Mother and Daughter Reports about Upward Transfers

I-Fen Lin

Mother and Daughter Reports about Upward Transfers[*]

I-Fen Lin

Bowling Green State University

Department of Sociology

217 Williams Hall

Bowling Green, OH 43403

ifenlin@bgnet.bgsu.edu

Abstract

Using 619 mother-daughter dyads interviewed in the 1997 National Longitudinal Surveys of Mature Women and Young Women, this study examines the assistance that adult daughters provide to their mothers and its covariates. Mothers and daughters have low levels of agreement on transfers. Using mothers' reports identifies different covariates of transfers than using daughters' reports. After discrepancies between mother and daughter reports are controlled for, only 3 out of 17 covariates examined are related to transfers, including mothers' widowhood status, the number of mothers' difficulties with activities of daily living, and the distance between mother and daughter residences. These findings suggest that without controlling for discrepancies between mother and daughter reports, the covariates of upward transfers may be inaccurately identified.

Key words: dyadic data, intergenerational transfers, measurement

Adult children are an important source of support for their parents in old age (Hogan & Eggebeen, 1995). The role of adult children is likely to become increasingly important because baby boomers will start reaching the age of 65 in 2011, and current Social Security and Medicare systems may not be able to adequately accommodate their retirement needs. Over the past decade, researchers have attempted to understand why some adult children provide support to their older parents (i.e., upward transfers) whereas others do not (e.g., Checkovich & Stern, 2002; Henretta, Hill, Li, Soldo, & Wolf, 1997; Lin, 2008; Wolf, Freedman, & Soldo, 1997). Nevertheless, researchers typically have obtained information about upward transfers from either parents or their children (Bianchi, Evans, Hotz, McGarry, & Seltzer, 2007). In the handful of studies that has collected information from both parents and children (Roan, Hermalin, & Ofstedal, 1996; Rossi & Rossi, 1990; Zweibel & Lydens, 1990), discrepancies have been found between parent and child reports about intergenerational transfers, suggesting that parents, children, or both provide biased accounts of the transfers. Additionally, although some studies have documented factors contributing to discrepant reports between parents and their children (Mandemakers & Dykstra, 2008; Shapiro, 2004), few have gone a step further to identify the covariates of intergenerational transfers while simultaneously controlling for the discrepancies among different family members' reports.

To fill the research gap, this study uses dyadic data, classical test theory, and a modified multiple-indicators-and-multiple-causes (MIMIC) model to address three research questions. First, how much agreement is there between mother and daughter reports? Second, does using only mothers' reports or only daughters' reports generate different conclusions about the covariates of upward transfers? Last, what covariates are associated with upward transfers once the discrepancies between mother and daughter reports are controlled for? Dyadic data make it

possible to compare mother and daughter reports of the same transfers. Classical test theory is used to separate true transfers from the biases embedded in mother and daughter reports. Adopting a modified MIMIC model, researchers can distinguish the relative relationships of the covariates to true transfers and biases. In other words, covariates that are predictive of true transfers can be identified, net of their associations with reporting biases.

Covariates associated with upward transfers

Prior research has suggested that parents' needs for support and children's ability to help determine transfers from adult children to their parents. As parents age, they are likely to have fewer resources and experience poorer health and thus need more support. These increasing needs propel children to provide their parents with more help (Silverstein, Parrott, & Bengtson, 1995; Spitze & Logan, 1990; Stoller, 1983). Parents' needs for support are also greater when children are their only potential caregivers. Several studies have shown that parents without a spouse receive more assistance from their adult children than do parents with a spouse (Dwyer & Coward, 1991; Silverstein et al.). Race also seems to influence parents' needs. Because of cultural norms and cumulative disadvantages, African American parents are more likely than White parents to rely on their adult children for care and monetary aid (Wong, Capoferro, & Soldo, 1999; Wong, Kitayama, & Soldo, 1999, but see Eggebeen & Hogan, 1990 for an opposite association).

Adult children's ability to help is another important determinant of upward transfers. Past studies have found that adult children with higher education (McGarry & Schoeni, 1995; but see Couch, Daly, & Wolf, 1999; Henretta et al., 1997 for an opposite association) or better health (Eggebeen & Hogan, 1990) are able to provide more support than those with less education or

poorer health, probably because affluent and healthy children have more time and energy to care for their older parents. Children with fewer competing responsibilities are more likely to assist their older parents than children with more competing responsibilities. Prior research has shown that daughters who are unemployed, unmarried, and have fewer minor children are more likely than their respective counterparts to provide parental care (Boaz & Muller, 1992; Lang & Brody, 1983; Matthews, Werkner, & Delaney, 1989; Pezzin & Schone, 1999). Children's ability to help is also related to family composition. The number of siblings, particularly sisters, may influence adult children's decisions about helping their parents. Previous studies have suggested a negative association between the number of sisters and the likelihood for adult children to provide parents support (Horowitz, 1985; Wolf et al., 1997). Finally, the distance between mother and daughter residences is associated with both parents' needs for support and adult children's ability to help. When parents have a greater need for support, their children are likely to move closer. Adult children who live close to their parents are able to respond to their parents' needs in a timely fashion. Thus, a higher incidence of upward transfers is likely to occur among parents and children in close proximity (Dwyer, Henretta, Coward, & Barton, 1992; Spitze & Logan, 1990).

Covariates associated with biases in reports of transfers

A major limitation in studies of upward transfers is that upward transfers involve two parties--parents and their children. These two parties, however, do not necessarily provide congruent reports about transfers. Several studies have found that more adult children report providing assistance to their parents than parents report receiving from their children (Mandemakers & Dykstra, 2008; Roan et al., 1996; Rossi & Rossi, 1990; Shapiro, 2004), suggesting that parents, children, or both provide biased reports. Although parents' needs for

support and children's ability to help have been shown to influence upward transfers, these two factors may also contribute to biases in reports of upward transfers.

Mothers who have a greater need for care may give lower estimates of aid received because a higher level of assistance from adult children may increase a feeling of dependency that threatens parents' self-concepts (Townsend & Poulshock, 1986). At the same time, adult children may overestimate the incidence of assistance given to their parents as the parents' needs increase or as their own resources decrease in order to avoid the feeling of guilt. Prior research has found large discrepancies between parent and child reports of caregiving when parents reported requiring additional medical care (Zweibel & Lydens, 1990) and when care-receiving mothers were older, less educated, or in poorer health (Walker, Pratt, Martell, & Martin, 1991). Additionally, caregivers who reported having health problems tended to overestimate the amount of support they provided (Zweibel & Lydens). Thus, in this study I expect that mothers who are older, African American, unmarried, less educated, and in poor health will give lower estimates of aid received from their daughters compared with their respective counterparts. Daughters whose mothers are in greater need of help and daughters who are employed, married, less educated, or in poor health, who have young children, and who concurrently help their parents-in-law will report more incidences of giving personal care and monetary assistance to their mothers than do their respective counterparts. Because proximity increases the frequency of contacts in which transfers are likely to become less salient, parents and children who live closer may underestimate the incidence of transfers more than those who live further away.

An important and yet rarely examined question is the extent to which parents' needs for support and children's ability to help are associated with upward transfers after their associations with biases in parent and child reports are controlled for. The lack of attention to this question is

mostly attributable to data limitations and inadequate analytic strategies. Very few surveys have collected information on transfers from both parents and their children. When the data from both generations have been available, most studies have focused on the extent of agreement and the factors that were related to discrepant reports. No researchers have attempted to devise an analytic approach to separate true transfers from biases in reports. This study goes beyond previous research by using dyadic data, classical test theory, and a modified MIMIC model to identify covariates related to upward transfers while controlling for their associations with reporting biases. The rationale for using classical test theory and a modified MIMIC model is described below.

Classical test theory and the modified MIMIC model

Survey researchers generally have relied on external criteria to validate respondents' self-reports. Such criteria are accessible for income, employment history, and health measures (e.g., tax returns, Social Security records, or hospital records), but rarely exist for time and money transfers among family members. Because parents' needs for support and adult children's ability to help are likely to relate to true transfers *as well as* biases in reports, we need an analytic approach to distinguish true transfers from biases. Classical test theory is particularly useful in this context. Classical test theory assumes that respondents have true scores on the construct being measured (McDonald, 1999; Nunnally & Bernstein, 1994). The true scores are not directly observable, but can be estimated from respondents' answers to a series of related questions. When reports about transfers from mothers and daughters are treated as scale questions measuring the same underlying construct, the correlations among mother and daughter reports can be partitioned into two components: the shared variance attributable to the latent, common

factor and the unique variance not accounted for by the latent factor. Therefore, classical test theory can be used to distinguish true transfers (i.e., shared variance) from biases (i.e., uniqueness). On the basis of classical test theory, a modified MIMIC model can examine the respective associations of covariates to true score and biases (Fleishman, Spector, & Altman, 2002; Gallo, Anthony, & Muthén, 1994; Grayson, Mackinnon, Jorm, Creasey, & Broe, 2000). In other words, the modified MIMIC model identifies covariates that are predictive of true transfers, net of their associations with reporting biases.

Method

The analysis is based on data from the 1997 National Longitudinal Surveys (NLS) of Mature Women and Young Women. The main purpose of the NLS-Mature Women and Young Women surveys was to gather information on the labor-market experiences of two cohorts of women (U.S. Department of Labor, 2003). The Mature Women survey began in 1967 with a sample of 5,083 women between the ages of 30 and 44. The Young Women survey began in 1968 with a sample of 5,159 women between the ages of 14 and 24. The baseline surveys oversampled African Americans and had a response rate of 93%. These respondents were followed up from the time of the original survey until 2003. One unique aspect of the survey design is that it features multiple respondents from the same family: 1,848 original respondents in the Young Women survey were the daughters of respondents in the Mature Women survey, of which 532 are sister pairs. A set of identical questions about transfers from daughters to mothers was asked of both mothers and daughters in the 1997 face-to-face interviews for the first time. In 1997, 674 mother-daughter dyads were retained in the study. On average, mother and daughter interviews were conducted 17 days apart. Because of a modest number of cases in which mothers

belonged to a race other than White or African American ($n = 9$, 1%), mothers were never married ($n = 4$, < 1%), and daughters were widowed ($n = 19$, 3%), these dyads were excluded from the analysis. Coresident mother-daughter dyads ($n = 23$, 3%) were also excluded because coresidence makes it difficult to distinguish intergenerational assistance from ordinary household activities (Walker et al., 1991). In total, 619 mother-daughter dyads were analyzed.

Dependent variables

In the 1997 wave of the NLS-Mature Women survey, respondents were asked, "In the past 12 months, has daughter or her husband spent any time helping you [or your husband] with personal care?" In the NLS-Young Women survey, respondents were asked, "In the past 12 months, have you [or your husband] spent any time helping father or mother with personal care?" Similar question wording was also applied to "helping with any household chores or errands," "lending any money," "giving more than $100 worth of gifts," and "providing any other financial support such as paying bills or buying groceries." Because less than 3% of the respondents reported lending money to mothers or borrowing money from daughters, only four types of support--personal care, household chores, gifts, and expenses--were included in the analysis. Before asking these questions, respondents were given definitions of various types of support. Personal care was defined as "helping with dressing, eating, cutting hair, or any other care involving the body." Household chores included "house cleaning, yard work, cooking, house repairs, and car repairs." Examples of running errands were "shopping and trips to doctors." A gift was referred to as "giving money or objects, like clothing, as presents." Finally, other financial support was defined as "paying bills or expenses without the expectation of being paid back." The response categories for these questions were *yes* (coded 1) versus *no* (coded 0).

Although respondents who reported giving or receiving intergenerational assistance were followed up with questions about the amount of support in hours or dollars, the analysis used dichotomous measures and the sum of these measures. This decision was made on the basis that most mother-daughter dyads reported no help given or received in the past year (see analysis below). Analyzing the determinants of the magnitude of support would have excluded a substantial number of families from the sample.

Explanatory variables

Measures of mothers' needs for support include age (in years), race and ethnicity (White or African American), marital status (married, widowed, or divorced), total net family income, self-reported health status (1 = *poor*, 2 = *fair*, 3 = *good*, and 4 = *excellent*), and the number of difficulties with activities of daily living (ADL, 0 – 5, Spector, Katz, Murphy, & Fulton, 1987). Measures of adult daughters' ability to provide support include marital status (married, divorced, or never married), the number of minor children, educational attainment, employment status (employed vs. unemployed), health status, the numbers of sisters and brothers, and whether they helped their parents-in-law. The distance between mother and daughter residences (1 = *less than 1 mile*, 2 = *1 – 10 miles*, 3 = *11 – 100 miles*, and 4 = *greater than 100 miles*) can be considered an indicator of both mothers' needs for support and daughters' ability to help.

Analytic strategy

The study consisted of three analyses. The first analysis used percentages and the kappa statistic to examine the extent to which mothers and daughters agreed upon the incidence of each type of support. The kappa statistic ranges from 0 to 1, where 0 indicates that the amount of

agreement is what one would expect to observe by chance and 1 indicates perfect agreement

(Cohen, 1960). Negative agreement (i.e., report of no transfer) and positive agreement (i.e.,

report of transfer) were also computed to aid our understanding of the patterns of agreement

(Cicchetti & Feinstein, 1990). The second analysis answers the question of whether researchers

using reports from only mothers would identify different covariates of transfers if they were to

use reports from only daughters. Ordinary least squares regressions were estimated for the total

number of types of support, and logistic regressions were performed for each type of support that

was received or given, separately for mothers and daughters. If using mother reports finds

different covariates associated with upward transfers than using daughter reports, it becomes

necessary to examine whether mother and daughter reports contain biases and how these biases

can be controlled for in order to accurately identify covariates of upward transfers. To address

this issue, a modified version of the MIMIC model was adopted in the final analysis.

The modified MIMIC model, illustrated in Figure 1, is composed of three parts: (a) a

factor analysis of mother and daughter reports about upward transfers (multiple indicators) with

the latent factor representing true transfers; (b) a regression of the transfer factor on explanatory

variables (multiple causes), with the coefficients indicating how well the explanatory variables

are associated with true transfers; and (c) a direct effect from each explanatory variable to

mother and daughter reports, with the coefficients signifying the extent to which the explanatory

variables are associated with biases because these biases represent the variances in the reports

that are not explained by the transfer factor. The modified MIMIC model has been used to study

differential item performance in measuring academic achievement (Muthén, 1988), depression

(Gallo et al., 1994; Grayson et al., 2000), and functional disability (Fleishman et al., 2002).

[Figure 1 about here]

To achieve model identification in Figure 1, the question asking mothers about receiving

help with household chores was used as a reference item for which the factor loading was fixed

to equal 1 and the direct paths from the explanatory variables were set to 0. The decision was

based on an exploratory factor analysis (results not shown but available upon request), which

suggested that this item had the highest association with the transfer factor (i.e., it had the largest

factor loading). The exploratory factor analysis also suggested significant correlations for the

measurement errors between the following indicators: mother and daughter reports of the

provision of gifts, mother and daughter reports of paying for expenses, daughter reports of giving

care and help with household chores, daughter reports of helping with household chores and

paying for expenses, and daughter reports of giving gifts and paying for expenses. Goodness of

fit was assessed using the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the

root mean square error of approximation (RMSEA). The CFI and TLI values in excess of .95 and

the RMSEA value smaller than .06 are indicative of well-fitting models (Hu & Bentler, 1999).

The first two analyses were conducted using the statistical package Stata Version 9.2

(StataCorp, 2007), and the last analysis was performed using Mplus Version 4.21 (Muthén &

Muthén, 2007). A multiple imputation procedure was used to deal with missing cases, in which

the missing value for a single variable was imputed as a function of other covariates in the

analysis (Acock, 2005; Royston, 2004, 2005). The results described below are based on 10

random, multiple-imputed replicates. Because 97 mothers had more than one daughter included

in the sample, observations from the same family tended to be correlated, thereby violating the

classical assumption of independence among observations. Statistical methods that ignore the

nested structure of the data generally underestimate the variance of the estimated coefficients. To

address this problem, Huber-White sandwich estimators (Johnston & DiNardo, 1997) were used

to correct the standard errors of the coefficients in the presence of clustering. Data used in the

following analysis were unweighted because no sampling weights were available for the mother-

daughter dyads.

Results

  Table 1 shows the cross-tabulation for the occurrence of assistance reported by mothers

and their daughters. The levels of agreement between their reports varied across the four types of

support. Mothers and daughters agreed most in their reports of paying for expenses (94%) and

least in their reports of giving or receiving gifts (63%). The levels of agreement on the provision

of personal care (86%) and help with household chores (74%) come in the middle. Among the

mother-daughter dyads with inconsistent reports, more daughters reported giving support to their

mothers than mothers reported having received from their daughters. Although the kappa statistic

has been commonly used to examine the degree of agreement, Cicchetti and Feinstein (1990)

recommended examining two types of agreement, negative agreement and positive agreement,

when the phenomenon of interest has a low prevalence. The separate indexes suggest that

mothers and daughters had high agreement in reporting no transfers (i.e., negative agreement

ranging from .72 to .97), but they had low disagreement about the provision or receipt of support

(i.e., positive agreement ranging from .24 to .50). In other words, mothers and daughters had low

levels of agreement on the occurrence of the transfers. Does such disagreement lead to the

identification of different covariates of upward transfers? This question is examined next.

[Table 1 about here]

Two sets of explanatory variables were examined: mothers' needs for support and daughters' ability to help. As depicted in Table 2, the mothers' ages ranged from 60 to 78 in 1997, with a mean of 70. Seventy percent of the mothers were White and 29% were African American. Slightly more than half of the mothers remained married at the time of the interview, about one third had lost their spouses owing to death, and 13% were divorced. On average, mothers had an annual income of $21,000. One third of the mothers reported that their health was poor or fair. Mothers, on average, experienced one ADL difficulty. More daughters than mothers were married at the time of the interview. Daughters in the sample averaged 47 years old (not shown) and had an average of one child under age 18. Daughters overall had received 14 years of education. Slightly more than three quarters of the daughters were employed. Approximately 80% of the daughters reported that their health was good or excellent. Daughters had an average of three siblings. One quarter of the daughters reported helping their parents-in-law with care or money. Only a small proportion of daughters (13%) lived within 1 mile of their mothers' residences, and one third lived more than 100 miles away from their mothers.

[Table 2 about here]

Results presented in Table 3 answer the question of whether researchers using reports from only mothers would identify different covariates of transfers if they were to use reports from only daughters. The first two columns in Table 3 show the coefficients obtained from ordinary least squares regressions of the total number of types of support the mothers reported receiving or the daughters reported giving; the dependent variable ranges from 0 (no support) to 4 (all four types of support). The next eight columns indicate the estimated odds ratios from logistic regressions of the provision of personal care, household chores, gifts, and expenses (coded 1 if *yes* and 0 if *no*), using mother and daughter reports separately.

[Table 3 about here]

The results in the first two columns suggest that different covariates related to upward transfers are identified, depending on whether mothers' reports or daughters' reports are used. On the basis of mothers' reports, daughters' employment status (.18) and the number of sons (–.06) were associated with the number of types of support they received from their daughters, holding all other variables constant. These covariates, however, were not associated with transfers when daughters' reports were used. By contrast, mothers' age (.04), marital status (.19 for widowed and .38 for divorced), and health (–.15), as well as daughters' assistance to their parents-in-laws (.48), were related to the number of types of support that daughters reported giving to their mothers, but these associations did not exist using mothers' reports. The results shown in columns 3 to 10 indicate that when different types of support were examined separately, using mother or daughter reports also identified different covariates of upward transfers. For example, being African American was an important covariate for receipt of care only when mothers' reports were used (2.48). By contrast, mothers' divorce status was an important covariate for the provision of help with household chores only when daughters' reports were used (3.48).

These findings suggest that disagreement between mother and daughter reports, as shown in Table 1, affects the identification of covariates for upward transfers, as shown in Table 3. An important question emerges: Given that mothers and daughters do not provide congruent reports of transfers, can researchers still identify the actual covariates of transfers? To answer this question, I used classical test theory to partition the correlations among mother and daughter reports into two components: shared variance (i.e., true transfers) and unique variance (i.e., biases). A modified MIMIC model was then used to simultaneously examine the respective

associations of covariates to true transfers and biases. Table 4 shows only the significant, unstandardized coefficients after eliminating the explanatory variables with nonsignificant associations with the latent factor and any of the individual items, as well as nonsignificant paths from each explanatory variable to the latent factor and individual items. The more-restricted models were compared with the less-restricted models to examine whether constraining some paths to 0 would worsen the model's fit (the full model and test statistics not shown, but available upon request). The final model presented in Table 4 indicates an acceptable fit statistic of the CFI equal to .95, the TLI equal to .94, and the RMSEA equal to .03. All factor loadings and error covariances between individual items are positively significant at the $p < .01$ level (available upon request).

[Table 4 about here]

Note that coefficients in the transfer factor column indicate the associations between the explanatory variables and true transfers; coefficients in the other columns represent the associations between the explanatory variables and biases. Of the 17 covariates examined, only three covariates (i.e., mother's widowhood status, the number of mothers' ADL difficulties, and the distance between mother and daughter residences) were significantly associated with the transfer factor, although they were also related to biases in mother and daughter reports. Additionally, four covariates (i.e., mothers' income, daughters' health, the number of sisters, and the number of brothers) were related to neither the transfer factor nor biases.

The rest of the covariates were associated with biases only. For example, consistent with my expectation, at the same level of transfer, mothers were less likely to report receiving gifts from their daughters when they experienced more ADL difficulties, whereas daughters were more likely to report helping with household chores, providing care, or paying for other expenses

when their mothers were older, divorced or widowed as opposed to married or in poor health. Moreover, daughters tended to report giving gifts to their mothers or paying for other expenses when they had more minor children at home, were employed, or were helping parents-in-law at the time of the interview. Also consistent with my expectation, both mothers and daughters reported a higher incidence of receiving or providing personal care or gifts when they lived farther away from each other. Inconsistent with my expectation, however, African American daughters were less likely to report their assistance with household chores than White daughters, and daughters were more likely to report receiving gifts when they were divorced as opposed to married or had more rather than fewer years of education.

A comparison of the results presented in Tables 3 (total number of transfers) and 4 underscores the importance of taking into account reporting biases when identifying the covariates of upward transfers. Table 3 indicates that the use of mothers' reports identifies three covariates (i.e., daughters' employment status, the number of sons, and the distance between mother and daughter residences) related to the transfers. Only one of these three covariates, however, was identified in the modified MIMIC model shown in Table 4. Similarly, Table 3 shows that the use of daughters' reports identifies six covariates (i.e., mothers' age, divorce status, and health, daughters' assistance to their parents-in-laws, and the distance between mother and daughter residences) that were associated with the transfers, but only two of them were identified in the modified MIMIC model. In sum, using only mothers' reports or only daughters' reports is very likely to inaccurately identify important covariates of upward transfers, because mother and daughter reports contain biases that affect the identification of the transfers' covariates.

Discussion

      Past research on intergenerational transfers mainly has relied on one family informant's report--either the parent or the child. This study used a unique data set that contains parallel reports from both generations to examine upward transfers from adult daughters to their mothers. The results suggest that mothers and daughters have the highest agreement in reports about paying for expenses and the lowest agreement in reports about giving or receiving gifts. Moreover, mothers and daughters have high agreement in reports of no transfers but low agreement about the provision or receipt of transfers. Consistent with findings from prior research (Mandemakers & Dykstra, 2008; Roan et al., 1996; Rossi & Rossi, 1990; Shapiro, 2004; Zweibel & Lydens, 1990), when disagreements do arise, more daughters report providing assistance to their mothers than mothers report receiving from their daughters. Additionally, using mother reports yields many inferences that are different than those yielded from daughter reports about the covariates associated with the provision of upward transfers.

      Divergent reports by different family informants have long been a concern in family studies, but past studies have not devised approaches for identifying the covariates of intergenerational transfers while simultaneously controlling for discrepancies among different family informants' reports. This study goes beyond previous research by adopting classical test theory to partition mother and daughter reports into true transfers and biases, and by using a modified MIMIC model to examine the extent to which the covariates of upward transfers are respectively associated with true transfers or biases. The results show that the majority of the explanatory variables are associated with the transfers because they are related to biases in mother and daughter reports. Only three covariates--mothers' widowhood status, the number of mothers' ADL difficulties, and the distance between mother and daughter residences--are

associated with the transfer factor. Mothers receive more support from their daughters when they are widowed as opposed to married and when they have a greater number of ADL difficulties. The proximity between mother and daughter residences is positively related to the prevalence of upward transfers, likely reflecting both mothers' needs for support and daughters' ability to help.

Using only mothers' reports accurately identifies only one covariate (distance), misses the other two (mothers' widowhood status and the number of ADL difficulties), and falsely identifies two covariates (daughters' employment status and the number of sons). Similarly, using daughters' reports accurately identifies two covariates (mothers' widowhood status and distance), misses one covariate (mothers' ADL difficulties), and falsely identifies four covariates (mothers' age, marital status, and health, and daughters' assistance to their parents-in-laws). In sum, these findings underscore the importance of both collecting information from more than one family informant and partitioning multiple family members' reports into true transfers and biases in order to better identify the actual covariates of upward transfers.

The study has several limitations. First, so far there is no theory guiding the selection of a reference item in order to achieve model identification. This study used mothers' reports of receiving help with household chores as the reference on the ground that this item was closest to the transfer factor (i.e., it had the largest factor loading). The limitation of this particular analytic strategy is that the results could have varied had other items been chosen to be the reference instead (Grayson et al., 2000). The important contribution of this study, however, is to demonstrate that mothers and daughters report differently about time and monetary assistance, and these different reports lead to different conclusions about the covariates of upward transfers. Second, the data are limited to mother-daughter dyads, but forms of intergenerational assistance could occur within other dyadic relationships between mothers and sons, fathers and daughters,

fathers and sons, and parents-in-law and children-in-law. It is unclear to what extent caregivers and care recipients would disagree about the prevalence of transfers in these other dyadic relationships. It is imperative, however, to examine mother and daughter reports because more transfers occur in mother-daughter relationships than in any other form of family relationship (Rossi & Rossi, 1990). Last, the study is limited to four types of upward transfer. More widespread assistance, such as providing emotional comfort and monitoring mothers' health, has been largely overlooked in the literature. The disagreement between mother and daughter reports about these intangible transfers is likely to be greater than the ones examined here.

A useful extension of this study would be to investigate whether the direction of the disagreement regarding upward transfers (from daughters to mothers) is the same as that for downward transfers (from mothers to daughters). My analysis using the 1999 wave of the same data set revealed that daughters tend to report a higher prevalence of time or money assistance than mothers, regardless of the direction of the transfers. The conclusion needs to be interpreted with caution, however, because the 1999 follow-up surveyed a much smaller sample (327 mother-daughter dyads), partly because of nonresponse and partly because transfers cannot be identified for families with more than five children.

Findings derived from the current study underscore the importance of interviewing more than one informant in a family. It is also critical to develop better questions for the study of intergenerational transfers because mothers and daughters in the sample apparently have different ideas about what constitutes a gift. Providing a clearer definition may generate greater agreement. It is also important to understand how an exchange system in which both parents transfer down and children transfer up affects the quality of reports and the parent-child agreement about transfers. Future research that uses multiple reports from the family, develops

better question wording for both tangible and intangible transfers, incorporates dyads of different genders and different ties occurring through blood or marriage, and examines both directions of transfers would provide further insights into our understanding of intergenerational transfers.

References

Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family*, *67*, 1012 – 1028.

Bianchi, S., Evans, V. J., Hotz, V. J., McGarry, K., & Seltzer, J. A. (2007). An assessment of available data and data needs for studying intra- and inter-generational family relationships and behavior. California Center for Population Research Working Papers, No. 20 – 07. Los Angeles, CA: University of California-Los Angeles.

Boaz, R. F., & Muller, C. F. (1992). Paid work and unpaid help by caregivers of the disabled and frail elders. *Medical Care*, *30*, 149 – 158.

Checkovich, T. J., & Stern, S. (2002). Shared caregiving responsibilities of adult siblings with elderly parents. *Journal of Human Resources*, *37*, 441 – 478.

Cicchetti, D. V., & Feinstein, A. R. (1990). High agreement but low kappa: II. Resolving the paradoxes. *Journal of Clinical Epidemiology*, *43*, 551 – 558.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, *20*, 37 – 46.

Couch, K. A., Daly, M. C., & Wolf, D. A. (1999). Time? Money? Both? The allocation of resources to older parents. *Demography*, *36*, 219 – 232.

Dwyer, J. W., & Coward, R. T. (1991). A multivariate comparison of the involvement of adult sons versus daughters in the care of impaired parents. *Journal of Gerontology*, *46*, S259 – S269.

Dwyer, J. W., Henretta, J. C., Coward, R. T., & Barton, A J. (1992). Changes in the helping behaviors of adult children as caregivers. *Research on Aging*, *14*, 351 – 375.

Eggebeen, D. J., & Hogan, D. P. (1990). Giving between generations in American families. *Human Nature*, *1*, 211 – 232.

Fleishman, J. A., Spector, W. D., & Altman, B. M. (2002). Impact of differential item functioning on age and gender differences in functional disability. *Journal of Gerontology*, *57B*, S275 – S284.

Gallo, J. J., Anthony, J. C., & Muthén, B. O. (1994). Age differences in the symptoms of depression: A latent trait analysis. *Journal of Gerontology*, *49*, P251 – P264.

Grayson, D. A., Mackinnon, A., Jorm, A. F., Creasey, H., & Broe, G. A. (2000). Item bias in the center for epidemiologic studies depression scale: Effects of physical disorders and disability in an elderly community sample. *Journal of Gerontology*, *55B*, P273 – P282.

Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J., & Wolf, D. A. (1997). Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology*, *52B*, 110 – 119.

Hogan, D. P., & Eggebeen, D. J. (1995). Sources of emergency help and routine assistance in old age. *Social Forces*, *73*, 917 – 936.

Horowitz, A. (1985). Sons and daughters as caregivers to older parents: Differences in role performance and consequences. *Gerontologist*, *25*, 612 – 617.

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1 – 55.

Johnston, J., & DiNardo, J. (1997). *Econometric methods* (4th ed). New York: McGraw-Hill.

Lang, A. M., & Brody, E. M. (1983). Characteristics of middle-aged daughters and help to their elderly mothers. *Journal of Marriage and the Family*, *45*, 193 – 202.

Lin, I.-F. (2008). Consequences of parental divorce for adult children's support of their frail parents. *Journal of Marriage and Family*, *70*, 113 – 128.

Mandemakers, J. J., & Dykstra, P. A. (2008). Discrepancies in parent's and adult child's reports of support and contact. *Journal of Marriage and Family*, *70*, 495 – 506.

Matthews, S. H., Werkner, J. E., & Delaney, P. J. (1989). Relative contributions of help by employed and nonemployed sisters to their elderly parents. *Journal of Gerontology*, *44*, S36 – S44.

McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, NJ: Erlbaum.

McGarry, K., & Schoeni, R. F. (1995). Transfer behavior in the health and retirement study: Measurement and the redistribution of resources within the family. *Journal of Human Resources*, *30*, S184 – S226.

Muthén, B. (1988). Some uses of structural equation modeling in validity studies: Extending IRT to external variables. In H. Wainer & H. I. Braun (Eds.), *Test validity* (pp. 213 – 238). Hillsdale, NJ: Erlbaum.

Muthén, L. K., & Muthén, B. O. (2007). *Mplus: Statistical analysis with latent variables* (Version 4.21). Los Angeles: Methén & Muthén.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

Pezzin, L. E., & Schone, B. S. (1999). Parental marital disruption and intergenerational transfers: An analysis of lone elderly parents and their children. *Demography*, *36*, 287 – 297.

Roan, C. L., Hermalin, A. I., & Ofstedal, M. B. (1996). Intergenerational contact and support in Taiwan: A comparison of elderly parents' and children's reports. Comparative Study of the Elderly in Asia Research Reports, No. 96 – 36. Ann Arbor, MI: University of Michigan.

Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.

Royston, P. (2004). Multiple imputation of missing values. *Stata Journal*, *4*, 227 – 241.

Royston, P. (2005). Multiple imputation of missing values: Update. *Stata Journal*, *5*, 188 – 201.

Shapiro, A. (2004). Revisiting the generation gap: Exploring the relationships of parent/adult-child dyads. *International Journal of Aging and Human Development*, *58*, 127 – 146.

Silverstein, M., Parrott, T. M., & Bengtson, V. L. (1995). Factors that predispose middle-aged sons and daughters to provide social support to older parents. *Journal of Marriage and the Family*, *57*, 465 – 475.

Spector, W. D., Katz, S., Murphy, J. B., & Fulton, J. P. (1987). The hierarchical relationship between activities of daily living and instrumental activities of daily living. *Journal of Chronic Diseases*, *40*, 481 – 489.

Spitze, G., & Logan, J. (1990). Sons, daughters, and intergenerational social support. *Journal of Marriage and the Family*, *52*, 420 – 430.

StataCorp. (2007). *Stata statistical software: Release 9.2*. College Station, TX: Stata Corporation.

Stoller, E. P. (1983). Parental caregiving by adult children. *Journal of Marriage and the Family*, *45*, 851 – 858.

Townsend, A. L., & Poulshock, S. W. (1986). Intergenerational perspectives on impaired elders' support networks. *Journal of Gerontology*, *41*, 101 – 109.

U.S. Department of Labor. (2003). The NLS original cohorts: Mature and young women. In *NLS handbook, 2003*. Retrieved December 27, 2005, from http://www.bls.gov/nls/handbook/nlshpdf.htm

Walker, A. J., Pratt, C. C., Martell, L. K., & Martin, S. S. K. (1991). Perceptions of aid and

    actual aid in intergenerational caregiving. *Family Relations*, *40*, 318 – 323.

Wolf, D. A., Freedman, V., & Soldo, B. J. (1997). The division of family labor: Care for elderly

    parents. *Journal of Gerontology*, *52B*, 102 – 109.

Wong, R., Capoferro, C., & Soldo, B. J. (1999). Financial assistance from middle-aged couples

    to parents and children: Racial-ethnic differences. *Journal of Gerontology*, *54B*, S145 –

    S153.

Wong, R., Kitayama, K. E., & Soldo, B. J. (1999). Ethnic differences in time transfers from adult

    children to elderly parents: Unobserved heterogeneity across families? *Research on Aging*,

    21, 144 – 175.

Zweibel, N., & Lydens, L. A. (1990). Incongruent perceptions of older adult/caregiver dyads.

    Family Relations, *39*, 63 – 67.

Table 1. Agreement Between Mother and Daughter Reports About Upward Transfers

Mother	Care Daughter		HH chores Daughter		Gifts Daughter		Expenses Daughter	
	No	Yes	No	Yes	No	Yes	No	Yes
No	81.32%	7.92%	60.71%	16.77%	46.83%	25.91%	92.83%	4.39%
Yes	6.30%	4.46%	9.24%	13.28%	11.07%	16.19%	1.81%	0.97%
Kappa	.31		.33		.20		.21	
Negative agreement	.92		.82		.72		.97	
Positive agreement	.39		.50		.47		.24	

Note: N = 619.

Table 2. Mothers' Needs for Support and Daughters' Ability to Help: Descriptive Statistics

	M or %	SD
Mothers' needs for support		
Age (60 – 78)	69.55	3.57
Race		
White	70.60	
African American	29.40	
Marital status[a]		
Married	53.47	
Widowed	33.76	
Divorced	12.76	
Income	21,266	20,903
Self-reported health		
Poor	10.29	
Fair	25.12	
Good	42.44	
Excellent	22.15	
Number of ADL difficulties (0 – 5)	.89	1.06
Daughters' ability to help		
Marital status		
Married	65.75	
Divorced	24.56	
Never-married	9.69	
Number of minor children (0 – 6)	.64	.95
Education (0 – 18)	13.79	2.56
Employed (1 = *yes*)	78.93	
Self-reported health[a]		
Poor	5.61	
Fair	14.12	
Good	45.22	
Excellent	35.06	
Number of sisters (0 – 9)	1.73	1.73
Number of brothers (0 – 10)	1.63	1.61
Helped parents-in-law (1 = *yes*)	23.75	
Distance between residences[a]		
< 1 mile	13.38	
1 – 10 miles	27.63	
11 – 100 miles	24.46	
> 100 miles	34.54	

Note: $N = 619$. [a]Column total is not equal to 100% because of rounding error.

Table 3. Estimated Coefficients and Odds Ratios From Ordinary Least Squares and Logistic Regressions for Variables Predicting the Number and Likelihood of Upward Transfers

	Total		Care		HH chores		Gifts		Expenses	
	Mother	Daughter	Mother	Daughter	Mother	Daughter	Mother	Daughter	Mother	Daughter
Mothers' needs for support										
Age	.01	.04***	1.03	1.08	1.05	1.09**	.99	1.04	1.07	1.20**
White (omitted category)										
African American	.15	−.14	2.48*	.70	1.14	.51*	.98	.91	6.80	2.52
Married (omitted category)										
Widowed	.13	.19*	1.30	1.15	2.10**	2.18**	.89	.85	4.23	5.95**
Divorced	.15	.38**	1.29	1.20	1.33	3.48**	.99	1.06	15.21**	10.56**
Income (in $10,000)	−.00	.00	.98	.95	.93	.99	1.06	1.04	.78	.94
Health	−.06	−.15**	.77	.50***	.69*	.56***	1.01	1.10	1.43	1.16
# of ADL difficulties	.06	.05	1.23	1.29	1.33*	1.07	.82	.99	1.29	.98
Daughters' ability to help										
Married (omitted category)										
Divorced	−.08	.17	.98	1.39	.71	1.13	.80	1.77*	.91	.94
Never-married	−.01	.20	.62	1.45	1.00	1.11	.93	1.80	1.28	1.46
# of minors	−.03	−.01	1.12	1.09	.98	.82	.78*	.93	1.22	1.62**
Education	.03	.02	1.04	1.01	1.03	1.03	1.14**	1.12**	1.09	.98
Employed	.18*	.16	2.60*	1.39	1.44	.75	1.22	1.94*	3.72	2.46
Health	.04	.06	.89	1.02	1.23	1.37*	1.22	1.04	.49	.94
# of sisters	−.04	−.02	.85	.90	.89	.96	.93	1.00	1.38	1.00
# of brothers	−.06*	−.01	.76*	.99	.93	.98	.91	.96	.51*	.99
Helped in-laws	.08	.48***	.89	1.28	1.17	1.42	1.26	6.07***	2.77	.99
Distance	−.12**	−.07*	.70**	.87	.53***	.64***	1.03	1.09	1.00	1.04
Log Likelihood	−759.99	−781.94	−186.20	−202.36	−281.23	−330.68	−339.37	−366.24	−55.94	−104.79

Note: $N = 619$. Numbers shown in the first two columns are coefficients from ordinary least squares regressions and those in the last 8 columns are odds ratios from logistic regressions. The dependent variables for the ordinary least squares regressions are the sum of the dependent variables across four types of support (0: 56%, 1: 29%, 2: 11%, 3: 3%, and 4: 1% for mothers and 0: 40%, 1: 37%, 2: 16%, 3: 5%, and 4: 1% for daughters). Self-reported health scores from 1 for *poor* to 4 for *excellent*; distance scores from 1 for *less than 1 mile* to 4 for *greater than 100 miles*.

*$p < .05$. ** $p < .01$. ***$p < .001$ (two-tailed tests)

Table 4. Unstandardized Coefficient for Structural Equation Model of Agreement Between Mother and Daughter Reports

	Transfer Factor	HH chores Daughter	Care Mother	Care Daughter	Gifts Mother	Gifts Daughter	Expenses Mother	Expenses Daughter
Mothers' needs for support								
Age		.05**						.08*
White (omitted category)								
African American		–.42*						
Married (omitted category)								
Widowed	.30*							.72*
Divorced		.72***						1.08**
Health		–.31***		–.39***				
# of ADL difficulties	.16**				–.16*			
Daughters' ability to help								
Married (omitted category)								
Divorced						.35*		
# of minors								.24*
Education					.09**	.07**		
Employed						.42**		
Helped in-laws						1.09***		
Distance	–.36***		.19*	.16*	.16*	.15*		

N = 619, CFI = .95, TLI = .94, RMSEA = .03

Note: Mothers' income, daughters' health, and the numbers of sisters and brothers are excluded from the model because these variables have no statistically significant associations with the latent factor or individual items. All factor loadings and error covariances (omitted from the table) are positively significant at the *p* < .01 level. Self-reported health scores from 1 for *poor* to 4 for *excellent*; distance scores from 1 for *less than 1 mile* to 4 for *greater than 100 miles*. The direct paths from explanatory variables to mothers' reports of household chores were set to 0 in order to achieve model identification.
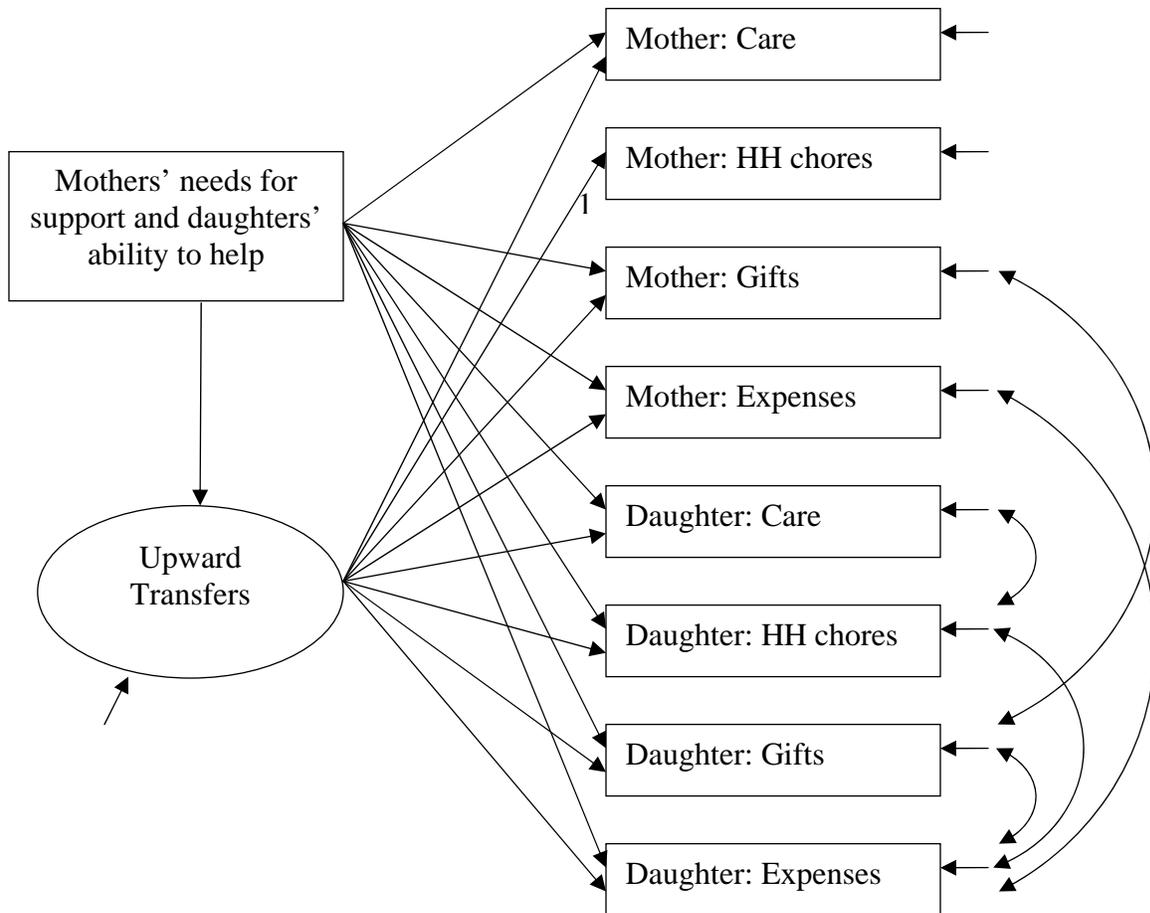*p < .05. **p < .01. ***p < .001 (two-tailed tests)

Figure 1. Path diagram of the modified MIMIC model. For simplicity, the figure does not show correlations among the exogenous variables.