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Giving Help in Return:

Social Exchange in Singapore

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Giving Help in Return: Social Exchange in Singapore

INTRODUCTION

Social exchange is an abiding feature of human society. People give help, affection, and resources to others willingly and with kind intent. There is basic expectation of reciprocity, that is, the receiver will help the giver sooner or later. Such ties of reciprocity are fundamental to individual wellbeing and societal stability.

This analysis studies reciprocal help in an Asian society. Do older Singaporeans who receive more help, also give more? Giving can be difficult for those with illness or disability; they receive ample formal and informal services, but have trouble giving help in return due to reduced abilities and medical expenses. Nevertheless, strong motivation to "give in return" may still exist, visible when illness/disability is statistically controlled.

METHODS

Background

Reciprocity was one of the earliest social principles proposed by sociologists (Simmel, 1907, 1922). Over the past century, it is the foundation for many specific sociological and economic theories, such as social exchange (Blau, 1964; Homans, 1961), equity theory (Hatfield, 1995; Walster, Walster, & Berscheid, 1978), contingent exchange (Deutsch, 1975), and altruism (Batson, 1998). Reciprocity operates through a person's lifetime, from childhood to late life. Sometimes help is returned quickly and in the same manner. But social bonds also include long time lags in help received and given, and differences in specific kinds of help received and given. When ties of reciprocity are within a group such as a family, giving and receiving may occur broadly among members, not just one-to-one.

Gerontological research literature has concentrated on older persons as *receivers* of assistance, especially when ill/disabled (Allen, Foster, & Berg, 2001; Caffrey, 1992; Spillman, 2004; Stoller, 1983). A smaller literature focuses on older persons as *givers*. The notion of productive aging includes both unpaid and paid services by older persons (Herzog, Kahn, Morgan, Jackson, & Antonucci, 1989; Morrow-Howell, Hinterlong, & Sherraden, 2001; Sanders, 1988). Caring for grandchildren, volunteer work, and cooking/cleaning when living with others are common unpaid services (Hermalin, Roan, & Perez, 1998; Teo & Mehta, 2001). Informal support among older persons also involves giving (Peters & Kaiser, 1988; Wentkowski, 1981). Giving has positive effects on a person's wellbeing (Krause, Herzog, & Baker, 1992; Liang, Krause, & Bennett, 2001; Lum & Lightfoot, 2005; Ostir, Simonsick, Kasper, & Guralnik, 2002; Wolff & Agree, 2004).

Receiving and giving come together in the literature on intergenerational transfers. The focus is how parents initially provide care and finances to their children, and later when they are elderly, their adult children help in return (Biddlecom, Chayovan, & Ofstedal, 2002; Kendig, Hasimoto, & Coppard, 1992; National Research Council, 2001). In some societies, family reciprocity is strongly normative. In Asian ones, it takes shape in the principle of filial piety. Older persons expect to live with their children (preferably oldest son), be financially supported by them, and have daily assistance (Domingo & Asis, 1999; Frankenberg, Beard, & Saputra, 1999; Knodel, 1997; Knodel & Ofstedal, 2002; Lillard & Willis, 1997; Mehta, 1999; Ofstedal, Knodel, & Chayovan, 1999; Phillips, 2000). In Western societies, children's help is appreciated but not routinely expected (Hogan, Eggebeen, & Clogg, 1993). Older persons like having contact with their children, but typically live on their own and rely largely on their own financial resources.

Reciprocity also has short time frames. People return recent help and favors as a normal

feature of daily life. Even when ill or disabled, older people may try to give something in return for kindness and assistance they are receiving (Boerner & Reinhardt, 2003; Mehta, 1997a). Telephoning a son on his birthday, walking slowly with a friend who also has mobility trouble, and offering a smile to nursing home staff are examples.

This project studies contemporary reciprocity for older persons. Do seniors who receive help endeavor to give something back? We study this in Singapore, where the norm of family reciprocity is still strong (Chan, 1997; Hateley & Tan, 2003; Tay, 2003). The concept of "family" stretches beyond the household to include nonresident children, their spouses, and offspring. We study help received and given by older persons within the family. Received help is income and cash support, payment of household expenses by others, and companionship for away-from-home tasks. Given help is babysitting grandchildren, doing household chores, providing financial support to children, and giving solicited advice.

Hypothesis

We hypothesize that older persons who receive more help, also give more help. This may appear only in multivariate analyses. People who receive much help often have health or financial problems that limit their ability to give in return, so we must control for illness/disability.

Data Sets

In 1995, the Singapore government conducted a survey of community-dwelling citizens and permanent residents ages 55+ (Ministry of Health, 1996). Probability sampling with oversampling of persons ages 75+ yielded 8,000 eligible households. In households with several people ages 55+, one was selected by a random procedure. There were 4,750 interviews (59% response rate). Questionnaire topics were work and retirement, living arrangements, income and assets, intergenerational ties and financial support, use of social services, health status and

disability. In 1999, a followup survey was conducted by National University of Singapore researchers (Chan, Straughan, and Teo, 2001). The prior survey was not designed as a longitudinal study, so recontact was difficult. Of the original 4,750 persons, 57% were located, 12% were known dead, 16% moved and new address unknown, and 15% other reasons for not located. Of 2,723 located people, 1,977 were interviewed (73% response rate). Topics were similar to the 1995 survey, but specific questions often differed. We weight the datasets to adjust for age oversampling, and also apply regression-based weights for nonresponse in multivariate analyses of the 1999 data.

Dependent Variables

There are five dependent variables for 1995, and two for 1999. The 1995 "give help" variables are: how often the respondent (R) babysits grandchildren living in the household, how often R babysits grandchildren living elsewhere, whether R assists in household work, whether R provides financial assistance to his/her children, and whether R is consulted by family members for advice on important matters. All items are for subsets of respondents: Babysit at home was asked only for Rs with grandchildren present (N=1,842), and babysit away for those with grandchildren living elsewhere (N=3,588). The other three items were asked to Rs living with their child(ren) (N=4,075). The 1999 "give help" variables are: if R assists someone in babysitting, and how much R helps with household chores. These variables are for all respondents (N=1,977). Details about dependent variables are in table footnotes.

Predictors

How much help older persons give is influenced by their sociodemographic features, availability of other givers and of receivers, time commitments, psychosocial aspects, illness and disability, and how much help they receive. We state predictors and their rationales. A predictor exists in both surveys unless indicated by a year in parentheses.

(1) Sociodemographic items are: gender, age, ethnic group, marital status, completed education (1995), monthly income (1999), and total assets (1999). We expect that women give more home-based help, but less advice and resources; very elderly people give less help of all kinds; and seniors with higher education, income, and assets offer more resources and advice, but do fewer household tasks. No hypotheses are made for the other items. (2) Availability of receivers and other givers affects how much help the senior gives. More potential receivers (RC) may increase R's motivation to give help, whereas other potential givers (GV) may reduce it. The 1995 availability items are: number of other caregivers in the household (for babysit at home; GV), number of R's children in household (for assist with housework and provide financial assistance; GV), number of other adult family members in household (for provide advice; can be RC or GV); there were no suitable items for babysit elsewhere. For 1999, the availability items are: numbers of living children and of grandchildren (for babysit; GV and RC, respectively), and numbers of household members ages 19-59 and ages 60+ besides R him/herself (for household chores; both GV). (3) Other time commitments reduce a person's energy to help with household tasks, but employment increases ability to offer resources to the household. We use these items: employment status, hours per week doing chores (1999; used only with babysit), and frequency of volunteer services (1999). (4) Social support may enhance motivation to give help, while stress reduces it. The items are: whether R has a confidant (1995), if R thinks his/her neighbors are helpful (1995), how much others listen to R's worries and problems (1999), and level of stress (1999). (5) Illness/disability reduces R's ability to offer help to others. The items are: self-rated health, symptoms in past month (1995), sensory problems (1995), physician-diagnosed conditions (1999), any home-based treatments (1995), any regular medical care for chronic conditions (1995), and ADL/IADL disabilities (1995; ADL is personal care, IADL is household management). (6) Receiving help may encourage R to give help in return. The items are: if

receive any cash support from kin (1995) or from anyone (1999), percent financial support from children (1995), how much other family members pay for household expenses (1999), if have a companion when going out (1999), if have a companion for clinic visits, and if have a principal carer (1995; someone designated to handle a senior's daily needs; occurs only for very ill/frail people). Details about predictors are in table footnotes.

Procedures

We tested the hypothesis of a positive tie between receive and give by staged multivariate regressions. For a "give help" dependent variable, we first estimated a model with sociodemographic predictors, then added availability, then time commitments, then psychosocial aspects, then illness/disability, and lastly how much help is received. This is a conservative approach for testing "receive help" effects. Logistic regressions were estimated by the cumulative logit procedure in SAS. We focus here on results from the full models. Effects are reported as odds ratios. Probability thresholds are Ω P<.0001, *** P<.001, ** P<.01, P<.05, ns P≥.05. Pseudo R-squared for models are shown; the calculation procedure is in a table footnote.

RESULTS

Descriptive

The 1995 sample was half female (52.6%) and largely Chinese (79.6%); average age was 65.8 (Table 1, left side). Over half the respondents were currently married (57.6%), and the majority had no education (61.6%). Most (86.2%) lived with their children, and just 3.1% lived alone. Potential receivers and potential givers (besides R) of help were almost always present in the household. Most respondents were not employed (72.6%). Almost all had a confidant (94.8%), and most considered their neighbors helpful (78.5%). Self-rated health was typically "good" (67.2%), and the majority had no recent symptoms (63.4%; mean 0.70) or sensory problems (66.7%; mean 0.65). Home-based treatments (40.6%) were more common than regular medical

care for chronic conditions (29.0%). Few people had ADL disability (4.7%), but one-third had IADL disability (35.8%). For receiving help: Half (48.2%) of the seniors received cash support from relatives, and the majority (57.8%) said that >75% of their income came from children. Half (47.9%) had a companion for clinic visits, and few (4.4%) had a designated carer. For giving help: The majority of seniors babysat their coresident grandchildren ("often", 43.0%; "at times", 26.5%) or grandchildren living elsewhere ("often", 19.0%; "at times", 39.0%). The great majority assisted in household work (79.4%) and gave solicited advice on important family matters (83.7%). Relatively few provided financial assistance to their children (39.1%).

Table 1. Characteristics of Singapore Samples, Ages 55+ (1995) and 60+ (1999)

1995 Survey[a,b]	
N	4,750
Sociodemographic	
Gender (% female)	52.6%
Age	(M) 65.8
55-64	52.8%
65-74	30.1
75+	17.1
Ethnic group	
Chinese	79.6%
Malay	11.5
Indian	7.7
Other	1.2
Marital status	
Currently married	57.6%
Widowed	37.7
Other unmarried	4.7
Education	
None	61.6%
Primary	25.7
Secondary	9.2
Upper secondary or more	3.5
Availability of receivers and givers	
No. of other caregivers in household	(M) 1.75
0	1.5%
1-2	78.9
3+	19.6
No. of R's children in household	(M) 1.89

1999 Survey[a,c]	
N	1,977
Sociodemographic	
Gender (% female)	52.8%
Age	(M) 69.4
60-64	35.7%
65-74	39.7
75+	24.6
Ethnic group	
Chinese	79.0%
Malay	12.4
Indian	7.1
Other	1.5
Marital status	
Currently married	53.7%
Widowed	39.2
Other unmarried	7.1
Monthly income (SGD)	(M) $475
None	61.4%
< $500	11.7
$500-999	12.2
$1,000-1,999	9.6
$2,000+	5.1
Assets (SGD)	(M) $33,047
None	55.9%
< $50,000	31.1
$50,000-99,999	8.4
$100,000+	4.6

1	48.0%
2	27.3
3+	24.7
No. of other adult family members in household	(M) 1.75
0	<0.1%
1	36.5
2	52.7
3+	10.8
Other time commitments	
Employment status	
Not employed	72.6%
Parttime work	6.4
Fulltime work	21.0
Psychosocial	
Have a confidant	
Spouse	42.5%
Son or daughter	43.7
Other person	8.6
None	5.2
Neighbors are helpful (% yes)	78.5%
Illness/disability	
Self-rated health	
Very good	18.0%
Good	67.2
Not too good	14.0
Poor	0.8
Symptoms in past month (0-10)	(M) 0.70
Sensory problems (0-3)	(M) 0.65
Home-based treatment (% yes)	40.6%
Regular medical care for chronic condition (% yes)	29.0%
Disability	
No ADL/IADL disability	59.5%
IADL only disability	35.8
ADL disability	4.7
Receive help	
Cash support from kin (% yes)	48.2%
Percent financial support from children	
None	15.5%
<25%	12.9
25-49%	8.5
50-74%	5.3
≥75%	57.8

Availability of receivers and givers	
No. of R's living children	(M) 4.38
0	5.7%
1-2	19.3
3-5	45.3
6+	29.7
No. of grandchildren	(M) 7.13
0	13.4%
1-5	34.8
6-10	27.3
11-15	14.7
16+	9.8
No. of household members ages 19-59	(M) 1.76
0	18.7%
1-2	56.0
3+	25.3
No. of household members ages 60+	(M) 0.45
0	57.1%
1	40.3
2+	2.6
Other time commitments	
Employment status	
Not employed	77.5%
Parttime or occasional work	4.3
Fulltime work	18.2
Hours per week doing chores	
None	27.0%
<6	23.5
6-15	19.2
16-25	12.2
>25	18.1
Volunteer services (% yes)	3.0%
Psychosocial	
How much stress/worry R feels	
None	60.8%
Some	33.2
A great deal	6.0
How much others listen to R's worries/problems	
Not at all/I keep to myself	32.8%
Very little/Some	20.3
Quite a bit	17.3
A great deal	29.6
Illness/disability	
Self-rated health	
Very good	7.6%
Good	45.8

Have companion for clinic visits (% yes)	47.9%
Have a principal carer (% yes)	4.4%
Give help (dependent variables)[d]	
Babysit grandchildren living in household	
No	30.6%
At times	26.5
Often	43.0
Babysit grandchildren living elsewhere	
No	42.0%
At times	39.0
Often	19.0
Assist in household work (% yes)	79.4%
Provide financial assistance to children (% yes)	39.1%
Give solicited advice to family on important matters (% yes)	83.7
Not too good	36.0
Poor	10.6
Physician-diagnosed conditions (0-10) (M)	1.38
Receive help	
Cash support from anyone (% yes)	49.0%
Who pays for household expenses	
R (and spouse) pay all	28.4%
R (and spouse) pay most	10.0
Shared	3.7
Other family members pay most	6.1
Other family members pay all	51.8
Have companion when go out (% yes)	27.2%
Have companion for clinic visits (% yes)	47.6%
Give help (dependent variables)[e]	
Assist someone in babysitting (% yes)	12.4%
Help with household chores	
None	25.5%
A little bit	23.6
Some	7.0
A lot	1.8
R does all/almost all chores	42.1

Data sources: 1995 National Survey of Senior Citizens in Singapore, and 1999 longitudinal followup survey.

a For 1995, marginals and means are for whole sample (4,750), except dependent variables (subsets) and availability predictors (tailored to those subsets). Weighted to adjust for age oversampling; weighted sample is 4,750.0. For 1999, marginals and means are for whole sample (1,977). Weighted to adjust for initial age oversampling and nonresponse; weighted sample is 1974.5. Results are percentage distributions (sum to 100.0), except dichotomous items (% yes) and means (M).

b Details about 1995 predictors: Education is highest level completed. Availability items are based on a coded summary about household members. They are: no. of other types of adults in household (used for babysit at home), no. of own children living in household (includes adopted; used for household work and financial assistance), no. of other types of adult family members in household (used for advice). Ten symptoms in the past month (e.g., breathlessness, palpitation, thirsty and frequent urination) and three sensory problems (hearing trouble and no hearing aid, seeing trouble and no glasses, difficulty chewing food) were queried. Home-based medical treatments are daily oral medication, daily injection, daily physiotherapy on one's own, wound dressing, or medical device care. Medical treatment is: "Are you currently receiving regular treatment from a doctor for any longstanding illness?" Cash support from kin is any regular/occasional allowance from children or other relatives (based on 4 items about sources). Percent financial support from children was asked after R stated total monthly income plus cash allowances: "What percentage of this amount comes from your children?" (questionnaire had the categories shown above). Clinic companion is someone who normally accompanies R to consult doctor or traditional medicine practitioner. Principal carer is someone designated to look after R and take care of his/her daily personal needs; this is for frail elders, and carer is usually son/daughter (includes in-law), maid, or spouse.

c Details about 1999 predictors: Monthly income is for R (and spouse) from work earnings or family business, pension/retirement fund, income from rental property, dividends from savings/stocks/shares, allowance from children, other; specific amounts for each category were queried. Assets of R (and

spouse) are residential or commercial buildings (excludes own residence), land, savings/stocks/shares, own business, and other; questionnaire had categories (starting with "less than $50,000"; no zero category); we added category midpoint values. For hours doing chores, the questionnaire had the categories shown above. For volunteer work, the question is "Are you currently involved in voluntary work?" For stress, the question is "Please tell me whether your work, family, or daily life brings you stress and worries." For listening, the question is "How much do you feel that your family, relatives, or friends are willing to listen when you need to talk about your worries or problems?"; The not at all/I keep to myself response is mostly not at all (78%). Ten physician-diagnosed conditions (e.g., high blood pressure/hypertension, diabetes/high blood sugar, cancer/malignant tumor, chronic lung disease) were queried. Cash support from others is: "Does anyone regularly give you money to provide for your needs?" Who pays for household expenses is: "How do you meet the household expenses, such as food, rent, utilities, loans, and maintenance?" Companion when going out is: "Does anyone assist you when you go out and do things like visit a doctor, go shopping, or visit friends?" (no 72.8%, rarely 0.8%, occasionally 6.3%, often 20.1%; dichotomized for regressions). Clinic companion is: "Is there someone who takes you to the doctor when you need to go?"

d All 1995 dependent variables are for subsets. The first babysit item is "look after grandchildren" living in the same household (asked to Rs with grandchildren present; N=1,842). The second babysit item is look after grandchildren living elsewhere, either when R's children who live elsewhere visit his/her household or when R visits them (asked to Rs with grandchildren living away; N=3,588). The other items are: "In the household, are you involved in the following: assist in household work?; provide financial assistance to children?; family members consulting you for advice on important family matters and in decision-making?" (asked to Rs living with their children; N=4,075.)

e The 1999 dependent variables are for the full sample. Babysit assistance is: "Do you provide assistance to babysit your grandchildren or other's children?"; the intended meaning was 'do you babysit', but translations made it 'do you assist someone in babysitting'. (We excluded "other" ethnicity cases (N=12) because none of them babysit; the availability predictors for this Y also exclude those cases.) Household chores is: "Who mostly takes care of the household chores like cooking, laundry, cleaning, [and] shopping in your household?" If self, next question was skipped. If shared or others, "Do you ever help with these household chores? If so, how much?" (never, a little bit, some, a lot).

The 1999 sample was majority female (52.8%) and mostly Chinese (79.0%); average age was 69.4 (Table 1, right). Half the respondents were currently married (53.7%). The majority had no monthly income (61.4%) or assets (55.9%). The great majority (76.1%) lived with their children, and only 6.7% lived alone. There are almost always available receivers and givers (besides R) of help. Most respondents were not employed (77.5%). One-third (30.3%) spent 16+ hours per week on household chores. Few (3.0%) participated in volunteer services. The majority did not feel stress or worries (60.8%). One-third of the seniors did not confide worries to anyone (32.8%), yet one-third said they confided a great deal (29.6%). About half rated their health "good" (45.8%), and physician-diagnosed conditions were few (mean 1.4). For receiving help: half of the seniors received cash regularly from others (49.0%), and the majority said someone else paid for all or most household expenses (57.9%). Half (47.6%) had a companion for clinic visits, and one-quarter (27.2%) had a companion for away-from-home tasks. For giving help: Just 12.4% of seniors said they assist someone else during babysitting. The majority helped with household chores (74.5%).

Bivariate

We begin with bivariate ties among receive help, give help, and illness/disability. These domains are the most crucial ones for the analysis. In the bivariate setting, we anticipate that (1) the more help people receive, the *less* they give, and (2) as illness/disability increases, people receive more help and give less help. Correlation matrices among these variables were estimated. Statistically significant correlations ($P < .05$) are summarized.

Significant correlations between receive help and give help are often negative (62%;

12/18 for 1995 and 3/6 for 1999). The negative ties show that seniors with a companion for away-from-home activities do less babysitting and household chores, and they give less money and advice to family; and as financial resources to seniors increase, they give less money and advice. The positive ties show that the more income/cash support received, the more home-based tasks seniors give. Correlations between illness/disability and receive help are almost all positive (95%; 51/54 for 1995 and 6/6 for 1999). Correlations between illness/disability and give help are all negative (100%; 29/29 for 1995 and 4/4 for 1999).

Multivariate

Tables 2 and 3 show results for full models for 1995 and 1999, respectively. The predictors had no multicollinearity (r >.60). We report significant sociodemographic, availability, time commitment, psychosocial, and illness/disability predictor effects. "Receive help" effects are in the next section.

Table 2. Predictors of Giving Help, Singaporeans Ages 55+ (1995)[a]

Predictors[b]	Babysit gdchd home	Babysit gdchd away	Household work	Financial assistance	Give advice
Female	1.390**	1.460$^{\Omega}$	5.365$^{\Omega}$	0.722**	0.995^{ns}
Age	0.826$^{\Omega}$	0.831$^{\Omega}$	0.797$^{\Omega}$	0.922*	0.779$^{\Omega}$
Malay	0.899^{ns}	1.163^{ns}	1.239^{ns}	1.073^{ns}	1.313^{ns}
Indian	0.772^{ns}	0.700*	1.414^{ns}	0.750^{ns}	1.215^{ns}
Other ethnicity	2.052^{ns}	1.773^{ns}	1.312^{ns}	1.358^{ns}	0.873^{ns}
Widowed	1.258^{ns}	0.768*	1.111^{ns}	1.443*	1.479*
Other unmarried	0.539^{ns}	0.494*	1.431^{ns}	1.388^{ns}	4.362**
Primary education	1.076^{ns}	0.987^{ns}	1.036^{ns}	1.171^{ns}	1.092^{ns}
Secondary education	1.393^{ns}	0.792^{ns}	1.056^{ns}	1.480*	1.780*
Post-secondary education	1.820^{ns}	1.619^{ns}	1.265^{ns}	3.135$^{\Omega}$	2.454*
Other caregivers (GV)	1.550$^{\Omega}$	--	--	--	--

No. R's children in hhold (GV)	--	--	1.068^{ns}	1.133**	--
No. adults in household (GV/RC)	--	--	--	--	1.335*
Employment status	0.906^{ns}	0.868^{ns}	0.596$^{\Omega}$	1.977$^{\Omega}$	1.386**
Son/daughter Confidant	0.923^{ns}	0.957^{ns}	0.823^{ns}	0.722*	0.832^{ns}
Other confidant	0.815^{ns}	1.047^{ns}	0.905^{ns}	0.765^{ns}	0.380$^{\Omega}$
No confidant	0.855^{ns}	0.566**	0.807^{ns}	0.419$^{\Omega}$	0.335$^{\Omega}$
Neighbors helpful	1.005^{ns}	0.988^{ns}	1.226^{ns}	1.952$^{\Omega}$	1.991$^{\Omega}$
Self-rated health	0.805*	0.753$^{\Omega}$	0.691$^{\Omega}$	0.309$^{\Omega}$	0.853^{ns}
Symptoms	1.219***	1.134***	1.095*	0.743$^{\Omega}$	0.704$^{\Omega}$
Sensory problems	0.992^{ns}	0.973^{ns}	0.768$^{\Omega}$	0.881*	1.035^{ns}
Home-based treatment	0.959^{ns}	1.018^{ns}	0.831^{ns}	3.534$^{\Omega}$	1.107^{ns}
Regular medical care	1.023^{ns}	0.877^{ns}	0.920^{ns}	0.412$^{\Omega}$	0.924^{ns}
ADL/IADL disability	0.631$^{\Omega}$	0.539$^{\Omega}$	0.354$^{\Omega}$	0.332$^{\Omega}$	0.486$^{\Omega}$
Cash support from kin	1.025^{ns}	1.048^{ns}	1.169^{ns}	1.663$^{\Omega}$	0.918^{ns}
% support from children	1.267***	1.293$^{\Omega}$	1.129**	0.877**	1.095^{ns}
Clinic companion	0.779*	0.879^{ns}	0.574$^{\Omega}$	1.208*	1.181^{ns}
Principal carer	0.516**	0.826^{ns}	0.325$^{\Omega}$	0.836^{ns}	1.224^{ns}
R^2	.073	.064	.215	.312	.181

Data source: 1995 National Survey of Senior Citizens in Singapore.

a $^{\Omega}$ P<.0001, *** P<.001, ** P<.01, * P<.05, ^{ns} P≥.05. Odds ratios from full models are shown. -- means variable is not applicable to model. Table 1 has details about variables. Pseudo-R-squared is $(D_0 - D_M)/D_0$, where D_0 is the logistic goodness-of-fit for the intercept-only model, and D_M is same for intercept + covariates model; this is R_L^2 in Menard (1995).

b Reference group or other notes are in parentheses: gender (male), age (55-59, 60-64,...,90+; ordinal treated as integer), ethnic group (Chinese), marital status (currently married), education (none), availability items (all integer; GV means other givers; RC means receivers), employment status (ordinal), have confidant (spouse), neighbors helpful (no), self-rated health (ordinal treated as integer), symptoms (integer), sensory problems (integer), home-based treatment (no), medical care (no), ADL/IADL disability (ordinal treated as integer), cash support from kin (no), percent support from children (original treated as integer), clinic companion (no), principal carer (no).

Table 3. Predictors of Giving Help, Singaporeans Ages 60+ (1999)[a]

Predictors[b]	Assist with babysit	Household chores
Female	1.642*	8.424$^{\Omega}$
Age	0.683$^{\Omega}$	0.715$^{\Omega}$
Malay	0.449**	1.507*
Indian	0.200**	1.955***
Other ethnicity	--	2.429*
Widowed	0.749^{ns}	0.990^{ns}
Other unmarried	0.181***	1.408^{ns}
Monthly income	0.341^{ns}	0.514*
Assets	1.022^{ns}	1.042^{ns}
No. living children (GV)	0.987^{ns}	--
No. grandchildren (RC)	1.032^{ns}	--
No. household mbrs 19-59 (GV)	--	0.684$^{\Omega}$
No. household mbrs 60+ (GV)	--	0.764*
Employment status	0.502$^{\Omega}$	0.696$^{\Omega}$
Hours doing chores	1.315$^{\Omega}$	--
Volunteer services	1.058^{ns}	0.980^{ns}
Other listen to R's worries	1.031^{ns}	1.021^{ns}
Stress/worries	0.977^{ns}	1.137^{ns}
Self-rated health	0.779*	0.613$^{\Omega}$
Diagnosed conditions	0.934^{ns}	0.945^{ns}
Cash support from anyone	0.786^{ns}	1.574$^{\Omega}$
Household expenses help	1.077^{ns}	0.912**
Companion when go out	0.975^{ns}	0.515$^{\Omega}$
Clinic companion	1.006^{ns}	0.643***
R^2	.149	.172

Data source: 1999 longitudinal followup survey to the 1995 National Survey of Senior Citizens in Singapore.

a $^{\Omega}$ P<.0001, *** P<.001, ** P<.01, * P<.05, ^{ns} P≥.05. Odds ratios from full models are shown. See also Table 2, note a.

b Reference group or other notes are in parentheses: gender (male), age (60-64,...,90+; ordinal treated as integer), ethnic group (Chinese), marital status (currently married), monthly income (sum of exact-figure components), assets (sum of midpoint values for components), availability items (all integer; GV means other givers; RC means receivers), employment status (ordinal), hours doing chores (ordinal), volunteer services (no), listen to worries (ordinal), stress/worries (ordinal), self-rated health (ordinal), diagnosed conditions (integer), cash support from others (no), household expenses help (ordinal), companion when go out (no), clinic companion (no).

Women are much more likely than men to do babysitting and household chores, but less likely to give financial help to coresident children. As age increases, help of all types

decreases. There are some ethnicity effects, but inconsistent in direction. Widowed and unmarried seniors are asked for advice more often than married ones, but they tend to do less babysitting. Older people with secondary or higher education give more financial assistance and advice to their family. Only a few availability effects are significant, with inconsistent results about the hypotheses. Employment has strong effects, increasing financial assistance and advice, and reducing home-based tasks. Time spent on household chores is positively linked with babysitting (they are probably easily done at the same time). Seniors with no confidant are less likely to give financial help or advice to their household, than seniors with one. Those who feel their neighbors are helpful are themselves more helpful in providing financial help and giving advice to their family. Self-rated health has strong effects; the worse one's health, the less likely a person is to give any kind of help. ADL/IADL disability also greatly reduces all types of help. Other illness items (symptoms and sensory problems) show some negative effects, but anomalous positive ones exist as well.

Predictors with no significant effects on giving help are: primary schooling (cf. no schooling), income, assets, doing voluntary service activities, supportive listening from others, stress, and home-based treatments or regular medical care.

R-squared values for the full models range from .064-.312. The highest value is for providing financial assistance to children; lowest values are for babysitting. Despite including important predictors of giving help, the models do only a fair job of explaining variation in giving help. We think it unlikely that the surveys contain other suitable predictors, since we searched deeply at the outset and evaluated various formats for predictors.

Does Receiving Increase Giving?

Our key hypothesis concerns the link between receiving help and giving help. We expect that when illness/disability and other factors influencing giving help are controlled, that link is positive. Table 4 shows initial effects from bivariate regressions and final effects from full models. We evaluate the hypothesis in two ways: (1) the direction of receive-help effects in full multivariate models and (2) how receive-help effects change from the bivariate to the multivariate setting.

Table 4. Links Between Receive Help and Give Help in Bivariate and Full Models

	Babysit gdchd home		Babysit gdchd away		Household work	
	bivar	full model	bivar	full model	bivar	full model
Receive Help						
Cash support from kin	0.902^{ns}	1.025^{ns}	1.150*	1.048^{ns}	1.251*	1.169^{ns}
% support from children	1.225$^{\Omega}$	1.267***	1.234$^{\Omega}$	1.293$^{\Omega}$	1.164$^{\Omega}$	1.129**
Clinic companion	0.660$^{\Omega}$	0.779*	0.889^{ns}	0.879^{ns}	0.651$^{\Omega}$	0.574$^{\Omega}$
Principal carer	0.338$^{\Omega}$	0.516**	0.402$^{\Omega}$	0.826^{ns}	0.135$^{\Omega}$	0.325$^{\Omega}$

	Financial assistance		Give advice	
	bivar	full model	bivar	full model
Receive Help				
Cash support from kin	1.184**	1.663$^{\Omega}$	0.788$^{\Omega}$	0.918^{ns}
% support from children	0.670$^{\Omega}$	0.877**	0.824$^{\Omega}$	1.095^{ns}
Clinic companion	0.617$^{\Omega}$	1.208*	0.671$^{\Omega}$	1.181^{ns}
Principal carer	0.208$^{\Omega}$	0.836^{ns}	0.255$^{\Omega}$	1.224^{ns}

	Assist with babysit		Household chores	
	bivar	full model	bivar	full model
Receive Help				
Cash support	1.486**	0.786^{ns}	1.542$^{\Omega}$	1.574$^{\Omega}$
Household expenses	1.095*	1.077^{ns}	0.939**	0.912**
Companion going out	0.843^{ns}	0.975^{ns}	0.547$^{\Omega}$	0.515$^{\Omega}$
Clinic companion	0.771^{ns}	1.006^{ns}	0.552$^{\Omega}$	0.643***

Direction of Effects: Half (14/28) of the receive-help effects are statistically significant in full models. Of these, 43% (6/14) are positive, and 57% (8/14) are negative. The positive effects are congruent with hypothesis: As percent of income from one's children increases, so do seniors' home-based tasks (babysitting grandchildren living at home and

elsewhere, and doing household work) . Similarly, seniors who regularly receive cash from others help with household chores more. Seniors who receive cash allowances from kin are more likely to give financial assistance to their coresident children. We note that money flows are not unidirectional in Asian families; a person may both receive and give financial support. Lastly, seniors with a clinic companion also give more financial help to children. All of these effects indicate reciprocity.

The negative effects are contrary to hypothesis: People with a clinic companion or principal carer are less likely to babysit or help in housework, and those with a companion for away-from-home tasks do fewer household chores. These effects suggest our models do not sufficiently control for high levels of illness/disability. Further, as percent of income from children increases, seniors provide less money to coresident children. Lastly, the more others pay for household expenses, the less help seniors give with household chores.

Change in Effects: How do receive-help effects change from the bivariate to multivariate setting? Five types of change favor the hypothesis: (a) significant negative effect that becomes significant positive; (b) significant positive effect that becomes much more positive and more significant; (c) significant positive effect that stays steady in size and significance; (d) significant negative effect that becomes nil (near 1.00 and nonsignificant); and (e) significant negative effect that becomes much less negative and less significant. These are arranged from strongest to weakest evidence.

Of all receive-help effects, the majority (61%; 17/28) change in the hypothesized direction: 1 negative to significant positive, and 3 to nearly-significant positive, 1 positive to more positive, 4 stay-steady positive, 3 negative to nil, and 5 negative to less negative.

The "best evidence" occurs for the following relationships (stated in full model form): Seniors with a clinic companion are more likely to provide money to their children. The more financial and companion help seniors receive, the more likely they provide advice to their family.

Shifts that do not favor the hypothesis (11; 39%) are in fact nil. The odds ratios scarcely change from bivariate to full models, and their sign and significance do not change.

DISCUSSION

Ranking predictors of older persons' giving help: First, *illness/disability* reduces the amount of help older persons give to their family. The largest increases in R-squared across staged models occur when illness/disability variables are added. We expected illness/disability to be the dominant predictor and results confirm that. Second, *age and gender* rank next. Very elderly people give less help of all kinds than younger ones. Females do more home-based services than do males. Older women provide less money to their children, than do older men; most women never had a paid job or had low-wage ones. There is no gender difference in providing advice. Third, *socioeconomic advantage* affects older persons' relationships in their household. Current employment and higher education increase finances and advice contributed to the family. Unexpectedly, higher income and higher assets do not have such effects. Employment also indicates time commitments, and older people with a job do less housework. Fourth, *"receive help"* ranks next for significance. Effects are inconsistent, sometimes in the hypothesized direction (the more help received, the more given), and sometimes not; we elaborate below. Lastly, older persons who feel *social support* from confidants or

neighbors are more helpful to their own household. This suggests a nexus of goodwill that permeates their lives.

Does receiving help prompt giving help in return? The evidence overall is fair. Of the significant effects in full models, 43% are positive. For shifts from bivariate to full models, 61% of the receive-help effects go in the expected direction, but only a few are best evidence. Throughout the analyses, *the most consistent finding is that the more financial support seniors receive, the more household services they give. And less strongly, as more financial support and companion help are received, more advice and even money are given to one's family.*

Our analyses took a conservative approach to testing the main hypothesis that the more help older persons receive, the more they give help in return. Analytic conservatism is preferable to liberalism, but it can easily yield disappointing results. A more liberal conclusion is moderate support for the hypothesis, noting that the contrary results are nil (neither for nor against the hypothesis), rather than overtly negative.

The datasets had constraints that limit testing the hypothesis of a positive tie between receive and give. First, their illness/disability content is modest. If the surveys had more illness/disability items, we might uncover stronger support for the positive tie.

More importantly, the receive and give help items are all instrumental behaviors, namely, financial resources and companionship received, and home-based tasks, financial resources, and advice given. So with these datasets, the hypothesis hinges on overt actions. There are other ways of receiving such as perceived love, felt respect, patience, slowness, and kind attention. There are other ways of giving such as praising someone's success, listening sympathetically, showing affection, not interfering with marital

squabbles of one's children, conversing during dinner, keeping one's bedroom tidy, etc. These ways of giving require attentiveness, but little physical effort and no financial resources; even older persons compromised by illness/disability and receiving ample help can offer them.

Further, in Asian societies, older cohorts' expectations and mores may be mismatched with younger cohorts. What seniors think of as appropriate gestures of giving may not be perceived or appreciated by their family. What they receive may be changing as well; children may want to provide affection and help-when-needed, but not constant assistance (Mehta, 1997b; Ngin & DaVanzo, 1999). Singapore, in particular, has developed so swiftly that older persons often feel out-of-touch and isolated in the modern milieu. In sum, reciprocity works through affective as well as instrumental ways, and individuals' perceptions of receiving and giving influence how they manage reciprocity.

We studied just one route of social exchange: older persons giving help to their family. Every social exchange can be viewed as both "give" and "receive". From the family's perspective, the older person's help is something received. It may inspire more help given to the older person. In short, give and receive entwine both conceptually and causally in the dynamics of reciprocity.

In conclusion, older Singaporeans try to give help in return for family assistance. The strongest empirical evidence in our analyses is: The more financial support seniors receive, the more household tasks (babysitting and chores) they do. And the more financial and companion help received, the more advice and finances they provide to their family. But many ways of giving and receiving are missed. Asian and Western surveys have emphasized pragmatic intergenerational transfers of finances, household

tasks, and coresidence. Emotion-based aspects of receiving and giving can be equally important. The principle of reciprocity is strong and enduring in human society, making its way through social life in many seen and unseen ways. Surveys that tap people's offerings of kindness and love, as well as of resources and tasks, may better map the routes of reciprocity.

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