

INVESTIGATING THE INFLUENCES OF PARENTAL STRESS ON PARENTSPARENTING PRACTICES***Dr. Demetris Hadjicharalambous and Dr. Loucia Demetriou**

Department of Psychology and Social Sciences, Frederick University, Cyprus

Received 14th December 2020; Accepted 17th January 2021; Published online 28th February 2021

Abstract

Summary: The present study examines whether parenting stress relates to parenting practices that mothers and fathers adopt, taking into consideration the parental sociodemographic characteristics and the number of children in the household. 245 Greek Cypriot parents (75% mothers and 25% fathers) took part in this survey. The average age of the parents was 38 ± 7 years old. We applied the following two instruments: The Parents As Social Context Questionnaire (PASCQ), developed initially by Skinner *et al.*, (1986) to assess the six parental dimensions of Warmth, Rejection, Structure, Chaos, Autonomy support, and Coercion, and the Parenting Stress Index (short form) (PSI-SF) to measure stress-levels associated with parenting of children younger than 12 (Abidin, 1995). **Findings:** Research findings indicated that parenting stress affects and predicts negatively the parenting practices that parents adopt. Furthermore, parenting practices were associated with children's socialization, wellbeing, nutrition, and psychological development. Positive parenting practices may be a protective factor for children and improve children's development and self-confidence. On the contrary, negative parenting practices and parental stress predicted a significant adverse effect on children's development and functioning and were linked to children's behavioral, social and emotional problems. Based on the research findings, parents' sociodemographic characteristics were significant factors in experienced parental stress and parenting practices. Particularly, the fathers' results indicated a more dysfunctional relationship with their children than those of the mothers. Participants with lower monthly income, unemployed participants, parents who resided in rural areas, and families with more than one child experienced more parental stress and applied more harsh and authoritarian parenting practices towards their children. **Applications:** The state should seriously consider strategies and methods for addressing parenting stress, which severely impacts the parents' and children's quality of life. To improve children's wellbeing, parental interventions may consider strengthening family functioning and reducing parental stress among mothers and fathers.

Keywords: Parenting Stress, Parent-child relationship, Parenting practices, Parenting, Parenting stress index, Rejection, Stressors factors, Warmth.

INTRODUCTION

Both parents are the most important and significant people in children's lives from infancy to adulthood (Alfredsson, 2018; Sroufe, 2005; Williamson *et al.*, 2017). Parenting and parent-child relations affect multiple aspects of children's social and emotional development (Waylen *et al.*, 2008; Marrone, 2014). According to Abidin (1990), Crnic and Low (2002), and Deater-Deckard (2008), parenting is both complex and stressful, and chronic parenting stress has negative consequences on parent's wellbeing and quality of their lives. Additionally, parenting stress affects parenting practices, parent-child interactions, and children's development (Kwok and Wong 2000; Assel *et al.*, 2002; Crnic *et al.*, 2005; Feldman *et al.*, 2004). Cooklin, Giallo and Rose (2011) and Coleman and Karraker (2000) found that parents' depression, stress, and fatigue are associated with low parental self-efficacy and low parental satisfaction. Parents' fatigue is due to the parental role's demands and reduces parents' patience and ability to address difficult and demanding situations. As a result, parents become more irritable and frustrated with their parental role (Nash, Morris and Goodman, 2008; Giallo, Rose and Vittorino, 2011). Existing research by Cabrera *et al.*, (2018), McWayne *et al.*, (2013), Conger *et al.*, (2000) suggested that parental stress influences parent-child relationships and interactions by reducing the quality of parental role and affects children's outcomes. According to Bloomfield and Kendall (2012), the causes of parenting stress may be the difficulties and demands of the parental role in managing children's behavior, implementing the family program, and applying daily responsibilities.

Parents' adequacy and beliefs determine parenting stress in their parenting role as well as their beliefs about their parenting role and their children's behavior. Research findings indicated that parents who felt that their children were demanding, faced difficulties in communicating with them, and experienced higher stress levels in handling their parental role (Ostberg and Hagekull, 2000). Moreover, Cooklin, Giallo and Rose (2011) reported that parental fatigue is associated with increased parental stress, which harms parents' sense of well-being and satisfaction. Previous studies have indicated that family stress significantly affects the links between the quality of the parent-child relationship and parental care. Parents who experienced stressful situations in their lives (i.e., high-risk mothers), parents who suffered from post-traumatic stress disorder, couples in the first year after a divorce, parents of children with Asperger syndrome, parents during the first months of their transition to the parental role show negative links between quality parent-child relationship and parental care (Kohlhoff and Barnett, 2013; Lau and Peterson, 2011; Rholes, Simpson, and Friedman, 2006; Cohen and Finzi-Dottan, 2005; Erel and Burman, 1995. According to Guajardo *et al.* (2009), Neece *et al.* (2012), individuals might experience stress from being a parent, including childrearing difficulties, child-related financial burdens, child behavioral management, and the coordination of everyday activities. Parenting stress affects children's outcomes, including behavior problems, attention deficit problems, and the child's cognitive development. Family stress negatively affects the quality of parental involvement and their effective collaboration in raising their children (Morrill *et al.*, 2010). Childrearing by both parents is vital to children's wellbeing and socialization. While parents disagree and may conflict about childrearing practices, parents experience increased stress levels, and children experience more emotional and behavioral problems (Camisasca, Miragoli

and Di Blasio, 2014). Many studies support that improving effective parenting practices is the most critical element contributing to a decrease in children's behavior problems. Such decreases in problematic behaviors tend to reduce parental stress and depression, and improve the effectiveness of parenting practices (DeGarmo and Forgatch, 2007; DeGarmo *et al.*, 2004; Forgatch and DeGarmo, 1999; Martinez and Forgatch, 2001; Ogden and Amlund-Hagen, 2008). Mothers' and fathers' sociodemographic variables such as parental age, income and educational level may affect parenting stress, parental responsiveness, and child outcomes. Also, essential dimensions may influence parenting stress, including depression, parental relationship status, and the number of children in the family (Lee *et al.*, 2018; Baker, 2017; Cooper *et al.*, 2009; Leigh and Milgrom, 2008; Harper and Fine, 2006; Chang *et al.*, 2004). Thus, these variables were deemed relevant to account for in the current study

RESEARCH METHODS

The current Study

The current study addresses certain gaps in the literature. It examines whether parenting stress relates to parenting practices that parents adopt among both mothers and fathers. Furthermore, this study considers that parents' sociodemographic variables and the number of children in the household may influence parenting stress and parenting practices.

In this context, we postulated the following research questions:

1. Are there differences between parents' age, gender, level of education, income, occupational sector, and family status which impact parenting stress and parenting practices
2. Is there a correlation (negative or positive) between parenting stress and parenting practices
3. Is parenting stress predict parenting practices

Procedure – Data collection

In the present study, we chose a quantitative method, namely the application of questionnaires, to collect our data. This method enabled the researchers to evaluate what parents think and how they behave toward their children. The quantitative method also facilitates the study of a larger population at a relatively low cost. We investigated the factors of parenting stress and parenting practices. Our survey took place in October 2020 and focused on a sample of 245 Cypriot parents. The participants completed two questionnaires, both in their native language, namely the Greek version of the Parents As Social Context Questionnaire (Skinner, Regan, and Wellborn, 1986) and the Parenting Stress Index-short form (PSI-SF) (Abidin, 1995). Additionally, participants responded to a short demographic questionnaire to collect information about their gender, age, income, residence, educational level, and family status (PIF). The study obtained approval from the Psychology and Social Sciences Department at Frederick University. Participation in the present study was voluntary, anonymous, while the confidentiality of personal data was assured.

Sample

The participants were 245 Greek Cypriot parents. Amongst the participants 75% were mothers, and 25% were fathers. The

average age of the parents was 38 ± 7 years old. 75.5% were employed while 24.5% were unemployed. Regarding our participants' monthly family income, 61.2% earned less than 3000 euros, 38.8% had more than 3000 euros monthly. 85.7% of parents resided in urban areas, 73.4% were married, 67.3% had a university education, and 76% had up to two offspring.

Instruments

Parents As Social Context Questionnaire (Skinner, Regan, and Wellborn, 1986): The Parents as Social Context Questionnaire (PASCQ) is a 25-item self-report questionnaire designed to assess six dimensions of parenting practices. These are Warmth, Rejection, Structure, Chaos, Autonomy support, and Coercion. The three positive dimensions of Warmth, Structure, and Autonomy support are considered the respective bipolar opposites to the three negative dimensions of Rejection, Chaos, and Coercion. However, a high estimate for one dimension does not equal a low estimate for the opposite dimension. The positive dimensions of parental Warmth, Structure, and Autonomy towards children are described as authoritative parenting practices which express love, caregiving, involvement, emotional availability, support, acceptance, affection, appreciation, kindness, regard, clear expectations, consistent, appropriate limit setting, support, and guidance. On the contrary, the negative dimensions, i.e., parental rejection, chaos, and coercion toward children, reflect expressions of rejection and include aversion, hostility, harshness, over-reactivity, irritability, and explosiveness; they also include overt communication of negative feelings for the child, such as criticism, derision, and disapproval, lack of consistent discipline, lax control. The negative dimensions predict parent-child conflicts and emotional or behavioral problems for the children. The Likert scale items range from 1 (not at all true) to 4 (very true). High scores on each item indicate more of the particular feature of parenting. Table 1 indicates the questionnaire's internal consistency reliability.

Table 1. Parents as Social Context Questionnaire (Skinner, Regan, and Wellborn, 1986)

Factors	Internal Consistency reliability
Warmth	0.80
Structure	0.78
Autonomy support	0.85
Rejection	0.82
Chaos	0.79
Coercion	0.77

Parenting Stress Index-short form (PSI-SF) (Abidin, 1995): The Parenting Stress Index-short form (PSI-SF) is a 36-item self-report questionnaire designed to measure stress associated with parenting among parents of children younger than 12 years old (Abidin, 1995). The measure has three factors, each consisting of 12 items: Personal Distress; Parent-Child Dysfunctional Interaction; and Childrearing stress. The first factor, «Personal Distress,» measures parents' perceptions of their behavior, including perceived competence, marital conflict, views of social support, and life restrictions because of the parenting demands (e.g. 'I feel trapped by my responsibilities as a parent'). The second factor, «Parent-Child Dysfunctional Interaction,» measures the parents' view of expectations and interactions with their child (e.g. 'My child rarely does things for me that make me feel good'). The third factor, «Childrearing stress - Difficult Child,» measures the parents' perceptions of their child's temperament,

demandingness, and compliance (e.g. 'My child makes more demands on me than most children). The items of the scale range from 1 (strongly disagree) to 5 (strongly agree). Table 2 illustrates the questionnaire's internal consistency reliability.

Table 2. PSI-SF Internal Consistency reliability

Factors	Internal Consistency reliability
Personal Distress	0.87
Parent – Child Dysfunctional Interaction	0.85
Childrearing stress	0.88
Total Stress	0.90

Data Analysis

For data analysis we applied the Statistical Package for Social Sciences (SPSS) version 25.0. Data analysis included descriptive statistics, such as mean, standard deviation, frequencies, and percentages, to describe the participants' demographic characteristics. We calculated distributions of frequencies and percentages to analyze data obtained from the participants' PIF. The level of significance (p-value) in questionnaires was set at $p < 0.05$. In order to examine our research questions, we applied the following data analysis methods: t-test, two-way ANOVA, and the multivariate ANOVA (MANOVA) to compare the means between parents' demographic characteristics (gender, age, family status, income, occupational sector, level of education) and their impact on their parental stress and the parenting practices they adopted. We also applied Pearson's correlation coefficient to examine whether correlations (positive or negative) existed between parental stress and parenting practices. Through regression analysis we investigated whether parental stress predicts parents' parenting practices.

FINDINGS

Impact of Parents' and children's Demographic Characteristics on Parental stress and Parenting Practices

There is a statistically significant difference between fathers and mothers in the variable Parent-Child Dysfunctional Interaction [$F(2,243) = 2.492, p < 0.05$]. Fathers ($24.31 = 6.50$) seem to have a more dysfunctional relationship with their children than mothers ($22.52 = 6.34$). We also observed a significant difference between fathers and mothers in the variable Childrearing stress [$F(2,243) = 2.699, p < 0.05$]; fathers ($30.36 = 6.21$) seem to face more difficulties raising their children than mothers ($28.54 = 6.50$). Residence is a significant dimension between participants who lived in urban and participants who resided in rural areas in both Parent-Child Dysfunctional Interaction [$F(2,243) = 2.030, p < 0.05$], Childrearing stress [$F(2,243) = 2.009, p < 0.05$], Warmth [$F(2,243) = 7.567, p < 0.022$], and Coercion [$F(2,243) = 3.028, p < 0.013$]. Participants who resided in rural areas ($24.62 = 7.14$) had more dysfunctional relationships with their children than participants who lived in the cities ($22.25 = 6.23$). Also, parents who lived in a rural area ($30.88 = 7.56$) seemed to have more dysfunctional relationships with their children than participants who lived in urban areas ($28.53 = 6.23$). Participants who resided in rural areas ($24.42 = 7.91$) were less supportive and receptive to their children than participants residing in cities ($27.07 = 5.94$), and they were more authoritarian ($12.02 = 5.46$) towards their children than city residents ($10.03 = 4.13$). We detected a statistically significant difference between participants with lower family income and participants with

higher family income in variables' Personal Distress [$F(2,243) = 4.015, p < 0.001$], Parent-Child Dysfunctional Interaction [$F(2,243) = 5.034, p < 0.001$], Autonomy support [$F(2,243) = 4.483, p < 0.028$], Coercion [$F(2,243) = 2.323, p < 0.01$]. Participants with lower family income ($30.90 = 8.70$) seemed to feel more stressed about their parental role than participants with higher family income ($24.84 = 6.67$). Low-income participants ($81.97 = 18.31$) felt more stressed about their relationships with their children and their parental role than higher-income participants ($76.13 = 14.80$). Parents with low family income ($21.28 = 3.26$) allowed their children less autonomy than parents with a better financial situation ($22.93 = 2.30$). Compared with participants with low ($10.43 = 4.33$) parents with higher family income, appeared to be more authoritarian towards their children ($9.02 = 2.30$). The parental educational level also appears to be a significant determinant between participants with lower education and the participants with higher education in the variables' Personal Distress [$F(2,243) = 4.033, p < 0.001$], Parent-Child Dysfunctional Interaction [$F(2,243) = 3.767, p < 0.001$], Childrearing stress [$F(2,243) = 3.203, p < 0.001$], Rejection [$F(2,243) = 9.537, p < 0.013$], Autonomy support [$F(2,243) = 7.719, p < 0.005$], Structure [$F(2,243) = 7.244, p < 0.011$], and Coercion [$F(2,243) = 3.427, p < 0.004$]. Results indicated that parents with lower education ($29.85 = 7.30$) felt more stressed about their parental role than parents with higher education ($25.56 = 8.02$). Parents with lower education ($25.00 = 6.86$) experienced more anxiety about the quality of their relationships with their children than participants with higher education ($21.80 = 5.91$). Also, participants with lower education ($30.73 = 6.94$) felt more anxious about raising their children than participants with higher education ($27.96 = 6.05$). Additionally, parents with lower education ($11.20 = 4.82$) were more rejecting towards their children than participants with higher education ($10.15 = 3.95$). Furthermore, parents with a lower ($11.48 = 4.90$) applied more authoritarian parenting practices to their children than those with a higher education level ($9.90 = 4.02$). On the other hand, parents with a higher educational level ($22.06 = 3.14$) provided more autonomy to their children than participants with lower education ($20.20 = 4.75$). Participants with a higher educational level ($9.06 = 3.81$) provided more stability to family rules and consistency to their children than those with a lower. ($7.83 = 2.80$).

The occupational status of our participants is also a significant factor regarding the variables Personal Distress [$F(2,243) = 2.884, p < 0.023$] and Childrearing stress [$F(2,243) = 2.045, p < 0.05$]. Unemployed participants ($86.31 = 8.20$) appeared more stressed about their parental role than employed participants ($81.56 = 5.02$). Also, unemployed parents ($31.45 = 5.12$) experienced more stress regarding their children' upbringing than participants who worked ($25.78 = 5.67$). Results illustrated that there is a significant difference between families with one or two children and families with three or more children in variables' Personal Distress [$F(2,243) = 2.231, p < 0.018$], Parent-Child Dysfunctional Interaction [$F(2,243) = 3.964, p < 0.007$], Childrearing stress [$F(2,243) = 3.964, p < 0.007$], Warmth [$F(2,243) = 6.470, p < 0.005$], Autonomy support [$F(2,243) = 7.347, p < 0.005$], Coercion [$F(2,243) = 2.961, p < 0.05$]. Participants with one or two children ($25.59 = 8.17$) felt less stressed about their parental role than participants with three or more children in the family ($27.90 = 7.85$). Also, parents who with only one or two children ($21.27 = 5.80$) felt less dysfunctional with their children than participants with three or more children in the family ($23.74 = 6.69$).

Table 3. Correlations between Parenting Practices* Parental Stress

	Personal Distress	Parent-Child Dysfunctional Interaction	Childrearing stress	Parent's Stress Overall	Warmth	Rejection	Structure	Chaos	Autonomy support	Coercion
PD	1	.520**	.471**	.822**	-.297**	.340**	-.301**	.092	-.393**	.285**
PCDI		1	.695**	.860**	-.467**	.344**	-.292**	.232**	-.426**	.369**
CD			1	.839**	-.356**	.385**	-.143*	.138*	-.384**	.392**
PSI				1	-.438**	.423**	-.297**	.178**	-.477**	.410**
Warmth					1	-.305**	.378**	-.016	.365**	-.221**
Rejection						1	-.077	.351**	-.181**	.424**
Structure							1	.011	.248**	.018
Chaos								1	-.024	.358**
Autonomysupport									1	-.329**
Coercion										1

Table-4. Regression Models predicting Parenting Practices* Parental Stress

Dependent Variable	Personal Distress	Parent-Child Dysfunctional Interaction	Childrearing stress	Parent's Stress Overall
Warmth	-0.196***	-0.275**	-0.173***	-0.470***
Rejection	0.509***	0.351***	0.320***	0.947***
Chaos	0.234**	0.270***	0.162*	0.198**
Structure	-0.367***	-0.183**	-0.345***	-0.581***
Autonomysupport	-0.621***	-0.381***	-0.379***	-1.275***
Coercion	0.553***	0.213***	0.284***	0.746***
F	29.651	24.374	25.945	35.294
BETA	43.835	36.785	35.391	115.066
Effect Size Adjusted R2	68%	72%	65%	75%

Participants with one or two children (26.89=5.96) experienced less anxiety about raising their children than participants with three or more children (29.82=6.32). Additionally, participants who had one or two children (28.49=5.19) were warmer and more accepting towards their children than participants with more than two children in the family (25.91=6.68). Furthermore, families with one or two children (22.60=2.83) provided more autonomy to their children than participants with three or more offspring (20.98=4.41). Parents with one or two children (9.63=3.88) appeared to be less authoritarian towards their children than those with more than two children (10.68=4.75).

Parent's Personal Stress, Parent-child dysfunctional interaction, and Childrearing, are correlated with the parenting practices of Warmth, Rejection, Chaos, Structure, Autonomy support, and Coercion

Table 3 illustrates the correlations between parenting practices and parental stress. We detected a significant negative correlation between Parents stress and the parenting practices of Warmth ($r=-0.297$ $p<0.000$), Structure ($r=-0.301$ $p<0.000$), and Autonomy support ($r=-0.393$ $p<0.000$). On the other hand, parental stress presented a positive correlation with the dimensions Parent-child Dysfunctional Interaction ($r=0.520$ $p<0.000$), Childrearing Stress ($r=0.471$ $p<0.000$), overall Parental Stress ($r=0.822$ $p<0.000$), Rejection ($r=0.340$ $p<0.000$) and Coercion ($r=0.285$ $p<0.000$). When examining parent-child dysfunctional interaction as an independent variable our results indicated a negative correlation with the Warmth dimension ($r=-0.467$ $p<0.000$), Structure ($r=-0.292$ $p<0.000$), and Autonomy support ($r=-0.426$ $p<0.000$). Parent-child dysfunctional interaction correlated positively with Childrearing Stress ($r=0.695$ $p<0.000$), overall Parental Stress ($r=0.860$ $p<0.000$), Rejection ($r=0.344$ $p<0.000$), Chaos ($r=0.232$ $p<0.000$), and Coercion ($r=0.369$ $p<0.000$). Also, the dimension Childrearing Stress presented negative correlation with the dimensions of Warmth ($r=-0.356$ $p<0.000$), Structure ($r=-0.143$ $p<0.05$), and Autonomy support ($r=-0.384$ $p<0.000$).

Childrearing correlated positively with overall Parental stress overall ($r=0.839$ $p<0.000$), Rejection ($r=0.385$ $p<0.000$), Chaos ($r=0.138$ $p<0.05$), and Coercion ($r=0.392$ $p<0.000$). Our findings indicated that the dimension overall Parental Stress showed a significant negative correlation with the dimensions' Warmth ($r=-0.438$ $p<0.000$), Structure ($r=-0.297$ $p<0.000$), and Autonomy support ($r=-0.477$ $p<0.000$). Parents' stress overall correlated positively with Rejection ($r=0.423$ $p<0.000$), Chaos ($r=0.178$ $p<0.000$), and Coercion ($r=0.410$ $p<0.000$). Warmth was found to have a significant positive correlation with Structure ($r=0.378$ $p<0.000$), and Autonomy support ($r=0.365$ $p<0.000$) and a negative correlation with Rejection ($r=-0.305$ $p<0.000$) and coercion ($r=-0.221$ $p<0.000$). Rejection showed a significant positive correlation with Chaos ($r=0.351$ $p<0.000$), and Coercion ($r=0.424$ $p<0.000$) and a negative correlation with Autonomy support ($r=-0.181$ $p<0.000$). The dimension of Structure correlated positively with Autonomy support ($r=0.248$ $p<0.000$) while Chaos correlated positively with the dimension Coercion ($r=0.358$ $p<0.000$); Autonomy Support indicated a significant negative correlation with Coercion ($r=-0.329$ $p<0.000$) (Table 3).

Parent's Personal Stress, Parent-Child dysfunctional interaction, childrearing, as predictive factors of parenting practices Warmth, Rejection, Chaos, Structure, Autonomy support, and Coercion

The multivariate regression model was statistically significant $F(10,235) = 29.651$, $p<0,000$, interpreting 68% of the total variance ($r^2 = .681$, adjusted $r^2 = .680$). Parents' Personal Distress predicted positively parenting practices as Rejection ($\beta = 0.509$ $p <0,000$), Chaos ($\beta = 0.234$ $p <0,039$) and Coercion ($\beta = 0.553$ $p <0,008$). On the other hand, Parental Distress predicted negatively parenting practices as Warmth ($\beta = -0.196$ $p <0,000$), Structure ($\beta = -0.367$ $p <0,002$) and Autonomy support ($\beta = -0.621$ $p <0,000$). The dimension Parent-Child Dysfunctional Interaction was significant $F(10,235) = 24.374$, $p<0,000$, interpreting 72% of the total variance ($r^2 = .722$, Adjusted $r^2 = .720$). The Parent-Child Dysfunctional Interaction predicted positively parenting

practices as Rejection ($\beta = 0.351$ $p < 0,000$), Chaos ($\beta = 0.270$ $p < 0,001$) and Coercion ($\beta = 0.213$ $p < 0,001$). On the other hand, the same dimension predicted negatively parenting practices as Warmth ($\beta = -0.275$ $p < 0,000$), Structure ($\beta = -0.351$ $p < 0,000$) and Autonomy support ($\beta = -0.381$ $p < 0,000$). The dimension Childrearing Stress was a significant predictor $F(10,235) = 25.945$, $p < 0,000$, interpreting 65% of the total variance ($r^2 = .658$, Adjusted $r^2 = .650$). Childrearing Stress predicted positively parenting practices as Rejection ($\beta = 0.320$ $p < 0,000$), Chaos ($\beta = 0.162$ $p < 0,05$) and Coercion ($\beta = 0.284$ $p < 0,001$). On the contrary, the same dimension predicted negatively parenting practices as Warmth ($\beta = -0.173$ $p < 0,000$), Structure ($\beta = -0.345$ $p < 0,000$) and Autonomy support ($\beta = -0.379$ $p < 0,000$). The dimension Parent's stress Overall was a significant predictor $F(10,235) = 35.294$, $p < 0,000$, interpreting 75% of the total variance ($r^2 = .755$, Adjusted $r^2 = .750$). Parent's Stress Overall predicted positively parenting practices as Rejection ($\beta = 0.947$ $p < 0,000$), Chaos ($\beta = 0.198$ $p < 0,04$) and Coercion ($\beta = 0.746$ $p < 0,000$) while it predicted negatively parenting practices as Warmth ($\beta = -0.470$ $p < 0,000$), Structure ($\beta = -0.581$ $p < 0,000$) and Autonomy support ($\beta = -1.275$ $p < 0,000$) (Table 4).

DISCUSSION

Based on our findings, fathers seem to have more dysfunctional relationships with their children and to face more childrearing difficulties than mothers. Similar results as indicated by Leaper (2002), Kyazze, Maani, and Lubaale's (2020), Hadjicharalambous and Demetriou (2020), Uji, Sakamoto, Adachi, and Kitamura (2014), showed that mothers were more expressive and supportive in their relationship with their children than fathers while mothers also spent more time raising their children than fathers. The present study demonstrated that parents who resided in rural areas had more dysfunctional relationships with their children, were less supportive and receptive to their children, and applied more authoritarian practices towards their offspring than participants residing in cities. Research findings of Galani (2011) and Hadjicharalambous and Demetriou (2020) show similar results: parents residing in urban areas were more supportive to their children than parents who lived in rural areas. Other findings also support that higher maternal parenting stress is positively associated with child behavior problems (Cherry, Gerstein, and Ciciolla, 2019; Larkin and Otis, 2019). Fathers' parenting stress is positively associated with caregiving involvement and child behavior problems (Lee *et al.*, 2018; Fagan, Bernd, and Whiteman, 2007). According to Coats and Phares (2019), Lau and Power (2019), Ponnet *et al.*, (2013), Pelchat *et al.*, (2003), parenting stress significantly affects mothers' and fathers' parenting practices and their parental involvement towards their children. Also, parental stress may be an essential determinant of parent-child interactions and a child's behavioral outcomes. Both mothers' and fathers' parenting behaviors are crucial for children's outcomes (Cabrera *et al.*, 2018; McWayne *et al.*, 2013). The quality of the father-child relationship directly predicts the child's prosocial behavior. Paternal involvement is positively associated with children's cognitive development (Dubowitz *et al.*, 2001) and is associated with fewer child externalizing behaviors in middle childhood (Trautmann-Villalba *et al.*, 2006). Mothers' and fathers' positive parenting practices and parental involvement are the basis of the quality of the parent-children interaction, parents' demonstration of positive regard toward their children, and parents' sensitivity to their children.

Positive parenting behaviors foster healthy child outcomes, including cognitive development and prosocial behavior (Jeong *et al.*, 2019; O'Neal *et al.*, 2017; Crnic and Ross, 2017; Brady-Smith *et al.*, 2013; Fuligni *et al.*, 2013). On the other hand, parenting stress is an important dimension and influences parenting practices. Mothers and fathers who experienced higher parental stress levels tended to adopt an authoritarian parenting style, engaged in harsh parenting, were less involved towards their children and had an insecure attachment with their children (Tharner *et al.*, 2012; Landry, Smith, and Swank, 2006; Rhoads, Simpson, and Friedman, 2006). Low-income participants felt more stressed about their parental role, allowed less autonomy to their children, and adopted more authoritarian behaviors towards their children than participants with higher family income. Employment also seems to be a significant element, i.e., unemployed parents reported higher stress levels regarding their parental role and felt more stressed about upbringing than participants who were employed at the time of our study.

According to the National Survey of Children's Health (U.S. Department of Health and Human Services, 2014), parents of approximately 11% of children usually or always feel stress related to parenting. This percentage is higher for low-income families, where parents of approximately 19% of children usually or always feel parenting stress (USDHHS, 2014). McLoyd (1990) stated that parenting stress is one of many factors related to parenting practices and parental effectiveness. Parents who experienced high levels of stress, particularly from financial difficulties, were typically less warm and affectionate with their children and more likely to use power-assertive techniques than parents without such stress. Indeed, parental stress is elevated, especially among parents experiencing poverty, but is also related to several other sociodemographic factors such as age, gender, temperament, adverse childhood experiences (Crnic and Ross, 2017; Deater-Deckard and Panneton, 2017; Hadjicharalambous, 2021; Steele *et al.*, 2016). Previous research revealed that financial stressors impact parental psychological states, influencing how parents interact with their children, thus influencing child outcomes. Parents who experience financial stress may engage in fewer nurturing behaviors toward their children, be more rejective and punitive toward their children, and show indifference in their interactions with their children (Mistry *et al.*, 2002; McLoyd, 1990; Murry *et al.*, 2001; Elder, Nguyen, and Caspi, 1985; McLoyd, 1989). Our findings indicated that parents with lower education felt more anxious about their relationships and their ways of rearing their children. They were more rejecting and applied more authoritarian parenting practices towards their children. On the other hand, parents with a higher educational level provided more autonomy, stability to family rules and consistency toward their children. Similar findings confirm that parent's higher level of education improves children's development; parents with a higher education applied more effective parenting practices and approaches, thus achieving better interaction and relations with their children. On the contrary, parents with a lower education applied more authoritarian parental practices and, at the same time, appeared to be more permissive toward their children (Coleman and Karraker, 2000; Bezeveggis, 2012; Hadjicharalambous and Demetriou, 2020). Our results showed that parents with one or two children felt less stressed about their parental role, reported less dysfunctional interaction with their children, experienced less anxiety about raising their children, and applied less

authoritarian parenting practices. Additionally, they displayed more warmth and acceptance toward their children while providing more autonomy than families with three or more offspring. Similar results to the present study were previously stated by Deliliga (2015), Galani (2011), Hadjicharalambous and Demetriou (2021), who stated that the supportive parent type depends on the number of children in the family; parents with only one or two children were more supportive and warmer towards their offspring than those with three or more children. Research findings revealed that parents' distress, parent-child dysfunctional interaction, and childrearing correlated and predicted positively harmful parenting practices as rejection, chaos, and coercion. On the other hand, parental distress, personal distress, parent-child dysfunctional interaction, and childrearing – difficult child predicted negatively positive parenting practices as warmth, structure, and autonomy support. Similar findings identified parental stress as an essential element of the parenting behavior (Abidin, 1995; Anthony *et al.*, 2005; Deater-Deckard, 1998; Deater-Deckard and Scarr, 1996; Huang *et al.*, 2014; McPherson *et al.*, 2009; Rodgers, 1998; Silver *et al.*, 2006). Parents who experienced higher levels of perceived parenting stress were more likely to be authoritarian, harsh, and negative in their parenting role and had an insecure attachment with their children. Research confirms that parenting stress has a significant effect on children's development, children's social adjustment, and the development of behavioral problems (Frontini, Moreira, and Canavarro, 2016; Liu and Wang, 2015; Haskett *et al.*, 2006; Reitman *et al.*, 2002). Furthermore, parenting stress negatively affects children's functioning, and is linked to children's behavioral, social and emotional problems (Anthony *et al.*, 2005; Deater-Deckard, 2005; Cappa *et al.*, 2011; Soltis *et al.*, 2015). Parental behavior describes parenting practices toward children (Forgatch and Patterson, 2010; Forgatch *et al.*, 2009). Parenting practices are associated with children's socialization, health, nutrition, and psychological development. Positive parenting practices may be a protective factor toward children and may encourage children's development of skills and self-confidence (Vera and Moon, 2013).

LIMITATIONS

We noted the following limitations to our study. The first limitation refers to the sample; the fathers' sample is smaller than the mothers' sample. Indeed, in almost all parenting surveys, mothers exceed fathers regarding the number of participants. A second limitation is that parents were the only informants, as we did not include any data from an observational evaluation of parenting practices, thus assuming that our participants' responses were reliable and honest.

CONCLUSION

The present study examined the relationship between parenting stress and the demands of the parental role. The evidence showed that parenting stress is associated with detrimental parenting practices and that highly stressed parents tended to apply more harsh and ineffective parenting strategies. Such practices may lead to negative consequences on child development, family dynamics, and parenting satisfaction. The research revealed that parent's sociodemographic characteristics are associated with parental stress and the corresponding parenting practices that they adopt. This study

underlines that it is essential to identify elements of parenting and families' functioning that are an obstacle for parents and childrearing to prevent future problems.

Acknowledgments: This research would not have been possible without all parents' exceptional support, who voluntarily shared their personal experiences and thoughts.

Conflict of Interest: The authors declare no conflicts of interest.

REFERENCES

- Abidin, R. R. 1990. *The Parenting Stress Index-Short Form*. Charlottesville, VA: Pediatric Psychology Press.
- Abidin, R. R. 1995. *Parenting stress index manual(3rd ed.*. Odessa, FL: Psychological Assessment Resources.
- Alfredsson, E. 2018. *Growing together: Participation in and outcomes of programs for parents of adolescents*. Department of Psychology, University of Gothenburg.
- Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., and Shaffer, S. 2005. The relationships between parenting stress, parenting behaviour and preschoolers' social competence and behaviour problems in the classroom. *Infant and Child Development: An International Journal of Research and Practice*, 14(2), 133-154.
- Assel, M. A., Landry, S. H., Swank, P. R., Steelman, L., Miller-Loncar, C., and Smith, K. E. 2002. How do mothers' childrearing histories, stress and parenting affect children's behavioural outcomes?. *Child: Care, health and development*, 28(5), 359-368.
- Baker, C. E. 2017. Father-son relationships in ethnically diverse families: Links to boys' cognitive and social emotional development in preschool. *Journal of Child and Family Studies*, 26(8), 2335–2345. <https://doi.org/10.1007/s10826-017-0743-3>.
- Bezeveggis, H. 2012. *Family and child*. Retrieved from http://blogs.sch.gr/kourtsis/files/2012/10/8_meros.pdf
- Bloomfield, L., and Kendall, S. 2012. Parenting self-efficacy, parenting stress and child behaviour before and after a parenting programme. *Primary Health Care Research and Development*, 13(4), 364-372.
- Brady-Smith, C., Brooks-Gunn, J., Tamis-LeMonda, C. S., Ispa, J. M., Fuligni, A. S., Chazan-Cohen, R., and Fine, M. A. 2013. Mother–infant interactions in Early Head Start: A person-oriented within-ethnic group approach. *Parenting*, 13(1), 27–43. <https://doi.org/10.1080/15295192.2013.732430>.
- Cabrera, N. J., Volling, B. L., and Barr, R. 2018. Fathers are parents, too! Widening the lens of parenting for children's development. *Child Development Perspectives*, 12(3), 152–157. <https://doi.org/10.1111/cdep.12275>.
- Camisasca, E., Miragoli, S., and Di Blasio, P. 2014. Is the Relationship Between Marital Adjustment and Parenting Stress Mediated or Moderated by Parenting Alliance?. *Europe's Journal of Psychology*, 10(2), 235-254.
- Cappa, K. A., Begle, A. M., Conger, J. C., Dumas, J. E., and Conger, A. J. 2011. Bidirectional relationships between parenting stress and child coping competence: Findings from the pace study. *Journal of Child and Family Studies*, 20(3), 334-342. doi:10.1007/s10826-010-9397-0.
- Chang, Y., Fine, M. A., Ispa, J., Thornburg, K. R., Sharp, E., and Wolfenstein, M. 2004. Understanding parenting stress

- among young, low-income African-American first-time mothers. *Early Education and Development*, 15(3), 265–282. https://doi.org/10.1207/s15566935eed1503_2.
- Cherry, K., Gerstein, E., and Ciciolla, L. 2019. Parenting Stress and Children's Behavior: Transactional Models During Early Head Start. *Journal of Family Psychology*, 33(8), 916-926.
- Coats, E. E., and Phares, V. 2019. Pathways linking non-resident father involvement and child outcomes. *Journal of Child and Family Studies*, 28(6), 1681–1694. https://doi.org/10.1207/s15374424jccp2104_12.
- Cohen, O., and Finzi-Dottan, R. 2005. Parent-child relationships during the divorce process; from attachment theory and intergenerational perspective. *Contemporary Family Therapy*, 27(1), 81-99.
- Coleman, P. K., and Karraker, K. H. 2000. Parenting self-efficacy among mothers of school-age children: Conceptualization, measurement, and correlates. *Family Relations*, 49(1), 13-24.
- Conger, K. J., Rueter, M. A., and Conger, R. D. 2000. *The role of economic pressure in the lives of parents and their adolescents: The family stress model*. In L. J. Crockett R. J. Silbereisen (Eds.), *Negotiating adolescence in times of social change* (pp. 201–223). Cambridge, England: Cambridge University Press.
- Cooper, C. E., McLanahan, S. S., Meadows, S. O., and Brooks-Gunn, J. 2009. Family structure transitions and maternal parenting stress. *Journal of Marriage and Family*, 71(3), 558–574. <https://doi.org/10.1111/j.1741-3737.2009.00619.x>.
- Crnicek, K. A., Gaze, C., and Hoffman, C. 2005. Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behaviour at age 5. *Infant and Child Development: An International Journal of Research and Practice*, 14(2), 117-132.
- Crnicek, K., and Low, C. 2002. *Everyday stresses and parenting*. In M.H. Bornstein (Ed.), *Handbook of Parenting Volume 5 Practical Issues in Parenting* (pp. 243–268). Mahwah, NJ: Lawrence Erlbaum Associates.
- Crnicek, K., and Ross, E. 2017. Parenting stress and parental efficacy. In *Parental Stress and Early Child Development: Adaptive and Maladaptive Outcomes* (pp. 263-284). Springer International Publishing.
- Deater-Deckard, K. 2005. Parenting stress and children's development: introduction to the special issue. *Infant and Child Development: An International Journal of Research and Practice*, 14(2), 111-115.
- Deater-Deckard, K. 1998. Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical psychology: Science and practice*, 5(3), 314-332.
- Deater-Deckard, K. 2008. *Parenting stress*. New haven, CT: Yale University Press.
- Deater-Deckard, K., and Panneton, R. 2017. Unearthing the developmental and intergenerational dynamics of stress in parent and child functioning. In *Parental stress and early child development* (pp. 1-11). Springer, Cham.
- Deater-Deckard, K., and Scarr, S. 1996. Parenting stress among dual-earner mothers and fathers: Are there gender differences?. *Journal of Family Psychology*, 10(1), 45-59.
- DeGarmo, D. S., and Forgatch, M. S. 2007. Efficacy of parent training for stepfathers: From playful spectator and polite stranger to effective step fathering. *Parenting: Science and Practice*, 7(4), 331-355.
- DeGarmo, D. S., Patterson, G. R., and Forgatch, M. S. 2004. How do outcomes in a specified parent training intervention maintain or wane over time?. *Prevention Science*, 5(2), 73-89.
- Deliliga, S. 2015. *Behavioural problems of preschool children in relation to parental type and parental stress* (Master's thesis Thessaly University, Greece).
- Dubowitz, H., Black, M. M., Cox, C. E., Kerr, M. A., Litrownik, A. J., Radhakrishna, A., ... Runyan, D. K. 2001. Father involvement and children's functioning at age 6 years: A multisite study. *Child Maltreatment*, 6(4), 300–309. <https://doi.org/10.1177/1077559501006004003>.
- Elder, G. H., Nguyen, T., and Caspi, A. 1985. Linking family hardship to children's lives. *Child Development*, 56(2), 361–375. https://doi.org/10.1007/978-3-662-02475-1_9.
- Erel, O., and Burman, B. 1995. Interrelatedness of marital relations and parent-child relations: a meta-analytic review. *Psychological Bulletin*, 118(1), 108-132.
- Fagan, J., Bernd, E., and Whiteman, V. 2007. Adolescent fathers' parenting stress, social support, and involvement with infants. *Journal of Research on Adolescents*, 17(1), 1–22. <https://doi.org/10.1111/j.1532-7795.2007.00510.x>.
- Feldman, R., Eidelman, A. I., and Rotenberg, N. 2004. Parenting stress, infant emotion regulation, maternal sensitivity, and the cognitive development of triplets: A model for parent and child influences in a unique ecology. *Child Development*, 75(6), 1774–1791.
- Forgatch, M. and Patterson, G. 2010. Parent Management Training – Oregon Model: *An intervention for antisocial behavior in children and adolescents*. In: Weisz J, Kazdin A, (Eds. *Evidence-Based Psychotherapies for Children and Adolescents*. Second Edition. New York, NY: Guilford Press. p 159-178. Retrieved from: https://www.researchgate.net/publication/285033077_Parent_management_training-Oregon_model_An_intervention_for_antisocial_behavior_in_children_and_adolescents/download
- Forgatch, M., and DeGarmo, D. 1999. Parenting Through Change: An Effective Prevention Program for Single Mothers. *Journal of Consulting and Clinical Psychology*, 67(5), 711-724
- Forgatch, M., Patterson, G., DeGarmo, D., and Beldavs, Z. 2009. Testing the Oregon delinquency model with 9-year follow-up of the Oregon Divorce Study. *Development and Psychopathology*, 21(2), 637-660. doi: 10.1017/S0954579409000340
- Frontini, R., Moreira, H., and Canavarro, M. C. 2016. Parenting stress and quality of life in pediatric obesity: The mediating role of parenting styles. *Journal of Child and Family Studies*, 25(3), 1011–1023.
- Fulginiti, A. S., Brady-Smith, C., Tamis-LeMonda, C. S., Bradley, R. H., Chazan-Cohen, R., Boyce, L., and Brooks-Gunn, J. 2013. Patterns of supportive mothering with 1-, 2-, and 3-year-olds by ethnicity in Early Head Start. *Parenting*, 13(1), 44–57. <https://doi.org/10.1111/j.1741-3737.2001.00915.x>.
- Galani, A. X. 2011. *The effect of the characteristics of the large and non-large family on the psychosocial development of children and adolescents* (Master thesis, Ioannina University, Greece).
- Giallo, R., Rose, N., and Vittorino, R. 2011. Fatigue, wellbeing and parenting in mothers of infants and toddlers with sleep problems. *Journal of Reproductive and Infant Psychology*, 29(3), 236-249.

- Giallo, R., Wade, C., Cooklin, A., and Rose, N. 2011. Assessment of maternal fatigue and depression in the postpartum period: support for two separate constructs. *Journal of Reproductive and Infant Psychology*, 29(1), 69-80.
- Guajardo, N. R., Snyder, G., and Petersen, R. 2009. Relationships among parenting practices, parental stress, child behaviour, and children's social-cognitive development. *Infant and Child Development: An International Journal of Research and Practice*, 18(1), 37-60. <https://doi.org/10.1002/icd.578>.
- Hadjicharalambous, D., and Demetriou, L. 2021. Examining the relationship between parenting practices and children's characteristics. *European Journal of Social Sciences Studies*, 6(1), 97-112.
- Hadjicharalambous, D. 2021. Examining the Influence of Father's and Mother's Characteristics in Positive and Negative Parenting Practices. *International Journal of Social Science and Human Research*, 4 (1), 23-31.
- Hadjicharalambous, D., and Dimitriou, L. 2020. The Relationship Between Parents' Demographic Factors and Parenting Styles: Effects on Children's Psychological Adjustment. *Psychology*, 10(4), 125-139.
- Harper, S. E., and Fine, M. A. 2006. The effects of involved non-residential fathers' distress, parenting behaviors, inter-parental conflict, and the quality of father-child relationships on children's well-being. *Fathering*, 4(3), 286-311. <https://doi.org/10.3149/fth.0403.286>.
- Haskett, M., Ahern, L., Ward, C., and Allaire, J. 2006. Factor structure and validity of the Parenting Stress Index-Short Form. *Journal of Clinical Child and Adolescent Psychology*, 35(2), 302-312.
- Huang, C. Y., Costeines, J., Ayala, C., and Kaufman, J. S. 2014. Parenting stress, social support, and depression for ethnic minority adolescent mothers: Impact on child development. *Journal of Child and Family Studies*, 23(2), 255-262. doi:10.1007/s10826-013-9807-1
- Jeong, J., Obradovic, J., Rasheed, M., McCoy, D. C., Fink, G., and Yousafzai, A. 2019. Maternal and paternal stimulation: Mediators of parenting intervention effects on preschoolers' development. *Journal of Applied Developmental Psychology*, 60, 105-118. <https://doi.org/10.1016/j.appdev.2018.12.001>.
- Kohlhoff, J., and Barnett, B. 2013. Parenting self-efficacy: Links with maternal depression, infant behaviour and adult attachment. *Early human development*, 89(4), 249-256.
- Kwok, S., and Wong, D. 2000. Mental health of parents with young children in Hong Kong: The roles of parenting stress and parenting self-efficacy. *Child and Family Social Work*, 5(1), 57-65.
- Kyazze, D. R., Maani, J. S., and Lubaale, G. 2020. Fathers' parenting practices and the children's approaches to learning from three through five years: A case of Mityana District, Uganda. *Psychology*, 10(2), 57-64.
- Landry, S. H., Smith, K. E., and Swank, P. R. 2006. Responsive parenting: Establishing early foundations for social, communication, and independent problem-solving skills. *Developmental Psychology*, 42(4), 627-642. <https://doi.org/10.1037/0012-1649.42.4.627>.
- Larkin, S. J., and Otis, M. 2019. The relationship of child temperament, maternal parenting stress, and maternal child interaction and child health rating. *Child and Adolescent Social Work Journal*, 36(6), 631-640. <https://doi.org/10.1007/s10560-018-0587-8>.
- Lau, E. Y. H., and Power, T. G. 2020. Coparenting, parenting stress, and authoritative parenting among Hong Kong Chinese mothers and fathers. *Parenting*, 20(3), 167-176. <https://doi.org/10.1080/15295192.2019.1694831>.
- Lau, W., and Peterson, C. C. 2011. Adults and children with Asperger syndrome: Exploring adult attachment style, marital satisfaction and satisfaction with parenthood. *Research in Autism Spectrum Disorders*, 5(1), 392-399.
- Leaper, C. 2002. Parenting boys and girls. In M. H. Bornstein (Ed.), *Handbook of parenting, Vol. 2: Biology and ecology of parenting*. Mahwah: Lawrence Erlbaum Associates Publishers.
- Lee, S. J., Pace, G. T., Lee, J. Y., and Knauer, H. 2018. The association of fathers' parental warmth and parenting stress to child behavior outcomes. *Children Youth Services Review*, 91(C), 1-10. <https://doi.org/10.1016/j.chilcyouth.2018.05.020>.
- Leigh, B., and Milgrom, J. 2008. Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC Psychiatry*, 8(1), 1-11. <https://doi.org/10.1186/1471-244X-8-24>.
- Liu, L., and Wang, M. 2015. Parenting stress and children's problem behavior in China: The mediating role of parental psychological aggression. *Journal of Family Psychology*, 29(1), 20-28. doi:10.1037/fam0000047
- Marrone, M. 2014. *Attachment and Interaction: From Bowlby to Current Clinical Theory and Practice Second Edition*. Jessica Kingsley Publishers.
- Martinez, C. R., and Forgatch, M. S. 2001. Preventing problems with boys' noncompliance: Effects of a parent training intervention for divorcing Mothers. *Journal of consulting and clinical psychology*, 69(3), 416-428.
- McLoyd, V. C. 1989. Socialization and development in a changing economy: The effect of parental job and income loss on children. *American Psychologist*, 44(2), 293-302. <https://doi.org/10.1037/0003-066X.44.2.293>.
- McLoyd, V. C. 1990. The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61(2), 311-346. <https://doi.org/10.1111/j.1467-8624.1990.tb02781.x>.
- McPherson, A. V., Lewis, K. M., Lynn, A. E., Haskett, M. E., and Behrend, T. S. 2009. Predictors of parenting stress for abusive and nonabusive mothers. *Journal of Child and Family Studies*, 18(1), 61-69. doi:10.1007/s10826-008-9207-0
- McWayne, C., Downer, J. T., Campos, R., and Harris, R. D. 2013. Father involvement during early childhood and its association with children's early learning: A meta-analysis. *Early Education and Development*, 24(6), 898-922. <https://doi.org/10.1080/10409289.2013.746932>.
- Mistry, R. S., Vandewater, E. A., Huston, A. C., and McLoyd, V. C. 2002. Economic wellbeing and children's social adjustment: The role of family process in an ethnically diverse low-income sample. *Child Development*, 73(3), 935-951. <https://doi.org/10.1111/1467-8624.00448>.
- Morrill, M. I., Hines, D. A., Mahmood, S., and Cordova, J. V. 2010. Pathways between marriage and parenting for wives and husbands: The role of co-parenting. *Family process*, 49(1), 59-73.
- Murry, V. M., Brown, P. A., Brody, G. H., Cutrona, C. E., and Simons, R. L. 2001. Racial discrimination as a moderator of the links among stress, maternal psychological

- functioning, and family relationships. *Journal of Marriage and Family*, 63(4), 915-926.
- Nash, C., Morris, J., and Goodman, B. 2008. A study describing mothers' opinions of the crying behaviour of infants under one year of age. *Child Abuse Review: Journal of the British Association for the Study and Prevention of Child Abuse and Neglect*, 17(3), 191-200.
- Neece, C. L., Green, S. A., and Baker, B. L. 2012. Parenting stress and child behavior problems: A transactional relationship across time. *American journal on intellectual and developmental disabilities*, 117(1), 48-66. <https://doi.org/10.1352/1944-7558-117.1.48>.
- O'Neal, C. R., Weston, L., Brooks-Gunn, J., Berlin, L. J., and Atapattu, R. 2017. Maternal responsivity to infants in the "High Chair" assessment: Longitudinal relations with toddler outcomes in a diverse, low-income sample. *Infant Behavior and Development*, 100(47), 125-137. <https://doi.org/10.1016/j.infbeh.2017.04.002>.
- Ogden, T., and Hagen, K. A. 2008. Treatment effectiveness of Parent Management Training in Norway: a randomized controlled trial of children with conduct problems. *Journal of consulting and clinical psychology*, 76(4), 607-621.
- Östberg, M., and Hagekull, B. 2000. A structural modeling approach to the understanding of parenting stress. *Journal of clinical child psychology*, 29(4), 615-625.
- Pelchat, D., Bisson, J., Bois, C., and Saucier, J. F. 2003. The effects of early relational antecedents and other factors on the parental sensitivity of mothers and fathers. *Infant and Child Development: An International Journal of Research and Practice*, 12(1), 27-51. <https://doi.org/10.1002/icd.335>.
- Ponnet, K., Mortelmans, D., Wouters, E., Van Leeuwen, K., Bastiaens, K., and Pasteels, I. 2013. Parenting stress and marital relationship as determinants of mothers' and fathers' parenting. *Personal Relationships*, 20(2), 259-276. <https://doi.org/10.1111/j.1475-6811.2012.01404.x>.
- Reitman, D., Currier, R., and Stickle, T. 2002. A critical evaluation of the Parenting Stress Index-Short Form (PSI-SF) in a Head Start population. *Journal of Clinical Child and Adolescent Psychology*, 31(3), 384-392.
- Rholes, W. S., Simpson, J. A., and Friedman, M. 2006. Avoidant attachment and the experience of parenting. *Personality and Social Psychology Bulletin*, 32(3), 275-285. <https://doi.org/10.1177/0146167205280910>.
- Rodgers, A. 1998. Multiple sources of stress and parenting behavior. *Children and Youth Services Review*, 20(6), 525-546. doi:10.1016/S0190-7409(98)00022-X
- Silver, E. J., Heneghan, A. M., Bauman, L. J., and Stein, R. E. 2006. The relationship of depressive symptoms to parenting competence and social support in inner-city mothers of young children. *Maternal and Child Health Journal*, 10(1), 105-112. doi:10.1007/s10995-005-0024-4
- Skinner, E. A., Wellborn, J. G., and Regan, C. 1986. The "Parents as Social Context Questionnaire"(PASCQ): Parent- and child-reports of parent involvement, structure, and autonomy support. *Rochester, NY*.
- Soltis, K., Davidson, T. M., Moreland, A., Felton, J., and Dumas, J. E. 2015. Associations among parental stress, child competence, and school-readiness: Findings from the PACE study. *Journal of Child and Family Studies*, 24(3), 649-657. doi:10.1007/s10826-013-9875-2
- Sroufe, L. A. 2005. Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment and Human Development*, 7(4), 349-367. <https://doi.org/10.1080/14616730500365928>
- Steele, H., Bate, J., Steele, M., Dube, S. R., Danskin, K., Knafo, H., ... and Murphy, A. 2016. Adverse childhood experiences, poverty, and parenting stress. *Canadian journal of behavioural science*, 48(1), 32-38.
- Thamer, A., Luijk, M. P. C. M., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Jaddoe, V. W. V., Hofman, A., ... Tiemeier, H. 2012. Infant attachment, parenting stress, and child emotional and behavioral problems at age 3 years. *Parenting: Science and Practice*, 12(4), 261-281. <https://doi.org/10.1080/15295192.2012.709150>
- Trautmann-Villalba, P., Gschwendt, M., Schmidt, M. H., and Laucht, M. 2006. Father-infant interaction patterns as precursors of children's later externalizing behaviour problems: A longitudinal study over 11 years. *European Archives of Psychiatry and Clinical Neuroscience*, 256(6), 344-349. <https://doi.org/10.1007/s00406-006-0642-x>.
- U.S. Department of Health and Human Services. 2014. *The health and well-being of children: A portrait of states and the nation, 2011-2012*. Rockville, MD: USDHHS. <https://mchb.hrsa.gov/nsch/2011-12/health/childs-family/parental-stress.html>.
- Uji, M., Sakamoto, A., Adachi, K., and Kitamura, T. 2014. The impact of authoritative, authoritarian, and permissive parenting styles on children's later mental health in Japan: Focusing on parent and child gender. *Journal of Child and Family Studies*, 23(2), 293-302.
- Vera, E. and Moon, B. 2013. An Empirical Test of Low Self-Control Theory: Among Hispanic Youth. *Youth Violence and Juvenile Justice*, 11(1), 79-93. doi:10.1177/1541204012441628
- Waylen, A., Stallard, N., and Stewart-Brown, S. 2008. Parenting and health in mid-childhood: a longitudinal study. *European Journal of Public Health*, 18(3), 300-305.
- Williamson, V., Creswell, C., Fearon, P., Hiller, R. M., Walker, J., and Halligan, S. L. 2017. The role of parenting behaviors in childhood post-traumatic stress disorder: A meta-analytic review. *Clinical Psychology Review*, 100(53), 1-13. <https://doi.org/10.1016/j.cpr.2017.01.005>
