J Child Fam Stud (2017) 26:2182–2190
DOI 10.1007/s10826-017-0726-4

ORIGINAL PAPER

Differential Effects of Mother's and Father's Parenting on Prosocial and Antisocial Behavior: Child Sex Moderating

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Published online: 21 April 2017

Abstract The current study examined the differential effects of maternal and paternal parenting on prosocial and antisocial behavior during middle childhood, and the moderating role of child sex. Parents of 96 boys and 107 girls (mean age = 92.42 months, SD = 3.52) completed different questionnaires to assess parenting and child behavior. All participants were Caucasian from south of Spain. Multiple hierarchical regressions (enter method) were performed to determine significant predictors of prosocial and antisocial behavior. The results showed that maternal and paternal hostility predicted an increase of externalizing problems in boys and girls ($p < .001$ in both sex groups). As well, Warmth/Induction of both parents predicted an increase in adaptive skills in boys and girls ($p < .001$ in both sex groups). On the other hand, differential effects of fathers' and mothers' parenting were found: both for boys and girls, maternal inconsistency positively predicted externalizing problems and negatively adaptive skills ($p < .001$ in both sex groups) and paternal overprotection positively predicted externalizing problems and negatively adaptive skills ($p < .05$ in both sex groups). Finally, maternal coercion negatively predicted adaptive skills in boys and girls ($p < .05$ in both sex groups); however, it increased externalizing problems only in girls ($p < .05$), whereas maternal permissiveness only increased these problems in boys ($p < .01$ in both cases). The discussion highlighted the importance of considering both parents' and children's sex to further knowledge of parenting styles affecting children's behaviors.

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Keywords Parenting · Mothers and fathers · Prosocial and antisocial behaviors · Middle childhood · Child sex moderation

Introduction

Prosocial and antisocial behaviors during childhood have become an important research topic in recent years. These behaviors predict children's future outcomes. Prosocial behavior is associated with different indices of social adjustment, such as sociometric status, the quality of friendship, or the ability to solve social problems (see Eisenberg et al. 2015). In contrast, antisocial behavior is related to subsequent risk for adverse behaviors, such as crime, violence, and substance abuse (for review, see Eisner and Malti 2015).

Developmental researchers have focused less on the study of social behaviors in middle childhood than in other stages of development, such as early childhood or adolescence (Del Giudice 2014; Dubois-Comtois et al. 2013). However, this period is a crucial stage of human development, in which important cognitive, social and personal changes that influence child development occur.

During middle childhood, sex segregation reaches the highest level and gender differences in social behaviors (play or aggression) increase. The development of cognitive abilities and the acquisition of cultural and social patterns in this stage promote prosocial behaviors (e.g., sharing, helping others, or solving conflicts constructively). Competitiveness intensifies and contributes to increased physical, verbal and relational aggression. It may result in the appearance of antisocial or externalizing behaviors, such as

aggression, defiance, or coercion. Such behaviors could be indicators of later problems (such as delinquency or substance abuse) that might not have appeared yet in middle childhood (Del Giudice et al. 2009).

Numerous studies have analyzed the factors affecting antisocial and prosocial behaviors with the purpose of promoting strategies that could optimize social development. Among these factors, parenting practices appear to have important effects on child behavior (Cerezo 2009; Ehrenreich et al. 2014; Sangawi et al. 2015).

In general, three parenting dimensions have been identified: warmth/affection vs. rejection/hostility, inconsistency vs. control, and support for autonomy vs. coercion (Skinner et al. 2005). Inconsistent or poor supervision seems to increase aggressive and antisocial child behavior (Beyers et al. 2003; Tavassolie et al. 2016). Hostile discipline and the use of power techniques, such as physical punishment or deprivation of privileges, have been negatively associated with children's adaptive behavior (e.g., Cornell and Frick 2007).

In contrast, warm, affective, responsive and inductive parenting tends to lead to prosocial behaviors among children (Carlo et al. 2011a; Miklikowska et al. 2011). Nevertheless, researchers have recently suggested that there could be an optimal range of support to facilitate positive child development, such that excessive parental involvement could undermine children's social adjustment (Liss and Schiffrin 2014; Schiffrin et al. 2015). Some authors found that high levels of parental involvement predicted externalizing (Grolnick et al. 2000) and internalizing problems (Kiel and Buss 2011). Most of these studies have focused on adolescents, college students, and young adults; however, intensive parenting may be more beneficial to children at an early age than adolescents. A highly intensive parenting style might not allow adolescents to develop adequate independence or autonomy (Levine 2006). Exploring the effects of overprotection during middle childhood may be especially interesting because, at this age, parents tend to try to retain influence over their children's socioemotional competence (Freitag et al. 1996), whereas children are generally trying to achieve greater behavioral autonomy (Wray-Lake et al. 2010).

Although many investigations have analyzed how parenting affects child behavior, some issues remain unanswered. First, the relationship between parenting practices and prosocial behavior could depend on different factors, such as child characteristics (e.g., gender, age, or birth order), socioeconomic status, or cultural context (García-Linares et al. 2011; Eisenberg et al. 2015; Raya et al. 2009).

Second, in most studies, the data have been reported only by mothers or jointly by mothers and fathers (Phares et al. 2005). Although mothers are usually more involved in child rearing than fathers (especially in current western society and with younger children), parental involvement has increased among fathers; thus, it is important to study the role of fathers in child development (Greenfield et al. 2006). Nonetheless, little is known about the influence of paternal parenting on child behavior and the differences between paternal and maternal effects (Bornstein 2015). Among the exceptions, some authors have suggested that fathers encourage child autonomy more than do mothers (Cabrera et al. 2000), whereas mothers promote development of academic and social-emotional skills more than do fathers (Howard et al. 2006). Paternal parenting can moderate the effects of maternal parenting on children's outcomes (Braza et al. 2015). Thus, as noted by Bornstein (2015), it is necessary to do study further the differential effects of maternal and paternal parenting practices on children's social behavior.

Another weakness in the extant literature is the scarcity of studies that analyze the possible moderating effect of a child's sex on the relationship between parenting and child behavior (Tung et al. 2012). Moreover, the limited findings have been inconsistent and have mainly focused on involvement and harsh discipline (Gryczkowski et al. 2010). Some studies have found greater effects of severe discipline on externalizing behavior among children when the parent and child belong to the same sex (Braza et al. 2015; McKee et al. 2007), whereas other studies have not found these differential effects (Thompson Gershoff 2002). More research is needed to clarify these inconsistent results.

This study compared the effects of maternal and paternal parenting styles on the prosocial and antisocial behaviors of children aged 7–8 years, and the moderating effect of the child's sex on these relations. We analyzed the influence of parenting dimensions (warmth, inconsistency, hostility, coercion, permissiveness, and overprotection) on externalizing problems and adaptive behaviors. Externalizing problems included aggression, hyperactivity, and conduct problems; adaptive behaviors included adaptability, social skills, and leadership. We examined separately the effects of mothers' and fathers' parenting. We also controlled for three contextually relevant variables (education level, marital conflict and parental stress), which were considered potential confounders.

Method

Participants

Participants were 203 Spanish Caucasian children, 96 boys and 107 girls aged 7–8 years (mean = 92.42 months, SD = 3.52), and their parents. Participants were recruited from five state schools in Cádiz (Andalusia, Southern Spain). The socioeconomic status of the families was determined as

medium to medium–high based on data obtained by the Sociodemographic Questionnaire (professional group and employment status) and our knowledge of the area in which they live. All parents had completed primary school and 46.2% of individuals had a secondary or high school degree. Among the sampled families, 90.15% were two-parent families. The average age among mothers was 37.59 years (SD = 7.97) and that among fathers was 36.87 years (SD = 12.45). According to the data obtained using the Parental Stress Scale and Marital Conflict Questionnaire, families reported a non-adverse family environment in relation to marital conflict and parental stress (parental stress: mothers' mean score = 31.96, SD = 7.89, fathers' mean score = 30.90, SD = 7.22, maximum possible score = 90; marital conflict: mothers' mean score = 24.88, SD = 3.74, fathers' mean score = 25.29, SD = 3.55; maximum possible score = 72).

Procedure

We conducted this study in accordance with the Declaration of Helsinki, and all subjects provided written informed consent. During the second school term (January–March), materials pertaining to this study were sent to the families' households. Parents were instructed to complete separately the Parental Styles and Dimensions Questionnaire (PSDQ), the Overparenting Scale (Anticipatory Problems Solving, APS), the Marital Conflict Questionnaire, and the Parental Stress Scale. Mothers and fathers jointly completed the Sociodemographic Questionnaire and the Behavior Assessment System for Children and Adolescents (BASC).

Measures

Sociodemographic questionnaire

To evaluate the family environment, we used an ad hoc questionnaire. Fathers and mothers reported information about their age, educational level, professional group and employment status. In addition, we asked them about family members and their children's ages.

Marital conflict questionnaire

(Arranz et al. 2010). This instrument included 18 items that measure marital conflict level (e.g., Discussions with my partner escalate to insults and threats) and the child's exposure to conflict (e.g., My child has witnessed a dispute with insults between us). All items were scored on 5-point Likert scale ranging from (1) "never" to (5) "always" (Cronbach $\alpha = .70$ for mothers and .72 for fathers).

Parental stress scale

(Berry and Jones 1995; Spanish adaptation, Oronoz et al. 2007). Maternal and paternal stress was assessed using this scale, which consisted of 18 items scored on a 5-point Likert-type scale ranging from (1) "strongly disagree" to (5) "strongly agree" (Cronbach $\alpha = .78$ for mothers and .73 for fathers). Items such as Since having this child, I have been unable to do new and different things or I expected to have closer and warmer feelings for my child than I do and this bothers me indicated the level of stress caused by the demands of parenthood.

Parental styles and dimensions questionnaire

(PSDQ; Robinson et al. 2001). Parental practices were assessed using a short version of the PSDQ, which comprised 32 items scored on 5-point Likert scale ranging from (1) "never" to (4) "always", with higher scores indicating more frequent use of each parenting style. This questionnaire contained three dimensions based on Baumrind's parenting typology (1966): authoritative, authoritarian, and permissive styles. Authoritative style included warmth/implication, reasoning/deduction, and tolerance subscales (Cronbach's $\alpha = .84$); Authoritarian style involved three subscales (Cronbach's $\alpha = .70$): verbal hostility, corporal punishment, and punitive strategies. Permissive style (Cronbach's $\alpha = .69$) was composed of lack of monitoring, ignoring misbehavior, and lack of self-confidence subscales.

Overparenting scale

(APS; Segrin et al. 2012). We only used the APS subscale in the current study. This subscale assesses parental behaviors, such as solving problems for the child, providing tangible assistance to the child, or removing obstacles for the child (e.g., I try to solve problems for my child before s/he even experiences them). This subscale (Cronbach $\alpha = .85$ for mothers and .82 for fathers) contained 12 items that were scored on a Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree". Higher scores reflected a higher tendency to engage in overparenting behaviors.

Behavior assessment system for children and adolescents

(BASC P-2, Reynolds and Kamphaus 2004; Spanish adaptation, González et al. 2004). This instrument consisted of 134 items that were scored from (0) "never" to (3) "almost always" on a Likert scale. We only used two dimensions: externalizing problems (Cronbach $\alpha = .87$) and adaptive skills (Cronbach's $\alpha = .90$). The externalizing dimension includes items that measure physical and verbal aggression, hyperactivity and conduct problems (e.g., being defiant,

threatening others, acting without thinking, disrupting others, breaking rules, or lying). The adaptive dimension measures adaptability, social skills, and leadership (e.g., adapting to changes, helping others, being interested in others, organizing group activities, or making decisions easily).

Data Analyses

All statistical analysis was performed using IBM SPSS Version 21.0. To reduce the number of variables, we conducted a Principal Components Analysis with Varimax rotation with the PSDQ subscales separately for mothers and fathers. We used the obtained data and APS scores as predictors.

To analyze sex differences, a one-way ANOVA was performed. Associations between the predictor, control, and criterion variables were assessed using bivariate correlations (Pearson coefficients). Finally, we executed two multiple hierarchical regressions using an enter method to determine significant predictors of externalizing problems and adaptive skills. Parenting predictor variables (factors obtained through principal component analysis) were centered and the overprotection predictor variable was standardized. For each analysis, the child's sex was entered in the first step; sociodemographic and contextual control variables (parental education level, marital conflict, and parental stress) were entered in the second step. Predictor variables were included in the third step. Finally, interactions between sex and predictor variables were added in the fourth step. In this last step, the final model included only those interactions that were significant in a previous, separate regression. Each significant interaction was analyzed separately by testing the relationship between the predictor and the criterion variable in boys and girls.

Results

First, we conducted two separate Principal Component Analysis using the scores that were obtained by mothers and fathers in PSDQ subscales. In both cases, the Varimax rotation resulted in a five-factor model that explained 78.76% of the variance for the mother and 78.93% for the father. In each of the factors, items with a factorial weight above .70 for mothers and .61 for fathers were included. This analysis showed a clear factorial structure because of the different factors that did not share variables. The first factor, warmth/induction (it explained 32.98% of the variance for the mother and 34.43% for the father) included subscales warmth/implication, reasoning/deduction and tolerance. The second factor, inconsistency (18.22% of the variance for mothers and 16.10% for fathers) included subscales lack of monitoring and lack of self-confidence. The third factor, hostility (11.78% of the variance for mothers and 10.96% for fathers) included subscales verbal hostility and corporal punishment. The last two factors (8.58 and 7.20% of the variance for the mother and 8.04 and 9.40% for the father) were named coercion (subscale punitive strategies) and permissiveness (subscale ignoring misbehavior) respectively.

A one-way ANOVA showed differences between boys and girls in paternal warmth/induction ($F_{(1,\ 158)} = 5.382$, $p = .022$), maternal overprotection ($F_{(1,\ 198)} = 3.923$, $p = .049$) and externalizing problems ($F_{(1,\ 191)} = 13.196$, $p < .000$). In all of these variables, boys obtained the highest score. Table 1 shows the correlations between predictor, control, and criterion variables. Hostility and warmth/induction of both parents positively related to externalizing problems and adaptive skills, respectively, for both boys and girls. In all other cases, the relationships between parenting and criteria variables were different either for boys and girls or for mothers and fathers.

Effects of Parenting on Child's Externalizing Problems

Maternal inconsistency and hostility, and paternal hostility and overprotection, significantly predicted an increase of externalizing problems in both, boys and girls (Table 2).

We found some interactive effects between child's sex and parenting dimensions: Sex × maternal permissiveness, sex × maternal coercion and sex × paternal coercion. For boys, maternal permissiveness increased externalizing problems ($\beta = .32$, $p = .005$), whereas this relationship was not significant for girls ($\beta = -.081$, $p = .460$). For girls, maternal coercion increased externalizing problems ($\beta = .26$, $p = .017$), whereas for boys this relationship was not significant ($\beta = -.097$, $p = .416$). Finally, paternal coercion did not significantly predict externalizing problems in the case of girls ($\beta = -.145$, $p = .196$) nor in the case of boys ($\beta = .150$, $p = .203$). However, whereas the slope was negative for girls, for boys it was slightly positive.

Effects of Parenting on Adaptive Skills

As can be seen in Table 3, warmth/induction of both parents significantly increased adaptive skills of boys and girls. In addition, maternal inconsistency, maternal coercion and paternal overprotection significantly decreased adaptive skills of boys and girls. As well, we found an interactive effect of child's sex with maternal hostility. Although maternal hostility did not significantly predict adaptive skills for none sex (Girls, $\beta = -.124$, $p = .260$; Boys, $\beta = .058$, $p = .628$), for girls the slope was negative and for boys it was slightly positive.

Table 1 Bivariate correlations of the control and predictor variables with criterion variable separately for boys and girls (significant values in bold)

		Externalizing problems		Adaptative skills	
		Boys	Girls	Boys	Girls
Mothers	Level of education	−.017	−.076	.083	.101
	Marital conflict	.135	**.371*** **	**−.222***	−.144
	Parental stress	**.391*** **	**.345*** **	−.198	**−.304****
	Warmth/Induction	−.109	.038	**.518*** **	**.356****
	Inconsistency	**.379****	**.377*** **	**−.395****	**−.367****
	Hostility	**.482*** **	**.349****	.058	−.124
	Coercion	−.097	**.257***	−.145	−.197
	Permissiveness	**.324****	−.081	−.192	.123
	Overprotection	.076	.063	−.149	−.041
Fathers	Level of education	**−.236***	−.148	**.246***	**.263***
	Marital conflict	**.344****	**.298****	−.063	−.139
	Parental stress	.165	**.363*** **	−.216	**−.295****
	Warmth/Induction	−.083	**−.250***	**.366****	**.328****
	Inconsistency	.154	**.286***	.004	**−.261***
	Hostility	**.338****	**.294****	−.020	−.127
	Coercion	.150	−.145	−.079	.115
	Permissiveness	.169	.112	.004	−.012
	Overprotection	.183	.093	−.144	−.129

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

Table 2 Result of final step in hierarchical regression analysis to externalizing behavior problems separately for mothers and fathers controlling control and predictive variables (significant values in bold)

		Educational dimension of mothers				Educational dimension of fathers			
		B	Standard error	Standardised β	ΔR^2	B	Standard error	Starndardised β	ΔR^2
	(Constant)	19,699	1471			22,957	1597		
Step 1	Sex	−3560	1100	**−.208****	**.081*** **	−5123	1264	**−,295*** **	**.103*** **
Step 2	Level of education	.137	.402	.023	**.184*** **	−.697	.429	−.118	**.138*** **
	Marital conflict	.208	.174	.084		.256	.201	.102	
	Parental stress	.076	.079	.070		.168	.106	**.138**	
Step 3	Warmth/Induction	−.286	.555	−.033	**.157*** **	−.920	.655	−.107	**.069***
	Inconsistency	2552	.605	**.294*** **		.606	.756	.070	
	Hostility	3056	.599	**.357*** **		2361	.655	**.268*** **	
	Coercion	−1318	.979	−.143		1359	.895	.158	
	Permissiveness	2332	.758	**.278****		.585	.617	.068	
	Overprotection	−.329	.585	−.037		2184	1057	**.248***	
Step 4	Sex × Coercion	3213	1238	**,279***	**.041****	−2800	1267	**−.226***	**.032***
	Sex × Permissiveness	−2410	1070	**−,202***					
	Sex × Overprotection					−2077	1294	−.182	

Results of the final regression model; Reference Category: Boys; *$p \leq .05$; **$p \leq .01$; *** $p \leq .001$

Discussion

We examined the influence of maternal and paternal parenting on antisocial and prosocial behavior in boys and girls. Our results indicated that: (1) warmth/induction of both parents showed beneficial effects for both boys and girls, increasing their adaptive skills. (2) Maternal and paternal Hostility was revealed as an adverse dimension increasing children's externalizing problems. (3) Maternal Inconsistency (not paternal) was found as a harmful

Table 3 Result of final step in hierarchical regression analysis to adaptative skills separately for mothers and fathers controlling control and predictive variables (significant values in bold)

		Educational dimension of mothers				Educational dimension of fathers			
		B	Standard error	Standardised β	ΔR^2	B	Standard error	Standardised β	ΔR^2
	(Constant)	60.267	2.467			55.300	2.767		
Step 1	Sexo	3.545	1.901	.128	**.041***	4.256	2.193	.149	.016
Step 2	Level of Education	.193	.683	.020	**.072****	2.040	.745	**.210****	**.136*****
	Marital Conflict	.281	.302	.071		.094	.344	.022	
	Parental Stress	−.126	.134	−.072		−.546	.184	**−.272****	
Step 3	Warmth/Induction	5.823	.945	**.421*****	**.252*****	3.991	1.114	**.282*****	**.104****
	Inconsistency	−5.287	1.052	**−.381*****		.840	1.300	.060	
	Hostility	1.119	1.198	.081		−.297	1.120	−.020	
	Coercion	−2.118	.984	**−.143***		.022	1.096	.001	
	Permissiveness	−.423	.900	−.031		1.037	1.066	.073	
	Overprotection	−.465	1.024	−.032		−3.113	1.225	**−.215***	
Step 4	Sex × Hostility	−4.519	1.971	**−.193***	**.023***				

Results of the final regression model; reference category: boys; *$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

dimension that increased externalizing problems and decreased adaptive skills for both boys and girls. (4) Paternal overprotection (but not maternal) positively predicted externalizing problems and negatively predicted adaptive skills in both boys and girls. (5) Maternal coercion decreased adaptive skills for boys and girls and increased externalizing problems only for girls. (6) Maternal permissiveness increased externalizing problems only for boys.

Our results confirmed the findings of previous studies showing that parenting characterized by warmth and care is positively related to social adjustment and self-esteem in children (e.g., García and Sánchez 2005). Nevertheless, as shown in our study and coinciding with the findings of Gryczkowski et al. (2010), parental warmth does not necessarily decrease aggressive behaviors. However, the effect of hostile parenting (aggressive discipline) on externalizing problems, regardless of the sex of parents and children, has also been demonstrated in the literature (Burke et al. 2008; Tung et al. 2012). It is likely that the relationship between harsh parental discipline and child behavior problems is bidirectional (Barbot et al. 2014). Such parent–child relationships could promote coercive cycles of interaction through a process of mutual strengthening (Patterson 1982). It has also been suggested that children can vicariously learn to solve problems aggressively when their parents display hostile discipline (Fraser 1996).

Furthermore, our results constitute a relevant contribution to current research, and will help advance knowledge about the differential effects of mothers' and fathers' parenting on child behavior. We found that inconsistent maternal discipline (but not paternal) significantly increased aggressive behavior and decreased social skills among children. Inconsistent discipline likely elicits insecurity and fear in individuals, leading them to develop negative behaviors (Patterson 1982; Sierra et al. 2015). In fact, some studies have also suggested negative effects of maternal inconsistency on child conduct problems (Farrington 2005; Gardner et al. 2003); however, to our knowledge, few studies have focused on the effect of paternal inconsistency (Gryczkowski et al. 2010). Nevertheless, these studies have centered on child externalizing behavior. Little is known about how this parental practice influences social adjustment in children. In this sense, our study suggests that maternal inconsistency strongly affects both antisocial and prosocial behaviors of children, whereas paternal inconsistency does not have any effect. This can occur for different reasons, including: (1) the varying amounts of time mothers and fathers spend at home with their children; (2) mothers are usually more directly involved in child rearing; or (3) mothers take on more responsibilities in child upbringing than do fathers (for review, see Bornstein 2015). Because of these reasons, children could more easily perceive the maternal inconsistency than paternal inconsistency; this could explain the lack of influence of paternal inconsistency on children behavior. Future studies could focus on paternal inconsistent discipline to broaden knowledge about this parental practice.

The findings indicate that the coercive practices of mothers (but not that of fathers) can hinder social adjustment and adaptive skill development in children. Perhaps this is because mothers tend to rely on punishment more often than do fathers (Day et al. 1998). Other authors have found that maternal punitive strategies increase children's conduct problems (Davidov and Atzaba-Poria 2016). More

research is needed about the differential effects of paternal or maternal coercion on the antisocial and adaptive behaviors of children.

Regarding overprotective practices, our findings showed that only overprotection by the father (but not the mother) increased externalizing problems and decreased adaptive skills. Rousseau and Scharf (2015) showed similar findings, but in a sample of young people. In general, parental involvement is conducive to child development (Carlo et al. 2011b; Kuppens et al. 2009). However, some studies have shown that excessive parental involvement intensifies externalizing behaviors and diminished autonomy and social competence in children (Grolnick et al. 2000; Schiffrin et al. 2015). In addition, it seems that the different stages of development require a readjustment of parenting practices according to maturation and growth of children. Thus, intensive parental involvement may be advantageous in early childhood, whereas in later stages, it could be unfavorable to the achievement of autonomy and social responsibility (Segrin et al. 2012). Furthermore, the adverse effects of paternal overprotection could be due to the socialization of children to recognize maternal overprotection as more common or acceptable than paternal overprotection.

Another interesting result of our study concerns the moderating effect of a child's sex on the relation between parenting practices and the child's social behavior. We have observed that maternal permissiveness significantly increased externalizing behaviors only for boys, whereas maternal coercion significantly increased externalizing behaviors only for girls. An excess of maternal permissiveness (implying the absence of an external control of behavior) could promote an increase of externalizing behavior in sons, but not daughters. Some authors speculate that girls might not need external control to the extent that boys do, because girls show greater ability to self-regulate than do boys (Hosseini-Kamkar and Morton 2014; Matthews et al. 2009; Weis et al. 2013). Consequently, maternal coercion (implying excessive external control) can be harmful for daughters.

Limitations

The results of the current study should be interpreted taking into account some limitations that suggest directions for future research. First, although the sample size was large, it was not diverse in terms of race or ethnicity. Taking into account the effects of parenting in different cultural contexts (Dwairy and Achoui 2006; Espino 2013; García and Gracia 2009; Kazemi et al. 2010), future studies should examine more diverse samples to clarify cultural differences.

Second, future research could also consider the interactive effects of maternal and paternal parenting on child behavior. Third, most of the data in this study were obtained from biparental families, so the results could not be generalizable to other family types. Furthermore, although in our study parents and children were biologically related, we believe that parenting behavior, and not necessarily biological relationship, influences the child's behavior. Future studies could analyze the effect of other caregivers' educational practices. Finally, in our study, child behavior information was collected indirectly through reports by mothers and fathers; future studies could include other reporters, such as teachers or children.

Notwithstanding these limitations, obtaining data from mothers and fathers separately can be considered a strength of this study; few studies include information directly reported by fathers, as Charles et al. (2016) asserted. In fact, our study has shown that the parenting practices of mothers and fathers seem to have different effects on children, depending on child's sex in some cases. In addition, our work reflects that the influence of parenting on children differs according to the type of behavior that is being assessed (antisocial or prosocial).

Acknowledgements The authors would like to thank the families and the educational community who took part in the study.

Funding This study was funded by the Andalusian Research Plan (PAIDI-HUM-554) and the Research Plan of the University of Cadiz (E-11-2014-0387470-02). Rosa Ruiz-Ortiz has received research grants from University of Cadiz. Paloma Braza has received research grants from the Andalusian Research Plan (PAIDI-HUM-554).

Author Contributions All authors designed this study, recruited and analyzed the data, and wrote the paper jointly.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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