



# Financial Problems in Established Adulthood: Implications for Depressive Symptoms and Relationship Quality with Parents

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## Abstract

Using two waves of data from the *Family Exchanges Study* (2008 and 2013), this study examined changes in financial problems before and after the Great Recession and investigated the implications for adults' depressive symptoms and relationship quality with parents. Participants in established adulthood ( $N = 170$ , age 30–46 in 2013) provided information about their financial difficulties and depressive symptoms, as well as negative relationship quality with each parent (parent–child tie;  $N = 316$ ) at baseline and 5 years later. Results showed that a growing number of participants experienced financial problems between the two waves, rising from 16 to 72% of participants. Moreover, 14% of participants indicated continuing financial problems and 33% reported decreased income over the 5 year observation period. Financial problems at baseline, continuing financial problems across the observation period, and decreased income over time were associated with participants' increased depressive symptoms, after controlling for their baseline depressive symptoms. Results from multilevel models also revealed that adult participants had more strained relationships with their parents if they experienced more financial problems at the follow-up interview. The harmful effect of financial problems on relationship quality with parents was partially explained by adult participants' depressive symptoms. Findings of this study highlight the important role of financial hardship for persons in established adulthood and their intergenerational ties.

**Keywords** Established adulthood · Intergenerational relations · Depression · Psychological distress · Economic recession

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Adults are expected to be financially independent and stable when they enter established adulthood (Mehta et al., 2020). Financial problems emerging in this period of life may create challenges for adults to maintain their well-being and interpersonal relationships. In the aftermath of the last Great Recession (2007–2009), many young adults had difficulty finding a job and affordable housing, or achieving other markers of economic independence (Bell & Blanchflower, 2011; Norris, 2010). However, research is still limited about how the Great Recession has impacted individuals in established adulthood. This study aimed to examine financial problems of established adults before and after the Great Recession. We also investigated whether financial problems of established adults have long-term implications for their psychological distress and intergenerational ties with parents.

## Established Adulthood and Financial Problems in the Time of Recession

Established adulthood, the years from 30 to 45, is considered as the most intense and demanding period of adult life (Huffman et al., 2013; Mehta et al., 2020). The intersection of work and family responsibilities during established adulthood is the central developmental challenge of these years (Mehta et al., 2020). Different from emerging adults (age 18 to 29; Arnett, 2000) who are still finishing education and exploring their career opportunities with frequent job changes, adults in their 30s and early 40s are expected to become financially independent from parents, establish their career and family, maintain their work-life stability, and move up in the organizational hierarchy (Day et al., 2008). However, the economic downturn associated with the Great Recession makes these developmental tasks very challenging.

The Great Recession in the United States, which started in December 2007 and ended in June 2009, resulted in the largest national reductions in employment, earnings, assets, and income since the Great Depression (until the COVID-19; Grusky et al., 2011; Hoynes et al., 2012; Jacobsen & Mather, 2011). According to reports, 7.5 million people lost their jobs and the unemployment rate increased from 4.4 percent to 10.1 percent in the United States (Grusky et al., 2011). Many Americans experienced a mix of financial hardships, including unemployment, job insecurity, increased debt, and housing instability (Morin, 2010). Research has mainly focused on emerging adults, because they were financially hit hardest by the recession as they were often “last hired, first fired” (Norris, 2010). However, one often overlooked group is adults in their established adulthood, who also faced high risks of unemployment but were expected to take financial responsibilities for themselves and their families. This paper aims to fill this gap in the literature by examining how established adults’ financial situations changed before and after the Great Recession.

## Financial Problems and Psychological Health

The link between economic status and psychological health is well-established in the literature (e.g., Ferreri-Carbonell, 2005; Haushofer & Fehr, 2014). The stress process literature has shown that persons with financial hardships tend to confront more chronic and acute stressors compared with their wealthier counterparts (Pearlin et al., 1981). Financial hardship may also affect mental health through living conditions, health behaviors, and the

availability of social support (Pearlin & Bierman, 2013). In particular, financial stressors are found to have stronger associations with mental disorders than other conventional socioeconomic indicators—such as education and occupation (Laaksonen et al., 2007; Linander et al., 2015).

To date, studies have explored sensitive periods in human development, examining poverty and financial strain during childhood (Darin-Mattsson et al., 2018; Domènech-Abella et al., 2021), emerging adulthood (Ranta et al., 2020), and later life (Pruchno et al., 2017; Wilkinson, 2016) for adult psychological well-being. Still, there is little research on financial problems and psychological distress in established adulthood. Moreover, individuals often incur psychological distress when they experience unemployment, asset depletion, and difficulties finding a new job due to the Great Recession (see Frasquilho et al., 2015 for a review). Experiencing financial hardship during recession is also related to the loss of a worker identity, a sense of failure, and physical health problems (Burgard & Kalousova, 2015; Hanna & Yuh, 2013; Riumallo-Herl et al., 2014). Yet, there remains an incomplete understanding about the psychological distress of established adults when they encounter financial problems during economic recessions.

## Financial Problems and Parent–Child Relationship Quality

The family economic stress model (Conger et al., 1994) has shown negative consequences of family economic hardship, induced by economic recessions or work instability, on family relations (Masarik & Conger, 2017). The stress of family economic hardship is associated with conflicts and behavior problems among family members, which may lead to interpersonal tensions and relationship strain (Conger et al., 1990). The family economic stress model has been utilized to examine the development, emotional problems, and family relations of young children (Mistry et al., 2002; Neppl et al., 2016) and adolescents (Conger et al., 1994; White et al., 2015), whose parents are at risk of poverty and financial crisis. However, adult children also may encounter financial problems themselves and their financial problems may have spillover effects on relationships with their parents. Gaining financial stability and managing family relationships are at the core of established adulthood, when individuals strive to take on the duo responsibilities of work and family (Mehta et al., 2020). In this study, we extend the family economic stress model into the period of established adulthood and employ this theoretical framework to understand established adults’ psychological and family well-being when they face financial difficulties.

Research has shown that adult children’s life problems lead to strained relationship quality with their parents

(Birditt et al., 2010; Greenfield & Marks, 2006). When adult offspring have life problems, they may perceive support provided by their parents as unwanted or inadequate, and thus, they develop poorer relationships with their parents (Wang et al., 2021). In particular, financial problems of adult children were found to be associated with aging mothers' reports of tension in their relationships with adult children (Gilligan et al., 2013). Thus, we expect that when established adult offspring experience financial problems during the Great Recession, they may have more relationship difficulties with their parents.

Moreover, the association between financial hardship and family relationship quality may be explained by the psychological distress of the individuals experiencing financial problems. In research on marital relationships, studies have demonstrated that depressive symptoms explain a great deal of the association between economic hardship and marital quality (Vinokur et al., 1996). During the Great Recession, psychological distress from financial problems may spill over to relationships with parents. Thus, we expect that established adult children's psychological distress might partially account for the association between financial problems and parent–child relationship quality.

## Covariates

We considered several sociodemographic factors that may confound the associations between financial problems, psychological distress, and parent–child relationships—including age, gender, racial-ethnic status, student status, marital status, parent status, employment status, and intergenerational coresidence. Adults of advanced age may be more resilient to financial problems because of their cumulative wealth and more stable jobs. Compared to men, women are more likely to experience financial problems and psychological distress (Meltzer et al., 2013). The quality of intergenerational ties also varies by gender across generations (Fingerman et al., 2020). African American adults had a higher risk of job loss during the Great Recession, but they have showed greater psychological resilience (Diette et al., 2018). Unmarried adults and those who are students or have not started their jobs may be less impacted by economic downturns because they may have fewer financial responsibilities with respect to supporting family members. The stress of financial difficulties could be greater for established adults who have children, given the cost of caring for children and the sense of responsibility for their own children's well-being (Pollmann-Schult, 2014). Finally, there was an increased number of adult offspring living with their parents during the Great Recession, and coresidence may present unique challenges for family relationships (Fry, 2013).

## The Current Study

Using the two waves of longitudinal data from the *Family Exchanges Study* (FES; 2008 and 2013), this study examined changes in financial problems before and after the Great Recession and investigated the implications for established adults' psychological distress (i.e., depressive symptoms) and parent–adult child relationship quality. Specifically, we tested the following hypotheses:

**Hypothesis 1:** Established adults would have increased financial problems, compared to their financial situations before the Great Recession.

**Hypothesis 2:** Established adults who experienced increased financial problems would have more depressive symptoms after the Great Recession.

**Hypothesis 3:** Established adults who experienced increased financial problems would have more negative relationship quality with their parents after the Great Recession.

**Hypothesis 4:** The association between financial problems and negative parent–child relationship quality would be partially explained by established adults' depressive symptoms.

## Methods

### Data and Sample

Data were drawn from two waves of the FES (Fingerman, 2008, 2013). In 2008, 633 middle-aged adults (aged 40–60) who had at least one child over age 18 and one living parent completed a telephone interview before the economic recession hit U.S. families. The FES identified potential participants via listed samples from Genesys Corporation, supplemented with random digit dialing within the Philadelphia Primary Metropolitan Statistical Area. Participants provided information regarding their relationships with each parent and grown offspring in the main survey. At the end of the interviews, participants provided contact information for up to 3 adult children and 75% of those adult children participated ( $n = 592$ ) in the offspring survey.

The second wave of data collection was fielded in 2013, during the period of economic recovery, with 455 participants of the original offspring sample (76.9%) completing the main interview. To focus on established adulthood, we only included offspring participants who were aged 30 and older in 2013 and participated in both waves of FES

( $N = 170$  from 131 families). At both waves, established adult participants provided information about their financial difficulties and depressive symptoms, as well as negative relationship quality with “each” parent (parent–child tie;  $N = 316$ ).

## Measures

### Financial Problems

We examined financial problems along three dimensions: the presence and total number of financial problems, changes in financial problems, and changes in income. Specifically, participants were asked “In the past 12 months, have you had a serious financial problem?” (1 = *yes* and 0 = *no*). Based on the answer to this question in both waves, we further created the changes of financial problems measure, including (a) *never had financial problems in both 2008 and 2013* (i.e., never; reference category), (b) *had no financial problems in 2008 but had financial problems in 2013* (i.e., onset), (c) *had financial problems in 2008 but had no financial problems in 2013* (i.e., stopped), and (d) *had financial problems in both 2008 and 2013* (i.e., continued).

In 2013, participants answered six items regarding economic hardship since 2008 derived from prior studies of the Great Recession (Chiteji & Danziger, 2011; Danziger et al., 2012). Financial problems included: (1) *been laid off or lost a job*, (2) *had trouble finding a job or gaining employment*, (3) *been employed in a job that is less prestigious or pays less than previous jobs*, (4) *lost a lot of money (in savings, assets, retirement plans, or the stock market)*, (5) *cut back on travel to see family members or had fewer family members visit due to financial problems*, and (6) *borrowed money from family members*. We created a sum score for the total number of financial problems across six items (range = 0–6).

Last, participants compared their own current household income in 2013 to their household income in 2008. The answers included (a) *lower than 2008*, (b) *about the same as in 2008*, and (c) *higher than in 2008* (reference category).

### Depressive Symptoms

Depressive symptoms were assessed with five items derived from the depression subscale of the Brief Symptom Inventory (BSI; Derogatis & Melisarator, 1983). Participants indicated how distressed or bothered they were during the past week in the following items: feeling lonely, feeling blue, feeling no interest in things, feeling hopeless about the future, and feeling worthless. Each item was rated from 1 (*not at all*) to 5 (*extremely*). We calculated a mean score across five items, with higher scores indicating more depressive symptoms ( $\alpha = .84$  at baseline and  $\alpha = .85$  at follow-up).

### Parent–Child Relationship Quality

Because we expected that negative relationship quality with parents would be more sensitive to adult children’s financial problems—rather than positive relationship quality (Birditt et al., 2010; Gilligan et al., 2013), we focused on the negative aspect of relationship quality. Negative relationship quality was measured by two items: “How much does he/she criticize you” and “How much does he/she make demands on you” (Birditt et al., 2010; Umberson, 1992). Participants rated each item on a 5-point scale from 1 (*not at all*) to 5 (*a great deal*). The two items were averaged to create a score for negative relationship quality ( $\rho = .43$  for mother–child relationship quality and  $\rho = .37$  for father–child relationship quality at baseline;  $\rho = .55$  for mother–child relationship quality and  $\rho = .59$  for father–child relationship quality at follow-up; Eisinga et al., 2013).

### Covariates

Participants provided information on their own characteristics: age (in years), gender (1 = *female* and 0 = *male*), student status (1 = *student* and 0 = *not a student*), racial/ethnic minority status (1 = *racial/ethnic minority* and 0 = *non-Hispanic white*), marital status (1 = *married* or *remarried* and 0 = *unmarried*), parent status (1 = *had at least one child* and 0 = *had no children*), and employment status (1 = *working for pay* and 0 = *not working*). Participants also provided information on each of their parents—mother and father, separately, including gender (1 = *female* and 0 = *male*) and coresidence status (1 = *yes* and 0 = *no*).

### Analytic Strategy

We first examined descriptive statistics of participants’ sociodemographic characteristics and financial problems to identify the degree to which established adults experienced financial problems before and after the Great Recession (Hypothesis 1).

Next, we estimated ordinary least square linear regression models with lagged-dependent variables (i.e., depressive symptoms at baseline) to examine associations between financial problems and depressive symptoms at follow-up (Hypothesis 2). Models also controlled for sociodemographic characteristics (i.e., age, gender, student status, racial/ethnic minority status, marital status, parent status, and employment status) measured at baseline.

Finally, regarding negative relationship quality with parents, we estimated 2-level linear regression models to account for the nested structure of the data (i.e., adult participants [level 2] reported relationship quality with each parent [level 1]). We employed a hierarchical model approach to examine associations between established adults’ financial

problems, depressive symptoms, and negative relationship quality with parents. In the first step, we entered established adults' financial problems as key predictors for negative parent-child relationship quality at follow-up, controlling for parent-child relationship quality measured at baseline (Hypothesis 3). In the second step, we added established adults' depressive symptoms to previous models to examine the mediation effect of depressive symptoms in the association between financial problems and negative parent-child relationship quality (Hypothesis 4). Multilevel models also included characteristics of established adults (i.e., age, gender, student status, racial/ethnic minority status, marital status, parent status, and employment status) and their parents (i.e., gender and coresidence status). Fewer than 5% cases had missingness with our analytical variables and we used mean imputation for the missing values.

## Results

Descriptive statistics presented in Table 1 showed that a growing number of established adult participants experienced financial problems during the Great Recession, rising from 16% in 2008 to 72% in 2013. On average, participants had 1.99 financial problems (range 0–6) in 2013. Moreover, 14% of participants indicated experiencing financial problems in both 2008 and 2013, and 58% of participants reported the onset of financial problems since the Great Recession. While almost half of participants indicated higher income, 16% reported that their income has stayed the same and 33% reported that income was lower, compared to 2008.

**Table 1** Sample characteristics before and after the Great Recession

Variables	Baseline (2008)		Follow-up (2013)	
	<i>M</i>	<i>(SD)</i>	<i>M</i>	<i>(SD)</i>
<i>Sociodemographic characteristics</i>				
Age	29.58	(3.97)	34.58	(3.97)
Female, %	62		62	
Student, %	12		8	
Racial/ethnic minority, %	37		37	
Married/remarried, %	35		54	
Having at least one child, %	45		64	
Working for pay, %	91		68	
Coresiding with any parent, %	24		14	
Negative relationship quality with parents <sup>a</sup>	2.00	(0.74)	2.01	(0.75)
<i>Parent characteristics</i>				
Female, %	52		52	
Coresiding with offspring, %	27		13	
Negative relationship quality with offspring <sup>a</sup>	2.22	(1.03)	2.15	(0.99)
<i>Financial difficulties</i>				
Any financial problem, %	16		72	
Total financial problems <sup>b</sup>	–		1.99	(1.86)
Change in financial problems				
Never	–		25	
Onset	–		58	
Stopped	–		3	
Continued	–		14	
Change in income, %				
Higher	–		51	
Same	–		16	
Lower	–		33	
<i>Depressive symptoms<sup>c</sup></i>	1.56	(0.67)	1.70	(0.84)

Established adult *N* = 170

Parent-child tie *N* = 316

<sup>a</sup>Mean scores of 2 items (rated 1 = *not at all* to 5 = *a great deal*)

<sup>b</sup>Sum of 6 financial problems (1 = *yes* and 0 = *no*)

<sup>c</sup>Mean scores of 5 items (rated from 1 = *not at all* to 5 = *extremely*)

Over the 5 year span, participants further established their adult lives. A greater proportion of them finished schooling (12% in 2008 and 8% in 2013 were students), became married (35% in 2008 and 54% in 2013 were married or partnered), became parents (45% in 2008 and 64% in 2013 had a child), and started to live independently (24% in 2008 and 14% in 2013 coresided with any parent). However, their depressive symptoms also slightly increased over time (1.56 in 2008 and 1.70 in 2013; paired  $t=2.27$ ,  $p=.025$ ). The relationship quality with parents remained stable, with negative relationship quality changing from 2.00 in 2008 to 2.01 in 2013 (paired  $t=0.19$ ,  $p=.85$ ).

Linear regression results for the associations between financial problems and depressive symptoms among established adults are presented in Table 2. The results showed that the presence of financial problems at baseline ( $B=0.53$ ,  $p=.002$  in Model 1) and the total number of financial problems at follow-up ( $B=0.07$ ,  $p=.040$  in Model 1) were independently associated with participants' increased depressive symptoms at follow-up, after controlling for their baseline depression status. Compared to those who never had financial problems, established adults with continuing financial

problems across the observation period had more depressive symptoms at follow-up ( $B=0.71$ ,  $p=0.001$  in Model 2). Moreover, established adults with decreased income over time had more depressive symptoms at follow-up ( $B=0.55$ ,  $p<0.001$  in Model 3), compared to those who reported increased income since 2008.

Table 3 presents the results from multilevel models for the associations between financial problems, depressive symptoms, and negative parent-child relationship quality. First, established adult children's total financial problems at the follow-up interview ( $B=0.06$ ,  $p=.021$  in Model 1a) were associated with increased negative relationship quality with parents. In addition, established adult children had more negative relationship quality with their parents if they continued to experience financial problems ( $B=0.38$ ,  $p=.035$  in Model 2a) and lower income since 2008 ( $B=0.30$ ,  $p=.046$  in Model 3a). After adding depressive symptoms at the follow-up interview to the models, the coefficients for financial problem indicators became smaller (i.e., Model 3b) or nonsignificant (i.e., Model 2b). Thus, these results suggested that depressive symptoms of established adults partially mediated

**Table 2** Linear regression model results for established adults' depressive symptoms after the Great Recession

Variables	Model 1: Financial problems		Model 2: Change in financial problems		Model 3: Change in income	
	<i>B</i>	( <i>SE</i> )	<i>B</i>	( <i>SE</i> )	<i>B</i>	( <i>SE</i> )
Any financial problems (Baseline)	0.53**	(0.17)	–	–	–	–
Total financial problems <sup>a</sup> (Follow-up)	0.07*	(0.03)	–	–	–	–
Change in financial problems (Ref = Never)						
Onset	–	–	–0.04	(0.15)	–	–
Stopped	–	–	–0.20	(0.36)	–	–
Continued	–	–	0.71	(0.21)	–	–
Change in income (Ref = Higher)						
Lower	–	–	–	–	0.55***	(0.15)
Same	–	–	–	–	0.21	(0.18)
Control variables (Baseline)						
Age	0.02	(0.02)	0.02	(0.02)	0.02	(0.02)
Female	0.00	(0.12)	–0.02	(0.12)	0.01	(0.12)
Student	0.23	(0.22)	0.25	(0.22)	0.26	(0.23)
Re/married	–0.20	(0.13)	–0.23 <sup>†</sup>	(0.13)	–0.09	(0.14)
Having at least one child	–0.10	(0.15)	–0.09	(0.15)	–0.03	(0.15)
Racial/ethnic minority	–0.24 <sup>†</sup>	(0.14)	–0.24 <sup>†</sup>	(0.14)	–0.08	(0.14)
Working for pay	–0.14	(0.13)	–0.17	(0.13)	0.04	(0.14)
Depressive symptoms <sup>b</sup>	0.36***	(0.09)	0.35***	(0.09)	0.42***	(0.09)
Intercept	1.77***	(0.23)	1.84***	(0.26)	1.35***	(0.25)
Adjusted <i>R</i> <sup>2</sup>	.20		.21		.20	

Established adult offspring  $N=170$

Ref reference category

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

<sup>a</sup> Sum of 6 financial problems (1 = yes and 0 = no)

<sup>b</sup> Mean scores of 5 items (rated from 1 = not at all to 5 = extremely)

**Table 3** Multilevel model results for negative relationship quality with parents after the Great Recession

Variables	Financial problems		Change in financial problems		Change in income	
	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b
<i>Fixed effects</i>						
Intercept	0.71**	0.71**	0.54*	0.54*	0.47*	0.53*
Any financial problem (Baseline)	0.19	0.13	–	–	–	–
Total financial problems <sup>a</sup> (Follow-up)	0.06*	0.06*	–	–	–	–
Change in financial problems (Ref=Never)						
Onset	–	–	0.18	0.18	–	–
Stopped	–	–	0.37	0.38	–	–
Continued	–	–	0.38*	0.29	–	–
Change in income (Ref=Higher)						
Lower	–	–	–	–	0.30*	0.28 <sup>†</sup>
Same	–	–	–	–	0.20	0.14
Negative relationship quality (Baseline)	0.53***	0.52***	0.54***	0.53***	0.55***	0.54***
Depressive symptoms <sup>b</sup> (Follow-up)	–	0.09	–	0.12 <sup>†</sup>	–	0.12 <sup>†</sup>
Offspring characteristics						
Age	0.02	0.02	0.02	0.02	0.02	0.02
Female	–0.02	–0.02	–0.02	–0.02	0.00	–0.02
Student	–0.07	–0.08	–0.05	–0.07	–0.10	–0.11
Re/married	0.07	0.08	0.07	0.09	0.12	0.13
Having at least one child	–0.18	–0.15	–0.20	–0.16	–0.18	–0.14
Racial/ethnic minority	–0.09	–0.06	–0.09	–0.05	–0.02	0.00
Working for pay	0.05	0.07	0.02	0.02	0.08	0.09
Parent characteristics						
Female	0.15 <sup>†</sup>	0.15*	0.15 <sup>†</sup>	0.16 <sup>†</sup>	0.15 <sup>†</sup>	0.15 <sup>†</sup>
Coresiding	0.34*	0.32*	0.35*	0.31 <sup>†</sup>	0.39*	0.35*
<i>Random effects</i>						
Intercept Variance (level 2: offspring)	0.14**	0.13*	0.14**	0.14*	0.14*	0.13*
Residual Variance	0.45***	0.46***	0.46***	0.46***	0.45***	0.46***
– 2 Log Likelihood	741.46	743.21	726.70	727.19	726.62	727.03

Established adult offspring  $N=170$ Parent–child tie  $N=316$ 

Ref reference category

<sup>†</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ <sup>a</sup> Sum of 6 financial problems (1 = yes and 0 = no)<sup>b</sup> Mean scores of 5 items (rated from 1 = not at all to 5 = extremely)

the associations between financial problems and negative parent–child relationship quality. Further, using the information from linear regression models (Table 2) and multilevel models (Table 3), we conducted a two-step multilevel mediation analysis (Krull & MacKinnon, 2001; Preacher et al., 2010). Results confirmed that continued financial problems (Sobel  $\delta = 1.57$ ,  $p = .058$ ) had some, albeit marginally significant, indirect effects on negative parent–child relationship quality through depressive symptoms.

### Post-hoc Analysis

We also examined how each of the financial problems experienced by established adult participants in the follow-up wave was associated with their depressive symptoms and relationship quality with parents, considering different types of financial problems (not shown in table). When each financial problem was entered in the regression models separately, having a less prestigious job, having trouble finding a job, and lost a lot of money were associated with increased

depressive symptoms—whereas reports of a job loss, cut backs in travel, and borrowing money were not associated with increased depressive symptoms. In addition, having trouble finding a job was only related to more strained relationships with parents for established adults.

## Discussion

Established adulthood is a developmental period with many challenges from a changing world (Mehta et al., 2020). This study examined how financial problems before and after the Great Recession were associated with psychological distress (i.e., depressive symptoms) and intergenerational relationship quality for adults in this unique time period. Findings from this longitudinal study demonstrated that established adults experienced increased financial hardships during the Great Recession. Further, financial hardship experienced placed a heavy toll on established adults' depressive symptoms and family relations during the Great Recession.

The Great Economic Recession impacted most peoples' lives in one way or another. Focusing on the life stage of established adulthood, we found that those who had just gained a foothold in the adult world suffered from great financial stress during the Great Recession. Compared to their financial situation before the Great Recession, more participants reported the presence of financial problems and one-third of participants had decreased income. Unlike emerging adults who are more likely to be financially dependent on their parents (Fingerman et al., 2012), or middle-aged adults who may have cumulated wealth from prior years, financial hardship during the recession was particularly stressful for these adults in the established adulthood. They may have recently settled into a permanent job, but the company was bankrupted or downsized. Newly married couples may have cumulated enough savings to buy a house, but they incurred debt due to loss in the stock market. Young parents may have planned for a first child, but one spouse may have lost their job creating emotional difficulties. Dealing with such financial problems are very demanding and disruptive, making it challenging to maintain their recently established adult life.

In line with the stress process literature, our findings demonstrated that financial problems emerged as both acute and chronic stressors that had detrimental effects on adult psychological health (Burgard & Kalousova, 2015; Pearlin & Bierman, 2013). On the one hand, we found that the onset of financial problems and decreased income after the Great Recession were associated with more depressive symptoms. On the other hand, results also showed that the presence of financial difficulty at baseline had a lingering negative impact on psychological health for established adults. Studies suggested that financial problems from the economic

recession at younger ages may cumulate into later life and lead to poorer health outcomes (Kahn & Pearlin, 2006; Wolfe et al., 2022). As a result, this study highlighted the importance of supporting young adults who were financially hit by the economic recession.

Consistent with the family economic stress model (Conger et al., 1994; Ranta et al., 2020), we found that financial problems experienced by established adult children were associated with poorer relationships with parents. As posited by the model, family financial hardship can have spillover effects for other family members' psychological distress and family relations, especially for children and adolescents. In this study, we extended the model by examining recession-induced financial hardship faced by adult children in the period of established adulthood. When one member has a financial crisis, other family members may step up and provide support; when the economic recession occurred, it is likely that many, if not all, family members had to deal with the financial problems to some extent. Thus, the financial hardship from economic recession was not just a country's economic affair, but also a family affair (Fingerman et al., 2018).

Moreover, we found some evidence that established adults' depressive symptoms partially explained the association between financial problems and worsened parent–child relationship quality in the time of the economic downturn. As established adult children developed more depressive symptoms with financial problems from the Great Recession, their elevated psychological distress in turn led to poorer relationships with parents. The estimated mediation effects of depressive symptoms were not strong in this study. This may be the case because we controlled for baseline status to examine changes in parent–child relationship quality due to financial problems and depressive symptoms. In addition, Gilligan et al., (2013) also found nonsignificant mediation effects of middle-aged children's psychological problems for the association between children's financial strain and mother–child relationship quality. One explanation for the discrepancy could be that aging parents tended to attribute children's financial problems as children's personal failures (Gilligan et al., 2013). As a result, children's financial problems had a strong and direct impact on parent–child relationship quality when there was no economic downturn. However, in the context of the global economic recession, parents may have anticipated financial hardship for everyone, including their children, and thus did not associate these hardships as their children's responsibility. Therefore, children's financial problems may have an impact on family relations through other mechanisms, such as their psychological distress.

Unfortunately, the Great Recession is no longer the worst economic downturn in recent memory. In 2020, when the COVID-19 pandemic started, the global economy suffered



a significant downturn that affected more vulnerable populations more than others. During the first outbreak of COVID-19 in the U.S, the number of unemployed Americans rose from 6.2 million (unemployment rate = 3.8%) in February to 20.5 million (unemployment rate = 13.0%) in May. By mid-April 2020, 40% of Americans had experienced one or more COVID-19-related financial stressors (Ettman et al., 2021). Millions of young adults lost their jobs or had financial problems due to the unparalleled, rapid economic contraction (Achdut & Refaeli, 2020). Findings of this study may help researchers understand the consequences of COVID-19 recession on adults in their established adulthood.

### Limitations and Directions for Future Research

Several limitations to this study are acknowledged. First, the measures for financial problems are based on self-reports, which may result in social desirability bias because some participants may have been reluctant to reveal financial difficulties. This would introduce a downward conservative bias regarding the extent of the problems actually experienced. In addition, financial difficulties were measured by respondents' self-reported changes between two observations at follow-up (except for the measure of any financial problem). Future studies may use longitudinal data to examine specific financial problems at each observation to measure changes in financial status prospectively. Second, there are omitted variables that may impact established adults' response to their financial problems, such as public support programs that provided stimulus checks and new employment opportunities. In addition, the size of the sample for this study was relatively small and not nationally representative. Future studies should use nationally representative panel data to investigate the financial problems from COVID-19 recession providing additional information about the implications of a sharp financial downturn for established adults. Moreover, research is needed to examine the heterogeneity in the association between economic recession induced financial problems and psychological health in established adulthood. For example, research has demonstrated that women and members of minority racial and ethnic groups have been disproportionately affected by COVID-19-related job loss compared to men and white persons (Alon et al., 2020; Montenegro et al., 2020). Future research may examine gender and race disparities in the association between financial problems and psychological distress in the context of COVID-19 economic recession.

In conclusion, this study contributed to the scientific literature on established adulthood by examining financial problems before and during the Great Recession. The findings provided important implications for supporting established adults through policy and therapeutic interventions as they are navigating the "rush hour of life" (Knecht &

Freund, 2016). With the recent economic recession due to the COVID-19 pandemic, we call for more research that contributes to an understanding and support for established adults and their families.

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**Data Availability** This study uses data from the *Family Exchange Study*, which is publicly available at Inter-university Consortium for Political and Social Research (<https://www.icpsr.umich.edu/web/NACDA/studies/36360>; <https://www.icpsr.umich.edu/web/NACDA/studies/37317>).

**Code Availability** Available upon request.

### Declarations

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical Approval** Not applicable.

**Consent for Publication** Not applicable.

**Consent to Participate** Not applicable.

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