

Negative Maternal and Paternal Parenting Styles as Predictors of Children's Behavioral Problems: Moderating Effects of the Child's Sex

Paloma Braza · Rosario Carreras · José Manuel Muñoz · Francisco Braza · Aitziber Azurmendi · Eider Pascual-Sagastizábal · Jaione Cardas · José Ramón Sánchez-Martín

Published online: 13 December 2013

© Springer Science+Business Media New York 2013

Abstract Mothers and fathers often adopt different approaches to raising their children, and the influence of different parenting styles on the development of behavioral problems may be different for boys and girls. Using data from 89 subjects, 42 boys and 47 girls, with a mean age of 62.8 months ($SD = 3.3$), the current study tested the influence of early negative maternal and paternal parenting styles on the development of boys' and girls' aggressive and behavioral problems. Parents, when children aged 5–6, completed the Parenting Styles and Dimensions Questionnaire, and when children aged 8–9, the child behavior checklist. Children were evaluated for aggressive behavior with peers using the Direct and Indirect Aggression Scale at age 8–9. Our results show that an authoritarian maternal style is positively associated with both children's externalizing and internalizing problems while the combination of an authoritarian maternal style and a permissive paternal style was negatively associated with internalizing problems, but only in boys, and this type of family was

positively associated with both types of aggressive behavior in girls and boys. Besides, the combination of a permissive maternal style and a permissive paternal style was positively related to girls' (but not boys') physical aggression.

Keywords Maternal and paternal parenting style · Externalizing and internalizing problems · Aggressive behavior · Childhood · Child sex moderation

Introduction

Researchers are interested in early childhood behavioral problems because of their influence on social functioning across peer and school contexts (Keane and Calkins 2004; Wenar and Kerig 2000), their potential for hindering the development of a range of emotional, cognitive and social skills (Calkins et al. 2007; Nigg and Huang-Pollock 2003), and their costs in terms of human suffering and societal expenditures (Foster et al. 2006). Two broad sets of behavioral problems have been considered (Achenbach 1991, 1992): Those characterized by aggression, defiance and acting-out behaviors (externalizing problems), and those characterized by anxiety, withdrawal and depression (internalizing problems). Research has focused mostly on the impact of externalizing problems, probably because parents and teachers see children with these problems as disruptive and likely to follow a troubling trajectory into childhood and adolescence. Internalizing problems have received less attention, probably because they are less easily identified in young children; however early internalizing problems have considerable consequences for the development of children too (Gazelle and Ladd 2003; Mesman et al. 2001). Although both internalizing and

P. Braza (✉) · R. Carreras · J. M. Muñoz
Child Development and Social Risk Group, Psychology
Department, Faculty of Sciences of Education, University of
Cadiz, Avda. República Saharaui s/n, 11519 Puerto Real,
Cádiz, Spain
e-mail: paloma.braza@uca.es

F. Braza
Doñana Biological Station, Spanish Council for Scientific
Research (CSIC), Avda. AmericoVespucio s/n, 41092 Seville,
Spain

A. Azurmendi · E. Pascual-Sagastizábal · J. Cardas ·
J. R. Sánchez-Martín
Psychobiology Research Lab: Hormones and Child Behavior,
Faculty of Psychology, University of the Basque Country,
Avda. Tolosa 77, 20018 San Sebastián, Spain

externalizing problems tend to decline with age (Campbell 2002; NICHD Early Child Care Research Network & Arsenio 2004), when they persist in childhood these behaviors predict cascading patterns of maladjustment including peer rejection, conduct problems and antisocial behavior in adolescence (e.g., Broidy et al. 2003; Campbell et al. 2000; Lorber and Egeland 2009). Therefore, efforts need to be made to prevent both externalizing and internalizing problem behavior and to promote positive socio-emotional development, which in turn requires a deeper understanding of the factors that may give rise to these difficulties (Brumariu and Kerns 2010).

Several studies suggest that parenting plays a central role in understanding the development of internalizing and externalizing behavior (Cummings et al. 2000; Pereira et al. 2009). Parenting has been defined as the parents' attempts to control and socialize their children (Baumrind 1967). This author distinguished three types of parenting styles based on the interaction of two dimensions, *parental warmth* (which is related to parental involvement between children and parents) and *parental control* (referring to the role that parents play in promoting respect for rules and social conventions): Authoritative, authoritarian, and permissive. Authoritative parents are high on both warmth and firm control, authoritarian parents are high on firm control and low on warmth, and permissive parents are high on warmth and low on all types of control (Baumrind 1973). Later, Maccoby and Martin (1983) considered two dimensions: *Parental demandingness* (control, supervision, maturity demands) and *parental responsiveness* (warmth, acceptance, involvement). The interaction between the two dimensions produced four distinct parenting styles. A difference between Baumrind's and Maccoby and Martin's parenting style typologies is that these last authors distinguished between two types of permissive parenting (indulgent parents and neglecting parents). So, authoritative parents are characterized by high on both demandingness and responsiveness; authoritarian parents are characterized by high in demandingness but low in responsiveness; indulgent parents are characterized by low on demandingness but high on responsiveness; and neglecting parents are characterized by low on both demandingness and responsiveness. Nevertheless, neglected style has been observed infrequently in young children populations compared to the three other styles, but has mainly been reported in studies of adolescents (Baumrind 1991; Lamborn et al. 1991). So, in the child development literature, the Baumrind's (1973) early conceptualization of the parenting styles (authoritative, authoritarian, and permissive) continues to be widely employed in explaining individual differences in parenting rearing (Akhter et al. 2011; Baumrind et al. 2010; Parke 2002; Parke and Buriel 2006; Winsler et al. 2005; Rinaldi and Howe 2012).

One of the most robust findings reported in the literature on parenting styles and behavioral problems is that children from authoritative families were more resilient (Kritzas and Grobler 2005) and with better psychological competence (Lamborn et al. 1991). Regarding behavioral problems, whereas some authors reported evidence that authoritative parents are predictors of low level of behavioral problems (Steinberg et al. 2006; Steinberg et al. 1994), other authors did not find relationship between authoritative parenting style and internalizing and externalizing problems (Antolín et al. 2009; Akhter et al. 2011). Nevertheless, children and adolescents reared by authoritarian parents in different cultural contexts develop a wide range of internalizing and externalizing behavioral problems, i.e., anxiety, depressive symptoms, or aggression (Akhter et al. 2011; Alizadeh et al. 2011; Antolín et al. 2009; Erath et al. 2009; García Linares et al. 2011; Gershoff 2002; Heller et al. 1996; Leve et al. 2005; Odubote 2008; Pereira et al. 2009; Querido et al. 2002; Raya et al. 2009; Rinaldi and Howe 2012; Tur-Porcar et al. 2012; Wolfradt et al. 2003). Also other authors reported that in different cultural contexts the permissive parenting style is positively associated with children's externalizing and internalizing behavioral problems at childhood and adolescence (Akhter et al. 2011; Alizadeh et al. 2011; Antolín et al. 2009; García Linares et al. 2011; Jewell and Stark 2003; Raya et al. 2009; Sommer 2007; Tur-Porcar et al. 2012).

In spite of these results some studies, carried out with adolescents in southern Europe or South-America, using Maccoby and Martin's typology, have found no differences in the influence of authoritative and indulgent styles on children self-esteem or other aspects of self-satisfaction even suggesting that the indulgent promotes these aspects during adolescence rather than the authoritative (DiMaggio and Zappulla 2013; García and Gracia 2009; Martínez and García 2008; Musitu and García 2004; Rodrigues et al. 2013). Other researchers had already indicated that permissive parenting could have positive effects on self-esteem and autonomy but negative outcomes concerning drug use and abuse, deviant behavior and school misbehavior (i.e., Baumrind 1991; Herz and Gullone 1999; McCord 1988). Besides some studies show positive relations between authoritarian style and academic achievement among Asiatic cultures or Asian-American samples (Chao 1994, 2001; Steinberg et al. 1991). Therefore, considering that permissive and authoritarian parenting styles, using Baumrind's typology, are clearly and positively associated with internalizing and externalizing problems (Musitu and García 2004), we agree with Williams et al. (2009) that permissive and authoritarian styles could be named negative parenting styles.

Despite the amount of research that has been conducted on the influence of negative parenting styles (authoritarian

and permissive) on children's internalizing and externalizing problems, the extant literature has some limitations. One major limitation is that most studies include data from mothers only or assess the parenting style of mothers and assume that fathers act in the same way (Simons and Conger 2007), when currently fathers play an important role in children's development (Parke and Buriel 2006). Some authors have reported gender differences in parenting styles, and in specific terms, there is some indication that fathers tend to engage in parenting practices that are more consistent with an authoritarian style (Holmbeck et al. 1995; Russell et al. 1998; Russell et al. 2003). Regarding the effects of the paternal parenting style on children's behavioral problems, Jewell et al. (2008) found that fathers' permissiveness was related to the development of externalizing behaviors in children. According to Winsler et al. (2005) little information currently exists about the effects of fathers' parenting styles. In light of the trend over recent decades towards increased paternal involvement in children's lives, at least among two-parent families, the inclusion of fathers, separately from mothers, in parenting research is of particular concern. Another limitation of studies analyzing the effects of parenting styles on children is that they fail to consider the effects of each parent's style within the context of the other parent's style, missing the opportunity to detail the unique and combined contributions that both parents make to their children's development (Rinaldi and Howe 2012); for example, the effects of the mother's parenting style may be attenuated or exacerbated by the father's style, or vice versa. Thirdly, the majority of studies focusing on parenting styles and behavioral problems analyzed mixed samples and did not differentiate between boys and girls (Hoeve et al. 2011). However, a considerable amount of past research consistently suggests sex differences in internalizing versus externalizing problems (for a review, see Rose and Rudolph 2006). Girls experience more internalizing problems than boys, including low self-esteem, anxiety and depression, although the degree of these differences tends to increase from childhood to adolescence. In contrast, boys exhibit more externalizing problems than girls throughout both childhood and adolescence (Bongers et al. 2004).

As noted above, in early childhood behavioral problems predict difficulties in the further development of a range of cognitive and social emotional skills. Considering that in the literature the permissive and authoritarian parenting styles are the most clearly associated with behavioral problems, in this first exploratory study our aim will be to examine the contribution of these negative parenting styles, based on Baumrind's (1973) typology, during the first year of primary school to the development of behavioral problems in middle childhood.

Mainly our objective is to assess how mothers' and fathers' authoritarian and permissive parenting styles, independently and combined, contribute to children internalizing and externalizing problems of behavior. Besides, we will test whether the associations found between fathers' and mothers' negative parenting styles during the first years of primary school and the development of behavioral problems in middle childhood are different for boys and girls.

In sum, the present study addresses the following questions: (1) Are authoritarian and permissive maternal and paternal parenting styles associated with later children's internalizing and externalizing behavior? (2) Does each parent's negative style attenuate or accentuate the effects of the other parent's negative style on the development of children's internalizing and externalizing behavior? And (3) Do these associations differ for boys and girls?

Method

Participants

The data for the present study were collected from Spanish families. The sample consisted of 89 subjects, 42 boys and 47 girls, with a mean age at the beginning of the study of 62.8 months ($SD = 3.3$). The sample group was recruited through a cohort of kindergarten children from three state schools in Guipúzcoa and Cádiz. The study was explained to the directors, teachers and parents, and their written informed consent was requested. The socioeconomic status of the families was considered to be medium and medium-high, based on our knowledge of the area in which they live. Most (95.5 %) were two-parent families.

Procedure

During the first year of the study, when the children were 5 or 6 years old, the parents were asked to complete two questionnaires, one focused on the characteristics of individual family members and socioeconomic circumstances, and the other assessing parenting styles (Parenting Styles and Dimensions Questionnaire (PSDQ); Robinson et al. 1995, 2001). At age 8–9, in order to assess the children's behavioral problems, parents completed the Child Behavior Checklist (CBCL, Achenbach and Edelbrock 1986). Lastly, and also at age 8–9, aggressive behavior was also assessed using the Direct and Indirect Aggression Scale (DIAS, Björkqvist et al. 1992), a peer rating measurement instrument for aggressive behavior. The tests were administered by qualified, trained researchers in a room adjacent to the classroom in each of the schools.

Instruments

Parenting Styles and Dimensions Questionnaire (PSDQ)

Each parent received his or her own questionnaire packet directly from the school, and was asked to complete the survey independently. The instrument contains sixty-two statements regarding different parent reactions to child behavior. Items use a 5-point Likert scale ranging from never (1) to always (5). The purpose of this instrument is to measure parenting styles along Baumrind's continuum of typologies (1973; 1989): authoritative, authoritarian and permissive. The measure yields a separate, continuous score for each dimension of parenting with larger numbers indicating increased use of parenting practices associated with a particular style. For the purpose of the present study only the overall scales for authoritarianism and permissiveness were used in the analyses. The PSDQ was recently praised in a review of instruments assessing parenting practices (Locke and Prinz 2002) as one of the few available instruments with psychometrically defensible scales relating to parental nurturance and discipline. The reliability (Cronbach's α) obtained in our samples for authoritarian and permissive styles were .63 and .67 respectively.

Child Behavior Checklist (CBCL)

In order to assess internalizing and externalizing problems, the CBCL instrument was completed by parents for each participant. The test comprises 113 statements regarding diverse areas of the child's behavior, which parents must rate in accordance with how true they are (1 not true; 2 somewhat true; 3 very true) in relation to behavior linked to emotional problems the child may have experienced over the last 6 months. The test provides scores for internalizing and externalizing problems. The reliability (Cronbach's α) obtained in our sample was .60 for isolation; .37 for somatic complaints; .81 for anxiety/depression; .72 for social problems; .74 for thought problems; .81 for attention problems; .54 for delinquent behavior; .88 for aggressive behavior and .61 for other problems. As the most widely used assessment of children's social-emotional problems, this measure has demonstrated excellent psychometrics in standardization samples (Achenbach 1991). Internalizing and externalizing scores were transformed and then both were normally distributed (Shapiro test: externalizing, $W = .97, p = .06$; internalizing, $W = .99, p = .59$).

Direct and Indirect Aggression Scale (DIAS)

This peer-rating measurement instrument was used to assess different types of aggressive behavior at age 8–9. A number of different research studies endorse this test as a suitable

instrument for measuring aggressive behavior in children from a young age (Björkqvist et al. 2001; Valles and Knutson 2008). The DIAS is a test in which each child is asked to rate each of their same-sex classmates on a Likert scale (0–4) for behavior linked to physical aggression (7 items) and indirect aggression (12 items). These two subscales were reliable for this sample: Cronbach's α were .96 and .83, respectively. Aggressive behavior scores were transformed and then both were normally distributed (Shapiro test: physical aggression, $W = .99, p = .92$; indirect aggression, $W = .99, p = .99$).

Statistical Analysis

In order to analyze sex differences in relation to the different variables proposed, a one-way ANOVA was conducted. The relationships between the different variables considered in the study were examined using a Pearson correlation coefficient. A generalized linear model (GLM) was performed in order to analyze the influence of mothers and fathers' negative parenting styles, as well as the influence of all possible combinations of these styles, on the development of children's behavioral problems and aggressive behavior, including interactions of the combined parenting styles with the sex of the child.

Results

One-way ANOVAs revealed significant sex differences only for the two types of aggression (physical, and indirect), with boys being more aggressive than girls [$F(1, 89) = 23.43, p < .0001$, for physical aggression; $F(1, 89) = 9.73, p < .0025$, for indirect aggression].

A summary of correlations between the study variables is provided in Table 1. For both girls and boys, externalizing problems were found to be positively related to internalizing problems, and physical aggression was found to be positively related to indirect aggression. Only for boys, externalizing problems were positively related to both types of aggressive behavior; and only for girls, authoritarian paternal style was associated with physical aggression, authoritarian maternal style was positively related to externalizing problems, and the combination of authoritarian maternal and paternal styles, as well as permissive maternal style and permissive paternal style were positively inter-correlated.

As can be seen in Table 2, an authoritarian maternal style was positively associated with children's internalizing problems.

The effect of the interaction "authoritarian maternal style X permissive paternal style X child's sex" on children's internalizing problems was statistically significant (Fig. 1): Although the relationship between this type of family and girls' internalizing problems was not statistically significant

Table 1 Correlations between study variables in girls (bold) and boys (italic)

Variables	1	2	3	4	5	6	7	8
1 Authoritarian maternal		.33	.47*	.35	.39	.64**	.42	.41
2 Permissive maternal	.24		.26	.56**	.25	.31	.37	.36
3 Authoritarian paternal	.33	.35		.31	<i>-.02</i>	.25	.50**	.38
4 Permissive paternal	.20	.25	.40		.27	.31	.08	.12
5 Internalizing problems	.15	<i>-.06</i>	<i>-.05</i>	.06		.53**	.04	.15
6 Externalizing problems	.19	.13	.19	.15	<i>.76**</i>		.43	.46
7 Physical aggression	.07	.15	.11	.28	.26	.58*		.83**
8 Indirect aggression	.06	.15	.03	.24	.23	.59*	.92**	

* $p < .05$; ** $p < .01$, after applying the Bonferroni correction

Table 2 GLM for parent-reported behavioral problems

	Internalizing		Externalizing	
	estimate	SE	estimate	SE
Child's sex	-.03	.12	-.11	.12
Authoritarian mother	.28 *	.12	.33**	.12
Permissive mother	-.02	.12	.07	.12
Authoritarian father	-.19	.14	.04	.14
Permissive father	.21	.11	.15	.12
Authoritarian mother × authoritarian father	.09	.14	-.29*	.15
Authoritarian mother × permissive father	-.16	.13	.07	.13
Permissive mother × authoritarian father	-.16	.15	.08	.16
Permissive mother × permissive father	.17	.13	.10	.13
Authoritarian mother × authoritarian father × child's sex	.10	.16	-.16	.17
Authoritarian mother × permissive father × child's sex	-.31*	.14	-.16	.14
Permissive mother × authoritarian father × child's sex	-.04	.16	.19	.16
Permissive mother × permissive father × child's sex	.16	.13	.07	.13
R ²	16.11		22.60*	

* $p < .05$; ** $p < .01$

[*Chi Square* (1.46) = .95, *Estimate* = .14, *SE* = .15, $p = .3295$], for boys, the combination of an authoritarian maternal style and a permissive paternal style was negatively related to internalizing problems [*Chi Square* (1.33) = 4.19, *Estimate* = *-.29*, *SE* = .14, $p = .0407$].

As can be seen also in Table 2, an authoritarian maternal style was positively associated with children's externalizing problems, whereas a negative relationship was found between the combination of an authoritarian maternal style and an authoritarian paternal style and children's externalizing problems.

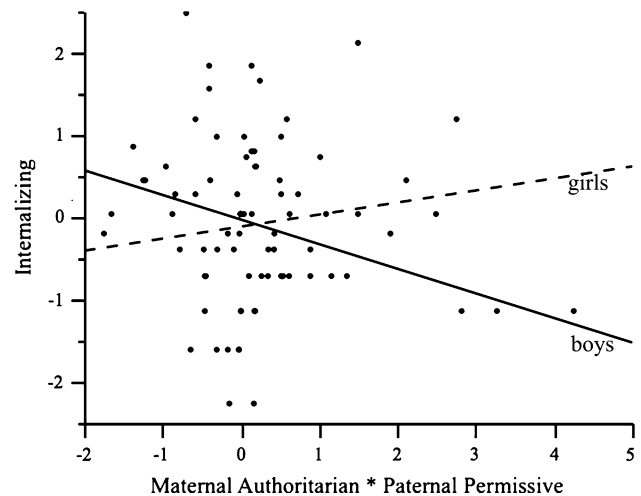


Fig. 1 Sex child as a moderator of the relation between parental styles and internalizing behavior

As can be seen in Table 3, the combination of an authoritarian maternal style and a permissive paternal style was positively related to children's physical aggression. Moreover, the interaction "permissive maternal style X permissive paternal style X child's sex" was also statistically significant (Fig. 2): Although the relationship between this type of family and boys' physical aggression was not statistically significant [*Chi Square* (1.42) = .04, *Estimate* = .03, *SE* = .13, $p = .8361$], for girls, a tentative positive relationship was observed between the combination of a permissive maternal style and a permissive paternal style and physical aggression [*Chi Square* (1.47) = 3.26, *Estimate* = .24, *SE* = .13, $p = .0711$].

As can be seen also in Table 3, the combination of an authoritarian maternal style and an authoritarian paternal style was negatively related to children's indirect aggression. However, the combination of an authoritarian maternal style with a permissive paternal style was positively related to children's indirect aggression.

Table 3 GLM for peer-reported aggressive behavior

	Physical aggr. estimate SE		Indirect aggr. estimate SE	
Child's sex	.44***	.09	.29**	.10
Authoritarian mother	.07	.09	.10	.10
Permissive mother	.16	.09	.19	.10
Authoritarian father	.13	.11	.00	.12
Permissive father	.00	.09	.04	.10
Authoritarian mother × authoritarian father	-.21	.11	-.29*	.12
Authoritarian mother × permissive father	.35**	.11	.44***	.12
Permissive mother × authoritarian father	.02	.10	.03	.10
Permissive mother × permissive father	-.07	.11	-.13	.11
Authoritarian mother × authoritarian father × child's sex	-.05	.12	-.05	.13
Authoritarian mother × permissive father × child's sex	.12	.11	.08	.12
Permissive mother × authoritarian father × child's sex	.17	.10	.21	.10
Permissive mother × permissive father × child's sex	-.22*	.11	-.21	.11
R ²	35.71***		27.67***	

* $p < .05$; ** $p < .01$; *** $p < .001$

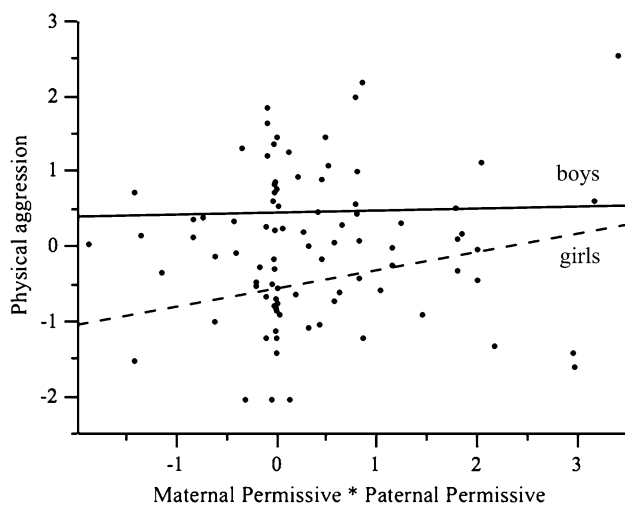


Fig. 2 Sex child as a moderator of the relation between parental styles and physical aggression

Discussion

The purpose of this study was to examine the associations between the mothers' and fathers' negative parenting styles and children's internalizing and externalizing problems, as

assessed by parents, as well as their influence on children's peer-reported aggressive behavior. This objective was accomplished by considering the moderator effects of the child's sex in a sample of 5- to 9-year-olds.

Our results show that: (1) An authoritarian maternal style is positively associated with both children's externalizing and internalizing problems; (2) the combination of an authoritarian maternal style and an authoritarian paternal style is negatively related to both children's externalizing problems and indirect aggressive behavior; (3) the combination of an authoritarian maternal style and a permissive paternal style is negatively related to internalizing problems in boys, but this type of family is positively associated with both types of aggressive behavior in girls and boys; and (4) the combination of a permissive maternal style and a permissive paternal style is positively related only to girls' physical aggression.

Most research into the associations between parenting and children's development has focused on mothers, because traditionally it has been assumed that fathers typically take little responsibility for their children's care and rearing and are considered only as primarily helpers to the mother. On average, mothers spend more time than fathers engaging in direct interactions with their young children and most researchers agree that mothers normally play a more central role than fathers in children's development (for a review, see Bornstein 2006). Nevertheless, the present study considered the effects of negative maternal and paternal parenting styles separately and simultaneously, as well as the possible combinations of these styles on children's aggressive and behavioral problems. Even so, our results highlight the strong influence of the mother's parenting style on child development. In fact, only maternal parenting styles had any main effects on children's aggressive and behavioral problems, after controlling for fathering, with paternal parenting styles having only moderating effects on the relationship between the mother's parenting style and the child's risk of behavioral problems.

In the study sample, the mother's authoritarian style, after controlling for fathering, was found to influence the emergence of behavioral problems (internalizing and externalizing) in both girls and boys; whereas the father's parenting style was found only to moderate this effect. Thus, the authoritarian paternal style attenuates the effect of the authoritarian maternal style in children's externalizing behaviors, while the permissive paternal style lessens the influence of the authoritarian maternal style on children's internalizing problems, but only for boys. Several authors (Baumrind 1993; Deater-Deckard and Dodge 1997; Deater-Deckard et al. 1998; Gilliom and Shaw 2004; Joo-son et al. 2012) have shown that the parenting practice that most frequently predicts children's behavioral problems is harsh discipline. Furthermore, other authors (Miner and

Clarke-Stewart 2008; Wang et al. 2013) have found that, specifically, harsh discipline by the mother is significantly related to the frequency of children's externalizing behavior. In a family in which the mother adopts an authoritarian style, the prevailing patterns of behavior are characterized by a high level of perceived hostility, punishment, restrictiveness and intrusiveness. In the current study, in addition to influencing the development of externalizing behavioral problems, these patterns of maternal behavior were found to contribute to the onset of internalizing behaviors. Crawford et al. (2011) have also suggested an association between hostile maternal parenting and children's internalizing disorders.

Nevertheless, in a family in which an authoritarian maternal style is combined with a permissive paternal style, the father may demonstrate affection and responsiveness towards the child, providing them with a certain level of emotional support, which has been associated with low levels of behavioral problems (Pereira et al. 2009). This could explain why, in the results of the present study, the combination of authoritarian maternal style and permissive paternal style was negatively related to (at least) internalizing behavior, although only for boys. It is likely that the emotional support provided by the components of a permissive paternal style would strengthen boys' self-esteem and self-confidence, thus removing the problems of anxiety, fears, etc., which are characteristic of internalizing problems. Due to the closer relationships that are often established between fathers and sons (Snyder 1998), the emotional support that characterizes the permissive paternal style may attenuate the influence of harsh maternal discipline on the development of internalizing behavior mainly in boys. As Simons and Congers (2007) suggest, responsiveness might be bestowed by one parent and structure and control by the other, and a permissive-authoritarian combination could thus resemble the consequences of an authoritative family. Future studies could consider in larger samples of individuals the possible moderating effects of the authoritative parenting in the contribution of negative parenting styles on the development of children behavioral problems.

This combination of parenting styles (authoritarian mother and permissive father) increases both physical and indirect aggression in both girls and boys, probably because neither parent fosters the development of self-regulation skills and self-control in their child's behavior. A permissive father may not have the ability to offer a sufficient level of behavioral control to stop their child's aggressive behavior. Hence, children who experience permissiveness may fail to develop sufficient inhibitory/self-regulatory skills, which are developmentally crucial for keeping aggressive behavior in check. Moreover, authoritarian mothers hold only external control, since they

do not use induction as a means of explaining their demands; thus, their parenting style does not favor the development of children's ability to regulate their own behavior when the mother is not present (for a review see Kawabata et al. 2011).

On the other hand, it is surprising that although the authoritarian maternal style was positively associated with externalizing behaviors in children, the combination of an authoritarian maternal style and an authoritarian paternal style was negatively associated with both children's externalizing problems and indirect aggressive behavior. There are at least two possible explanations for this unexpected result. The first is that the father's display of harsh control may restrict the mother's expression of control over the child, and as stated earlier, it is the authoritarian maternal style that contributes most to the development of children's behavioral problems. The second explanation is that when both the mother and the father adopt an authoritarian style, the child is exposed to a very high level of control without affection, a situation which some authors have related to a low level of externalizing problems (e.g., Barber 1996).

Lastly, the combination of a permissive maternal style and a permissive paternal style appears to contribute to the development of physically aggressive behavior. Children with permissive parents may not fully develop the ability to control their negative emotions due to the fact that their parents fail to monitor their behavior. Consequently, these children are unable to control their aggressive impulses and as a result, exhibit high levels of aggressive behavior when angry (Rubin et al. 1995). In our results, the influence of permissive parenting on children's physical aggression was significant only for girls. Also, and again only for girls, a permissive family tends to increase indirect aggression. This last association has been observed also by other authors at various developmental ages including preschool age (e.g., Casas et al. 2006), school age (e.g., Sandstrom 2007; Vaillancourt et al. 2007), and adolescence (e.g. Stocker et al. 2002). In turn, Hovee et al. (2011) found that permissive parenting was linked to adolescent delinquency only in girls.

This study supports the associations found by previous research between negative parenting and children's aggressive and behavioral problems (for a review, see Pa-lussen-Hoogbeem et al. 2007), besides this study extends the literature by considering the effects of negative maternal and paternal parenting styles separately, simultaneously, as well as the possible combinations of these styles. Furthermore, our results highlight the importance of considering the sex of the child him or herself when seeking to understand the influence of negative parenting styles on children's adjustment problems. This study also extends the literature by using different measures of

behavioral problems (i.e., internalizing and externalizing, and two types of aggressive behavior) derived from multiple informants (i.e., peers, parents).

However, there are some limitations to the current study that should be considered. Firstly, the parental styles considered do not capture the entire complexity of a child's experience of parenting; given the differences observed in the effects of the separate maternal and paternal styles, it would be interesting for future studies to include other negative styles (such as neglected), as well as those with beneficial effects (such as authoritative), in order to see if there are any interactions indicating possible moderating effects of an authoritative father or mother when combined with a partner who adopts a negative parenting style. Secondly, in addition to the use of a multi-reporter method to obtain the data, as in the present study, observational methodology could further enrich the data collected. Future studies could also analyze a possible moderating role of various cognitive and emotional skills in the influence of parenting style on children's behavioral problems. It would also be interesting to study the underlying mechanisms by which negative parenting differentially affect boys and girls.

Acknowledgments This study was supported by the Ministry of Science and Innovation (PSI2008-02958/PSIC; SEJ2007-62897), and funding provided by the Andalusian Regional Government's *Plan Andaluz de Investigación* (PAI-2003/04, HUM-554) and by the Basque Country Government (GIC07/19-IT-238-07). We would like to express our gratitude to the teaching staff, parents and children of the participating schools; and to Ainhoa García, Aizpea Sorozabal and Iñaki Verdier for helping us to collect the data. We thank Enrique Collado for his help in the data analysis.

References

- Achenbach, T. M. (1991). *Manual for child behavior checklist/4–18 and 1991 profile*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Achenbach, T. M. (1992). *Manual for the child behavior checklist/2–3 and 1992 profile*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Achenbach, T. M., & Edelbrock, C. S. (1986). *Manual for the teacher's report form and teacher version of the child behavior profile*. Burlington, VT: University of Vermont.
- Akhter, N., Hanif, R., Tariq, N., & Atta, M. (2011). Parenting styles as predictors of externalizing and internalizing behavior problems among children. *Pakistan Journal of Psychological Research*, 26(1), 18–35.
- Alizadeh, S., Talib, M. B. A., Abdullah, R., & Mansor, M. (2011). Relationship between parenting style and children's behavior problems. *Asian Social Science*, 7(12), 195–200.
- Antolín, L., Oliva, A., & Arranz, E. B. (2009). Contexto familiar y conducta antisocial infantil. *Anuario de Psicología*, 40(3), 313–327.
- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, 67, 3296–3319.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75, 43–88.
- Baumrind, D. (1973). The development of instrumental competence through socialization. In A. D. Pick (Ed.), *Minnesota symposia on child psychology* (Vol. 7, pp. 3–46). Minneapolis, MN: University of Minnesota Press.
- Baumrind, D. (1989). Rearing competent children. In W. Damon (Ed.), *Child development today and tomorrow* (pp. 349–378). San Francisco: Jossey-Bass.
- Baumrind, D. (1991). Parenting styles and adolescent development. In R. Lerner, A. C. Peterson, & J. Brooks-Gunn (Eds.), *The encyclopedia of adolescence* (pp. 746–758). New York: Garland.
- Baumrind, D. (1993). The average expectable environment is not good enough: A response to Scarr. *Child Development*, 64(5), 1299–1317.
- Baumrind, D., Larzelere, R. E., & Owens, E. B. (2010). Effects of preschool parents' power assertive patterns and practices on adolescent development. *Parenting: Science and Practice*, 10(3), 157–201.
- Björkqvist, K., Lagerspetz, K. M. J., & Österman, K. (1992). *The Direct and Indirect Aggression Scales*. Vasa: Abo Akademi University.
- Björkqvist, K., Österman, K., Lagerspetz, K. M. J., Landau, S. F., Caprara, G. V., & Fraczek, A. (2001). Aggression, victimization, and sociometric status: Findings from Finland, Israel, Italy and Poland. In J. M. Ramirez & D. S. Richardson (Eds.), *Cross-cultural approaches to research on aggression and reconciliation* (pp. 111–119). Huntington, NY: Nova Science Publishers.
- Bongers, I. L., Koot, H. M., van der Ende, J., & Verhulst, F. C. (2004). Developmental trajectories of externalizing behaviors in childhood and adolescence. *Child Development*, 75(5), 1523–1537.
- Bornstein, M. H. (2006). Parenting science and practice. In K. A. Renninger & I. Sigel (Eds.), *Child psychology in practice. Volume 4 of Handbook of Child Psychology* (6th ed., pp. 893–949). Editors-in-chief: W. Damon & R. M. Lerner. Hoboken, NJ: Wiley.
- Broidy, L. M., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K. A., et al. (2003). Developmental trajectories of childhood disruptive behaviors and adolescent delinquency: A six-site, cross-national study. *Developmental Psychology*, 39, 222–245.
- Brumariu, L. E., & Kerns, K. A. (2010). Parent-child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and Psychopathology*, 22, 177–203.
- Calkins, S. D., Blandon, A. Y., Williford, A. P., & Keane, S. P. (2007). Biological, behavioral, and relational levels of resilience in the context of risk for early childhood behavior problems. *Development and Psychopathology*, 19, 675–700.
- Campbell, S. B. (2002). *Behavior problems in preschool children: Clinical and developmental issues* (2nd ed.). New York: Guilford Press.
- Campbell, S. B., Shaw, D. S., & Gilliom, M. (2000). Early externalizing behavior problems: Toddlers and preschoolers at risk for later maladjustment. *Development and Psychopathology*, 12(3), 467–488.
- Casas, J. F., Weigel, S. M., Crick, N. R., Ostrov, J. M., Woods, K. E., Jansen Yeh, E. A., et al. (2006). Early parenting and children's relational and physical aggression in the preschool and home contexts. *Journal of Applied Developmental Psychology*, 27, 209–227.
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development*, 65, 1111–1119.

- Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development, 72*, 1832–1843.
- Crawford, N. A., Schrock, M., & Woodruff-Borden, J. (2011). Child internalizing symptoms: Contributions of child temperament, maternal negative affect, and family functioning. *Child Psychiatry and Human Development, 42*(1), 53–64.
- Cummings, E. M., Davies, P. T., & Campbell, S. (2000). *Developmental psychopathology and family processes*. New York: Guilford Press.
- Deater-Deckard, K., & Dodge, K. A. (1997). Externalizing behavior problems and discipline revisited: Nonlinear effects and variation by culture, context, and gender. *Psychological Inquiry, 8*, 161–175.
- Deater-Deckard, K., Dodge, K. A., Bates, J. E., & Pettit, G. S. (1998). Multiple risk factors in the development of externalizing behavior problems: Group and individual differences. *Development and Psychopathology, 10*, 469–493.
- DiMaggio, R., & Zappulla, C. (2013). Mothering, fathering, and Italian adolescents' problem behaviors and life satisfaction: Dimensional and typological approach. *Journal of Child and Family Studies*. doi:10.1007/s10826-013-9721-6.
- Erath, S. A., El-Sheikh, M., & Cummings, E. M. (2009). Harsh parenting and child externalizing behavior: Skin conductance level reactivity as a moderator. *Child Development, 80*(2), 578–592.
- Foster, E. M., Jones, D., & the Conduct Problems Prevention Research Group. (2006). Can a costly intervention be cost-effective? An analysis of violence prevention. *Archives of General Psychiatry, 63*, 1284–1291.
- García, F., & Gracia, E. (2009). Is always authoritative the optimum parenting style? Evidence from Spanish families. *Adolescence, 44*(143), 101–131.
- García Linares, M. C., Cerezo Rusillo, M. T., de la Torre Cruz, M. J., Carpio Fernández, M. D. L. V., & Casanova Arias, P. F. (2011). Parenting practices and internalizing and externalizing problems in Spanish adolescents. *Psicothema, 23*(4), 654–659.
- Gazelle, H., & Ladd, G. W. (2003). Anxious solitude and peer exclusion: A diathesis-stress model of internalizing trajectories in childhood. *Child Development, 74*, 257–278.
- Gershoff, E. T. (2002). Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin, 128*(4), 539–579.
- Gilliom, M., & Shaw, D. S. (2004). Codevelopment of externalizing and internalizing problems in early childhood. *Development and Psychopathology, 16*, 313–333.
- Heller, T. L., Baker, B. L., Henker, B., & Hinshaw, S. P. (1996). Externalizing behavior and cognitive functioning from preschool to first grade: Stability and predictors. *Journal of Clinical Child Psychology, 25*(4), 376–387.
- Herz, L., & Gullone, E. (1999). The Relationship between self-esteem and parenting style. A cross-cultural comparison of Australian and Vietnamese Australian adolescents. *Journal of Cross-Cultural Psychology, 30*(6), 742–761.
- Hoeve, M., Dubas, J. S., Gerris, J. R. M., van der Laan, P. H., & Smeenk, W. (2011). Maternal and paternal parenting styles: Unique and combined links to adolescent and early adult delinquency. *Journal of Adolescence, 34*, 813–827.
- Holmbeck, G. N., Paikoff, R. L., & Brooks-Gunn, J. (1995). Parenting adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting. Volume 1. Children and parenting* (pp. 91–118). Mahwah, NJ: Lawrence Erlbaum Associates.
- Jewell, J. D., Krohn, E. J., Scott, V. G., Carlton, M., & Meinz, E. (2008). The differential impact of mothers' and fathers' discipline on preschool children's home and classroom behavior. *North American Journal of Psychology, 10*(1), 173–188.
- Jewell, J. D., & Stark, K. D. (2003). Comparing the family environments of adolescents with conduct disorder and depression. *Journal of Child and Family Studies, 12*, 77–89.
- Joosen, K. J., Mesman, J., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2012). Maternal sensitivity to infants in various settings predicts harsh discipline in toddlerhood. *Attachment and Human Development, 14*(2), 101–117.
- Kawabata, Y., Alink, L. R., Tseng, W. L., van IJzendoorn, M. H., & Crick, N. R. (2011). Maternal and paternal parenting styles associated with relational aggression in children and adolescents: A conceptual analysis and meta-analytic review. *Developmental Review, 31*(4), 240–278.
- Keane, S. P., & Calkins, S. D. (2004). Predicting kindergarten peer social status from toddler and preschool problem behavior. *Journal of Abnormal Child Psychology, 32*, 409–423.
- Kritzas, N., & Grobler, A. A. (2005). The relationship between perceived parenting styles and resilience during adolescence. *Journal of Child and Adolescent Mental Health, 17*(1), 1–12.
- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*, 1049–1065.
- Leve, L. D., Kim, H. K., & Pears, K. C. (2005). Childhood temperament and family environment as predictors of internalizing and externalizing trajectories from ages 5 to 17. *Journal of Abnormal Child Psychology, 33*(5), 505–520.
- Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical Psychology Review, 22*, 895–930.
- Lorber, M. F., & Egeland, B. (2009). Infancy parenting and externalizing psychopathology from childhood through adulthood: Developmental trends. *Developmental Psychology, 45*(4), 909–912.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Ed.), *Handbook of child psychology* (Vol. 4, pp. 1–101). Wiley: New York.
- Martínez, I., & García, J. F. (2008). Internalization of values and self-esteem among Brazilian teenagers from authoritative, indulgent, authoritarian, and neglectful homes. *Adolescence, 43*(169), 13–29.
- McCord, J. (1988). Parental behavior in the cycle of aggression. *Psychiatry, 51*(1), 14–23.
- Mesman, J., Bongers, I. L., & Koot, H. M. (2001). Preschool developmental pathways to preadolescent internalizing and externalizing problems. *Journal of Child Psychology and Psychiatry, 42*, 679–689.
- Miner, J. L., & Clarke-Stewart, K. A. (2008). Trajectories of externalizing behavior from age 2 to age 9: Relations with gender, temperament, ethnicity, parenting, and rater. *Developmental Psychology, 44*, 771–786.
- Musitu, G., & García, J. F. (2004). Consecuencias de la socialización familiar en la cultura española. *Psicothema, 16*(2), 288–293.
- NICHD Early Child Care Research Network, & Arsenio, W. F. (2004). Trajectories of physical aggression from toddlerhood to middle childhood: Predictors, correlates, and outcomes. *Monographs of the Society for Research in Child Development, 69*, (no. 4, Serial No. 278).
- Nigg, J. T., & Huang-Pollock, C. L. (2003). An early onset model of the role of executive functions and intelligence in conduct disorder delinquency. In B. B. Lahey, T. Moffitt, & A. Caspi (Eds.), *The causes of conduct disorder and serious juvenile delinquency* (pp. 227–253). New York: Guilford Press.
- Odubote, B. A. (2008). *Parenting style, race and delinquency: A comparative study of European American, African American and Nigerian families*. Doctoral dissertation, University of Minnesota. <http://proquest.umi.com>.

- Parke, R. D. (2002). Fathers and families. In M. H. Bornstein (Ed.), *Handbook of parenting. Status and social conditions of parenting* (2nd ed., Vol. 3, pp. 27–73). Mahwah, NJ: Lawrence Erlbaum Associates.
- Parke, R. D., & Buriel, R. (2006). Socialization in the family: Ethnic and ecological perspectives. In W. Damon, R. M. Lerner, & N. Eisenberg (Eds.), *The handbook of child psychology. Social, emotional, and personality development* (6th ed., Vol. 3, pp. 429–504). New York, NY: Wiley.
- Paulussen-Hoogeboom, M. C., Stams, G. J. J., Hermans, J., & Peetsma, T. T. (2007). Child negative emotionality and parenting from infancy to preschool: A meta-analytic review. *Developmental Psychology, 43*(2), 438.
- Pereira, A. I., Canavarro, C., Cardoso, M. F., & Mendonça, D. (2009). Patterns of parental rearing styles and child behaviour problems among Portuguese school-aged children. *Journal of Child and Family Studies, 18*(4), 454–464.
- Querido, J. G., Warner, T. D., & Eyberg, S. M. (2002). Parenting styles and child behavior in African-American families of preschool children. *Journal of Clinical Child and Adolescent Psychology, 31*, 272–277.
- Raya, A. F., Pino, M. J., & Herruzo, J. (2009). La agresividad en la infancia: El estilo de crianza parental como factor relacionado. *European Journal of Education and Psychology, 2*(3), 211–222.
- Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' parenting styles and associations with toddlers' externalizing, internalizing, and adaptive behaviors. *Early Childhood Research Quarterly, 27*, 266–273.
- Robinson, C. C., Mandelco, B., Olsen, S. F., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices. Development of a new measure. *Psychological Reports, 77*, 819–830.
- Robinson, C. C., Mandelco, B., Olsen, S. F., & Hart, C. H. (2001). The parenting styles and dimensions questionnaire (PSQD). In B. F. Perlmutter, J. Touliatos, & G. W. Holden (Eds.), *Handbook of family measurement techniques: Vol. 3. Instruments & Index* (pp. 319–321). Thousand Oaks: Sage.
- Rodrigues, Y., Veiga, F., Fuentes, M. C., & García, F. (2013). Parenting and adolescents' self-esteem: The Portuguese context. *Journal of Psychodidactics*. doi:10.1387/RevPsicodidact.6842.
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132*(1), 98–131.
- Rubin, K. H., Stewart, S. L., & Chen, X. (1995). Parents of aggressive and withdrawn children. In M. Bornstein (Ed.), *Handbook of Parenting: Vol. 1. Children and Parenting* (pp. 225–284). Mahwah, NJ: Lawrence Erlbaum Associates.
- Russell, A., Aloa, V., Feder, T., Glover, A., Miller, H., & Palmer, G. (1998). Sex-based differences in parenting styles in a sample with preschool children. *Australian Journal of Psychology, 50*, 89–99.
- Russell, A., Hart, C., Robinson, C., & Olsen, S. (2003). Children's sociable and aggressive behavior with peers: A comparison of the U.S. and Australia, and contributions of temperament and parenting styles. *International Journal of Behavioral Development, 27*(1), 74–86.
- Sandstrom, M. J. (2007). A link between mothers' disciplinary strategies and children's relational aggression. *British Journal of Developmental Psychology, 25*, 399–407.
- Simons, L. G., & Conger, R. D. (2007). Linking mother-father differences in parenting to a typology of family parenting styles and adolescent outcomes. *Journal of Family Issues, 28*(2), 212–241.
- Snyder, J. R. (1998). Marital conflict and child adjustment: What about gender? *Developmental Review, 18*, 390–420.
- Sommer, K. L. (2007). *The relationship between parenting style, parental reading involvement, child behavior outcomes, child classroom competence and early childhood literacy*. Master thesis, University of Oklahoma state. <http://proquest.umi.com>.
- Steinberg, L., Blatt-Eisengart, I., & Cauffman, E. (2006). Patterns of competence and adjustment from authoritative, authoritarian, indulgent and neglectful homes: Replication in a sample of serious adolescent offenders. *Journal of Research on Adolescence, 16*, 47–58.
- Steinberg, L., Lamborn, S., Darling, N., Mounts, N., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*, 754–770.
- Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research on Adolescence, 1*, 19–36.
- Stocker, C. M., Burwell, R. A., & Briggs, M. L. (2002). Sibling conflict in middle childhood predicts children's adjustment in early adolescence. *Journal of Family Psychology, 16*(1), 50–57.
- Tur-Porcar, A., Mestre, V., Samper, P., & Malonda, E. (2012). Parenting and children's aggression: Are there differences in the influence of the father and the mother? *Psicothema, 24*(2), 284–288.
- Vaillancourt, T., Miller, J. T., Fagbemi, J., Cote, S., & Tremblay, R. E. (2007). Trajectories and predictors of indirect aggression: Results from a nationally representative sample of Canadian children aged 2–10. *Aggressive Behavior, 33*, 314–326.
- Valles, N. L., & Knutson, J. F. (2008). Contingent responses of mothers and peers to indirect and direct aggression in preschool and school-aged children. *Aggressive Behavior, 34*(5), 497–510.
- Wang, F., Christ, S. L., Mills-Koonce, W. R., Garrett-Peters, P., & Cox, M. J. (2013). Association between maternal sensitivity and externalizing behavior from preschool to preadolescence. *Journal of Applied Developmental Psychology, 34*(2), 89–100.
- Wenar, C., & Kerig, P. (2000). *Developmental psychopathology: From infancy through adolescence* (4th ed.). Boston, MA: McGraw-Hill.
- Williams, L. R., Degnan, K. A., Perez-Edgar, K. E., Henderson, H. A., Rubin, K. H., Pine, D. S., et al. (2009). Impact of behavioral inhibition and parenting style on internalizing and externalizing problems from early childhood through adolescence. *Journal of Abnormal Child Psychology, 37*(8), 1063–1075.
- Winsler, A., Madigan, A. L., & Aquilino, S. A. (2005). Correspondence between maternal and paternal parenting styles in early childhood. *Early Childhood Research Quarterly, 20*(1), 1–12.
- Wolfradt, U., Hempel, S., & Miles, J. N. V. (2003). Perceived parenting styles, depersonalisation, anxiety and coping behaviour in adolescents. *Personality and Individual Differences, 34*, 521–532.