



Article title: Child Externalizing and Internalizing Behavior and Parental Well-Being During the COVID-19 Pandemic

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Preprint statement: This article is a preprint and has not been peer-reviewed, under consideration and submitted to UCL Open: Environment Preprint for open peer review.

Links to data: www.doi.org/10.5522/04/16583861

Funder: UCL Global Engagement Fund

DOI: 10.14324/111.444/000093.v1

Preprint first posted online: 08 September 2021

Keywords: COVID-19, Parental stress, Relational conflict, Mental wellbeing, Internalizing problems, Externalizing problems, Family, Children, Health

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**Child Externalizing and Internalizing Behavior and Parental Well-Being During the
COVID-19 Pandemic**

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Abstract

In this study we surveyed families' experiences with parental depression, stress, relationship conflict, and child behavioral issues during six months of the COVID-19 pandemic through the COVID-19: Global Social Trust and Mental Health Study. The current analyses used data collected from online surveys completed by adults in 66 countries from April 17, 2020-July 14, 2020 (Wave I), followed by surveys six months later at Wave II (October 17, 2020-January 31, 2021). Analyses were limited to 175 adult parents who reported living with at least one child under 18 years old at Wave I. Parents reported on children's level of externalizing and internalizing behavior at Wave I. At Wave II, parents completed self-reported measures of stress, depression, and inter-partner conflict. Child externalizing behavior at Wave I significantly predicted higher levels of parental stress and marginally predicted parental depression at Wave II, controlling for covariates. Child internalizing behavior at Wave I did not predict parental stress or depression, controlling for covariates. Neither child externalizing nor internalizing behavior predicted parental relationship conflict. The overall findings demonstrate that child behavior likely influenced parental stress and depression during the COVID-19 pandemic. Findings suggest that mental health interventions for children and parents may improve the family system during times of disaster.

32 **Background**

33 **Introduction**

34 COVID-19, also known as SARS-CoV-2, was declared a global pandemic in March of
35 2020 by the World Health Organization (World Health Organization [WHO], 2020). As of July
36 2021, there were more than 194 million reported COVID-19 cases, and more than 4 million
37 deaths (WHO, 2021). Attempting to slow down the rapid growth of this highly contagious, novel
38 coronavirus, many countries across the globe have imposed movement restriction or lockdowns.
39 Although these strategies were implemented to mitigate COVID-19 transmissions, these
40 lockdowns may have had unintended negative consequences, particularly for families with
41 children. During the pandemic, many families throughout the world experienced the closure of
42 schools and childcare agencies, were forced to adapt to distance learning, faced social isolation,
43 were unable to receive educational and social services, and experienced financial strain (Chen et
44 al., 2021). Preliminary research has shown that parents were particularly negatively impacted by
45 the pandemic, with one study finding that 46% of United States parents reported high stress
46 levels related to the pandemic compared with 28% of adults without children (American
47 Psychological Association [APA], 2020). Caregivers also reported heightened stress and
48 increased caregiver demands related to COVID-19 (Park et al., 2020). Similarly, children
49 experienced high rates of mental health problems including anxiety, depression, sleep issues, and
50 post-traumatic stress disorder (PTSD) during the pandemic (Ford et al., 2021; Imran et al., 2020;
51 Liu et al., 2020).

52 Relationships between family members may also have been affected by the pandemic.
53 Researchers and practitioners have raised serious concerns about the potential impact of the
54 pandemic on intimate partner violence (IPV; Buttell & Ferreira, 2020; Evans et al., 2020), with

55 some locations experiencing increases in domestic violence calls since the start of the pandemic
56 (Agüero, 2021; Leslie & Wilson, 2020). Limited research has shown that parental mental health
57 during the pandemic was linked to child-parent conflict (Russell et al., 2020). Given the
58 hypothesized effects of the COVID-19 pandemic on family relationships, the goal of the current
59 study is to examine relationships between child externalizing (observable aggressive,
60 hyperactive, and sometimes delinquent behavior that is harmful to others; Liu, 2004) and
61 internalizing behavior (self-directed emotions, such as worry, fear and sadness; Zahn-Waxler et
62 al., 2000) and parental adjustment during the COVID-19 pandemic. Specifically, we examine
63 whether child behavior predicted parental depression, stress, and inter-partner relationship
64 conflict.

65 **Transactional Models of Parent-Child Behavior**

66 The current study is informed by transactional models of parent-child behavior (Belsky,
67 1984; Dodge & Pettit, 2003; Patterson et al., 1998). These models recognize that parent effects
68 on children and child effects on parents are not independent; instead, parents and children affect
69 each other's behavior bidirectionally (Belsky, 1984, Dodge & Pettit, 2003, Patterson et al.,
70 1998). Difficult child behavior and temperament reportedly elicits negative parental behavior,
71 including poor parenting and child maltreatment, which adversely influences the child's future
72 behavior (Belsky, 1980).

73 Although transactional models argue that parent-child effects are bidirectional,
74 researchers have pointed out that many studies continue to assume and examine only parent-
75 driven effects on child behavior rather than child-driven effects on parental mental health
76 (Jackson & Beaver, 2015; Lansford et al., 2018; Mackler et al., 2015; Teti et al., 1996; Yan et al.,
77 2021). Despite this, there is a growing body of research showing that child behavior influences

78 parental well-being outcomes, including family and marital conflict. Several studies have found
79 that parents of children with adjustment issues, including infant colic and adolescent
80 externalizing problems, were more likely to consider themselves ineffective parents and have
81 negative perceptions of their marriages (Schulz et al., 2019; Serbin et al., 2015; Stifter et al.,
82 2003; Yan et al., 2021). Other studies have shown that the disruptive behavior of infants,
83 children, and adolescents predicted long-term familial and marital conflicts (Cherry et al., 2019;
84 Cui et al., 2007). In addition, child behavior problems have been found to predict parental stress
85 (Huth-Bocks & Hughes, 2008; Mackler et al., 2015; Stone et al., 2016). Child externalizing and
86 internalizing behaviors are also positively associated with parental depressive and internalizing
87 symptoms (Gross et al., 2008; Hughes & Gullone, 2010). Conversely, children's typical
88 development has been linked to a decrease in parental stress and depression (Chung et al., 2020;
89 Pesonen et al., 2008). Together, existing research suggests that child externalizing and
90 internalizing behavior likely impacts the quality of marital relationships, as well as parental
91 depression and stress. However, limited research has examined the effects of child behavior in
92 the context of disasters, periods during which child and parent behavior and mental health
93 problems may be exacerbated.

94 **Effects of Disasters on Child Behavior, Family Functioning, and Parental Well-Being**

95 Transactional effects of parent-child behavior (also called reciprocal effects) are
96 particularly relevant in the context of the COVID-19 pandemic given the impact of the pandemic
97 on both child and parent adjustment. Rates of severe depression among parents during the
98 COVID-19 pandemic were found to be over two-times higher than before the pandemic
99 (Feinberg et al., 2021). Children's internalizing and externalizing behaviors have also increased
100 compared with pre-pandemic levels (Feinberg et al., 2021). Researchers have suggested that the

101 COVID-19 pandemic has also impacted family systems, including reciprocal parent-child
102 relationships, though this has yet to be fully examined (Prime et al., 2020). Among the existing
103 limited research, in a cross-sectional study of Singaporean families with children, higher parental
104 stress was associated with harsh parenting and less parent-child closeness (Chung et al., 2020). A
105 longitudinal study of families with in the United States found that financial difficulties were
106 linked to decreases in parenting quality during the pandemic in families with children (Feinberg
107 et al., 2021). In a study of Japanese children, stay-at-home orders that required children to attend
108 school remotely were associated with increases in parental stress, likely due to parents taking on
109 more responsibilities or failing to find childcare arrangements (Hiraoka & Tomoda, 2020). In a
110 cross-sectional of Italian families with children, higher levels of parental stress during the
111 pandemic predicted less parental involvement with children, less concern for children's well-
112 being, and less time spent with children (Spinelli et al., 2020). These studies suggest that family
113 systems were impacted by the pandemic, though existing research has not yet fully examined the
114 impact of child behavior on later parental adjustment during the COVID-19 pandemic.

115 **Current Study**

116 The current study examines relationships between child behavior, parental depression,
117 parental COVID-related stress, and parental relationship conflict during the COVID-19
118 pandemic using data collected April 17, 2020 to July 17, 2020 and October 17, 2020 to January
119 31, 2021. We aim to address the following research question: Does child externalizing and
120 internalizing behavior predict subsequent parental depression, stress, and relationship conflict?
121 We hypothesize that parents of children with higher levels of internalizing and externalizing
122 behavior problems at baseline will experience increases in depression, stress, and relationship
123 conflict six months later.

124

Methods

125 Participants and Procedures

126 Data were collected as part of the COVID-19: Global Social Trust and Mental Health
127 Study (Wong & Raine, 2020). This study examines the short-and longer-term effects of COVID-
128 19 on people's mental health, physical health and social trust in others. This study involved three
129 online surveys, 20-30 minutes long (baseline, six-month follow-up, and 12-month follow-up).

130 The first set of surveys were completed from April 17, 2020-July 14, 2020 (Wave I), followed by
131 surveys six months later at Wave II (October 17, 2020-January 31, 2021) and Wave III (April 17,
132 2021-July 31, 2021). Participants aged 18 years and older were recruited through convenience
133 sampling. The study link was available in 7 languages and distributed through various social
134 media channels and personal contacts. To account for order effects, all participants completed
135 the same questions in a random order about their living situations, relationships, mental health,
136 and for parents, additional questions about their children's mental health and behavior. This
137 study was pre-registered (<https://osf.io/3xske/> on 16 December 2020) and ethical approval was
138 obtained from the University College London Institute of Education Ethics and Review
139 Committee in April 2020 (REC 1331; Wong & Raine, 2020).

140 The current analyses use data from Waves I and Waves II (data repository
141 DOI:[10.5522/04/16583861](https://doi.org/10.5522/04/16583861)). A total of 2,276 participants from 66 countries completed the Wave
142 I survey and 1,283 participants completed the Wave II survey. Analyses for the current paper
143 were limited to the 175 participants who reported living with one or more children under age 18
144 years at Wave I and who reported on children's internalizing and externalizing problems as
145 indexed by Goodman's (1997) Strengths and Difficulties Questionnaire (see below) about at
146 least one child ages 4-18 years. These participants had a mean age of 43.45 years ($SD = 6.90$)

147 and were 80% female. 78.9% reported being married. 83.4% of the sample had a bachelor's
148 degree or higher and 91.38% of the sample was either working or a student.

149 **Measures**

150 **Strengths and Difficulties Questionnaire.** At Wave I, parents of children ages 4-18
151 years completed the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ
152 assesses positive and negative psychological attributes in children. The current study used the
153 parent-reported questionnaire, which consists of 25 items divided into one positive attribute
154 subscale (prosocial behavior) and four negative attribute subscales further defined as
155 internalizing problems (emotional symptoms, peer problems) and externalizing problems
156 (conduct problems, hyperactivity/inattention). Relevant items were summed to create SDQ
157 subscales. Parents were asked to complete the SDQ separately for each of their children (up to a
158 maximum of 5 children). For the current analyses, we used data from a focal child with the
159 highest level of total behavior problems.

160 **Patient Health Questionnaire.** Parents completed the Patient Health Questionnaire-9
161 (PHQ-9; Kroenke et al., 2001) at Waves I and II. The PHQ-9 is a 9-item well-validated self-
162 report measure of depressive symptoms over the last two weeks, which when summed created a
163 total depression score.

164 **Stress Level.** At Waves I and II, participants were asked whether they had experienced a
165 series of 26 stressors related to the COVID-19 pandemic. For each stressor endorsed, participants
166 were asked to report the level of stress caused by the stressor ranging from 0 (“relaxed”) to 4 (“a
167 lot of stress”). Stressors that were not endorsed were given a stress level of 0. Stress levels were
168 summed across the 26 stressors to create a total stress level score.

169 **Relationship Conflict.** Participants who reported being married, in a civil partnership,
170 cohabitating, or in a relationship (but not cohabitating) at Wave II completed the Marital Coping
171 Inventory- Conflict Scale (Bowman, 1990). Participants were asked to think about problems with
172 their partner in the past six months and report how they dealt with those problems. Participants
173 reported on 15 items reflecting marital conflict (e.g., “yelled or shouted at my partner;” “picked
174 fights with my partner over small issues”). Participants rated each item on a 5-point Likert scale
175 ranging from 1 (“Never”) to 5 (“Usually”). This questionnaire was added to the study in Wave II
176 and was not available in Wave I. Analyses involving relationship conflict were limited to the 163
177 participants who reported living with a child under age 18 years at Wave I and reported being in
178 a relationship at Wave II.

179 **Demographic Covariates.** We controlled for parents’ age, focal child sex (0 = male; 1 =
180 female), and focal child age group [early childhood (4-8 years); middle childhood (9-12 years);
181 and adolescence (13-18 years); dummy coded with early childhood as the reference category] in
182 all analyses.

183 **Statistical Analyses**

184 We first calculated descriptive statistics by sex and age group and performed bivariate
185 correlations between continuous variables using IBM SPSS Statistics Version 26. We used
186 independent samples *t*-tests to test for sex differences in study variables and one-way ANOVA to
187 test for differences by age group. We then conducted a series of regression analyses predicting
188 Wave II parental depression, stress levels, and relationship conflict using Mplus Version 8. Child
189 scores on the SDQ subscales were entered as predictors along with demographic covariates. We
190 controlled for Wave I parental depression and stress (relationship conflict data was not available
191 at Wave I) in their respective regression models in order to determine whether child behavior

192 predicted a change in parental mental health outcomes from Wave I to Wave II. Missing data in
193 regression analyses were handled using full information maximum likelihood.

194 **Results**

195 **Descriptive Statistics and Bivariate Correlations**

196 Descriptive statistics for the full sample and by child sex are shown in Table 1. Boys had
197 higher levels of externalizing behavior than girls ($t = 2.84, p < 0.01$). All other sex differences
198 were non-significant. Descriptive statistics by child age group are shown in Table 2. Children in
199 middle childhood (9-12 years) had the highest level of internalizing behavior problems compared
200 with early childhood ($F = 4.06, p < 0.05$). Parents of young children had the highest levels of
201 depression at both Wave I ($F = 3.51, p < 0.05$) and Wave II ($F = 3.86, p < 0.05$).

202 Bivariate correlations are shown in Table 3. Wave I child externalizing behavior was
203 significantly associated with Wave I and Wave II parental depression and stress ($p < 0.05$). Wave
204 I child internalizing behavior was significantly associated with parental depression at Waves I
205 and II ($p < 0.05$), but not parental stress ($p > 0.05$). Wave I child behavior measures did not
206 significantly predict Wave II relationship conflict ($p > 0.05$). Wave II relationship conflict was
207 significantly associated with parental depression and stress at Waves I and II ($p < 0.05$).

208 [Insert Table 1, Table 2, Table 3]

209

210 **Predictors of Wave II Relationship, Parental Depression, and Stress Level**

211 Results of OLS regression analyses are shown in Table 4. Child externalizing behavior
212 was a marginally significant predictor of Wave II parental depression, controlling for covariates
213 ($B = 0.28, SE = 0.16, p = 0.08$). Child internalizing behavior did not significantly predict Wave
214 II parental depression ($B = 0.12, SE = 0.13, p = 0.38$). Child externalizing behavior ($B = 0.068,$

215 $SE = 0.31, p = 0.025$), but not child internalizing behavior ($B = 0.25, SE = 0.009, p = 0.93$),
216 significantly predicted Wave II parental stress. Neither child externalizing ($B = 0.13, SE = 0.39,$
217 $p = 0.74$) nor child internalizing behavior ($B = -0.17, SE = 0.31, p = 0.58$) predicted Wave II
218 relationship conflict.

219 [Insert Table 4]

220 Discussion

221 The goal of the current two-timepoint study was to determine whether child behavior
222 during the COVID-19 pandemic predicted subsequent parental depression, stress, and
223 relationship conflict. We found that higher levels of child externalizing behavior predicted an
224 increase in parental stress six months later. Child externalizing behavior also predicted a
225 marginally significant increase in parental depression. Contrary to expectations, child
226 internalizing behavior did not significantly predict parental stress or depression. Neither child
227 externalizing nor internalizing behavior were associated with parental relationship conflict.
228 Findings for externalizing behavior and parental depression and stress are consistent with
229 reciprocal models of parent-child behavior, which argue that child behavior influences later
230 parental behavior. Importantly, data from the current study were collected during the COVID-19
231 pandemic, a period during which parental stress and child behavior problems may have been
232 heightened, providing unique insights into the effects of child behavior on parental adjustment.

233 While the COVID-19 pandemic and subsequent lockdowns are novel, prior research has
234 examined the effects of natural and manmade disasters on children and parents. Like COVID-19,
235 economic recessions and natural disasters often create uncertainty and stress, especially for
236 families. For example, research into families who experienced Hurricane Sandy showed that pre-
237 hurricane child depression predicted elevated post-hurricane maternal depression (Hausman et

238 al., 2020), suggesting that child psychopathology can influence parent mental health in times of
239 disaster. Parent's psychopathology has also been found to impact children during times of
240 disaster. Children whose mothers had symptoms of PTSD and depression due to the September
241 11 attacks had higher behavior problems when compared with their peers whose mothers did not
242 experience 9/11-related psychopathology (Chemtob et al., 2010). After the Boston Marathon
243 bombings, Boston adolescents' externalizing problems increased (Crum et al., 2017) suggesting
244 that disasters can directly impact children's maladaptive behavior. Families who are exposed to
245 traumatic disaster events, like Hurricane Katrina, have reported mental health issues at a rate
246 twice as high as families who were not disaster-exposed (Scaramella et al., 2008). Financial
247 strain can also impact disaster-exposed families by increasing parents' feelings of ineffective
248 parenting and depression (Mash & Johnston, 1983; Scaramella et al., 2008). Unsurprisingly,
249 children also feel the effects of disasters and can display PTSD at higher rates than their
250 unexposed counterparts (Kelley et al., 2010). Together with the current findings, this research
251 highlights the importance of considering the joint effects of disasters on parents and their
252 children.

253 This research also contributes to the growing body of research demonstrating child
254 effects on parental behavior and mental health. A recent meta-analysis found that child
255 externalizing behavior had a small, but significant relationship with later parental psychological
256 distress, controlling for baseline parental functioning (Yan et al., 2021). The effect size for child-
257 driven effects on parents did not significantly differ from parent-driven effects on child
258 externalizing behavior, illustrating the importance of considering the effects of children on their
259 parents (Yan et al., 2021). Contrary to our expectations, child internalizing behavior was not
260 associated with parental COVID-related stress or depression in this study. This is inconsistent

261 with prior research which found that child internalizing behavior predicted higher levels of
262 parental internalizing behavior, including depression (Gross et al., 2008; Hughes & Gullone,
263 2010.) Although we cannot draw firm conclusions about the cause of this inconsistency, it is
264 possible that in the context of the COVID-19 pandemic, child externalizing behavior problems
265 were more stressful for parents than were internalizing problems, as externalizing problems may
266 have been more observable to parents during periods of social isolation. Internalizing problems
267 may have been viewed by parents to be more normative given the stressful and distressing nature
268 of the pandemic.

269 Also contrary to our initial hypotheses, neither child externalizing nor internalizing
270 behavior were associated with parent's relationship conflict. This could be attributable to the
271 relationship conflict measure used in the current study, which measured general relationship
272 conflict, but not child-rearing conflict specifically. Prior research found that marital conflict over
273 child rearing is particular linked to adolescent behavior problems and marital dissatisfaction (Cui
274 et al., 2007). There may also be important moderators of the relationship between child behavior
275 and relationship conflict that were not assessed in the current study. For example, children
276 adopting a mediator role may be associated with reductions in relationship conflict
277 (Schermerhorn et al., 2007). It has also been suggested that children may develop behavior
278 problems to distract parents from their own conflicts (Emery, 1982), which could explain the
279 lack of relationship between marital conflict and child behavior in the current study.

280 Alternatively, marital conflict could have decreased as parents adapted to children's behavior
281 issues in the first months of the pandemic, though we could not test for this, as we did not
282 measure relationship conflict during Wave I. Nonetheless, several studies have found that marital
283 conflict is positively associated with child behavior problems (Cui et al., 2007; Cummings et al.,

284 2008; Schermerhorn et al., 2007; Tu et al., 2016). More research is needed in the context of the
285 COVID-19 pandemic to better understand the null findings in the current study.

286 **Limitations and Contributions**

287 There are several limitations to the current study that should be noted. First, we were not
288 able to test the full transactional model of parent-child behavior as complete child externalizing
289 and internalizing behavior data were not collected during Wave II. Second, we could not
290 determine whether child behavior predicted change in relationship conflict, as relationship
291 conflict data was added in Wave II of this study. Third, we did not examine moderators in the
292 current analyses due to the small sample size and limited statistical power. Moderators, including
293 child sex, age, disability, and financial situation, will be important to assess in future research.
294 Fourth, like many existing studies of families during COVID-19 (Chung et al., 2020; Feinberg et
295 al., 2021; Hiraoka & Tomoda, 2020; Romero et al., 2020), the current study relied exclusively on
296 parent reports of both child and parent behavior, which may result in reporter bias.. Finally, we
297 should note that this was a relatively educated sample and consisted primarily of married parents.
298 This may have contributed to the null findings for child internalizing behavior and relationship
299 conflict, as families may have had access to resources to help them cope with COVID-19-related
300 problems. Relatedly, sampling bias may occur in COVID-19 studies, with families who have
301 internet access being far more likely to participate (Romero et al., 2020).

302 These limitations should be viewed in light of several strengths of the current study. This
303 study is one of few to examine child behavior in relation to parental adjustment during the
304 COVID-19 pandemic. The COVID-19 pandemic provides a unique context in which to study
305 these relationships, as many participants in the current study were under lockdown restrictions
306 during Wave I and parts of Wave II. In addition, we controlled for baseline levels of parental

307 depression and stress, allowing us to determine whether child behavior predicted changes in
308 these parental outcomes. This was also important given that parents and children share
309 environmental and genetic influences, leading to similarities in their behaviors (Jackson &
310 Beaver, 2015). As a result, it is not possible to isolate child-driven from parent-driven effects
311 without controlling for baseline parental adjustment (Yan et al., 2021). The current study also
312 included a global sample, allowing us to draw broad conclusions about the effects of the
313 pandemic on children and their parents. Data were also collected when many countries were
314 experiencing periods of lockdown, providing unique insights into family dynamics during
315 periods when many families experienced social isolation. The current study included both males
316 and females across developmental ages. Importantly, this is one of the only studies to examine
317 the way in which child behavior impacted parental well-being during the COVID-19 pandemic.

318 The current findings could have implications for improving child and parent adjustment
319 during future disasters, as well as policy responses during the ongoing COVID-19 pandemic.
320 Results suggest that providing mental health and behavioral support for both children and parents
321 may be most effective in improving mental health outcomes for parents and reducing levels of
322 stress. In addition, providing parents with coping strategies for dealing with child adjustment
323 issues may help to reduce parental stress and depressive symptoms.

324

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Table 1. Descriptive Statistics for the Full Sample and by Sex

	Full Sample			Males			Females			<i>t</i>
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	
Wave 1 Variables										
Child Externalizing	175	6.14	3.69	99	6.85	3.68	74	5.27	3.54	2.84**
Child Internalizing	175	4.89	3.97	99	5.23	4.19	74	4.32	3.60	1.50
Parental Depression	175	6.22	5.11	99	6.14	4.74	74	6.16	5.49	-.027
Parental Stress Level	173	6.22	5.11	98	15.47	12.65	73	13.18	9.76	1.29
Parent Age (years)	175	43.45	6.90	99	44.22	7.01	74	42.56	6.61	1.58
Wave 2 Variables										
Parental Depression	81	6.09	5.59	47	6.11	5.52	33	5.55	4.99	.47
Parental Stress Level	79	14.9	10.45	46	15.61	10.93	32	13.66	9.85	.81
Marital Conflict	70	28.96	9.11	41	28.59	9.01	28	29.21	9.43	-.28

Note. Child externalizing and internalizing behavior were measured using the Strengths and Difficulties Questionnaire. Parental depression was measured using the Patient Health Questionnaire. Marital conflict was measured using the Marital Conflict Inventory. Independent samples *t*-tests were used to test for sex differences.

** $p < 0.01$.

Table 2. Descriptive Statistics by Child Age Group

	Young Children (4-8 years)			Middle Childhood (9-12 years)			Adolescents (13-18 years)			<i>F</i>
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	
Wave 1 Variables										
Child Externalizing	84	6.13	3.50	40	6.88	4.15	44	5.64	3.72	1.18
Child Internalizing	84	4.17	2.96	40	6.30	5.02	44	5.05	4.37	4.06*
Parental Depression	84	7.12	5.61	40	6.30	5.07	44	4.66	3.38	3.51*
Parental Stress Level	84	15.86	12.36	39	13.08	10.92	43	13.53	10.69	1.01
Parent Age (Years)	84	39.37	4.56	40	44.59	5.89	44	49.51	6.00	54.59***
Wave 2 Variables										
Parental Depression	34	7.79	6.35	18	4.50	3.99	26	4.58	3.84	3.86*
Parental Stress Level	33	16.52	10.56	18	12.61	8.82	25	14.08	11.36	.90
Marital Conflict	31	29.16	10.12	16	29.75	9.40	21	27.62	7.78	.28

Note. Child externalizing and internalizing behavior were measured using the Strengths and Difficulties Questionnaire. Parental depression was measured using the Patient Health Questionnaire. Marital conflict was measured using the Marital Conflict Inventory. One-way ANOVA was used to test for differences between age groups.

* $p < 0.05$. *** $p < 0.001$.

Table 3. Bivariate Correlations

	1	2	3	4	5	6	7	8
1. Child Externalizing	--							
2. Child Internalizing	.47*** <i>n</i> = 175	--						
3. Wave 1 Parental Depression	.32*** <i>n</i> = 175	.27*** <i>n</i> = 175	--					
4. Wave 1 Parental Stress Level	.20** <i>n</i> = 173	.11 <i>n</i> = 173	.50*** <i>n</i> = 173	--				
5. Parent Age (Years)	-.06 <i>n</i> = 175	.03 <i>n</i> = 175	-.29*** <i>n</i> = 175	-.18* <i>n</i> = 173	--			
6. Wave 2 Parental Depression	.35** <i>n</i> = 81	.23* <i>n</i> = 81	.59*** <i>n</i> = 81	.38** <i>n</i> = 79	-.19 ^a <i>n</i> = 81	--		
7. Wave 2 Parental Stress Level	.35** <i>n</i> = 79	.18 <i>n</i> = 79	.54*** <i>n</i> = 79	.60** <i>n</i> = 78	-.16 <i>n</i> = 79	.61*** <i>n</i> = 79	--	
8. Wave 2 Marital Conflict	.01 <i>n</i> = 70	-.05 <i>n</i> = 70	.26* <i>n</i> = 70	.27* <i>n</i> = 68	-.02 <i>n</i> = 70	.31** <i>n</i> = 70	.38** <i>n</i> = 68	--

Note. Child externalizing and internalizing behavior were measured using the Strengths and Difficulties Questionnaire. Parental depression was measured using the Patient Health Questionnaire. Marital conflict was measured using the Marital Conflict Inventory.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. ^a $p < 0.10$

Table 3. OLS Regression Models

	Dep. Parental Depression				Dep. Parental Stress				Dep. Marital Conflict			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>
Child Externalizing	0.28	0.16	0.19	0.080	0.68	0.31	0.24	0.025	0.13	0.39	0.051	0.74
Child Internalizing	0.12	0.13	0.082	0.38	0.022	0.25	0.009	0.93	-0.17	0.31	-.074	0.58
Female Child	-0.62	1.12	-0.056	0.58	0.55	1.97	0.027	0.79	0.58	2.36	0.032	0.81
Middle Childhood	02.43	1.47	-0.19	0.10	-0.22	2.59	-0.009	0.93	0.88	2.97	0.041	0.77
Adolescence	-2.20	1.45	-9.18	0.13	-0.11	2.70	-0.005	0.97	-1.40	3.05	-0.069	0.65
Parent Age	0.066	0.087	0.08	0.45	0.02	0.17	0.013	0.91	0.026	0.20	0.02	0.90
Parental Depression	0.54	0.099	0.50	< 0.001	--	--	--	--	--	--	--	--
Parental Stress	--	--	--	--	0.49	0.08	0.55	< 0.001	--	--	--	--

Note. Child externalizing and internalizing behavior were measured using the Strengths and Difficulties Questionnaire. Parental depression was measured using the Patient Health Questionnaire. Marital conflict was measured using the Marital Conflict Inventory. Significant coefficients are highlighted in bold. Dep = Dependent variable. Missing data were handled using full-information maximum likelihood.