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Parent–Child Relationships and Parent Psychological Distress: How Do Social Support, Strain, Dissatisfaction, and Equity Matter?

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Abstract

Relationships with children are important for parents' psychological well-being, yet limited research addresses whether and how relationships with adult children matter for aging parents' psychological well-being in mid- to later life. We used four waves of national longitudinal data (Americans' Changing Lives, $N = 1,692$) and growth curve models to test how multiple dimensions of the intergenerational relationship—social support, strain, equity, and dissatisfaction—shape mid- to later life parents' psychological distress over time. Results showed that social support and strain were associated with parents' distress at baseline but not over time, while relationship equity and dissatisfaction affected change in parents' psychological distress over time. Findings further showed how the effects of dissatisfaction varied for mothers and fathers. This study adds to an understanding of the social context of aging by drawing attention to how specific dimensions of the parent–child tie matter longitudinally for mid- to later life parents' psychological distress.

Keywords

intergenerational relationships; intergenerational equity; psychological distress; relationship dissatisfaction; gender

Introduction

Relationships with children impact parents' psychological well-being (Milkie, Bierman, & Schieman, 2008; Umberson, Pudrovska, & Reczek, 2010). Yet, despite the fact that the parent–child tie extends into both generations' mid- and later life (Fingerman, Cheng, Birditt, & Zarit, 2012; Fingerman, Pitzer, Lefkowitz, Birditt, & Mroczek, 2008), the vast majority of research in this area focuses on the consequences of having minor children on young adult and mid-life parents' psychological outcomes (e.g., Nomaguchi, 2012). Studies on the effects of the adult child–parent tie and parent well-being tend to be cross-sectional

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and nonrepresentative, thus unable to speak to broader population trends and causal effects over time (Bures, Koropecj-Cox, & Loree, 2009; Milkie, Norris, & Bierman, 2011; Umberson, 1992). Articulating causal effects over time is a particularly important endeavor that allows for the clearer view of the precedents to psychological distress, providing a potential site of public health intervention for aging populations. This is especially important for aging populations who experience the accumulation of psychological distress over time and thus are at higher risk of worse health with advancing age. Additionally, while research shows that multiple dimensions of the adult child–parent tie are associated with psychological well-being, previous studies tend to examine only one dimension of the adult child–parent tie (e.g., either frequency or type of contact, care provision; see Allen, Blieszner, & Roberto, 2000) and thus do not provide a full picture of the effects of adult child–parent relationships on aging parents' psychological well-being.

The present study uses a life-course approach (Elder, 1994) and national longitudinal panel data to test how multiple dimensions of parent–adult child relationships matter for aging parents' psychological distress over time. Drawing on Umberson's (1992) conceptualization of social support (a positive dimension of the parent–child tie) and strain (a negative dimension of the parent–child tie), we first examine the effects of social support and strain in relationships between adult children and parents (Silverstein et al., 2013). Next, again drawing on Umberson, we test role of parental dissatisfaction (e.g., happy with how the child turned out, bothered by child, dissatisfaction with relationship) and relationship equity as independent predictors of parental distress (Fingerman et al., 2012; Thoits, 2011). Finally, because the parent–child tie (Cichy, Lefkowitz, & Fingerman, 2013) and psychological distress (Mirowsky & Ross, 2003) are stratified by gender, we test how these processes differ for fathers and mothers.

Background and Literature Review

Theorizing Adult Child–Parent Social Support and Strain and Parent Psychological Distress

Research on the adult child–parent tie and parents' health has focused on the association between the presence of social support and strain and parents' general well-being (Pudrovskaya, 2008), although increasingly research has explored other avenues of the parent–child tie including ambivalence (Fingerman et al., 2008; Ward, 2008) and favoritism (Sutor, Gilligan, & Pillemer, 2013). A life-course approach suggests that social support and strain shape the psychological well-being of parents due to the “linked” nature of parents' and children's lives (Umberson, Liu, & Reczek, 2008). Support from adult children serves as a stress-buffering resource for aging parents across the life course, which is in turn linked to psychological well-being (Thoits, 2011). At the cross-sectional level, parents with greater emotional support from adult children experienced increased life satisfaction (Chen & Silverstein, 2000; Lang & Schütze, 2002; Ward, 2008), decreased psychological distress (Weinstein, Gleib, Yamazaki, & Chang, 2004), and decreased loneliness (Long & Martin, 2000); parents who received generalized caregiving from adult children experienced a boost in psychological well-being (Merz, Considine, Schulze, & Schuengel, 2009; although see Thomas, 2010). Less supportive and more strained parent–child ties have been associated

with worse psychological health among parents (Koropecj-Cox, 2002; Ward & Spitze, 2004). For example, Koropecj-Cox (2002) show that at the cross-sectional level, parents with less social support and more strain in adult child–parent relationships had higher rates of depression and loneliness, while parents who reported being distant from an adult child had lower levels of happiness. Negative treatment from adult children was associated with more depression over time (Milkie et al., 2008). Umberson (1992) similarly found that strain between parents and children is more influential than social support between parents and children on both generations' psychological distress. Notably, these studies are cross-sectional and cannot ascertain casual processes nor look at change over time.

Based on this body of cross-sectional research, we predict:

Hypothesis 1 Higher levels of social support and lower levels of strain from adult children at baseline will be associated with lower levels of psychological distress at baseline and over time.

Theorizing Parental Dissatisfaction and Parent Psychological Distress

Parental dissatisfaction may also impact parents' psychological distress. Previous research conceptualizes parental dissatisfaction with an adult child in three primary domains: dissatisfaction with being a parent, feeling bothered as a parent, and dissatisfaction with how a child turned out (Umberson & Williams, 1993). Dissatisfaction with the parental role is important among parents of minor children, but this has not been consistently tested among parents of adult children (Umberson & Williams, 1993). Dissatisfaction for how an adult child has “turned out” is the site of a much larger research area. In cross-sectional studies, parents whose child had more perceived problems had worse psychological well-being (Greenfield & Marks, 2006; Milkie et al., 2011), including life satisfaction, depression, and anger (Chen & Silverstein, 2000; Fingerman et al., 2012; Milkie et al., 2011). Cross-sectional studies show that dissatisfaction regarding adult children's failure to achieve normative adult statuses (e.g., marriage, unemployment) was strongly linked to parental distress (Milkie et al., 2008; Cichy et al., 2013); however, how these processes operate over time with longitudinal data across the life course has yet to be fully addressed.

Taken together, we predict:

Hypothesis 2 Higher dissatisfaction with adult children will be associated with higher levels of psychological distress at baseline and over time.

Theorizing Adult Child–Parent Equity and Parent Psychological Distress

Unbalanced social exchanges increase depressive symptoms and psychological distress (Li, Fok, & Fung, 2011). This is likely because inequity reveals the unequal need for social support and thus hardship, and unequal exchanges also rebuke norms of reciprocity (Henretta, Hill, Li, Soldo, & Wolf, 1997; Silverstein, Conroy, Wang, Giarrusso, & Bengtson, 2002). A growing number of studies show that unequal exchanges with adult children—especially when children provide more support—are associated with decreased life satisfaction, loneliness, and increased depression in parents (De Jong Gierveld & Dykstra, 2008). Other studies using data on general networks that included but do not uniquely test

relationships with adult children show it is more beneficial to give rather than to receive support from network members; perhaps because receiving support entails the need for support while giving support provides a sense of purpose and service to others (Thomas, 2010). Thus, parents who receive high levels of social support but do not give social support to adult children in an equitable exchange may experience increased psychological distress on account of such inequity (Brown, Consedine, & Magai, 2005; De Jong Gierveld & Dykstra, 2008). Notably, however, studies addressing this question are not population based, tend to be based on convenience samples, and do not specifically test the adult child–parent tie; therefore, they are unable to address causal processes through which equity may directly affect parents' psychological distress.

Given this body of work, we predict:

Hypothesis 3 Equity and parents' provision of more social support than they receive will be associated with lower levels of psychological distress at baseline and over time, and parents' receiving more than they give will be associated with greater parental psychological distress.

The Gender of the Parent

A life-course approach emphasizes that the relationship between the intergenerational tie and parents' psychological distress likely varies by social position, including gender. Psychological distress varies at least in part by gender, wherein women experience greater psychological distress than men (Mirowsky & Ross, 2003; Weinstein et al., 2004). Moreover, social strain, support, equity, and parental dissatisfaction all appear to differ, to at least some extent, by gender. Mothers report closer and more conflictual relationships (Ward, 2008) and lower levels of dissatisfaction and equity with adult children (Rogers & White, 1998). Moreover, adult child–parent ties appear to be more salient to women's sense of self across the life course, wherein being treated negatively by an adult child is related to higher rates of anger only among mothers (not fathers; Milkie et al., 2008).

We build on this body of research to hypothesize:

Hypothesis 4 Compared with fathers, mothers with lower social support, higher dissatisfaction and strain with adult child, or less equity in the adult child–parent relationship will have higher levels of psychological distress at baseline and over time.

Methods

We analyzed data from the first four waves of the Americans' Changing Lives (ACL) panel study (House, 1986). Multistage stratified area probability sampling was used to obtain the original sample of individuals in the contiguous United States (aged 24–96). Face-to-face structured interviews lasting approximately 90 min each were conducted with individuals in 1986 ($N = 3,617$), 1989 ($N = 2,867$), 1994 ($N = 2,562$), and 2001 ($N = 1,787$). In the original sample (1986), 2,204 parents of adult children were interviewed. Because one of the independent variables, parent–child relationship equity, was only asked in Wave 2, we dropped those who did not respond to Wave 2, which left 1,757 individuals. Further

restricting the sample to those without missing dependent variables or independent variables (the missing is less than 5%) yielded a sample of 1,692 parents, among which 397 have two waves of answers, 512 have three waves, and 783 have all four waves.

Measures

Psychological Distress, measured from Wave 1 through Wave 4, was defined as “an unpleasant subjective state” that included feelings of depression and anxiety (Mirowsky & Ross, 1989). Psychological distress was based on an 11-item version of the Center for Epidemiological Studies Depression (CES-D) scale. The CES-D scale was created from the following items for which respondents were asked, “how often you felt that way during the past week”: *I felt depressed; everything I did was an effort; my sleep was restless; I was happy; I felt lonely; people were unfriendly; I enjoyed life; I did not feel like eating; my appetite was poor; I felt sad; I felt that people disliked me; I could not get going*. For each item, respondents chose answers from *hardly ever, some of the time, and most of the time*. All 11 items were standardized using Wave 1 weighted means and standard deviations before being combined by the ACL researchers. Given the highly skewed distribution of the depression score, we further computed the responses as the natural log of the mean score of CES-D scores plus 3 to avoid the log of zero, creating CES-D scores with higher values denoting higher levels of psychological distress (see Kim & Pai, 2010, for a similar approach). Because the small numbers of the logged scores led to small regression coefficients that are inconvenient for interpretation, we multiply the mean scores by 100 (see Clarke, Marshall, House, & Lantz, 2011). Alpha reliabilities ranged from .82 to .83 across all four waves of the survey.

Child social support and strain—Child support ($\alpha = .70$) was a latent variable composed of 2 items based on two questions in Wave 1: Think about your (son/daughter/all of your children) who (is/are) 16 years old or older, (a) “How much does your [child] make you feel loved and cared for?” (1–5, *a great deal to not at all*); (b) “How much is [he/she] willing to listen to your worries or problems?” (1–5, *a great deal to not at all*). Child strain ($\alpha = .55$)¹ was a latent variable constructed from two questions in Wave 1: (a) “How much do you feel your child(ren) makes too many demands on you?” (1–5, *a great deal to not at all*); (b) “How much is [he/she] critical of you or what you do?” (1–5, *a great deal to not at all*). The answers for both child social support and child strain were reverse coded, combined, and imputed by the ACL researchers, so that higher values in the scale indicate higher levels of the intended construct.

Parental Dissatisfaction ($\alpha = .62$) is also a latent variable constructed by the ACL researchers. It was based on three questions in Wave 1: (a) “At this point in your life, how satisfied are you with being a parent?” (1–5, *completely satisfied to not at all satisfied*); (b) “How often do you feel upset or bothered as a parent?” (1–5, *almost always to never*); (c) “How happy are you with the way your (son/daughter/children) (has/have) turned out to this point?” (from *very happy to not at all happy*). Answers in (b) were reverse coded and

¹Although this α level for child strain is relatively low, supplementary analysis reported that the model with the variable based on question (a) and the model with the variable based on question (b) generated similar results as the model with the latent variable of child strain (available upon request).

combined with answers in (a) and (c) so that higher values in the scale indicate higher levels of parental dissatisfaction. These dimensions of dissatisfaction address both dissatisfaction with one's parent role and dissatisfaction with a child's choices and behavior (Umberson & Williams, 1993).

Relationship Equity was based on one question in Wave 2: "Right now, would you say you provide more support, advice, and help to your (son/daughter/children), is it about equal, or (does he/does she/do they) provide more to you?" (1 = *respondent provides more*, 2 = *about equal*, and 3 = *child provides more*). We used the category of "child provides more" as reference group and construct two dummy variables for the other two categories.

Interactions with gender—We generated interaction terms for each independent variable (child social support, child strain, parental dissatisfaction, and relationship equity) with the respondents' gender (0 = *mother*, 1 = *father*).

Sociodemographic covariates—We controlled for age, gender, education, and income in all analysis. We incorporated measures for age (in years) of the respondent at Wave 1 and reported functional health index at each wave, which allows us to account for functional limitations and impairment that may be associated with both the parent-child tie and parents' psychological distress (Cole & Dendukuri, 2014; Fingerman, Vander-Drift, Dotterer, Birditt, & Zarit, 2011). The functional health index was based on four sets of questions of whether and to what extent the respondents have difficulty engaging in the following activities because of their health: bathing, climbing a few flights of stairs, walking several blocks, and doing heavy work such as shoveling snow or washing walls around the house. The ACL researchers combined and imputed the index, and we reverse coded it so that higher values in the scale indicate higher levels of functional health impairment. We also controlled for other sociodemographic covariates that were relevant to parent-child relationship. These covariates included gender (0 = *mother*, 1 = *father*), marital status (0 = *married*, 1 = *not married at Wave 1*), education (measured in number of years completed at Wave 1), total family income (in US\$1,000 at Wave 1), and number of children (at Wave 1). The sociodemographic covariates were mostly time invariant in nature for the population under study (parents in mid- and/or later life are likely to have similar number of children and income over the study period), thus we did not include the time-varying controls in the analysis. Models controlling for race (results available upon request) revealed similar findings as those presented in the article. Table 1 presents weighted means and standard deviation for all variables in the analysis.

Analytical Approach

We used latent linear growth curve models to estimate the effects of independent variables on parents' psychological distress at baseline and over time. Growth curve models recognize that parents have different levels of psychological distress at the baseline, and these parents also experienced different rates of change in psychological distress as a function of their relationships with their adult children. As a result, growth curve models are able to predict trajectories of psychological distress as well as the dynamic linkages between parent-child tie and psychological distress over time. Growth curve models were appropriate for our

analysis because of their ability to distinguish two levels (i.e., within individual and between individual) of heterogeneity in estimating changes in psychological distress influenced by other variables. The equations of the linear growth curve model were as follows:

$$y_{it} = \eta_{0i} + \eta_{1i}T_{it} + \eta_2TVX_{it} + \eta_3TVX_{it} \times T_{it} + \varepsilon_{it}. \quad (1)$$

$$\eta_{0i} = \alpha_0 + X_0' B_0 + \zeta_{0i}, \quad (2a)$$

$$\eta_{1i} = \alpha_1 + X_1' B_1 + \zeta_{1i}. \quad (2b)$$

Equation 1 represents within-individual change over time. Equations 2a and 2b represent between-individual change over time. The outcome variable is y_{it} (i.e., psychological distress of individual i at wave t); η_{0i} is the latent intercept; η_{1i} is the latent slope; T_{it} is the time score (reflecting the number of years since Wave 1); TVX_{it} stands for the time-varying covariate, functional health index; X_0 and X_1 represent the vectors of other Wave 1 covariates to predict the latent intercept and slope, respectively; and B_0 and B_1 are the corresponding vectors of coefficient. α_0 and α_1 are Level-2 intercepts (i.e., fixed effects). Residuals are represented by ε_{it} , ζ_{0i} , and ζ_{1i} .

All models were estimated using STATA MIXED (StataCorp, 2007) with maximum likelihood estimation, which allowed us to incorporate all respondents who have been observed at least twice, including those who died during the survey period in the sample (Brown, O'Rand, & Adkins, 2012). We also accounted for differential rates of dropout and death attrition by controlling for the number of participated waves and whether respondents died during the study period. For example, among those who died before Wave 3, we used their answers for the first two waves, control for the two participated waves, and generated a dummy variable to account for their death in the survey period (Warner & Brown, 2011). We present models without the random effects of attrition from those who dropped out or were deceased because these models did not improve the model fit (available upon request).

The focus of this study was on estimating the effects of parental dissatisfaction and parent–child relationship equity on the baseline level (i.e., latent intercept) and rate of change (i.e., latent slope) in psychological distress over time. In analysis not shown, we also explored whether parental dissatisfaction/parent–child relationship equity functions as moderators that altered the relationship between child support/strain and psychological distress, but we found few significant results and thus do not include them in this article (available upon request).

Results

Descriptive Statistics

Table 1 shows means or percentages for all variables. As Table 1 indicates, the average age of the parents was 57 years at Wave 1 and 68 years at Wave 4. The majority of the respondents were female (60.5%) and married (73.6%) at Wave 1. On average, parents in the sample had 12 years of education, 28,531 dollars of family income, and three children by Wave 1. Supplementary analysis (available upon request) showed that fathers in the sample were more likely to be married and they had more family income than the mothers. On average, mothers in the sample reported higher levels of functional impairment and higher psychological distress than the fathers across all waves. Mothers in the sample also reported more social support from children, a greater likelihood to receive than give in relationships, and higher parental dissatisfaction than fathers at Wave 1. Supplementary analysis (available upon request) show that those who did not complete all waves of survey tend to be older and unmarried, and they had fewer years of education, less family income, and higher levels of functional impairment than those who completed all surveys. Those who dropped out also had higher levels of psychological distress across all waves, but less child strain and less parental dissatisfaction at Wave 1 than those who completed all waves of data collection. Consistent with previous research (Jorm et al., 2005; Umberson et al., 2008), results from unconditional growth models with no covariates (not shown) indicate that psychological distress decreased ($b = -0.266$, $p < .001$) over the study period.

Growth Curve Results

Table 2 shows results from the growth curve analysis, demonstrating the estimated effects of the adult child support and strain, parental dissatisfaction, and reported equity measures and other covariates at the baseline level (latent intercept) in addition to the rate of change (latent slope) in psychological distress over time.

Social Support and Strain From Children and Psychological Distress

Table 2 shows results from growth curve models that estimated the effects of adult child social support and strain on parents' trajectories of psychological distress, controlling for all sociodemographic covariates. We included both social support and strain in the same model because testing them independently yielded the same results. In Model 1, the significant coefficient of -3.953 ($p < .001$) shows that baseline support from adult children was negatively associated with baseline psychological distress (consistent with Hypothesis 1). Results in Model 1 show no significant effects of baseline support from adult children on the rate of change in parents' psychological distress (inconsistent with Hypothesis 1). Model 1 further indicates that baseline strain from adult children was positively associated with baseline psychological distress (consistent with Hypothesis 1). Because the psychological distress declines over time in the unconditional growth curve model, the significant negative coefficient of -0.172 ($p < .05$) indicates that every one-unit increase in baseline strain increased the rate of decline in psychological distress by 0.172 units. However, the significant coefficient of the slope for parent strain disappeared in Model 2 when parental dissatisfaction index was added (inconsistent with Hypothesis 1), suggesting that the effect of parent strain on the rate of change in parents' psychological distress was spurious because

it could be explained by factors such as parental dissatisfaction. In the analysis not shown, we also examined how change in child support/strain from Wave 1 to Wave 2 influenced the baseline level and rate of change in psychological distress over time, yet we found few significant results.

Parental Dissatisfaction

Model 2 of Table 2 added the parental dissatisfaction index (e.g., how satisfied are you with how your child turned out, how satisfied are you with being a parent) to test how satisfaction in one's adult child–parent relationship shaped trajectories of change in psychological distress. In Model 2 of Table 2, controlling for all covariates, baseline parental dissatisfaction was positively associated with baseline psychological distress (consistent with Hypothesis 2). Moreover, the significant negative coefficient for baseline parental dissatisfaction on the rate of change in psychological distress ($b = -0.189$, $p < .01$) indicates that every one-unit increase in baseline dissatisfaction increased the rate of decline in psychological distress over time by 0.189 units. Parents with higher dissatisfaction thus experienced a steeper declining trajectory of psychological distress than those with lower dissatisfaction. As shown in Figure 1, parents who started with higher rates of dissatisfaction at baseline experienced more psychological distress at baseline, even though more dissatisfied parents experienced a more rapid decrease in psychological distress than the less dissatisfied parents, they still experienced higher psychological distress over time because they began with much higher levels of psychological distress (consistent with Hypothesis 2).

Equity

Model 3 of Table 2, as well as Figure 2, shows results from growth curve models that estimated the effects of reported relationship equity between parents and adult children on parents' trajectories of psychological distress, controlling for all sociodemographic covariates. Results indicated that parents who offered more help than, or the same amount of help as, their children offer them, had lower baseline psychological distress than those who received more help from adult children (consistent with Hypothesis 3). The significant positive coefficients for baseline relationship equity ($b = 0.758$, $p < .01$; $b = 0.666$, $p < .01$) on the rate of change in psychological distress indicated that offering more or equal help to adult children in the baseline slowed the rate of decline in psychological distress over time by about 0.758 or 0.666 units than receiving more help from adult children (consistent with Hypothesis 3). Moreover, although those parents who received more help than they gave at baseline experienced a more rapid decrease in psychological distress over time, they still have more psychological distress over time because they begin with much higher levels of psychological distress due to relationship inequity. Parents who offered more or similar amount of help to children had similar baseline psychological distress at baseline and over time.

Gender Interactions

Table 3 shows results from growth curve models that examined whether parents' gender moderates the relationships between the parent–child tie and psychological distress. We added gender (dummy variable, 1 = *father*) interaction terms with each predictor and found no significant gender interactions in the effect of child social support, child strain, and

relationship equity on parents' psychological distress both in the baseline and in change over time (available upon request). Results displayed in Model 1 of Table 3 and Figure 3 indicated that controlling for the level of dissatisfaction, fathers experienced less psychological distress than mothers in the baseline. Among those with higher baseline levels of dissatisfaction, fathers experienced a less rapid decline in psychological distress over time than mothers. These findings are mostly inconsistent with Hypothesis 4. In addition, we examined whether the parent–child relationship varied by age and race but did not find significant interaction results (available upon request).

Discussion

Relationships with children are central to aging parents' well-being across the life course (Milkie et al., 2008; Umberson et al., 2010), yet previous research has focused on the consequences of having minor children on parents' well-being, failing to determine whether relationships with adult child shape change in psychological distress over time. Articulating whether the parent–child relationship at a single point in time predicts change in psychological distress over time is critical, in these earlier experience may set a trajectory of worse—or better—psychological distress as ways that accumulate over time into advancing age. This is especially important for aging populations who experience the accumulation of psychological distress over time and thus may be at higher risk of worse health later in life. This study uses longitudinal population-based analysis to move beyond the early years of parenthood, testing how multiple dimensions of adult child–parent relationships are protective of, or detrimental to, parents' psychological distress in mid- to later life. We find that while social support and strain have a limited effect on parental well-being over time, dissatisfaction and equity play an important role in parents' psychological distress over time, and the effects of dissatisfaction differed for mothers and fathers. We outline three main contributions of the study, subsequently.

First, higher baseline support from adult children was negatively associated with baseline psychological distress, while higher baseline strain was positively associated with baseline psychological distress (consistent with Hypothesis 1). The effects of social support and strain mattered for parents' psychological distress in the immediate but were not long lasting. The consequences of support and strain in the parent–child tie may dissipate over time, wherein support becomes less effective and strain becomes less harmful for parents' well-being. For example, parents may learn to cope with and become resilient to strain with children in ways protective of psychological distress (Koropecj-Cox, 2002; Merz et al., 2009; Ward & Spitze, 2004), while social support from children may not have a sustained effect on parents' well-being. Support from children may also be a double-edged sword, as it implies the need for support (Ikkink, Van Tilburg, & Knipscheer, 1999). This finding has potential implications for the way scholars view social support and strain from adult children on aging adults' well-being, as these components of the parent–child tie may be less salient to psychological well-being than previously theorized (Cichy et al., 2013; Lang & Schütze, 2002; Long & Martin, 2000). Additionally, it may be that parents' psychological distress is driving adult–child parent social support and strain, a reverse causal effect we cannot tease out at the baseline level.

Second, parental dissatisfaction and equity of exchange mattered for parents' psychological distress at the baseline and over time. When baseline levels of dissatisfaction were high, parents experienced higher levels of psychological distress at baseline over the course of the study period (consistent with Hypothesis 2). Following a life-course perspective, dissatisfaction—which included being unhappy with the way a child turned out and unhappy with a parenthood role—has lasting consequences for parents' well-being. Parenthood is a salient social role, and unhappiness with that role may present parents with chronic dissatisfaction that infiltrates one's sense of self-efficacy, success, and notions of self-worth (Junttila, Vauras, & Laakkonen, 2007), which may in turn influence psychological distress (Hastings & Brown, 2002). Similarly, being dissatisfied with how a child turned out is likely correlated with a child's stressful life circumstances, such as unemployment, health problems, or intimate relationship problems (Fingerman et al., 2012). Thus, trouble in adult children's lives is "linked" to parents' well-being via intergenerational stress proliferation (Elder, Johnson, & Crosnoe, 2003). In addition, a child's stressful life events may contribute to a parent's feeling that he or she failed at parenthood—lowering levels of life satisfaction, mastery, and self-esteem, which in turn may increase parents' psychological distress (Fingerman et al., 2012). Such dissatisfaction with a child may not dissipate in the short term but may become part and parcel of a parent's sense of self and identity, affecting long-term well-being as Figure 1 suggests.

Further, when parents and children exchanged equal amounts of social support, or when parents offered more help to adult children at baseline, parents had lower levels of psychological distress both at baseline and over time than those who received more help from adult children (consistent with Hypothesis 3, shown in Figure 2). It may be better to give than to receive or at least it is better to give equally (De Jong Gierveld & Dykstra, 2008; Thomas, 2010). This may be especially true in mid- to later life, when receiving social support may be strongly linked to requiring more help from adult children than at previous life stages. Receiving help may reflect the fact that parents are perhaps unable to care for themselves, which is in turn associated with an increase in psychological distress over time (Brown et al., 2005; De Jong Gierveld & Dykstra, 2008; Ikkink et al., 1999). However, we included a control for functional health limitations, and this did not change this significant finding, suggesting that a parents' functional health is not underlying this effect. Giving equal or more social support may boost self-salience, provide a sense of purpose, and lower stress levels, which in turn may lower psychological distress both initially and over time (Thomas, 2010).

Third, nearly all findings operated similarly for mothers and fathers with the exception of parental dissatisfaction, and among those with higher levels of baseline dissatisfaction, mothers had higher rates of psychological distress at baseline than fathers (Figure 3). Compared to fathers, mothers both in our sample and in most previous research received significantly more social support from adult child, had lower overall levels of dissatisfaction with children, and had more contact with children than fathers. It may be that mothers invest more deeply in their children, and therefore satisfaction or dissatisfaction in the parent role has more salience and consequences for mothers relative to fathers (Pillemer & Suitor, 2002; Suitor, Sechrist, Gilligan, & Pillemer, 2011). Fathers who have high dissatisfaction may experience qualitatively different, perhaps less invested, relationships with their children and

therefore are not affected by this high level of dissatisfaction. This may be a consequence of the structure of fatherhood and motherhood, wherein fathers are less attached to children than mothers later in life, and thus their dissatisfaction has little role in their own well-being (Reczek, Thomeer, Lodge, Umberson, & Underhill, 2014).

Limitations and Conclusion

Limitations should be considered. First, we did not have a measure of instrumental support or financial support (Fingerman et al., 2008). We did not also have a measure of direct ambivalence (i.e., asking whether there are “mixed feelings” between parents and children). We were able to test indirect ambivalence (i.e., concurrently high levels of support and high levels of strain, Lendon, Silverstein, & Giarrusso, 2014) but did not find that indirect ambivalence was a significant predictor of psychological distress. Gilligan, Sutor, Feld, and Pillemer (2015) have shown that the indirect measure of ambivalence is in fact primarily capturing the effects of intergenerational strain, and thus our study is clearly limited in its ability to test the effects of ambivalence. Future research should test the effects of both direct and indirect ambivalence. Second, our longitudinal data provided us the ability to look temporally at change in psychological distress over time, yet reverse causality may play a role in our findings. Third, due to the construction of the survey, we were unable to ascertain the gender of the child, and our measures of the parent–child tie were global assessments of all children. Significant work suggests that parents experience each child in their family differently (Sutor, Sechrist, Plikuhn, Pardo, & Pillemer, 2008), thus, future work should explore the relationship between individual children and parents’ psychological distress. Fourth, although psychological distress tends to typically decline in mid- to later life (Jorm et al., 2005; Schieman, Van Gundy, & Taylor, 2002; Umberson et al., 2008), some studies also reported evidence of a U-shaped curve (Clarke et al., 2011; Ross & Mirowsky, 2008), which may influence modeling of our growth curve trajectories and mask the relationship between adult child–parent tie and parents’ psychological distress. Finally, analyses not shown (but available upon request) test change in social support, strain, equity, and dissatisfaction variables between Waves 1 and 2, but we did not find significant and robust findings. However, we were only able to test change in a short period of time. Future research should explore how change across a longer time frame matters for parents’ psychological distress.

Despite limitations, our findings build on a growing literature on intergenerational relationships and health by detailing the specific aspects of the parent–child tie that appear to matter for parents’ long-term psychological distress. We find that dissatisfaction and equity, not social support or strain, have the strongest effects on parental distress over time. While intergenerational solidarity and conflict are viewed as the main sources of stress and strain among parents, these factors seem to matter less over time for parents’ well-being. Thus, measures of dissatisfaction and equity are independent predictors and should be the site of future research on the intergenerational tie and health. This study suggests a more nuanced approach to the effects of parent–child relationships may lie not in dimensions of support and strain but rather more specific predictors of the parent–child tie across the life course.

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Figure 1.

Predicted psychological distress by respondents' level of dissatisfaction with adult children.

Note. The order of the lines from top to bottom: (1) respondent with high dissatisfaction and (2) respondent with low dissatisfaction. The value of high dissatisfaction is set at 0.55 (75% of the distribution), and the value of low dissatisfaction is set at -0.97 (25% of the distribution).

Figure 2.

Predicted psychological distress by respondents' relationship equity with adult children.

Note. The order of the lines from top to bottom: (1) children provides more support, (2) respondent provides more support, and (3) equal relationship (the differences in baseline as well as slope between "parent provides more" and "equal exchange" are not significant).

Figure 3.

Predicted psychological distress by respondents' gender and level of dissatisfaction with adult children. *Note.* The order of the lines from top to bottom: (1) mother with high dissatisfaction, (2) father with high dissatisfaction, (3) mother with low dissatisfaction, and (4) father with low dissatisfaction. The value of high dissatisfaction is set at 0.55 (75% of the distribution), and the value of low dissatisfaction is set at -0.97 (25% of the distribution).

Table 1

Weighted Descriptive Statistics of Variables Analyzed.

	Mean	SD	<i>n</i>
Psychological Distress W1	101.829	30.717	1,692
Psychological Distress W2	102.126	30.594	1,692
Psychological Distress W3	96.066	29.520	1,265
Psychological Distress W4	96.681	28.658	813
Child support W1	0.043	0.971	1,692
Child strain W1	−0.024	0.955	1,692
Parental Dissatisfaction W1	0.033	1.060	1,692
Relationship Equity (ref: child provides more)			1,692
Parent provides more	0.434	0.495	1,692
Equal relationship	0.500	0.500	1,692
Age (W1, in years)	57.042	12.170	1,692
Functional health index W1	1.358	0.778	1,692
Functional health index W2	1.426	0.829	1,692
Functional health index W3	1.430	0.890	1,265
Functional health index W4	1.534	0.950	813
Gender (1 = <i>father</i>)	0.395	0.489	1,692
Years of Education (W1)	11.817	3.102	1,692
Family income (W1, US\$1,000)	28.531	21.355	1,692
Marital status (W1, 1 = <i>not married</i>)	0.264	0.441	1,692
Number of children W1	3.370	1.750	1,692

Note. *N* = 1,692.

Table 2

Unstandardized Coefficients for Models Predicting the Latent Intercepts and Latent Slopes of Growth Curves for Parents' Psychological Distress.

	Model 1		Model 2		Model 3	
	Intercept	Slope	Intercept	Slope	Intercept	Slope
Child Support W1	-3.953***	0.046	-0.543	-0.046	-0.793	-0.034
Child Strain W1	5.765***	-0.172*	3.668***	-0.115	3.808***	-0.121
Parental Dissatisfaction W1			7.049***	-0.189**	7.321***	-0.203**
Relationship equity W2						
Parent provides more					-15.170***	0.758**
Equal relationship					-12.800***	0.666**
Gender (1 = father)	-7.925***	0.318*	-7.591***	0.310*	-6.852***	0.284*
Age (W1, in years)	-0.372***	0.008	-0.305***	0.006	-0.372***	0.009
Functional health index	9.909***	-0.166*	9.696***	-0.156*	9.470***	-0.142*
Years of Education W1	-0.882**	-0.023	-0.984***	-0.021	-0.895**	-0.024
Family income (W1, US\$1,000)	-0.136**	-0.001	-0.130*	-0.001	-0.119*	-0.001
Marital status (W1, 1 = not married)	7.498***	-0.357**	7.012***	-0.343**	6.794***	-0.337*
Number of children (<18) at home W1	0.054	0.026	-0.202	0.033	-0.317	0.039
Number of waves R participated	-1.766	—	-2.123*	—	-2.029*	—
R died during the survey period (1 = died)	0.515	—	0.421	—	0.146	—
Mean	133.800***	-0.448	132.900***	-0.387	148.800***	-1.186*
Random effects						
Level 2 variance	322.722***	0.002	294.802***	0.000	285.461***	0.000*
Level 1 variance	435.816***		435.038***		433.800***	
Log likelihood	-25333.617		-25299.239		-25287.282	

Note. $N = 1,692$.

* $p < .05$;

** $p < .01$;

‘(test p=1.00) 100’ > d

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Table 3

Unstandardized Coefficients for Models Predicting the Intercepts and Slopes of Growth Curves for Parents' Psychological Distress.

	Model 1	
	Intercept	Slope
Child Support W1	−1.031	−0.010
Child Strain W1	3.608 ***	−0.102
Parental Dissatisfaction W1	8.585 ***	−0.325 ***
Relationship equity W2		
Parent provides more	−15.600 ***	0.806 **
Equal relationship	−13.050 ***	0.695 **
Gender (1 = father)	−6.716 ***	0.261
Parental Dissatisfaction W1 × Gender	−3.470 *	0.337 **
Functional health index	9.482 ***	−0.142 *
Age (W1, in years)	−0.362 ***	0.008
Years of Education W1	−0.882 **	−0.026
Family income (W1, US\$1,000)	−0.113 *	−0.002
Marital status (W1, 1 = not married)	6.963 ***	−0.353 **
Number of children (<18) at home W1	−0.325	0.040
Number of waves R participated	−1.997 *	—
R died during the survey period (1 = died)	0.146	—
Mean	148.100 ***	−1.133 *
Random effects		
Level 2 variance	286.414 ***	0.000
Level 1 variance	432.909 ***	
Log likelihood	−25,283.358	

Note. $N = 1,692$.

* $p < .05$;

** $p < .01$;

*** $p < .001$ (two-tailed test).