

Predictors of Depression and Well-Being in Caregivers of Young Children with Developmental Delays in Vietnam

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Abstract

The present study examined the impact of social support and other variables on depression experienced by the caregivers of young children with developmental delays in Vietnam. We conducted a survey of 109 caregivers of children with developmental delays who were enrolled in kindergarten programs in Hanoi, Vietnam. The survey included questionnaires on the availability of informal and professional support, perceived social support, and depression. The results suggest that the more the caregivers felt that they received support, the less depression they experienced. However, the amount of informal or professional support was not significantly related to depression. The more maladaptive behaviors their children manifested, the more depressed the caregivers were. The findings suggest that there is a need for services and supports that not only help caregivers to be effective parents but also address feelings of distress that stem from parenting children with disabilities.

Index terms— children with developmental delays, caregivers of children with developmental delays, developmental disabilities, social support, depression, Vietnam.

1 Introduction

Parents of children with disabilities experience increased parenting stress due to the caregiving demands the children place on them. Not only do the children fall behind their peers intellectually, but to the extent that their behaviors are maladaptive and inappropriate for their age norms, this will place demands on the caregivers who must learn special ways of raising them. As a result of parenting stress, caregivers of children with disabilities are at an increased risk for depressive symptoms compared to other groups [1][2][3][4][5].

Olsson and Hwang [3] examined whether the increased stress among parents caring for children with disabilities has negative effects on their mental health. Two hundred sixteen participants were recruited using letters mailed to families enrolled in community-based programs for families with disabled children in Sweden. Of the 216 families, 151 children were diagnosed with an intellectual disability without autism, and 65 children were diagnosed primarily with autism. The control group was composed of 214 families with typically developing children of the same geographical area, age, and gender distribution, which the researchers identified using the National Office of Statistics. They found that depressive symptoms were more common among the mothers of children with disabilities than those of children without disabilities. In addition, mothers of children with autism had the highest levels of depression compared to mothers of children with intellectual disabilities without autism, who in turn had higher levels of depression than the control group. Elevated depression scores beyond the cut-off point for clinical depression based on a standardized scale for depression were more common in mothers of children with autism than in mothers of children with intellectual disabilities without autism, who had more elevated scores than the control mothers. Mothers of children with disabilities had overall higher depression scores than fathers of children with disabilities.

43 Zeedyk and Blacher 5 considered the different impacts that child disability and child behaviors have on maternal
44 depression over time. The participants included 223 families of children with and without intellectual disabilities
45 drawn from a large multisite study across three different universities in Southern California and Pennsylvania in
46 the U.S. The children were three years old when the families were recruited. They were followed up as the children
47 moved through adolescence. This study found that over the long term, child behavior problems made a greater
48 contribution to maternal depressive symptoms than did child disability status. The study also found that greater
49 child behavior problems, higher financial impact, and lower levels of dispositional optimism were significantly
50 related to higher initial depressive symptoms for mothers. However, only increased child behavior problems had a
51 significant impact on changes to ongoing depressive symptoms. As the child moved into adolescence, they found
52 that prior levels of depression for the parent and financial impact were related to greater depressive symptoms.

53 Support from others can help relieve the psychological and physical strain caregivers experience. The types of
54 support could range from the education provided by teachers, babysitting provided by neighbors, or the willingness
55 of friends to listen to the concerns the caregivers have about their children. It has been widely documented that
56 social support influences the successful adaptation of such families who have children with disabilities and buffers
57 the stress they experience in caring for children with disabilities 1,6,7 .

58 Zaidman-Zait et al. 8 studied mothers of children with autism spectrum disorder by compiling data at the
59 time of the child's diagnosis with autism spectrum disorder and then again after two years. The data were drawn
60 from Pathways in ASD, a large Canadian multisite longitudinal study examining the developmental trajectories
61 of children with autism spectrum disorder. When the cohort of 283 mothers was recruited, the children's ages
62 ranged from 2 to 4, and they had been recently diagnosed with ASD. The study found that higher levels of
63 perceived social support by mothers were correlated to lower levels of stress at the time of diagnosis. After two
64 years, it was found that high parenting stress at the time of the child's diagnosis was predictive of increased
65 parenting stress, but higher levels of perceived social support at the time of diagnosis and increased perceived
66 support over time were predictive of decreased parenting stress after two years.

67 Halstead et al. 7 identified behavioral and emotional problems of children with developmental disabilities
68 as significant stressors for family members. They also examined whether perceived social support, positive
69 perceptions or coping style could explain some of the variability in the stress the mothers of these children
70 experienced. Participants consisted of 138 mothers whose 4-to 18-year-old children were diagnosed with either
71 autism, Down syndrome or cerebral palsy in England. They found that perceived social support was the only
72 moderating factor, with a statistically significant relationship with life satisfaction, depression, and positive affect
73 for mothers of children with developmental disabilities.

74 A study conducted by Oh and Lee 9 examined the relationship between social support and caregiver burden in
75 South Korean mothers of children with developmental disabilities. The participants in this study were recruited
76 from different special education programs, community welfare centers, mental health agencies, and local parents in
77 Seoul, totaling 187 mothers of children ($M = 10.35$ years) with developmental disabilities. Results indicated that
78 the mothers had strong positive perceptions of emotional support from family and friends; however, they perceived
79 low levels of social support in terms of tangible assistance and immediate help. Furthermore, participants reported
80 perceiving low levels of social support from extended family, friends, social groups, and service organizations.
81 Mothers reported positive contributions and high levels of support from their children's fathers, which was
82 moderately correlated with low levels of caregiver burden. The results showed that social support explained
83 the greatest variance in burden compared to child disability characteristics and mother's socio-demographic
84 characteristics.

85 Like many other countries in Asia, Vietnam is a collectivistic culture in which filial piety is respected and a
86 greater emphasis is placed on interdependent relationships than on the independence and autonomy of individuals
87 10 . Often, individuals are expected to sacrifice their needs for the benefit of the group and to meet collectivistic
88 goals. For example, children are expected to do well in school to meet the expectations of their parents, and
89 wives are expected to raise children to meet the expectations of their families. When they fail to do so, they
90 often experience blame and guilt. Negative perceptions and attitudes prevail toward individuals with disabilities,
91 and these are often extended to their mothers and families as not raising their children properly 10,11 .

92 A few research studies conducted in Vietnam have found that Vietnamese parents of children with intellectual
93 disabilities are stressed 12,13 . Vietnamese mothers of young children with developmental delays are more stressed
94 than those of children without delays 12 . Shin et al. 11 examined parenting stress experienced by mothers and
95 fathers of young children with cognitive delays in Vietnam. The participants consisted of 106 mothers and 93
96 fathers in Hue city whose children met the criteria of cognitive delays based on the opinions of kindergarten
97 teachers who worked with them and a screening test. They found that mothers were more stressed than fathers.
98 Neither the availability of informal nor professional support was related to parenting stress for mothers, but
99 fathers who reported greater availability of informal and professional support experienced less parenting stress.
100 Perceived social support was not related to parenting stress for either mothers or fathers.

101 In this study, we examined the experience of depression among the caregivers of children with developmental
102 delays in Vietnam as related to social support. As a result of ongoing parenting stress while adequate educational
103 and support systems are not yet fully in place, caregivers might be at risk for depressive symptoms. Depression
104 occurs when the ongoing challenges of caregiving become too overwhelming. With no one to turn to for adequate
105 help, the caregivers begin to wear down and to lose hope and a sense of meaning in life. It was speculated that

106 the ongoing parenting stress of coping with their children may wear the caregivers down and make them struggle
107 with the fundamental existential meaning of their lives rather than deriving joy from life and feeling pride in
108 raising their children. It was hypothesized that caregivers who received higher levels of social support would
109 experience a lower level of depression. Social support was assessed in terms of the perception and availability of
110 informal and professional support.

111 2 II.

112 3 Method a) Participants

113 The participants in the study were 109 caregivers of children with developmental delays from Hanoi in Vietnam.
114 Demographic characteristics of the children and caregivers are provided in Table 1. We recruited 116 children
115 with developmental delays and their families from kindergarten programs, which are equivalent to preschool
116 and kindergarten programs in the U.S. These children were identified by their classroom teachers as having
117 developmental delays and being intellectually slower than their peers, based on the teachers' observations. All
118 the children were evaluated with the Scales of Independent Behavior-Revised Early Development Form (SIB-R)
119 14, and six children who scored above the 40th percentile were omitted from the study. A total of 109 caregivers
120 whose children's ages ranged from 3 to 8 were included in the data analyses. Forty-two of the caregivers (38.5%)
121 did not have information on the diagnosis of their children. Among the 67 caregivers (61.5%) who had such
122 information, 11 (10.1%) had children who had been diagnosed with ADHD, 17 (15.6%) with autism, 15 (13.8%)
123 with developmental delays, 12 (11%) with intellectual delays, and 12 (11%) with language delays. Among the
124 caregivers who participated in the survey interview, 82 were mothers (75.2%), 19 (17.4%) fathers, 6 (5.5%)
125 grandmothers and 2 (1.8%) grandfathers.

126 All the caregivers were interviewed by a trained post-doctoral fellow in psychology. The study protocol was
127 approved by the IRB of the university in the U.S. where the co-authors work. The consent form was explained
128 by the interviewer and signed by the participants before the interview.

129 Table 1 summarizes relevant demographics for the families of the children in the study. There were
130 approximately twice as many male as female children.

131 With respect to the level of education, 91% of the mothers of children with delays had completed either
132 university or junior college education. Most of the parents were married (94.5%) with the divorce rate very low
133 (2.8%), and more than half of the families (66.1%) were living with only their immediate family members, while
134 26.6% were living with other family members in addition to immediate family members.

135 4 36

136 The economic status of the family was rated as being very poor, poor, average, or rich by the interviewer who
137 conducted the home visit interviews and who examined the physical environment of the house. Families were
138 considered rich when they had a large house with multiple floors and many high-quality possessions, such as
139 cars, motorcycles, air conditioners, and a living room with a set of couches and a dining table set. When families
140 had a spacious house with a robust structure and had enough possessions, such as motorcycles, refrigerators,
141 televisions, and multi-rice cookers, they were considered middle income. Families were regarded as poor when
142 their houses were not solid and not made of brick, had metal roofing, and some of the household materials were
143 not of good quality. Families were considered very poor when their houses were made up of poor-quality brick
144 and bamboo wattle with metal roofing or when they were living in the house of their relatives. Families that
145 were considered very poor also did not have enough household materials. The majority of the families (82.6%)
146 were rated as middle income, followed by poor (15.6%) and rich (1.8%). None of the families were rated as very
147 poor.

148 5 III.

149 6 Measures

150 Demographic characteristics: We included information on the child's age, gender and diagnosis. We asked about
151 the education, occupation and economic status of the available caregivers. Social support: We measured both
152 the informal and professional support available to the caregivers as well as their perceived social support. The
153 Social Support Scale for Parents of Children with Developmental Disabilities (SSSPCD) 15 was used to assess the
154 availability of informal and professional support for families of children with developmental delays in Vietnam.
155 This instrument was adapted so that it would be culturally relevant to Vietnamese families 11 and could be easily
156 administered by professionals who work with these families. According to this instrument, 13 types of informal
157 support and 8 types of professional support were available for Vietnamese families of children with developmental
158 delays.

159 The sources of informal support consist of spouse, wife's father, wife's mother, husband's father, husband's
160 mother, wife's siblings, husband's siblings, sons, daughters, other relatives, friends, neighbors, and other parents
161 of children with developmental delays. Professional support can come from eight different sources: teachers,
162 therapists, doctors, private therapists, home-helpers, social agencies, babysitters, and doctors in community

163 health clinics. A source is designated as therapist or private therapist, doctor or doctor in a community health
 164 clinic depending on whether a fee is paid for the service. In this study, private therapists and doctors are those
 165 that require a fee.

166 The perceived social support was measured with the Multidimensional Scale of Perceived Social Support
 167 (MSPSS). 16 The scale consists of 12 items that measure three components of social support: support from a
 168 special person, from family, or from a friend. The construct, convergent and discriminant validities of the scale
 169 have been demonstrated 16 , and it has adequate internal reliability (.88) and stability over time (.95) 17 . The
 170 scale has been used in a variety of international contexts 18,19 . We simplified the original seven Likert response
 171 categories to not at all (1), sometimes (2), and always (3). Possible scale values range from 12 to 36, with a
 172 higher score indicating more perceived social support. The Cronbach alpha reliability of the instrument in this
 173 study was .85.

174 Depression: Depression among caregivers was measured by using the Center for Epidemiologic Studies
 175 Depression Scale (CES-D) 20 . CES-D is a 20-item self-report scale that assesses the frequency of reported
 176 depressive symptoms of caregivers in the previous week (e.g., "I was bothered by things that don't usually bother
 177 me."). The CES-D is a widely used and internationally adapted scale for screening and assessing depressive
 178 symptoms in outcome studies of caregivers as well as of general and patient populations. The scale also has
 179 well-established reliability and discriminant validity for general and patient populations. The reliability of the
 180 scale in this sample was .74.

181 Child Behavior: The Scales of Independent Behavior-Revised Early Development Form (SIB-R) 14 assess the
 182 child's adaptive and maladaptive behavior. Parents answered 40 items regarding their child's adaptive behavior,
 183 including communication, eating, dressing, and social and motor skills. Parents also were asked to indicate
 184 whether their child engaged in eight domains of problem behavior and to rate both the frequency and severity of
 185 the behavior. Standard scores on adaptive behavior and General Maladaptive Index (GMI) scores were calculated
 186 using the procedures outlined in the SIB-R manual. The reliability of the adaptive behavior scale in this sample
 187 was .95 and that of the maladaptive behavior scale .86.

188 All of the scales used in this study except SIB-R were validated in Vietnamese 11,12 . In creating the
 189 Vietnamese version of SIB-R, the scale was evaluated for content and semantic equivalence of the Vietnamese
 190 and English versions. Content equivalence is established when the content of each item of the scale is relevant
 191 to the phenomena of each culture being studied 21 . Three bilingual Vietnamese rated each item on a 3-point
 192 scale as 1 (relevant to the Vietnamese culture), 2 (somewhat relevant to the Vietnamese culture) or 3 (not
 193 relevant to the Vietnamese culture). The few items that were rated as somewhat relevant were considered for
 194 rewording. Reworded items were re-examined using the same technique. For evaluation of semantic equivalence
 195 of the measurement, three bilingual Vietnamese rated each item on a 3-point scale, from 1 (exactly the same
 196 meaning in both versions), 2 (almost the same meaning in both versions) to 3 (different meaning in each version).
 197 Items rated as different meaning were considered for rewording, and reworded items were re-examined using the
 198 same technique.

199 IV.

200 7 Results

201 8 a) Social support

202 The caregivers scored an average of 3.5 (SD = 2.02) out of a possible 13 on the SSSCDD subscale that measures
 203 the amount of available informal support and 1.5 (SD = .86) out of a possible 8 on the subscale that measures the
 204 amount of available professional support. The largest proportion of informal support was from spouse (91.7%),
 205 followed by husband's mother (52.3%), wife's mother (41.3%), husband's father (37.6%), wife's father (29.4%),
 206 wife's sibling (17.4%), parents of other children with delays (16.5%), friend (16.5%), husband's sibling (15.6%),
 207 neighbor (13.8%), son (7.3%), daughter (5.5%), and other relative (3.7%). The largest proportion of professional
 208 support was from private therapist (91.7%), followed by teacher (27.5%), doctor, (12.8%), home help (7.3%),
 209 hospital therapist (6.4%), doctor in community clinic (2.8%), and babysitter (1.8%). For informal support, the
 210 majority of the caregivers were relying on support from their spouse, and a significant proportion relied on their
 211 own parents and parents-in-law to help raise the children with delays. For professional support, almost all the
 212 families hired a private therapist to work with their children. In contrast, only a quarter of the families stated
 213 that teachers were available to educate their children. Those with a greater amount of informal support tended
 214 to have a greater amount of professional support available to them, $r(105) = .32, p < .001$. There was a significant
 215 relationship between the amount of informal support and the amount of perceived support based on the MSPSS,
 216 $r(106) = .19, p < .05$. The caregivers who listed more people as being available to provide informal support
 217 perceived a higher level of social support.

218 However, the amount of professional support was not related to perceived social support, $r(106) = .12, p > .05$.

219 9 b) Depression

220 The degree of depression reported by the caregivers is alarming, with the mean CES-D score elevated beyond the
 221 cut-off point of 16 that indicates a risk of clinical depression ($M = 17.17, SD = 8.47$). Out of 109 caregivers, 61
 222 (56%) were suspected of being clinically depressed. We further investigated the characteristics of these caregivers

223 by examining the diagnoses of their children. Unfortunately, 42 (19%) out of the 109 caregivers did not know
224 their child's diagnosis. Among those who did, the caregivers' depression was compared across different diagnosis
225 groups. The caregivers of children with ADHD were most depressed ($M=19.82$, $SD = 8.60$), followed by caregivers
226 of children with autism ($M = 17.41$, $SD = 9.34$), developmental delays ($M= 15.40$, $SD = 6.99$), intellectual
227 delays ($M = 15.83$, $SD = 8.41$) and language delays ($M = 13.08$, $SD = 10.28$), although there is no significant
228 difference among the four groups, $F(4, 62) = .96$, $p > .05$. Among the caregivers whose children were diagnosed
229 with ADHD, 8 out of 11 scored beyond the cut-off point of 16 (72.7%), while 12 out of 17 caregivers whose children
230 were diagnosed with autism scored above 16 (58.7%). Among those caregivers whose children were diagnosed
231 with developmental delays, 7 out of 15 scored above 16 (46.7%). Among those whose children were diagnosed
232 with intellectual delays, 4 out of 12 (33.2%) scored above 16, and of those whose children were diagnosed with
233 language delays, 4 out of 12 (33.2%) scored above 16. For a significant proportion of the caregivers of children
234 with ADHD and autism, the long-term demands of caregiving appear to have severely affected their mood.

235 10 c) Social Support and Depression

236 It was hypothesized that the caregivers who received higher levels of social support would be less depressed. The
237 intercorrelations between the variables were computed by conducting Pearson Product Moment Correlations and
238 are presented in Table 3. There was no significant correlation between the total scores for informal support based
239 on SSSCDD and the total scores for depression based on CESD, $r(106) = -.13$, $p > .05$. There was no significant
240 correlation between the total scores for professional support based on SSSCDD and the total scores for depression
241 based on CESD, $r(106) = -.12$, $p > .05$. The amount of informal and professional support, which was measured
242 by assessing the number of people who were available to provide support, was not significantly related to the
243 caregivers' experience of depression. There was a significant correlation between the total scores for perceived
244 support based on MSPSS and the total scores for depression based CESD ($r(107) = -.31$, $p < .001$), suggesting
245 that the caregivers who perceived a lower level of social support experienced a higher level of depression.

246 11 d) Correlations among psychosocial, child and demographic variables

247 The intercorrelations between the demographic, child and psychosocial variables were computed to examine
248 the relationships between psychosocial variables and child and demographic variables (Table 3). Caregivers'
249 depression was significantly related to the child's maladaptive behavior, family socioeconomic status and mother's
250 education. Caregivers who had children with more maladaptive behaviors experienced a higher level of depression
251 than those whose children exhibited fewer maladaptive behaviors, $r(106) = -.31$, $p < .001$. The caregivers
252 experienced elevated depression when their families had a lower socioeconomic status ($r(107) = -.20$, $p < .05$)
253 and when the children's mothers were less educated, $r(107) = -.19$, $p < .05$.

254 Caregivers were more likely to perceive a higher level of social support when their children were younger
255 ($r(107) = -.23$, $p < .05$), the mother had obtained a higher level of education ($r(107) = .20$, $p < .05$), and the
256 family had a higher socioeconomic status, $r(107) = .19$, $p < .05$. However, the perceived social support was
257 not related to the adaptive or maladaptive status of the children. Neither the amount of informal support nor
258 that of professional support was related to child's adaptive and maladaptive functioning, mother's education, or
259 socioeconomic status of the family.
260

261 12 e) Predictors of depression among caregivers

262 The four variables that correlated significantly with depression (child's maladaptive behavior, mother's education,
263 socioeconomic status, and perceived social support) were entered into a hierarchical regression analysis to
264 determine the best set of predictors of depression among caregivers (Table 4). The first step included the child's
265 maladaptive behavior as a stressor. The other variables (mother's education, socioeconomic status and perceived
266 social support) were entered into the regression as family resources to determine if they entered significantly in
267 a second step of the hierarchical regression. Table 3 shows the four variables that were entered into two steps.
268 The first predictor variable accounted for nearly 10% of the variance in depression scores ($F(1, 107) = 11.48$, p
269 $< .001$). Child's maladaptive behavior accounted for a significant amount of the variance in depression among
270 caregivers. perceived social support also entered the model significantly, accounting for an additional 8% of the
271 variance in stress scores ($F(4, 104) = 5.53$, $p < .001$). When all four independent variables were included in
272 the second step, neither socioeconomic status nor maternal education was a significant predictor of depression.
273 The most important and significant predictor of caregivers' depression was perceived social support followed by
274 child's maladaptive behavior.

275 V.

276 13 Discussion

277 The present study explored the linkage between depression and social support among the caregivers of young
278 children with developmental delays in Vietnam. The level of depression experienced by Vietnamese caregivers
279 of children with developmental delays was affected by their perceived social support. The more the caregivers

280 felt that they received support, especially from family, friends or somebody special, the less depression they
281 experienced. This finding is consistent with those of previous research on the relationship between social support
282 and depression 22,23 . However, when social support was measured in terms of the amount of support available
283 to the caregivers, neither informal nor professional support had a significant impact on depression, implying that
284 the mere number of people available does not significantly affect the caregivers' mood. Only when the caregivers
285 really felt that they were cared for did the amount of social support show a significant relationship to mood.

286 The extent of maladaptive behavior had a significant impact on depression among the caregivers. The impact
287 of maladaptive behavior of the children on the stress levels and mood of the caregivers has been consistently
288 documented in many of the previous studies 5, [22][23][24] . Beyond and above the intellectual and adaptive
289 challenges their children bring to the caregiving, when the children show impulsive, aggressive or unruly behaviors,
290 this has a significant influence on the mood of the caregivers, suggesting that the demands of coping with the
291 children's maladaptive behaviors have a long-term impact on the quality of the everyday mood they experience.

292 In addition, the level of the caregivers' depression in Vietnam is alarming, with more than half of them scoring
293 at a level consistent with clinical depression. Although the ways in which depressive symptoms are expressed
294 can vary from culture to culture, many Vietnamese caregivers appear to suffer far more severely than those in
295 Western culture: The prevalence rate of depression has been reported at 20% to 30% among US mothers of
296 children with intellectual disabilities 5,22,25 . In particular, a significant proportion of Vietnamese caregivers of
297 children with ADHD (72.7%) and autism (58.71%) suffer from this suspected clinical level of depression, revealing
298 that children with behavioral problems impose long-term demanding caregiving burdens to such an extent that
299 their caregivers' mood deteriorates. Depression, especially at clinical levels, is about losing a sense of meaning
300 and motivation in everyday life. The impact on the caregivers was such that coping with their children was not
301 just overwhelming and difficult, but they felt that there was no hope and fun in their lives, only the interminable
302 sadness, helplessness, hopelessness and exhaustion of coping with their difficult children and not getting the
303 support they needed. These were caregivers of young children: When the caregivers' daily mood is affected this
304 severely when their children are young, we can only imagine how they will fare as their children advance in age
305 without having their behavior issues addressed. It is paramount that the caregivers of children with behavioral
306 issues obtain support to manage the daily issues arising from their children's maladaptive behaviors.

307 When we examined the availability of informal support, we found that caregivers mostly relied on their spouses
308 for help as well as on both the mothers' and fathers' parents. Although the availability of informal support was
309 not related to depression, it was related to perceived support. Having a large enough number of people around
310 to provide support to the caregivers could be helpful in their perception of social support, which in turn might
311 help with the depressive symptoms. Regarding professional support, almost all caregivers (91.7%) reported the
312 availability of private therapists. These therapists could be professional therapists, but in an attempt to advance
313 their children to an upper level in school (the kindergarten programs in Vietnam hold the children to repeat
314 the grade until they are qualified to advance to elementary schools), they tended to hire many private tutors,
315 who were often college or high school students without training in special needs, to help their children to master
316 academic materials. This could be a costly and inadequate investment: The children with cognitive and attention
317 issues might resent having to work on demanding academic materials just to move on to the advanced level. A
318 quarter of the caregivers (27.5%) reported that teachers were available, which is disappointing considering that
319 all these children were enrolled in kindergarten programs. It is clear that many teachers do not have enough
320 skills to work with these children. There should be more formal training programs available to train the teachers
321 to work with the children with special needs in integrated and inclusive settings of kindergarten programs in
322 Vietnam. While many caregivers are severely affected by their children's condition, especially when they have
323 behavioral issues, there should be more professional support systems that could train and provide teachers who
324 could address these issues.

325 Mother's education was significantly related to depression and perceived social support. When the mothers
326 were more educated, the caregivers experienced less depression and perceived a higher level of social support.
327 When mothers are highly educated, they tend to attain higher socioeconomic status, enabling them to utilize the
328 greater financial resources to better care for their children. In addition, they have more intellectual resources,
329 which can enable them to develop better strategies to cope with the children's demanding cognitive and behavioral
330 issues and thus to experience less depression. They may be able to make more effective use of the available social
331 support in raising their children. While general support services should be available to all the families, there
332 should be more support and education available for the mothers with less education and financial resources.
333 Helping mothers to build and strengthen coping strategies and informal support systems could be critical for the
334 well-being of the caregivers, and this needs to be addressed when the programs for young children provide the
335 services. The findings also suggest that there is a need for services and supports that help caregivers not only to
336 be effective parents, but also that address feelings of distress that stem from parenting children with disabilities.
337 This support needs to come from professionals who can provide mental health counseling or psychotherapy,
338 helping the caregivers develop effective personal coping strategies.

339 The study has a few limitations. Our project was geographically limited to Hanoi, the capital city and one
340 of the biggest cities in Vietnam. Most of our participants were relatively well educated and the majority had
341 completed their college degrees. In addition, although developing, the resources for children with special needs are
342 relatively concentrated in big cities like Hanoi, where the families could rely on professional help to parents with

4

Note. *p< .05; **p< .01; ***p < .001; two-tailed tests.

Figure 4: Table 4 :

Independent variable	B	SE	Standardized B	F	R 2 Change
Step 1				11.48	0.10***
Child's maladaptive behavior	-0.35	0.10	-0.31	***	
Step 2				5.53	0.08*
Child's maladaptive behavior	-0.26	0.11	-0.24	**	
Family SES	-1.39	2.08	-0.07		
Mother's education	-0.60	0.98	0.06		
Perceived social support	-0.44	0.16	-0.25	**	

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Figure 5:

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- 352 [Radloff et al. ()] ‘A Self-Report Depression Scale for Research in the General Population’. L S Radloff , Ces-D
353 The , Scale . 10.1177/014662167700100306. *Applied Psychological Measurement* 1977. 1 (3) p. .
- 354 [Hunt ()] *An introduction to Vietnamese culture for rehabilitation service providers in the United States. Culture
355 and disability: Providing culturally competent services*, P C Hunt . 2005. p. . (Published online)
- 356 [Chou ()] ‘Assessing Chinese adolescents’ social support: the multidimensional scale of perceived social support’.
357 K-L Chou . doi:10.1016/S0191-8869(99)00098-7. *Personality and Individual Differences* 2000. 28 (2) p. .
- 358 [Oh and Lee ()] ‘Caregiver burden and social support among mothers raising children with developmental
359 disabilities in South Korea’. H Oh , E O Lee . *International Journal of Disability* 2009. 56 (2) p. . (Development
360 and Education)
- 361 [Liang and Bogat ()] ‘Culture, control, and coping: New perspectives on social support’. B Liang , G A Bogat .
362 10.1007/BF02506820. *American Journal of Community Psychology* 1994. 22 (1) p. .
- 363 [Olsson and Hwang ()] ‘Depression in mothers and fathers of children with intellectual disability’. M B Olsson ,
364 C P Hwang . 10.1046/j.1365-2788.2001.00372.x. *Journal of Intellectual Disability Research* 2001. 45 (6) p. .
- 365 [Zaidman-Zait et al. ()] ‘Impact of personal and social resources on parenting stress in mothers of children with
366 autism spectrum disorder’. A Zaidman-Zait , P Mirenda , E Duku . *Autism* 2017. 21 (2) p. .
- 367 [Zeedyk and Blacher ()] ‘Longitudinal Correlates of Maternal Depression Among Mothers of Children With or
368 Without Intellectual Disability’. S M Zeedyk , J Blacher . doi: 10.1352/ 1944-7558-122.5.374. *American
369 Journal on Intellectual and Developmental Disabilities* 2017. 122 (5) p. .
- 370 [Dbjr et al. ()] ‘Maternal depression and developmental disability: Research critique’. Bailey Dbjr , R N Golden
371 , J Roberts , A Ford . 10.1002/mrdd.20172. *Mental Retardation and Developmental Disabilities Research
372 Reviews* 2007. 13 (4) p. .
- 373 [Singer ()] ‘Meta-Analysis of Comparative Studies of Depression in Mothers of Children with and Without
374 Developmental Disabilities’. Ghs Singer . 10.1352/0895-8017. *American Journal on Mental Retardation* Floyd
375 F (ed.) 2006. 2006. 111 (3) p. 111. (155:MOCSOD]2.0.CO)
- 376 [Estes et al. ()] ‘Parenting stress and psychological functioning among mothers of preschool children with
377 autism and developmental delay’. A Estes , J Munson , G Dawson , E Koehler , X-H Zhou , AbbottR .
378 10.1177/1362361309105658. *Autism* 2009. 13 (4) p. .
- 379 [Shin et al. ()] ‘Parenting stress of mothers and fathers of young children with cognitive delays in Vietnam’. J
380 Shin , N V Nhan , K S Crittenden , Hong , Htd , M Flory , J Ladinsky . *Journal of Intellectual Disability
381 Research* 2006. 50 (10) p. .
- 382 [Feldman et al. ()] ‘Predictors of depressive symptoms in primary caregivers of young children with or at risk for
383 developmental delay’. M Feldman , L Mcdonald , L Serbin , D Stack , M L Secco , C T Yu . 10.1111/j.1365-
384 2788.2006.00941.x. *Journal of Intellectual Disability Research* 2007. 51 (8) p. .
- 385 [Shin and Nhan ()] ‘Predictors of parenting stress among Vietnamese mothers of young children with and without
386 cognitive delay’. J Y Shin , N V Nhan . *Journal of Intellectual and Developmental Disability* 2009. 34 (1) p. .
- 387 [Cecil et al. ()] ‘Psychometric properties of the MSPSS and NOS in psychiatric outpatients’. H Cecil , M A
388 Stanley , P G Carrion , A Swann . doi:10.1002/ 1097-4679. *Journal of Clinical Psychology* 1995. 199509. 51
389 (5) p. . (<593::AID-JCLP22705 10503>3.0.CO;2-W)
- 390 [Duru ()] *Re-examination of the psychometric characteristics of the multidimensional scale of perceived social
391 support among Turkish university students. Social Behavior and Personality: an international journal*, E
392 Duru . 2007. 35 p. .
- 393 [Bruininks et al. ()] *Scales of Independent Behavior-Revised SIB-R*, R H Bruininks , R W Woodcock , R F
394 Weatherman , B K Hill . 1996. Riverside Publishing.
- 395 [Thuy and Berry ()] *Social capital and mental health among mothers in Vietnam who have children with
396 disabilities. null*, Ntm Thuy , H L Berry . 10.3402/gha.v6i0.18886. 2013. 6 p. 18886.
- 397 [Shin and Crittenden ()] *Social Support Scale for Parents of Children with Disabilities*, J Y Shin , K S Crittenden
398 . 1997. (Published online)
- 399 [Halstead et al. ()] ‘Social support, coping, and positive perceptions as potential protective factors for the well-
400 being of mothers of children with intellectual and developmental disabilities’. E J Halstead , G M Griffith ,
401 R P Hastings . 10.1080/20473869.2017.1329192. *International Journal of Developmental Disabilities* 2018. 64
402 (4-5) p. .
- 403 [Olsson and Hwang ()] ‘Socioeconomic and psychological variables as risk and protective factors for parental
404 well-being in families of children with intellectual disabilities’. M B Olsson , C P Hwang . 10.1111/j.1365-
405 2788.2008.01081.x. *Journal of Intellectual Disability Research* 2008. 52 (12) p. .
- 406

- 407 [Gallagher et al. ()] ‘The association between spirituality and depression in parents caring for children with
408 developmental disabilities: Social support and/or last resort’. S Gallagher , A C Phillips , H Lee , D Carroll
409 . 10.1007/s10943-014-9839-x. *Journal of Religion and Health* 2015. 54 (1) p. .
- 410 [Falk et al. ()] ‘The factors predicting stress, anxiety and depression in the parents of children with autism’. N
411 H Falk , K Norris , M G Quinn . *Journal of autism and developmental disorders* 2014. 44 (12) p. .
- 412 [Cantwell et al. ()] ‘The influence of self-esteem and social support on the relationship between stigma and
413 depressive symptomology in parents caring for children with intellectual disabilities’. J Cantwell , O Muldoon
414 , S Gallagher . 10.1111/jir.12205. *Journal of Intellectual Disability Research* 2015. 59 (10) p. .
- 415 [Zimet et al. ()] *The Multidimensional Scale of Perceived Social Support*, G D Zimet , N W Dahlem , S G Zimet
416 , G K Farley . 10.1207/s15327752jpa5201_2. 1988. 52 p. .