



Human Development

Stress, parenting and family support in attention deficit/hyperactivity disorder


Fernanda P. Rezende¹

 <https://orcid.org/0000-0002-0086-8470>

Sandra L. Calais¹

 <https://orcid.org/0000-0001-5704-464>

Hugo F. Cardoso¹

 <https://orcid.org/0000-0003-1960-2936>

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¹ São Paulo State University (Unesp), Bauru, SP, Brazil.

Abstract

Attention Deficit/Hyperactivity Disorder (ADHD) causes impairments in child development. Parents of children with this diagnosis may present stress, problems in managing rules and limits, compromising parenting style, besides perceiving family support as low. The objectives of the study were to characterize the stress, parenting style and perception of family support in parents of children with ADHD, establishing relationships between these variables. For this, 42 parents (fathers and mothers) responded to Lipp's Stress Symptoms Inventory for Adults (LSSI), the Inventory of Parenting Styles (IPS) and the Family Support Perception Inventory (FSPI). The results show that the mothers presented more stress than the fathers; there was also an association of mothers' stress with negative parenting practices and low perception of family support. Another finding was that the higher the child's age, the worse the parenting style presented by the family. New research should support this data.

Keywords: ADHD; stress; family; parenting; support.

ESTRESSE, PARENTALIDADE E SUPORTE FAMILIAR NO TRANSTORNO DO DÉFICIT DE ATENÇÃO/ HIPERATIVIDADE

Resumo

O transtorno de déficit de atenção/hiperatividade (TDAH) gera prejuízos para o desenvolvimento infantil. Pais de crianças com esse diagnóstico podem apresentar estresse e problemas no gerenciamento de limites, comprometendo o estilo parental, além de perceberem o suporte familiar como baixo. O objetivo do estudo foi caracterizar estresse, estilo parental e percepção de suporte familiar em pais de crianças com TDAH, estabelecendo relações entre essas variáveis. Assim, 42 pais (pai e mãe) responderam ao Inventário de Sintomas de Stress para Adultos de Lipp (ISSL), Inventário de Estilos Parentais (IEP) e Inventário de Percepção de Suporte Familiar (IPSF). Os resultados indicaram que as mães apresentaram mais estresse do que os pais; também houve associação do estresse das mães com práticas parentais negativas e baixa percepção de suporte familiar. Outro achado foi que, quanto maior a idade da criança, pior o estilo parental que a família apresenta. Novas pesquisas devem dar apoio a esses dados.

Palavras-chave: TDAH; estresse; família; parentalidade; apoio.

ESTRÉS, PARENTALIDAD Y SOPORTE FAMILIAR EN EL TRASTORNO DE DÉFICIT DE ATENCIÓN/HIPERACTIVIDAD

Resumen

El trastorno de déficit de atención/hiperactividad (TDAH) genera perjuicios para el desarrollo infantil. Los padres de niños con este diagnóstico pueden presentar estrés, problemas en gestión de límites, comprometiendo el estilo parental, además de percibir el soporte familiar como bajo. Los objetivos del estudio fueron caracterizar estrés, estilo parental y percepción de soporte familiar en padres de niños con TDAH, estableciendo relaciones entre estas variables. Así, 42 padres (padres y madres) respondieron al Inventario de Síntomas de Estrés para Adultos de Lipp (ISSL), Inventario de Estilos Parentales (IEP) e Inventario de Percepción de Apoyo Familiar (IPSF). Los resultados indican que las madres presentan más estrés que los padres; también hubo asociación del estrés de las madres con prácticas parentales negativas y baja percepción de soporte familiar. Otro hallazgo fue que cuanto mayor es la edad del niño peor el estilo parental que la familia presenta. Las nuevas investigaciones deben apoyar estos datos.

Palabras clave: TDAH; estrés; familia; parentalidad; apoyo.

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD), according to the Diagnostic and Statistical Manual of Mental Disorders – DSM – 5 (American Psychiatric Association, 2014), is essentially characterized by a persistent pattern of inattention and/or hyperactivity – impulsivity. There are three types: predominantly inattentive, predominantly hyperactive/impulsive and the combination type. Its prevalence is around 5% in school-age children and is considered one of the most common psychiatric disorders in childhood (American Psychiatric Association, 2014).

For Barkley (2008), ADHD is a disorder of the development of self-control, because it is characterized predominantly by problems in maintaining attention, in impulse control and in the level of activity. Although it is considered a neurobiological condition, it is emphasized in the DSM-5 (American Psychiatric Association, 2014) that early childhood family interaction patterns do not cause the disorder. However, family influences on the course and aggravation of ADHD cannot be disregarded. Pires, Silva, & Assis (2012) identified that families with more dysfunctional strategies had 2.7 times more children with the disorder than those with

better functioning. Variables such as maternal verbal aggression against the child and the father, severe physical violence practiced by the father against the mother and physical or verbal fights between the child and siblings are associated with worsening the symptoms associated with ADHD.

The family environment in which children with ADHD are included is described by research results as troublesome, as parents and children may have conflicts in the relationship, with marital disputes and family violence occurring more frequently than in families without the disorder (Pires et al., 2012; Pires, Silva, & Assis, 2013). Therefore, faced with the failure in disciplining the children, the parents may perceive them with negative characteristics, such as being bad and disobedient, which can generate parental stress and difficulties in managing the child's behavior.

Studies such as those of Bargas and Lipp (2013), Bellé, Andreazza, Ruschel, and Bosa (2009), Healey, Flory, Miller, and Halperin (2011), Del Bianco Faria and Cardoso (2016), Teixeira, Marino, and Carreiro (2015) and Yousefia, Far, and Abdolahin (2011) show that mothers of children with ADHD present high stress. This is aggravated by the predominance of hyperactive (Bargas & Lipp, 2013; Bellé et al., 2009), or impulsive (Healey et al., 2011) symptoms in the child, which, in turn, affect the parenting style that tends to be inconsistent or punitive (Healey et al., 2011) and authoritarian or permissive (Yousefia et al., 2011).

Guerro-Prado, Mardomingo-Sanz, Ortiz-Guerrac, García-García, and Soler-López (2015), with the aim of evaluating the clinical evolution of the stress of the parents (fathers and mothers) of children and adolescents with ADHD, accompanied 429 families of patients with the disorder. They found that parents of children receiving treatment with good results (100% with psychoeducational therapy and 97% with medication) showed significant improvements in the stress.

In the study by Yousefia et al. (2011), which correlated stress with the parenting style and compared a clinical group with a nonclinical one, it was possible to identify that there were significant differences between the groups: mothers of children with ADHD presented more stress and used more punitive methods in the management of their children than the nonclinical group. The authors indicated that parental stress can worsen children's behavior because the relationship with their children becomes more negative due to the punitive practices that these mothers tend to use.

Healey et al. (2011) found that stress affects the parenting style and that a positive parenting style acts as a moderator of the symptoms of ADHD. The study showed that the more severe the symptoms of ADHD, the higher the maternal stress levels, which affected the parenting style independent of the characteristics of the child, with more stress equating to more punishment and parental inconsistency by the mothers. Teixeira et al. (2015) also found positive correlations between behavior problems of children with ADHD and parenting styles characterized by the use of punishment and neglect.

Tancred and Greeff (2015) followed 98 mothers of children with ADHD to check which parenting styles are associated with coping strategies and family adaptation to a child with ADHD. The authors highlighted that the authoritative parenting style, characterized by providing affection, stimulating autonomy and emotional regulation and giving discipline in a coherent way, is related to better adaptation strategies. Thus, the ADHD of children from families in which the mothers had an authoritative style in their repertoire did not show negative impacts, since this style favored the mother/child interaction, with the use of medication possibly potentiating this adaptive effect.

In their studies, Bargas and Lipp (2013), Del Bianco Faria and Cardoso (2016), Healey et al. (2011), Tancred and Greeff (2015) and Yousefia et al. (2011) revealed how children's ADHD relates to stress and the parenting style. Chang, Chiu, Wu and Gau (2013) explored how paternity is related to the disorder, with the parenting style among the variables investigated. They reported that ADHD in the child was associated with a negative impact on the paternal parenting and father/child interactions. Thus, parents face significant difficulties, evidencing the need to cope and to receive some kind of support. One of the forms of social support is family support, seen as the manifestation of attention, affection, dialogue, freedom, affective closeness, autonomy and independence among family members. The main effect of family support is that when family members perceive it as satisfactory, they find ways to cope with adverse situations (Baptista, 2009).

Pires et al. (2013), in a longitudinal study with 479 children who studied in public schools, found that mothers of children with ADHD were more likely to practice psychological violence with their children and, in general, the prevalence of the disorder in children was higher when there was family dysfunction, compared to those families that had better forms of family interaction. Other contextual factors

were also described by Muñoz-Silva, Lago-Urbano, Sanchez-García, and Carmo-na-Márquez (2017) as relevant for their mediating function in parental stress, for example, the perception of less social support was related to more stress.

Other studies that related the social support of the parents with ADHD were that of Bellé et al. (2009) and the study by Moreira (2010). In the first one, mothers of children with ADHD perceived less social support and little satisfaction with what they received. However, when they reported satisfaction, it was possible to note that the support worked as an attenuating factor for the stress. For Moreira (2010), the perception of family support of the parents (fathers/mothers) was less, especially in those with more time living with the child's diagnosis.

In this way, it is possible to describe that the parents influence the manifestation of the disorder in the same way that the behavior of the child influences the behavior of the parents. This reveals a bidirectionality in this interaction, because while ADHD can be a generator of family conflicts and tensions, family conflicts and tensions can intensify the symptoms of the disorder. Although the literature shows that children with ADHD generate stressful conditions and this is related to the use of negative parental practices and parents who perceive less social support, no studies were found that relate these three components: social support, parenting style and stress and that compare these variables in mothers and fathers, especially relating paternity and ADHD. Thus, the present study aimed to verify associations between indicators of stress, parenting styles and the perception of family support in a sample of parents (fathers and mothers) of children with ADHD.

2. Method

The study had a cross-sectional methodological design, with a non-probabilistic and intentional sample.

2.1 Participants

Participants were 42 parents of children with ADHD diagnoses, totaling a group of 20 fathers and 22 mothers of 26 children. The children were between 6 and 13 years of age and attended at the speech therapy clinic of the Laboratory of Learning Deviations (LIDA), Unesp/Marília-SP, referred by the school due to difficulties in literacy. The inclusion criterion for parents participating in the study was to have children with a medical diagnosis of ADHD.

2.2 Instruments

In addition to the sociodemographic data form, the instruments used were:

- *Lipp's Stress Symptoms Inventory for Adults (LSSI)* (Lipp, 2000): which aims to provide data on the symptomatology of stress in adults. It consists of three parts referring to the phases of stress. In the first part, there are 15 items about physical or psychological symptoms that the person has experienced in the previous 24 hours; in the second, there are 10 physical and 5 psychological symptoms related to the symptoms experienced in the previous week; and in the third, there are 12 physical symptoms and 11 psychological symptoms related to the symptoms experienced in the previous month. The responses classify stress into four phases: alarm, resistance, near exhaustion and exhaustion, as well as the predominance of psychological or physical symptoms. The alarm phase is considered positive because it prepares the body for action, adrenaline is produced and the person becomes more attentive, productive and motivated. The resistance phase occurs when the person stays alarmed for a long time, with the body seeking to restore the balance, cortisol being produced and the person becoming vulnerable to viruses and bacteria. When the stress exceeds the possible limits of management, there is no more physical and emotional resistance, the individual goes to the phase of near exhaustion, in which much effort is needed to produce, anxiety can arise and there is a greater production of cortisol and a significant drop in the immunological system. The final phase is considered more pathological, the body goes into exhaustion, considerable imbalance may occur, with depression, difficulty concentrating and serious diseases.
- *The Inventory of Parenting Styles (IPS)* (Gomide, 2006): The inventory is composed of 42 questions, marked on a three-point Likert-type scale, which should be answered by the parents. It evaluates the predominant parental strategies, which can be positive (positive monitoring and moral behavior) or negative (inconsistent punishment, neglect, relaxed discipline, negative monitoring and physical abuse). Positive monitoring refers to the appropriate use of care, rule-making, continuous and secure distribution of affection, monitoring and supervision of the children's school activities; moral

behavior implies passing on to the children the ethical and moral values of society, such as a sense of justice, empathy, responsibility, work, generosity, knowledge about alcohol and drug use, and information about safe sex; neglect refers to the lack of attention and affection; physical and psychological abuse is related to hitting, threats of abandonment, blackmail and humiliation; relaxed discipline is to allow the child to not comply with the established rules; inconsistent punishment is when parents punish or reinforce according to their own mood, and negative monitoring is characterized by too many instructions that, regardless of whether they are followed or not, make the environment hostile. The instrument classifies the parenting styles into different types: the optimum parenting style (predominance of positive practices); regular above average (presences of positive practices, but some negative practices); regular below average (presence of positive practices, but with many negative practices present); or risky (predominance of negative practices).

- *The Family Support Perception Inventory (FSPI)* (Baptista, 2009): is an inventory of 42 items that are marked on a three-point Likert-type scale. It aims to assess how much individuals perceive their family support, which may be both from the nuclear family and from the constituted family (this study considered the constituted family). The parents respond to questions that refer to three factors: Factor 1, affective-consistent, corresponds to family communication, interest, attention, sympathy, acceptance, consistent behaviors and problem-solving skills. Factor 2, adaptation, is related to negative feelings, anger, isolation, exclusion and lack of understanding. Factor 3, autonomy, assesses the relationships of trust, freedom, privacy and autonomy of the members. The instrument classifies the perception of family support in each factor as high, medium high, medium low and low.

2.3 Procedure

After approval of the study by the Ethics Committee for Research with Human Subjects (Authorization No. 1.184.997), the parents were approached in the waiting room during the consultation of their children. The procedures were explained and, after signing the consent form, the application of the instruments was

started. Ethical care was taken in accordance with Resolution 466/12 of the National Health Council.

The application of the instruments was carried out during the children's consultation times, while the parents waited for them. The instruments were answered individually in a consultation room provided by the institution, assuring the participants' privacy. The application sequence of the instruments was the socio-demographic data form, LSSI, IPS and FSPI. The duration ranged from 20 to 40 minutes.

2.4 Data analysis

Statistical analyses were performed in a descriptive and inferential manner. The descriptive data, sociodemographic data and instrument scores were analyzed in terms of frequencies and percentages. For the inferential analyses, Student's t-test was used to compare the groups in relation to the mean scores of the instruments, with Pearson's correlation analysis used to verify the associations between the instrument scores, considering a 5% level of significance

3. Results

A total of 38 of the participants of this sample were married and 4 were divorced, with ages ranging from 28 to 57 years. Regarding education, 1 had Complete Elementary School Education, 20 Complete High School Education, 2 Incomplete High School Education, 17 Complete Higher Education and 2 Incomplete Higher Education. With regard to the dyad (father and mother) there were 16 couples; with 20 males and 22 females, making up a group of fathers (male only) and a group of mothers.

In relation to the children, 73.0% were male and 27% were female, with ages ranging from 6 years to 13 years. Regarding the diagnosis of ADHD, 73.0% presented the combination form, 23.0% the inattentive form and 3.8% the hyperactive form. Due to the high number of children presenting the combination form of the disorder, no correlations were tested between the type of ADHD and the parenting styles, and family support variables.

Of the 42 parents who participated in the study, 40.5% of the participants, 33.3% of the mothers and 7.1% of the fathers, presented stress. Of the mothers, 45.5% were in the resistance phase, 9.1% in almost exhaustion and 9.1% in ex-

haustion, 59.1% with predominance of physical symptoms and 4.5% with predominance of psychological symptoms. Of the 7.1% of the fathers with stress, all were in the resistance phase, 5% with predominance of physical symptoms and 10% with predominance of psychological symptoms. These data show that the mothers presented more stress than the fathers.

Regarding the parenting styles of the 22 mothers, 27.3% presented an optimum style, 27.3% regular above average, 22.7% regular below average and 22.7% risky. Of the 20 fathers, 25% presented an optimum style, 25% regular above average, 25% regular below average and 25% risky. Thus, of the 42 participants, 52.4% used more negative parenting practices.

Considering the maternal perception of family support, in Factor 1 (consistent affective), 40.9% perceived this to be low, in Factor 2 (adaptation), 31.8% perceived it as low medium and 31.8% as low, and in Factor 3 (autonomy), 40.9% perceived this as high and 36.4% as medium low, while 40.9% perceived the total perception to be low. The perception of family support in the mothers was more favorable in Factor 3 (autonomy) and less favorable in Factor 1 (consistent affective), and in the total perception.

In relation to the paternal perception of family support, in Factor 1 (consistent affective), 40.0% perceived this to be low and 35.0% as low medium, in Factor 2 (adaptation), 40.0% perceived it as low medium and 30.0% as low, and in Factor 3 (autonomy), 35.0% perceived this as low, while 30.0% perceived the total perception to be medium low and 35.0% low. In the fathers, Factor 1 was more favorable (consistent affective), while the perception of the other factors was predominantly medium low and low. Statistical analysis with Student's *t*-test regarding the variables of the instruments related to the sex of the participants showed that there was a significant difference in relation to the means of the responses in the LSSI according to the sex. In this case, the mothers had presented more stress than the fathers.

Table 3.1. Comparison between the LSSI, IPS and FSPI, according to the sex of the participant, using Student's t-test ($n = 42$)

Instrument	Sex	Mean	t	P
LSSI	Male	5.60	-3.176	0.003
	Female	12.40		
IPS	Male	3.25	-1.093	0.281
	Female	5.75		
FSPI1	Male	26.90	0.355	0.725
	Female	26.00		
FSPI2	Male	19.50	-0.099	0.922
	Female	19.63		
FSPI3	Male	11.25	-1.310	0.198
	Female	12.59		
FSPI Total	Male	57.80	-0.327	0.745
	Female	59.13		

The comparison of the presence/absence of maternal stress with parenting styles and with the perception of family support indicated that there were significant differences in the parenting styles of the mothers with stress and the mothers without stress. In the same way, there were differences in the perception of family support in Factor 2 (adaptation) in the mothers with and without stress, as well as in Factor 3 (autonomy), with the mothers without stress scoring higher in both cases. The comparison of the presence/absence of paternal stress with parenting styles and the perception of family support did not present statistical significance.

Table 3.2. Comparison of the presence and absence of maternal ($n = 22$) and paternal ($n = 20$) stress with the IPS and FSPI data, according to Student's t -test

	Instrument	Presence of stress	Mean	t	P
Mothers	IPS	No	10.125	2.521	0.020
		Yes	3.214		
	FSPI1	No	27.375	0.497	0.625
		Yes	25.214		
	FSPI2	No	22.125	2.702	0.014
		Yes	18.214		
	FSPI3	No	14.625	2.219	0.038
		Yes	11.428		
	FSPI Total	No	64.125	1.281	0.215
		Yes	56.285		
Pais	IPS	No	3.705	0.519	0.610
		Yes	1.333		
	FSPI1	No	27.176	0.458	0.652
		Yes	25.333		
	FSPI2	No	19.705	0.413	0.684
		Yes	18.333		
	FSPI3	No	11.235	-0.050	0.961
		Yes	11.333		
	FSPI Total	No	58.294	0.419	0.680
		Yes	55.000		

In Pearson's correlation, to evaluate the association between ordinal type variables (instruments and age), including all the participants, the results showed that there was significance in relation to the IPS and the age of the child. It was verified that the greater the age of the child with ADHD, the worse the parenting style of the participants.

Table 3.3. Correlation between the ages of the children of the participants and the LSSI, FSPI and IPS according to the Pearson's correlation ($n = 42$)

	LSSI	IPS	FSPI1	FSPI2	FSPI3	FSPI total	Age of the child
LSSI	1	-0.20	-0.27	-0.29	-0.23	- 0.27	- 0.12
IPS		1	0.20	0.18	0.29	0.21	-0.39*
FSPI1			1				0.08
FSPI2				1			-0.04
FSPI3					1		0.12
FSPI Total						1	0.06
Age of the child							1

* $p < 0.050$.

In the correlation between the instruments, regarding the data of the mothers, it was possible to observe statistical significance between the LSSI and the IPS, with more stress equating to worse parenting styles. The LSSI and Factor 2 (adaptation) of the FSPI also presented significance, with more stress leading to a perception of less family support in this factor, and worse stress indicative of a perception of less family support in Factor 3 (autonomy). Regarding the IPS and the Factor 3 of the FSPI, better parenting styles equated to perceptions of more family support in this factor for the mothers.

Table 3.4. Correlation of the LSSI, FSPI and IPS in the group of mothers ($n = 22$) and in the group of fathers ($n = 20$), according to Pearson's correlation

		LSSI	IPS	FSPI1	FSPI2	FSPI3	FSPI Total
Mothers	LSSI	1	-0.43*	-0.32	-0.46*	-0.57*	- 0.40
	IPS		1	0.30	0.21	0.41*	0.277
Fathers	LSSI	1	-0.18	-0.18	-0.24	-0.08	-0.22
	IPS		1	0.08	0.17	0.83	0.119

* $p < 0,050$.

4. Discussion

In studies on the family, it is the mothers who generally participate, as occurred in the studies by Bargas and Lipp (2013), Bellé et al. (2009), Del Bianco Faria and Cardoso (2016), Healey et al. (2011), Teixeira et al. (2015), and Yousefia et al. (2011). In the study by Pires et al. (2012), the informants were parents and guardians and in that of Pires et al. (2013), they were mothers and teachers. The present study had the participation of the fathers (20 participants) in a proportionally similar number to that of the mothers (22 participants).

Studies evaluating paternity associated with stress, parenting style, perception of family support and ADHD are scarce, with an article by Chang et al. (2015) having the participation of only the father. Other studies such as those of Guerro-Prado et al. (2015) and Moreira (2010) relied on paternal and maternal participation. However, in none of the studies is the presence of the three variables mentioned.

When Calais, Andrade, and Lipp (2003) compared the data between mothers and fathers, it was possible to affirm that the mothers showed a statistically significant difference in stress compared to the fathers, with the women being more stressed than the men in all the evaluated groups. In addition, of the mothers who presented symptoms of stress, two were in the phase of near exhaustion and two in exhaustion, which indicates a worrying condition with the quality of maternal life, data that corroborates the findings of Del Bianco Faria and Cardoso (2016), Bargas and Lipp, (2013), Bellé et al. (2009), Guerro-Prado et al. (2005), Healey et al. (2011) and Yousefia et al. (2011), who demonstrated the presence of stress in the mothers of children with ADHD.

In the present study, it was found that more stress equated to a worse parenting style, with these comparative results regarding the type of parenting style revealing statistically significant differences. These data correspond to those of Bargas and Lipp (2013), Bellé et al. (2009), Del Bianco Faria and Cardoso (2016), Healey et al. (2011) and Yousefia et al. (2011), who verified higher stress in the mothers of children with ADHD and the use of a coercive and punitive parenting style. The authors indicated that negative practices predominated in the child-mother interaction with stress and that the stress affected the way the mothers interacted with the child.

Teixeira et al. (2015) also highlighted the use of punishment and neglect by the mothers. On the other hand, the mothers in the study of Tancred and Greeff (2015) presented more authoritative parenting styles, justifying this data due to these mothers participating in support groups that can favor the learning of positive parental practices.

The child with ADHD requires specific strategies from the parents who can adopt negative parenting practices, although they do not present the symptoms of stress, since problems of child behavior require adequate management that may not be part of the parental repertoire. With mothers, stress can intensify the negative interaction, as shown by studies on this association (stress/maternal parenting style) (Bargas & Lipp, 2013; Yousefia et al., 2011). However, in the present study, the data on this association in relation to the fathers did not indicate the same results as those of the mothers (in relation to the differences and associations, analyzed by Student's t test and by Pearson's correlations), which may open a new path of investigation. Chang et al. (2015) investigated the paternal parenting style of fathers of children with ADHD and found it to be predominantly negative in the father/child interaction compared to fathers of children without the disorder. In the present study, 50.0% of the men presented a risky or regular below average style, although they did not present stress.

Another significant aspect related to parenting styles was that the higher the age of the child, the worse the parenting style of the parents. It is possible that this happens due to the length of time of living with the specific behaviors of ADHD, because as the children develop, new challenges arise. Therefore, parents may have more difficulties with older children because of changes in the development or because of the emergence of comorbidities and the fact that older children become more likely to verbalize what they want and to impose their desires, making the interaction with their parents even more difficult (Gomide, 2006).

Concerning stress and the perception of family support, in the group of mothers there was an association between these variables, with the family support being perceived as lower in the mothers with stress in all factors of the FSPI. According to the results, it was possible to show that maternal stress was significantly correlated with the perception of family support in Factor 2 (adaptation) and Factor 3 (autonomy), with more stress indicating a worse perception of family support in these factors. This means that the mothers with stress perceived nega-

tive feelings in the family, such as anger, isolation and exclusion, and that there was little clarity of rules, which corresponds to Factor 2. Likewise, there was a lack of a relationship of trust, freedom and privacy, which is evaluated in Factor 3. The data corroborate those of Bellé et al. (2009), Muñoz-Silva et al. (2017) and Pires et al. (2013), in which the mothers reported feeling little support from their family members.

Moreira (2010) showed a significant correlation between satisfaction with social support and parental stress: social support served as a moderator of stress in parents of children with ADHD, for both the fathers and mothers, similar to the findings of Muñoz-Silva et al. (2017). However, the sample consisted of mothers only. The data of the present study cannot confirm those of Moreira (2010), because with the fathers there was no significant correlation between stress and social/family support.

Another association with the mothers' perception of family support in Factor 3 (autonomy) was in relation to parenting styles, with better parenting styles of the mothers equating to perceptions of more family support in this category. As this factor refers to autonomy, relationships of trust and freedom, it is assumed that mothers with better parenting styles perceive a favorable relationship of trust and freedom with their family members, which can help in bringing up the child with ADHD.

5. Final Considerations

With this study, it was possible to verify the indicators of stress, parenting styles and perception of family support, as well as their associations in a sample of parents of children with ADHD, with the presence of stress being predominant in the mothers. Both parents used more negative parenting practices, especially the mothers with stress. In addition, the perception of family support was lower for the fathers and mothers, which also correlated with maternal stress. There were, therefore, differences between fathers and mothers, mainly in relation to stress and the association with the other variables. It is hoped that, in future, projects fathers will be considered and accessible, so that the findings can be corroborated or refuted.

The literature on the perception of family support associated with the parenting style in the context of the family with ADHD children seems to be scarce,

with there being no productions that investigate these variables together. Regarding stress and the perception of family support there are many references. However, when ADHD is added in this context, there are few. Therefore, encompassing these constructs in the same study can bring something new to the literature.

The study sample was not very large. However, the data corroborates studies with larger samples. Another limitation was not considering the severity of the children's symptoms or the age of the diagnosis, which could provide more data related to the parents' stress symptoms and parenting style. It is suggested that in future studies of this nature, these variables may complement the findings.

Although there was no control group for comparison, which is also a limitation, being a strategy that could enrich the data, there was a comparison between the data of the mothers and fathers which is a novelty in relation to this theme. In addition, the use of standardized instruments allowed the data from each instrument to be considered according to normative samples, which helps in establishing parents' stress indicators compared to the population's.

There is no research data that focuses on the manifestation of a more negative style as the children with ADHD grow up. This would be another possibility for future studies.

It is hoped that the parents will be considered at the time of the diagnostic evaluation of the child, since it is known that the family interaction is not the cause of the disorder, however, it influences its course, and if the parents receive care in this process, it may be that the treatment is more efficient. It is expected that the variables analyzed will be considered at the time of the child's evaluation.

The data can also help teachers comprehend the difficulties of the family that has a child with the disorder. The school must recognize the need for monitoring the students and their families, considering the effect of stress and the perception of support of the family, since the school requests responsibility from the family that it is not always able to offer the child with ADHD.

References

American Psychiatric Association (2014). *Manual diagnóstico e estatístico de transtornos mentais: DSM-5*. Porto Alegre: Artmed.

- Baptista, M. N. (2009). *Inventário de Percepção de Suporte Familiar (IPSF)*. São Paulo: Vetor.
- Bargas, J. A., & Lipp, M. E. N. (2013). Estresse e estilo parental materno no transtorno de déficit de atenção e hiperatividade. *Revista Semestral da Associação Brasileira de Psicologia Escolar e Educacional*, 17(2), 205–213. doi:10.1590/S1413-85572013000200002
- Barkley, R. A. (2008). *Transtorno de déficit de atenção/hiperatividade: Manual para diagnóstico e tratamento*. Porto Alegre: Artmed.
- Bellé, A., Andreatza, A. C., Ruschel, J., & Bosa, C. A. (2009). Estresse e adaptação psicossocial em mães de crianças com transtorno de déficit de atenção e hiperatividade. *Psicologia: Reflexão e Crítica*, 22(3), 317–325. doi:10.1590/S0102-79722009000300001
- Calais, S. L., Andrade, L. M. B., & Lipp, M. E. N. (2003). Diferenças de sexo e escolaridade na manifestação de stress em adultos jovens. *Psicologia: Reflexão e Crítica*, 16(2), 257–263.
- Chang, L. R., Chiu, Y. N., Wu, Y. Y., & Gau, S. S. F. (2013). Father's parenting and father-child relationship among children and adolescents with attention-deficit/hyperactivity disorder. *Comprehensive Psychiatry*, 54, 128–140. doi:10.1016/j.comppsy.2012.07.008
- Del Bianco Faria, A. M., & Cardoso, C. L. (2016). Estresse em cuidadores de crianças com transtorno do déficit de atenção e hiperatividade. *Revista de Psicologia da PUCRS*, 47(3), 228–237. doi:10.15448/1980-8623.2016.3.21479
- Gomide, P. I. C. (2006). *Inventário de Estilos Parentais – IEP: Modelo teórico, manual de aplicação, apuração e interpretação*. Petrópolis: Vozes.
- Guerro-Prado, D., Mardomingo-Sanz, M. L., Ortiz-Guerrac, J. J., García-García, P., & Soler-LópezB. (2015). Evolution of stress in families of children with attention deficit hyperactivity disorder. *Anales de Pediatría*, 83(5), 328–325. doi:10.1016/j.anpede.2015.09.020
- Healey, D. M., Flory, J. D., Miller, C. J., & Halperin, J. M. (2011). Maternal positive parenting style is associated with better functioning in hyperactive/inattentive preschool children. *Infant and Child Development*, 20, 148–161. doi:10.1002/icd.682
- Lipp, M. E. N. (2000). *Manual do Inventário de Sintomas de Stress para Adultos de Lipp*. São Paulo: Casa do Psicólogo.
- Moreira, M. S. (2010). *Estresse e suporte social em pais de crianças com perturbação de hiperatividade com déficit de atenção*. Dissertação de Mestrado, Universidade Fernando Pessoa, Porto, Portugal.

- Muñoz-Silva, A., Lago-Urbano, R., Sanchez-Garcia, M., & Carmona-Márquez, J. (2017). Child/adolescent's ADHD and parenting stress: The mediating role of family impact and conduct problems. *Frontiers in Psychology*, 8(2252), 1–12. doi:10.3389/fpsyg.2017.02252
- Pires T. O., Silva C. M. F. P., & Assis, S. G. (2012). Family environment and attention-deficit hyperactivity disorder. *Revista de Saúde Pública*, 46(4), 624–632. doi:10.1590/S0034-89102012005000043
- Pires T. O., Silva C. M. F. P., & Assis, S. G. (2013). Association between family environment and attention deficit hyperactivity disorder in children – mothers' and teachers' views. *BMC Psychiatry*, 13(215), 1–9. doi:10.1186/1471-244X-13-215
- Tancred, E. M., & Greeff, A. P. (2015). Mothers' parenting styles and the association with family coping strategies and family adaptation in families of children with ADHD. *Clinical Social Work Journal*, 43, 442–451. doi:10.1007/s10615-015-0524-7
- Teixeira, M. C. T. V., Marino, R. L. F., & Carreiro, L. R. R. (2015). Associations between inadequate parenting practices and behavioral problems in children and adolescents with attention deficit hyperactivity disorder. *The Scientific World Journal*, 1–6. doi:10.1155/2015/683062
- Yousefia, S., Far, A. S., & Abdolalian, E. (2011). Parenting stress and parenting styles in mothers of ADHD with mothers of normal children. *Procedia – Social and Behavioral Sciences*, 30, 1666–1671. doi:10.1016/j.sbspro.2011.10.323

Authors notes

Fernanda P. Rezende, Developmental Psychology and Learning Postgraduate Program, Sao Paulo State University (Unesp); **Sandra L. Calais**, Developmental Psychology and Learning Postgraduate Program, Sao Paulo State University (Unesp); **Hugo F. Cardoso**, Developmental Psychology and Learning Postgraduate Program, Sao Paulo State University (Unesp).

Correspondence concerning this article should be addressed to Sandra Leal Calais, Centro de Psicologia Aplicada CPA Unesp, Av. Edmundo Carrijo Coube 14-01, Bauru, SP, Brazil. CEP 17033-360.

E-mail: sandra.l.calais@unesp.br