationship between household reference person
- -Important note about RELREFP. This variable in MTUS has the following values:
 - 1 person 1
 - 2 spouse/partner
 - 3 child
 - 4 parent
 - 5 sibling
 - 6 son/daughter-in-law
 - 7 parent-in-law
 - 8 brother/sister-in-law
 - 9 other relative
 - 10 not related

Data Strategy in MTUS: Identify three generation co-residing families

Method: Using RELREFP and age difference

1. (gen3hh_type1): Three-generation household with parents as the household head

In this type of household, the household head is one of the parents (RELREFP = 1 or 2), and the family includes both children (RELREFP = 3, and age is less than 18 years) and the parents of the household head (RELREFP = 4).

2. (gen3hh_type2): Three-generation household where the head of the hh is one of the parents and the grandparents are the parents of the spouse of the head.

In this household structure, the spouse is one of the parents, and the family includes both children and other relatives (RELREFP = 9), with an age gap of at least 20 years between these members. (captured by age difference)

```
the parents of the HH head. */
gen gen3hh_type1=0
replace gen3hh type1=1 if nheads==1 & nkids>=1 & nparents>=1
fre age if rel_parent==1 & gen3hh_type1==1 // the youngest is 55 but most are 60+
distinct hldid if gen3hh type1==1 // 449
// I have looked at this hh and it looks like a grapgparents.
//br newhhid relrefp age if newhhid==1828
//br newhhid persid age relrefp
//looks great.
* creat the label and determinate the role
* 1 ==child, 2==father, 3==mother, 4==grandpa, 5==grandma
gen role=0
* identifying the child
replace role=1 if age<18 & gen3hh type1==1
* identifying father and mother
replace role=2 if (relrefp==1 & sex==1 | relrefp==2 & sex==1) & gen3hh type1==1
replace role=3 if (relrefp==1 & sex==2 | relrefp==2 & sex==2) & gen3hh_type1==1
* identifying the grandpa and grandma
replace role=4 if relrefp==4 & sex==1 & gen3hh_type1==1
replace role=5 if relrefp==4 & sex==2 & gen3hh type1==1
/* 1.2: Three Gen HH where the head of the hh is one of the parents and the grandparents are
the parents of the Spouse of the head. */
gen spouse_age=age
replace spouse_age=. if rel spouse!=1
by hldid: egen group_spouse_age = max(spouse_age)
gen agedif=age-group_spouse_age // age dif between
gen gen3hh_type2=.
replace gen3hh type2=1 if nheads==1 & nkids>=1 & rel other==1 & agedif>=20 & agedif!=.
by hldid: egen group_gen3hh_type2 = max(gen3hh_type2)
order hldid relrefp age
br hldid relrefp age agedif if group gen3hh type2==1
distinct hldid if group gen3hh type2==1 // 3!
// 筛选出的三个家庭里,祖父母是other relative//in the famililes selected, the grandparent is
the relative and means relreef==9 and we determinate them within age difference
distinct hldid if group gen3hh type2==1 & gen3hh type1==1 // 0!
//jvst a few HH are classified as of this type.
//they look OK to me. true 3-gen HH.
```

/* 1.1: Three Gen HH where the head of the hh is one of the parents and the grandparents are

Data Strategy in MTUS: Identify three generation co-residing families

3. (gen3hh2):Three Gen HH where the head of the hh is one of the grandparents

In this structure, there is at least one family member with an age difference of more than 20 years, and the family includes children. Specifically, the maximum and minimum ages of household members are calculated to identify households where at least one member has an age difference greater than 20 years.

Case 1: The hh don't have children but only has a son/daughter in law (relrefp==6) and the children generation will be represented as relaives(relrefp==9).

Case 2: If the household head is a grandparent and the head has a child, then the age of their child must be greater than 18. The grandchildren can be other relatives in the household who are under 18.

```
/* 2.1. Three Gen HH are those where there is a child and at least one hh member that has an
age dff of 20+ years with the child and with the oldest member. */
      主是祖父母之一,这种情况只能通过年龄差来识别。
bysort hldid: egen maxage=max(age)
gen adtomax=maxage-age
gen adtomin=age-minage
who are the 3 gen hh?
those of 3+ members with
... at least one hh member that has a adtomax>=20
 ... at least one hh member with adtomin>=20
replace gen2=1 if adtomax>=20 & adtomin>=20
by hldid: egen group_gen2 = max(gen2)
recode group_gen2 (.=0)
distinct hldid if group gen2==1 // 520.
gen gen3hh=0
replace gen3hh=1 if gen3hh_type1==1|group_gen3hh_type2==1
distinct hldid if gen3hh_type1==1 // 449
distinct hldid if group gen3hh_type2==1 // 3
distinct hldid if gen3hh==0 & group_gen2==0 // 3024
distinct hldid if gen3hh==1 & group_gen2==1 // 448
distinct hldid if gen3hh==1 & group_gen2==0 // 4
distinct hldid if gen3hh==0 & group_gen2==1 // 72, 其中有户主的家庭有65个
lab var group_gen2 "3-gen-HH identified with AGE"
lab var gen3hh "3-gen-HH identified with RELREFP"
table gen3hh group_gen2
keep if gen3hh == 1 | group_gen2 == 1
br hldid relrefp age agedif if gen3hh==1 & group_gen2==0
* 针对第二种情况,如果这个家庭里有son/daughter-in-law,就意味着户主是祖父母//第一种,户主没有child,只有son/daughter-in-law,第三代孩子是 relatives
gen gen3hh2_type1=0 replace gen3hh2_type1=1 if nheads==1 & nkids==0 & ninlaw>=1 & group_gen2==1 distinct hldid if gen3hh2_type1==1 //37个家庭
 replace role=1 if relrefp==9 & age<18 & gen3hh2 type1==1
 replace role=2 if relrefp==6 & sex==1 & gen3hh2_type1==1
  replace role=3 if relrefp==6 & sex==2 & gen3hh2_type1==1
 replace role=4 if (relrefp==1 & sex==1 | relrefp==2 & sex==1) & gen3hh2_type1==1 replace role=5 if (relrefp==1 & sex==2 | relrefp==2 & sex==2) & gen3hh2_type1==1
// 如果户主是祖父母,户主有child。那么他们的孩子年龄需要大于18,且这个家庭里有other relatives小于18,
gen gen3hh2_type2=0 replace gen3hh2_type2=1 if nheads==1 & nkids>=1 & ninlaw==1 & group_gen2==1 distinct hldid if gen3hh2_type2==1 // 1个家庭
replace role=1 if age<18 & gen3hh2_type2==1
replace role=3 if (relrefp==3 & sex==1 | relrefp==6 & sex==1) & gen3hh2_type2==1 replace role=3 if (relrefp==3 & sex==2 | relrefp==6 & sex==2) & gen3hh2_type2==1
replace role=4 if (relrefp==1 & sex==1 | relrefp==2 & sex==1) & gen3hh2_type2==1 replace role=5 if (relrefp==1 & sex==2 | relrefp==2 & sex==2) & gen3hh2_type2==1
// 机树role的识别,節速有child. mother. father and grandpa or grandma的家庭 bysort hiddd: egen child exists = \max(\text{role} = 1) bysort hiddd: egen father exists = \max(\text{role} = 2) bysort hiddd: egen mother—exists = \max(\text{role} = 3) bysort hiddd: egen mother—exists = \max(\text{role} = 4) bysort hiddd: egen grandpa_exists = \max(\text{role} = 4) bysort hiddd: egen grandpa_exists = \max(\text{role} = 5)
```

by hldid: gen family_selected = child_exists & father_exists & mother_exists & grandparent_exists

bysort hldid: egen grandparent_exists = max(role == 4 | role == 5)

* 汇总标记以确认是否满足所有条件

CENTRE FOR

TIME USE RESEARCH

Data Strategy in CTUS/CHFS: Identify three generation co-residing families

Using RELREFP

- 1. HH 2. partner 3. parents 4. monther/father in law
- 5. grand-parents 6. son/daughter
- 7. son/daughter in law 8. grand-son/daughter
- 9. grand-son/daughter in law 10. brother /sister 777.Other relatives

Classification of Household Members by Age:

- •Child: If the age is less than 16, mark as 'child'.
- •Elder: If the age is greater than 60, mark as 'elder', corresponding to grandparents.
- •Baby: If the age is less than 6, mark as 'baby'.

Identifying Family Member Roles:

Two Methods:

- 1. Children as minors with no grandchildren: The younger generation is categorized as 1, 2, 10, and the older generation as 3, 4, 5.
- 2. Children with marriage experience and having grandchildren: The younger generation is categorized as 6, and the older generation as 1, 2.

Children are considered as minors.

[A2001] 【CAPI 加载姓名】是您的什么人? 1. 本人 2. 配偶或伴侣

父母
 4. 岳父母/公婆
 9. 孙媳/孙女婿
 10. 兄弟姐妹

5. 祖父母/外祖父母 7777. 其他 (请注明)

7. 儿媳/女婿

8. 孙子/孙女

6. 子女

#1 每户家庭必有且只有一名家庭成员 A2001=1, 若没有, 提示访员: 家庭成员中没有受访者本人, (老访户) 请返回 A1106/(新访户) 请返回 A2000a, 重新确认家庭成员; 若超过一名, 提示访员: 前面已记录了受访者本人, 请返回第一位家庭成员(老访户) A2001/(新访户) A2002, 重新确认受访者。

#2 最多仅有一名家庭成员 A2001=2, 否则提示访员: 前面已记录了 受访者配偶,请返回第一位家庭成员(老访户) A2001/(新访户) A2002,重新确认受访者。

- #3 若追踪受访户 A2001=1, 系统自行匹配其加载年龄或 A1106c 或 A1114, 若其年龄<16, 提示访员"受访者未满 16 周岁, 请更换 受访者, 并返回第一位家庭成员 A2001, 重新询问关系"。
- #4 不设置"不知道"及"拒答"选项

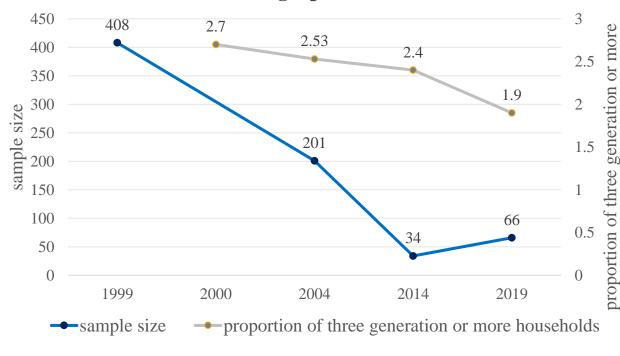
```
** 1.子女为未成年人+没有孙子孙女: 年轻一辈为1、2、10,老一辈为3、4、5
** 2.子女有婚姻经历+有孙子孙女: 年轻一辈为6, 老一辈为1、2
** 子女为未成年人
gen kid1 = (age<17 & a2001 == 6)
bys hhid 2017: egen kid1n = sum(kid1)
gen kidm = 1 if nonmarrv == 0
bys hhid_2017: egen kdimn = sum(kidm)
gen kid2 = a2001 == 8
bys hhid_2017: egen kid2n = sum(kid2)
 gen gen1a = 1 if a2001 < 3 & (kid1n>0 & kid2n==0) & (age>19 & age < 60) // 子辈
 gen gen1b = 1 if (a2001>2 & a2001 < 6) & (kid1n>0 & kid2n==0) //父辈
 gen gen2a = 1 if (a2001 == 6 | a2001 == 7) & (kdimn>0 & kid2n>0) // 子辈
 gen gen2b = 1 if (a2001>2 & a2001 < 6) & (kdimn>0 & kid2n>0)
tostring pline, replace
 keep if gen1a == 1
 keep hhid 2017 pline a2001 age female eduyear college agrhukou so secu me secu
 sort hhid_2017 pline
 merge 1:1 hhid_2017 pline using Time
 drop if merge!=3
 drop _merge
 save youth1, replace
restore
```

CENTRE FOR TIME USE RESEARCH

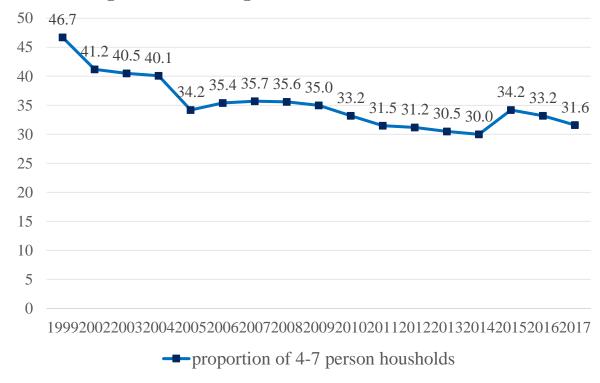
Identification result and problem

- China in 2017: 3684 families
- Korea in 1999: 408 families

Decline of 3 generation family in South Koreau sample Due to the demographic structure or not?



Proportion of 4-7 person housholds in China (%)



Limited sample size of South Korea, why ?what reason??

households (%)

Selection of variable and data strategies



Dependent variables

- parents' paidwork time
- parents' housework time
- parents' no-study childcare time
- parents' study childcare time

Key independent variables

- grandparents' housework time
- grandparents' no-study childcare time
- grandparents' study childcare time

Other independent variables

- educational level
- number of baby and adolescence in family
- age of parents and grandparents
- number of elder
- family asset
- urban/rural zone

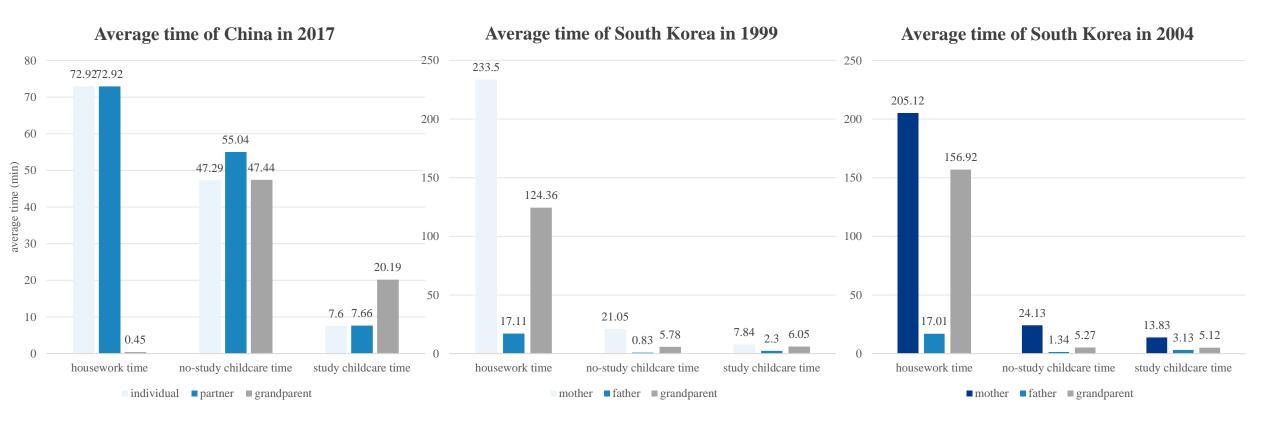
- OLS (ordinary least squares)
- For one couple pair, there are 8 equations, with each spouse having four categories of time.
- For a given household 'i', T_{pi}, T_{hi}, and T_{ci} represent i's time spent on paid work, housework and no-study children care time and study childcare time, respectively. X_i is a vector of the respondent's and the household's characteristics.

$$T_{pi} = \beta_{pi} X_i + \varepsilon_{pi}, \varepsilon_{pi} \sim N(0, \sigma^2)$$
 (1)

$$T_{hi} = \beta_{hi} X_i + \varepsilon_{pi}, \varepsilon_{hi} \sim N(0, \sigma^2)$$
 (2)

$$T_{ci} = \beta_{ci} X_i + \varepsilon_{ci}, \varepsilon_{ci} \sim N(0, \sigma^2)$$
 (3)

Descriptive statistics



Results

Gender divison—H1

- Only impact for mothers' time in China:
 Grandparents' support has a more significant impact on mothers' time by reducing the housework, routine childcare and increase study childcare spend by mothers. But no significant impact for father
- Impact on the fathers' time in South Korea:
- In 1999, housework/ routine children care time
- Comparing to China, father's time devoted to family is very limited in 1999:(housework-17.1 min; no-study childcare time-0.83 min; study childcare time-2.3 min)
- In 2004: Korean grandparents' support increases both fathers' and mothers' time on study care. (same effect)

China in 2017									
Grandparent		Mother			Father				
	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime			
HouseWorkTime	-0.06*	-0.04	-0.02	-0.03	-0.01	0.01			
StuCareTime	0.13	0.34*	0.33***	0.15	-0.11	-0.02			
NoStuCareTime	-0.19***	0.12***	-0.02	-0.03	0.05	-0.02			

South Korea in 1999									
Grandnarant		Mother			Father				
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime			
HouseWorkTime	-0.0396	-0.000685	-0.000976	0.0456**	-0.00223	0.00559			
StuCareTime	-0.218	0.0998*	-0.0376	0.0109	0.00777	0.0274			
NoStuCareTime	-0.297	-0.00967	-0.00207	-0.00994	0.0598***	0.0363			

South Korea in 2004									
Grandparent		Mother		Father					
	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime			
HouseWorkTime	-0.0670	-0. 0677	-0. 00523	0. 0594	-0. 0132	-0. 00348			
StuCareTime	-0.0742	0. 150	0. 277**	-0.0112	0. 0211	0. 159*			
NoStuCareTime	-0. 113	-0. 103	0. 0227	-0. 0384	0. 0273	0.0694			

Results

Urban vs. Rural—H2

- Urban zone in China: child-centered care in studies / no trade off effect between grandparents and parents' children-care time on studies activities
- Rural zone in China: grandparent's support reduces housework and routine childcare time (mother) but increases study childcare time (father).
- In South Korea: same effect in urban and rural zone

	China (urban area) in 2017										
Grandnavant		Mother		Father							
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime					
HouseWorkTime	-0.06	-0.07*	-0.03	-0.01	-0.01	0					
StuCareTime	0.14	0.58***	0.40***	0.18	-0.12	-0.03					
NoStuCareTime	-0.19***	0.15***	-0.02	-0.02	0.02	-0.02					
		Chin	a (rural area) i	n 2017							
Grandparent		Mother		Father							
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime					
HouseWorkTime	0.06	0.01	-0.03	-0.02	0.06**	0.03***					
StuCareTime	-0.13	-0.98***	-0.02	0.09	-0.13	0.01					

	South Korea (urban area) in 1999										
Grandparent		Mother		Father							
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime					
HouseWorkTime	-0.0396	-0.000685	-0.000976	0.0456**	-0.00223	0.00559					
StuCareTime	-0.218	0.0998*	-0.0376	0.0109	0.00777	0.0274					
NoStuCareTime	-0.297	-0.00967	-0.00207	-0.00994	0.0598***	0.0363					
		South 1	Korea (rural area)	in 1999							
Grandparent		Mother		Father							
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime					
HouseWorkTime	-0.0396	-0.000685	-0.000976	0.0456**	-0.00223	0.00559					
StuCareTime	-0.218	0.0998*	-0.0376	0.0109	0.00777	0.0274					
NoStuCareTime	-0.297	-0.00967	-0.00207	-0.00994	0.0598***	0.0363					

Results

Study childcare vs. Routine (no-study) childcare—H3

- Children study activities Centered in China: grandparents' time on study childcare activities is positively correlated with mothers' time on childcare (routine and study related activities).
- South Korea: grandparent's support's impact shift: Grandparents support impact :from routine children care activities to study activities.

China in 2017										
Grandparent		Mother			Father					
	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime				
HouseWorkTime	-0.06*	-0.04	-0.02	-0.03	-0.01	0.01				
StuCareTime	0.13	0.34*	0.33***	0.15	-0.11	-0.02				
NoStuCareTime	-0.19***	0.12***	-0.02	-0.03	0.05	-0.02				

South Korea in 1999										
Grandparent		Mother		Father						
	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime				
HouseWorkTime	-0.0396	-0.000685	-0.000976	0.0456**	-0.00223	0.00559				
StuCareTime	-0.218	0.0998*	-0.0376	0.0109	0.00777	0.0274				
NoStuCareTime	-0.297	-0.00967	-0.00207	-0.00994	0.0598***	0.0363				

South Korea in 2004										
Condmount		Mother		Father						
Grandparent	HouseWorkTime	NoStuCareTime	StuCareTime	HouseWorkTime	NoStuCareTime	StuCareTime				
HouseWorkTime	-0.0670	-0. 0677	-0.00523	0. 0594	-0. 0132	-0. 00348				
StuCareTime	-0. 0742	0. 150	0. 277**	-0. 0112	0. 0211	0. 159*				
NoStuCareTime	-0. 113	-0. 103	0. 0227	-0. 0384	0. 0273	0. 0694				

Conclusion



Gender Inequality in Two Countries: In China, grandparents' support has a more significant impact on mothers' time allocation at home compared to fathers. However, in South Korea, the opposite is true, with grandparents' support affecting fathers' time allocation more than mothers' but the fathers time devoted to childcare is very limited.

Geographic Inequality in China: Urban and rural families experience different effects on how younger generation couples allocate their time. In urban areas, there is a child-centered approach, where family members prioritize spending time on children's education and development

Shift of Responsibility in South Korea (1999–2004): The role of grandparents' assistance shifted during this period. Initially, it helped increase fathers' involvement in routine childcare or housework, but later, it shifted towards increasing fathers' participation in study-related care. This could be explained by a movement towards a more child-centered approach, emphasizing children's education. This shift may also signal progress towards gender equality in caregiving responsibilities, as fathers took on more active roles in supporting their children's educational development.

Decline of Three-Generation Families in South Korea (To Be Explored): The decline of three-generation families in South Korea could be attributed to demographic changes (e.g., lower birth rates, aging population) or the evolution of family structures, such as smaller nuclear families and increased individualism. This trend requires further exploration to understand its implications on family dynamics and support systems.

Focus of eexploration in the future:

funded by National Social Science Fund of China



----Exploring Childcare Structure and Characteristics in Asian Society(gender division/ education system)

----Understand the time de to childcare within families and the relationship between family care and early childhood systems (children's facilities) across different models of Early Childhood Education and Care (ECEC) policies.(cost-sharing system in time)

Thank you

Special thanks to Man-Yee Kan and Henglong LUO

Time use on childcare in the inter-generational co-residing family
——A comparative study of China and South Korea

Tang Jialu & Wang Qiye v.tang@ucl.ac.uk