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Disentangling the “who” and “when” of parents’ depressive symptoms: A daily diary study analysis

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Abstract

Parents’ depressive symptoms vary across days, but factors predicting this fluctuation are not well understood. The present study utilized ecological momentary assessments to capture 1620 days of parents’ lived experience in a diverse sample of 146 mothers and fathers from Appalachia who reported on daily fluctuation in family chaos, family financial hardship, and lack of social support, as well as depressive symptoms every day for 14 consecutive days. Data were analyzed using a multilevel modeling framework. Results reveal that on days *when* parents experience higher family chaos, higher family financial hardship, and lower social support than they typically do, they also experience greater depressive symptoms. Daily linkages between low social support and depressive symptoms were uniform across families. In contrast, daily linkages between depressive symptoms and family financial hardship and chaos were strongest among families *who* experienced chronic levels of adversity.

Keywords

ecological momentary assessment; depression; parenting; family chaos; financial hardship

Meta-analytic studies identify parent depression as one of the most powerful predictors of child mental health difficulties (England & Sim, 2009). One in every ten children in the United States have a parent who experienced past-year depression (Ertel et al., 2011). Therefore, identifying predictors of parent depression in daily life is key to reducing both child and adult mental health difficulties (England & Sim, 2009).

Over the last half-century, enormous progress has been made on identifying *who* among parents experiences depressive symptoms. Three malleable environmental characteristics emerge over and over again in meta-analyses and systematic reviews as especially strong predictors of parent depression. Those three predictors are financial hardship (Ertel et al., 2011), family chaos (Marsh et al., 2020), and lack of social support (Schiller et al., 2021). Specifically, parents *who* experience greater financial hardship, more family chaos, and less social support, compared to other parents, are also more likely to experience depressive symptoms. Identifying malleable environmental targets for intervention is important to reducing the burden of disease among parents and children. Thus, two limitations in our existing knowledge must be filled to optimize interventions that target parent depression.

First, though we know much about *who* among parents experiences depressive symptoms, we know virtually nothing about *when*, on a day-to-day basis, parental depressive symptoms are experienced (e.g., Janssen et al., 2020). For decades, prevention scientists have used effects at the “who” level (i.e., between-person differences in psychological attributes) to make inferences at the “when” level (within-person, daily changes in psychological attributes over time; Fisher et al., 2018). Assuming that these “who” and “when” processes are equivalent when they are not can lead to the ecological fallacy (Fisher et al., 2018). A classic example of this fallacy is the exercise-heart attack association. Individuals *who* exercise more are less likely to have heart attacks, but for any given individual, *when* someone exercises more on a specific day they are more likely to have a heart attack (Curran & Bauer, 2011). The ecological fallacy threatens our current knowledge of best practices in medicine, making it essential to disaggregate *who* and *when* effects to combat this threat (Curran & Bauer, 2011).

Additionally, prevention scientists identified depression as a paradigmatic example of a psychological phenomenon that might demonstrate the ecological fallacy because studies find substantial differences in both the variability and correlates of depressive symptoms at the group versus individual levels (Fisher et al., 2018). Consequently, the current investigation addresses this problem by disaggregating the “who” and “when” associations of three malleable risk factors (financial hardship, family chaos, and parent social support) with parent depression. In so doing, we advance the field by guarding against the ecological fallacy to test both *when*, on a daily basis, depressive symptoms emerge within parents and *who* among a group of parents may be most at risk. This critical innovation ensures that associations between malleable risk factors and parent depression are not confounded by fixed between-person differences (i.e., “who” individual characteristics). By using parents as their own controls in all analyses, we can more robustly test associations between risk factors and parent depression. Moreover, this design allows us to control for factors that do not change over time. Consequently, stable aspects of socioeconomic status (e.g., highest level of parental education), that often threaten the interpretation of linkages made in observational studies, are held constant in our analyses, by design. Additionally, this innovation identifies triggers of daily depressive symptom that, though not necessarily indicative of clinically-diagnosed depression, may serve as subthreshold harbingers of more severe depressive episodes, and consequently worthy prevention targets (England & Sim, 2009).

The second limitation to existing knowledge is that it is unknown whether the three malleable risk factors are universally associated with daily parent depression in all families, or whether they only emerge as deleterious in families facing high levels of adversity (i.e., chronic financial instability, chaos, negative feelings about parenting, or low levels of parent social support; Marsh et al., 2020). In high-adversity families, parent psychological and coping resources are often already stretched to the max, additional daily stressors may overwhelm these stretched resources and lead parents to experience depressive symptoms (Marsh et al., 2020). If parents in all families experience greater depressive symptoms on days *when* they experience greater-than-usual levels of a risk factor, then a universal prevention approach is indicated to provide supports for families *regardless of their level of adversity* (England & Sim, 2009). If only parents *who* come from families high in adversity

experience greater depressive symptoms *when* they have days with greater-than-usual levels of a risk factor, then a secondary prevention approach is indicated to prioritize supports for families *who* are high in adversity *when* they experience the risk factor in everyday life (England & Sim, 2009). In sum, simultaneously evaluating *when in daily life* and *for whom* among parents higher levels of the three malleable risk factors lead to greater depression shifts the etiological understanding of parent depression by evaluating how universal the daily effects of these risk factors are.

The Current Study

In the current study, we examine the daily linkages between family chaos, financial hardship, and parent lack of social support with parent depressive symptoms over 1620 person-days in an ethnically, racially, and socioeconomically diverse sample of 146 Appalachian families who reported on these risk factors and symptoms daily over a 14-day ecological momentary assessment. Filling one critical gap, the current study disaggregates the between- and within-person effects of these predictors to examine *when in daily life* these risk factors are associated with parent depressive symptoms. We predict that *when* parents experience days in which family chaos, financial hardship, and lack of social support are higher than they typically experience, parents will also experience greater depressive symptoms. Filling a second critical gap, the current study also examines the universality of these daily associations by testing whether they differ based on the level of chronic adversity the family is facing. Given that the study tests two equally plausible but competing hypotheses about the moderating effect of adversity (i.e., universality in effects versus effects only in families facing chronic adversity) we do not make any directional hypotheses about these moderating effects.

Method

Participants

Participants were 146 parents selected within race/ethnic group from a larger longitudinal study of a community-representative sample in Appalachia (Costello et al., 2010). Parents included in this study had been initially enrolled as children and had grown into adulthood and were on average 36.22 years old ($SD=1.55$), 76.83% mothers and 23.17% fathers, 56.79% White, 2.09% Black, 41.12% Native American. Additionally, participant educational attainment was: 28.80% high school education or less, 64.16% some college, 7.1% 4-year college degree or more. Participants had, on average, 2.27 ($SD=1.22$) children who were 9.38 years old ($SD=4.83$). No two parents were from the same family.

Procedures

The current study used ecological momentary assessment (EMA; Bolger & Laurenceau, 2013) to assess daily parent functioning. Participants were asked to complete a survey once per day after 8 pm for 14 consecutive days via their mobile phones to capture their daily parenting behaviors, home environment, and mental health symptoms. Daily data were collected via MetricWire. EMA offers advantages over traditional self-report measures by minimizing recall bias and capturing parent behaviors in their natural context, thereby

enhancing ecological validity (Bolger & Laurenceau, 2013). Participants completed 79.26% of all possible surveys, with a mean of 11.02 out of 14 days completed ($SD=3.10$) for a total of 1620 days completed. Participants with missing days did not significantly differ from participants with complete data on most study measures. However, participants with missing days reported higher family chaos ($M_{Missing}=1.15$, $M_{Complete}=0.90$, $t(1613)=-6.59$, $p<.01$) and depressive symptoms ($M_{Missing}=10.81$, $M_{Complete}=8.83$, $t(1564)=-2.21$, $p=.02$) than those with no missing days. Therefore, the number of days each participant completed was included as a covariate in analyses to control for differences between those with and without missing data. Participants were provided modest monetary compensation in accordance with approved IRB protocols.

Measures

Family Financial hardship.—Each day, parents responded to two “yes/no” items from the Household Food Security Scale Short Form (“Today I was worried that food would run out before our family got money to buy more” and “Today, our family ate less than I thought we should have because we did not have enough money to buy food”; Blumberg et al., 1999) and two “yes/no” items from the Daily Inventory of Stressful Events (“Today we had trouble paying bills” and “Today we had difficulty paying for things”; Almeida et al., 2002). We summed these four items in a score from 0=no items endorsed to 4=all items endorsed ($M=0.18$, $SD=0.63$; $\alpha=.78$).

Family Chaos.—Each day, parents completed 5 items from the Confusion, Hubbub, and Order Scale that measures level of chaos and disorganization in the home (Matheny et al., 1995; e.g., “Today, we had a regular morning routine”, 0=“strongly disagree” to 4=“strongly agree”; $M=1.08$, $SD=0.68$; $\alpha=.79$). Items were reverse scored and summed such that higher scores indicate more chaos.

Lack of Social Support.—Each day, parents responded to two items adapted from the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988; i.e., “Today, was there someone who would listen to you if you needed to talk?”; “Today, did you have someone you could call for help if you needed it?”, 0=No, 1=Yes, 2=Yes, there were multiple people; $M=0.59$, $SD=0.55$; $\alpha=.94$). Items were reverse scored and summed such that higher scores indicated less social support.

Family Adversity Index.—Family adversity was measured via a sum score comprised of the three malleable risk factors: family financial hardship, family chaos, and lack of social support, as well as one additional measure, parent negative feelings about parenting.

Parent negative feelings about being a parent were measured by taking the mean of six items adapted from the Being a Parent Scale (Johnston & Mash, 1989) that asked parents to report on what being a parent was like today from 0=“not at all” to 100=“extremely” (e.g., “boring,” “stressful,” “annoying,”; $M=14.93$, $SD=17.20$; $\alpha=.77$). Parent negative feelings about being a parent were included in our family adversity index because they are also associated with maternal depression and have therefore been identified as important

to capture in composite family adversity indices examining parent depressive symptoms (England & Sim, 2009; see Supplemental Description of Family Adversity Index).

Each of these indicators was grand-mean centered, ensuring that they captured only the between-person (i.e., “who”) differences in these indicators (and therefore were uncorrelated with the within-person daily effects, “when” indicators; Bolger & Laurenceau, 2013). If families scored in the top 25% of the sample distribution on each of these indicators, they were given a “1” and otherwise scored as “0”. The resulting 0–4 sum score indicated on how many of these four risk factors the family scored in the top 25% of the sample, capturing chronic family adversity in line with existing literature ($M = 1.02$, $SD = 1.07$, 29.04% of the sample scoring a “2” or more; Marsh et al., 2020; see Supplemental Description of Family Adversity Index for further detail). Because only 2.70% of families endorsed a score of 4 or higher, we combined families with a sum score of 3 or 4 into a single “3 or 4” adversity sum score group.

Parent Depressive Symptoms: Each day, parents reported depressive symptoms by answering four items from a modified version of the Beck Depression Inventory-II (BDI-II; Beck et al., 1996). In the current study, the response scale was modified such that parents were asked how much they experienced a symptom from 0 = “not at all” to 100 = “extremely” over the course of the day (“felt sad,” endorsed on 45.39% of all study days, “felt like crying for no reason,” endorsed on 30.42% of all study days, “felt irritated,” endorsed on 57.24% of all study days, “felt guilty,” endorsed on 31.81% of all study days). These four items were chosen because each loaded highly onto underlying depression latent factors in past BDI-II factor analyses (e.g., Brown et al., 2012), was theoretically representative of the construct of depression, and was extremely similar to EMA depression scores used in other analyses (Jensen et al., 2019). Responses were averaged across items ($M = 10.29$, $SD = 15.70$; $\alpha = .83$), and demonstrated adequate internal consistency when examining differences in depressive symptoms *between parents* (i.e., the “who” level; standardized $\alpha = .91$) and at the daily, within-parent level (i.e., the “when” level; standardized $\alpha = .70$). This measure also demonstrated convergent and criterion validity, as it was significantly positively correlated with total BDI-II scores on the full inventory ($r = .48$, $p < .01$).

According to total BDI-II scores, 13.33% of participants endorsed experiencing clinically elevated levels of depression (i.e., BDI-II scores higher than 20) in the past 2 weeks, a number larger than reported in epidemiological surveys of parents (where 10.2% of parents reported depression in the past year; Ertel et al., 2011). See the Supplemental Description of Parent Depressive Symptom Measure for further detail.

Demographic Covariates

Parent gender (0=female, 1=male), parent education (0=0–8 years completed to 9=completed graduate/professional degree, measured to capture socioeconomic status in line with other EMA studies; e.g., Mallers et al., 2010), and number of children in the home were controlled in all analyses.

Analytic Plan

Following expert recommendations (Bolger & Laurenceau 2013), we estimated a single multilevel model in SAS 9.4 using restricted maximum likelihood estimation to examine all between-person *who* differences and daily, within-person differences (i.e., *when* in daily life parent risk factors predicted parent depressive symptoms) at once. A spatial-power covariance structure was utilized to account for serial correlation among daily residuals in dependent variables. The three risk factors were person-mean centered to predict within-person “when” daily effects. To examine whether daily “when” effects were universal across all levels of family adversity, three interaction terms were created from the product of the family adversity index score and each of the three daily risk factors. Significant interaction terms were probed to examine the daily effects of a risk factor on parent depressive symptoms in families who faced 0–4 family adversities (Bolger & Laurenceau 2013). Non-significant interaction terms were removed from the model.

Study data and code are available upon request from the first author (we apologize for not being able to post these materials online yet, we are complying with consent procedures established 20+ years ago at study onset by not doing so). Study materials are available at the following link: https://osf.io/mtys4/?view_only=75173aa7654845c8b272201cb6fafdce.

Results

Study variable means and standard deviations are reported in Supplemental Table 1, and zero-order correlations are reported in Supplemental Table 2.

Establishing Baseline Models

Preliminary multilevel models with no predictors revealed that 63% of variance in parent depressive symptoms ($p < .01$) was attributable to between-person “who” differences whereas 37% of variance was attributable to within-person “when in daily life” differences ($p < .01$). The significant amount of variation in depressive symptoms within-individuals supports our strategy of examining predictors of both *who* might experience depressive symptoms and *when in daily life* experiences of depressive symptoms occur (Bolger & Laurenceau, 2013). Additionally, no linear trends were detected in parent depressive symptoms across the observation period, as indicated by a linear growth model that estimated multiple functional forms of change over time (see Table 1).

Hypothesis 1: Predicting when in daily life parents experience depressive symptoms

Results from the main effects only MLM that simultaneously examined associations between all predictors and parent depressive symptoms are displayed in Table 1 and illustrate two main findings. First, consistent with our hypothesis, when parents were used as their own controls in the within-person analyses (“When” level of the MLMs, column A), all three malleable risk factors were significantly associated with parents’ same-day reports of depressive symptoms. On days *when* parents experienced higher-than-typical levels of family chaos and family financial hardship, or lower-than-typical levels of social support, they also experienced greater depressive symptoms. Second, consistent with prior research, when parents were compared with each other (“Who” level of the MLMs), chronic family

adversity predicted *who* among parents experienced greater depressive symptoms. Parents who experienced more chronic family adversity, compared to other parents, experienced greater depressive symptoms (Table 1, Hypothesis column A). All associations remained significant after controlling for demographic covariates and whether families provided data on all study days.

Hypothesis 2: Testing whether daily “when” effects are universal across levels of family adversity.

Results from a series of exploratory MLMs testing for both main effects and interactions are displayed in Table 1, column B. These models tested whether the daily “when” effects of family chaos, financial hardship, and social support were universal in nature, or only present in families facing chronic adversity. Three main findings are displayed in Table 1, column B. First, daily linkages between lack of social support and depressive symptoms were universal: on days when parents felt less social support than usual, they experienced higher depressive symptoms regardless of their level of family adversity (i.e., the social support-adversity interaction was non-significant; $b = -0.15$, $p = .89$).

Second, in contrast, daily associations between financial hardship and depressive symptoms were only present in families that faced high levels of adversity (Table 1, column B). Specifically, on days *when* parents experienced more financial hardship than usual, they only experienced higher depressive symptoms if they resided in families *who* experienced two or more chronically high family adversities (Figure 1). 29.04% of families in our sample experienced such chronically high levels of adversity. In contrast, daily financial hardship was not significantly associated with parent depressive symptoms in families who experienced 0–1 chronic family adversities (Figure 1). Notably, levels of reported daily financial hardship were low in these two groups. In families reporting experiencing 0 adversities, none reported daily financial hardship. In families reporting 1 adversity, 18% reported daily financial hardship scores that were below the grand mean.

Third, daily associations between parents’ depressive symptoms and family chaos were present in all families but were stronger in families with more family adversity (Table 1, column B). For example, parents in families *who* experienced three or four family adversities experienced, on average, a 11.03 point increase in depressive symptoms on days *when* their family chaos was higher than their own average ($p < .01$; Figure 2), whereas parents in families *who* experienced 0 chronic family adversities experienced, on average, a 4.65 point increase higher than their own average ($p < .01$; Figure 2).

Sensitivity Analyses

Substantive study results did not change in sensitivity analyses controlling for Native American Group membership or total BDI-II scores (Supplementary Table 3). See Supplemental Results for further detail. Additionally, we also performed post-hoc sensitivity analyses wherein we examined the lagged effects of family chaos, financial hardship, and social support on parents’ daily depressive symptoms. Specifically, we examined whether parent depressive symptom scores were higher the day *after* parents reported experiencing higher family chaos, more financial hardship, or less social support than they typically did.

As can be seen in Supplemental Table 4, none of these lagged effects were significant predictors, nor did any of these effects significantly interact with family adversity levels to predict depressive symptom scores. In other words, in our sample, it appears that *when* parents experience higher than average family chaos, more financial hardship, or less social support than they typically do, these higher-than-average scores are associated with parent same-day depressive symptoms, but do not appear to predict depressive symptoms on the ensuing day. This null next-day association holds regardless of family levels of adversity.

Discussion

Results reveal that *when* the parents in our sample experience higher family chaos, higher family financial hardship, and lower social support during a day than they typically do, they experience greater depressive symptoms. The coupling of low social support and same-day depressive symptoms emerged uniformly across families regardless of the chronic levels of adversity they faced. However, daily linkages with family chaos and financial hardship depended upon *who* among parents experienced adversity. On days *when* family chaos and financial hardship were higher than usual, they were accompanied by even more depressive symptoms in parents from families *who* experienced high adversity. Linkages between financial hardship and depressive symptoms were only observed among those exposed to high levels of chronic adversity.

The universally deleterious linkages between low daily social support and parents' same-day depressive symptoms suggest that rollout of universal prevention programs that strengthen daily parent social support systems that can reach all parents may be beneficial (England & Sim, 2009). The universality of low daily social support as a risk factor for parent depressive symptoms aligns with and builds on prior EMA work in adults, which found that adults experiencing more daily stressors typically received more emotional social support (Joo et al., 2020) and that such social support can reduce exposure to subsequent stressors and reduce psychological distress even years later (Mallers et al., 2010). Such daily social support could exude its protective effect by promoting adaptive emotion regulation patterns as those providing social support help change the stress experiencers' cognitive appraisal of the effects of the stressor (Rothenberg et al., 2019). Given that parents are especially likely to face daily stress (Marsh et al., 2020), they may be especially prone to depressive symptoms on days when the greater social support that typically accompanies such stress, and likely promotes emotion regulation in the face of such stress, is absent.

The deleterious coupling of daily family chaos with parents' depressive symptoms was both universal (it emerged in all families) and specific (it was stronger in families experiencing high levels of adversity). This suggests that all parents may benefit from interventions to prevent future family chaos. However, those benefits might be especially strong for those parents in high-adversity families.

Intriguingly, a recent review identified a potential mechanism by which chaos might lead to daily parent mood dysregulation (Marsh et al., 2020). Specifically, this review suggested that chaos is associated with higher levels of stress and distraction in parents, which subsequently reduces parent prefrontal lobe executive functioning, and consequently

renders “even parents with normal to high emotional regulation and cognitive control compromised...” (p. 22; Marsh et al., 2020). Therefore, family chaos may be a unique predictor of *when* parents experience mood difficulties because of its unique ability to alter executive functioning. Given that executive functioning is even more likely to be compromised in parents from high-adversity families (Marsh et al., 2020), it makes sense that daily linkages between family chaos and depressive symptoms are exacerbated in families with higher chronic adversity.

Daily financial hardship was only associated with parent depressive symptoms in families facing chronically high adversity. This suggests that interventions that reduce financial hardship in families facing high adversity may be critically important in reducing gaps in both *who* among parents experience depressive symptoms and *when* such symptoms emerge in daily life. These daily financial hardship findings align with existing EMA work that finds adults who experience more daily financial thoughts also reported more negative affect and that these effects were stronger in lower SES adults (Rush et al., 2021). The present study expands upon this work by identifying that daily lived financial hardships (in addition to just financial thoughts) were associated with depressive symptoms (in addition to negative affect). The current study further expands this work by investigating this association in parents, and by identifying that this association was more pronounced in families with a range of adverse consequences (e.g., experiencing chronically low social support, high chaos, and overall adversity) in addition to low socioeconomic status.

Finally, the current study leveraged a daily sampling methodology to help address threats to inferences posed by the ecological fallacy and the over-reliance of past research on group versus individual-level approaches (Fisher et al., 2018). In so doing, this study utilizes parents as their own controls and tests linkages between environmental risks and parents’ depressive symptoms at both the between and within-parent levels to identify both *who* is most at risk for depressive symptoms and *when* depressive symptoms are likely to occur in daily life.

Strengths, Limitations, and Future Directions

The present study has numerous strengths, including recruitment of an ethnically and socioeconomically diverse sample, and use of the innovative EMA paradigm. However, it also has several limitations. Though the current study sample size is large for an EMA study, recruitment of larger, more nationally representative samples in future studies is needed to determine generalizability of results, especially given the statistical power required for, and subsequent difficulty in replicating, interaction effects like those in this study. Our sample was drawn from rural, low-income families in Appalachia and had a high proportion of Native American families and should be interpreted within such generalizability constraints. In addition, multiple informants of symptoms and stressors in daily life would help to account for shared-method variance within daily reports. Finally, this was an observational study. Future work should identify opportunities for quasi-experimental exposures into EMA research to test for causal linkages between daily risk factors and parent depression.

Despite these limitations, the current study breaks new ground in disaggregating *who* among parents experiences depressive symptoms and *when in daily life* such experiences manifest.

It also is the first to simultaneously examine unique associations of three well-known risk factors with parent depression, and the universality of those associations across levels of family adversity. In so doing, it uncovers with high ecological validity etiological insights into both who among parents experiences depressive symptoms, and when in daily life such difficulties occur.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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General Scientific Summary

Parents' depressive symptoms vary across days, but factors predicting this fluctuation are not well understood. This study used a daily diary procedure in a high-risk, diverse, rural sample to find that on days *when* parents experience higher family chaos, higher family financial hardship, and lower social support than they typically do, they also experience greater depressive symptoms. Daily links between low social support and depressive symptoms were uniform across families, but links between depressive symptoms and family financial hardship and chaos were strongest in families facing chronic adversity.

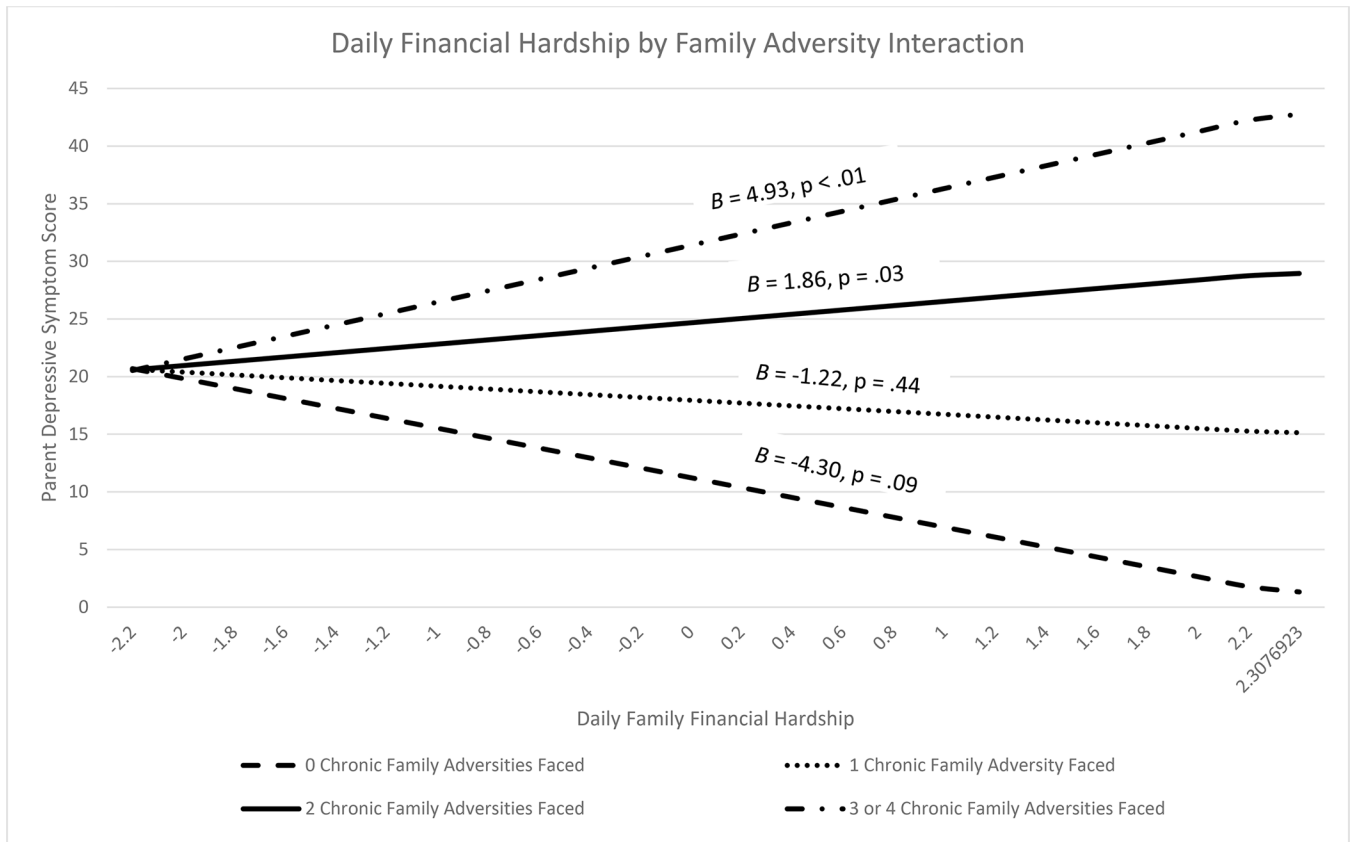


Figure 1. Effects of daily family financial hardship on parent depressive symptom scores at different levels of family adversity. *b* is association between daily family financial hardship and parent depression symptom scores. *p* is significance.

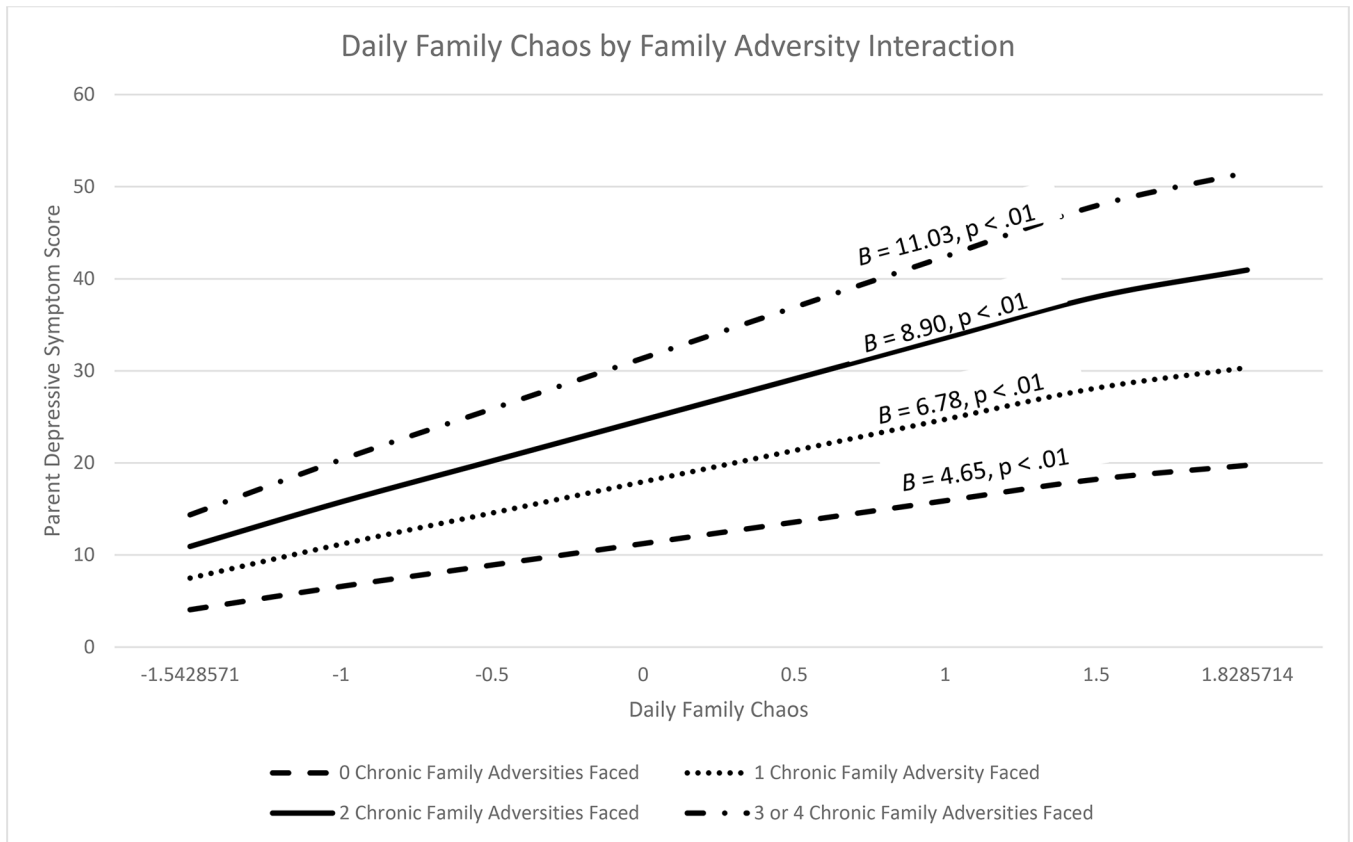


Figure 2. Effects of daily family chaos on parent depressive symptom scores at different levels of family adversity. *b* is association between daily family chaos and parent depression symptom scores. *p* is significance.

Table 1.

Multilevel model predicting parent depressive symptom scores

Predictors	Column A			Column B		
	<i>Hypothesis 1: Main Effects Only</i>	<i>Hypothesis 2: Main Effects & Interactions</i>		<i>Hypothesis 1: Main Effects Only</i>	<i>Hypothesis 2: Main Effects & Interactions</i>	
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
Baseline Model						
Day 1 Depression Score (Intercept)	12.29 *	1.44	<.01	12.29 *	1.43	<.01
Day (Slope)	-0.17	0.09	.07	-0.17	0.09	.07
"Who" Between-Person Effects						
Number of Days Diary Completed	-0.26	0.36	.46	-0.27	0.35	.45
Parent Gender (0=female, 1=male)	-3.41	2.42	.16	-3.53	2.43	.15
Parent Education	-0.15	0.47	.75	-0.14	0.47	.76
Number of Children in the Home	-0.33	0.91	.71	-0.36	0.91	.70
Chronic Family Adversity Index	6.73 *	1.01	<.01	6.72 *	1.02	<.01
"When" Within-Person Effects						
Family Chaos	7.01 *	0.66	<.01	4.65 *	1.05	<.01
Family Financial Hardship	3.24 *	0.76	<.01	-4.30	2.49	.09
Lack of Social Support	2.25 *	1.02	.03	2.56 *	1.02	.01
Family Chaos X Family Adversity Index Interaction	N/A	N/A	N/A	2.13 *	0.71	<.01
Family Financial Hardship X Family Adversity Index Interaction	N/A	N/A	N/A	3.08 *	0.97	<.01

Note. * and bolded values indicate parameter significant at $p < .05$. "Baseline Model" values are intercept and slope scores for the average parent in the data set, before accounting for any "who" or "when" effects. To estimate this Baseline Model, linear growth curve models including just random intercepts, linear growth curve models including random intercepts and random slopes, and quadratic growth curve models were compared via chi-square testing to determine optimal model fit. A linear growth curve model with a random intercept and random slope fit depressive symptoms best. In this model, the random effects of the intercept and slope were significant ($ps < .01$) and significant residual variance remained ($p < .01$).