

Custody and Child Symptomatology in High Conflict Divorce: An Analysis of Latent Profiles

Ana Martínez-Pampliega¹, Marta Herrero¹, Susana Cormenzana¹, Susana Corral¹, Mireia Sanz², Laura Merino¹,
Leire Iriarte¹, Iñigo Ochoa de Alda³, Leire Alcañiz¹, and Irati Alvarez²

¹ University of Deusto, ² Begoñako Andra Mari Teacher Training University College (BAM), and ³ University of the Basque Country

Abstract

Background: There is much controversy about the impact of joint physical custody on child symptomatology in the context of high interparental conflict. In this study we analyzed child symptomatology with person-centered methodology, identifying differential profiles, considering post-divorce custody, parental symptomatology, and coparenting variables. We examined the association between these profiles and child symptomatology, as well as the mediating role of parenting in that association. **Method:** The participants were 303 divorced or separated Spanish parents with high interparental conflict. We used the study of latent profiles and the INDIRECT procedure in Mplus. We also controlled for the variables age and number of children, new partners, frequency of the relationship with the ex-partner, time elapsed since the divorce, and gender of the parent. **Results:** From the parents' perspective, the profile characterized by low parental symptomatology and high coparenting, regardless of the type of custody, was related to children exhibiting less somatic, anxious, and depressive symptomatology, and aggressive behavior. The mediating role of parenting was also identified. **Conclusions:** Parental symptomatology, coparenting, and parenting are essential for understanding post-divorce child symptomatology and the study highlights importance of person-centered multidimensional models.

Keywords: Child symptomatology, Mental Health, Coparenting, Parenting, Custody.

Resumen

Custodia y Sintomatología de los Hijos en Divorcios Altamente Conflictivos: Análisis de Perfiles Latentes. Antecedentes: existe una gran controversia acerca del impacto de la custodia física compartida en la sintomatología infantil en contexto de alto conflicto interparental. El presente estudio analizó la sintomatología infantil a través de una metodología centrada en la persona, identificando perfiles diferenciales al considerar las variables custodia postdivorcio, sintomatología parental y coparentalidad. Se analizó la asociación entre estos perfiles y la sintomatología infantil, así como el papel mediador de la parentalidad. **Método:** participaron 303 progenitores españoles divorciados o separados con alto conflicto interparental. Se empleó el estudio de perfiles latentes y el procedimiento INDIRECT Mplus, controlando las variables edad, número de hijos/as, nuevas parejas estables, frecuencia de relación entre progenitores, tiempo transcurrido desde el divorcio y género del/a progenitor/a. **Resultados:** desde la perspectiva de los progenitores, el perfil caracterizado por baja sintomatología parental y alta coparentalidad, independientemente del tipo de custodia, se relacionó con menor sintomatología somática y ansioso-depresiva de hijos/as, y con menor comportamiento agresivo. Se confirmó el papel mediador de la parentalidad. **Conclusiones:** se identifica la sintomatología parental, la coparentalidad y la parentalidad como variables fundamentales para comprender la sintomatología infantil postdivorcio, así como la relevancia de emplear modelos multidimensionales centrados en la persona.

Palabras clave: sintomatología infantil, salud mental, coparentalidad, parentalidad, custodia.

An increasing number of children have experienced their parents' divorce in recent decades. About 1 million families go through divorce in Europe (Instituto de Política Familiar, 2018) and more than 60% of the families have children (OECD-27_Family_Database, 2015).

To arrange child custody, many countries, mainly in the western world, differentiate between joint legal custody (JLC) and joint

physical custody (JPC) (Fernández-Rasines, 2017). The former indicates that the father and mother both share the rights and duties involved in the children's upbringing and both of them have the right to be consulted on major decisions and to veto the other parent's decisions, if necessary. In contrast, JPC involves the time spent with the child, with the percentage of the time varying depending on each country (between 30% and 50%). In Spain, the JPC option has always existed, although it was considered "normal and not exceptional" after 2013. JPC is rapidly increasing, rising from 11% in 2010 to 34% in 2018 (INE, 2019).

In general, JPC is an option in most European countries (Belgium, Italy, France, England, the Czech Republic, Denmark, Finland, the Netherlands, Sweden, etc.), and its positive relationship with children's psychological well-being is well documented (Baude et

al., 2016; Braver & Votruba, 2018; Nielsen, 2017, 2018; Ranieri et al., 2016; Steinbach et al., 2020).

However, the researchers' main difference in this field is their support of or their opposition to the unanimous prescription of JPC because, in some cases, a negative impact is anticipated on the children's psychological well-being (Baude et al., 2019; Nielsen, 2017, 2018; Steinbach, 2019; Smyth & Chisholm, 2017). This is especially evident in cases of abuse, neglect, or domestic violence, so it is advocated to pay more attention to health professionals to reach more relevant custody agreements, based, in each case, on an adequate assessment (Parkinson, 2018). However, there is lack of information about which factors to assess and the specific patterns that may favor or prevent the children's symptoms. Concretely, there are two conflicting positions. On the one hand, the hypothesis of benefit (Lamb, 2014; Nielsen, 2017, 2018; Warshak, 2014), which points out that "the more parenting, the more benefit." From this position, good relationships of support and affection with both parents are more closely linked to the children's well-being than the interparental conflict (IPC) itself (Mahrer et al., 2018; Vezzetti, 2016). On the other hand, the conflict theory is empirically supported by the impact of IPC on children's behavioral, emotional, and developmental problems (Jiménez-García et al., 2019; Martínez-Pampliega et al., 2016; Smyth & Chisholm, 2017; Yárnoz-Yaben & Garmendia, 2016; Zumbach, 2016). From this assumption, JPC is contraindicated in IPC situations. That is, more parenting time will be damaging when conflict is high because the children will be more likely to have loyalty conflicts (Jaffe, 2014; Mahrer et al., 2018; Ranieri et al., 2016; Steinbach, 2019) and, in some cases, like situations of violence, the consequences for the children in JPC arrangements would be very harmful (Fabricius et al., 2018; Sandler et al., 2013). In addition, the studies in this line highlight that JPC arrangements are not necessarily linked to positive parental involvement (Elam et al., 2016; McIntosh et al., 2014; Modecki et al., 2015; Smyth & Chisholm, 2017).

Parental symptoms have also received attention because they increase the risk of children's emotional, cognitive, and behavioral problems (Clark et al., 2018). Such risk can be direct, because children could inherit a vulnerable disposition or suffer from exposure to negative affect and behaviors, or to greater stress, or indirect, because high parental symptoms would impact negatively on children's well-being by deteriorating parental educational patterns (lower availability, more coerciveness, less affectionate and more critical discipline) (Deutsch & Clyman, 2016; Zumbach, 2016). Hence, some researchers consider that parental symptoms should be essential when considering the allocation of custody or the termination of parental rights (Deutsch & Clyman, 2016). However, to date, this variable has not been emphasized in custody proceedings, and few investigations about it have been conducted (Fransson et al., 2016).

In short, the above does not allow us to state that JPC arrangements are the most suitable for all children, and, in situations of high IPC, they may not be related to children's psychological well-being, but instead to coparenting and parental symptomatology. Moreover, recent studies indicate that the potential benefits of JPC are more due to family variables (parenting, parental symptomatology, presence of new partners, etc.) (Baude et al., 2019; Steinbach et al., 2020), which supports the need to consider multiple variables.

Therefore, to understand post-divorce child symptomatology from a multidimensional orientation, a person-centered rather than a variable-centered approach will be used through the development

of latent profiles. This methodology follows the line of other previous studies that have also sought to address the impact of divorce multidimensionally (Elam et al., 2016; Perrig-Chielloi et al., 2015). The objective of this methodology is to capture individual differences (in this case, in child symptomatology) based on profiles characterized by a combination of family variables. This study also aims to analyze the mediator role of parenting. Additionally, to improve the design (and overcome some methodological difficulties indicated in the literature, Braver & Votruba, 2018), we will analyze and control for children's age, parents' new partners, frequency of the relationship with the ex-partner, time elapsed since the divorce, the number of children, and gender of the parent, and we will examine the mediating role of parenting between the profiles and child symptomatology. For the sake of clarity, the term divorce will be used to refer both to divorced and separated parents.

Concretely, four hypotheses are proposed: first, no differences in child symptomatology are expected as a function of the type of custody (JPC vs. JLC) (Hypothesis 1). Second, differential post-divorce latent profiles are expected in situations of high IPC (Hypothesis 2). Third, although this is an exploratory analysis, concerning previous literature, it is expected that participants with a profile characterized by low parental symptomatology and high levels of coparenting will report lower symptomatology in their children, regardless of the type of custody (Hypothesis 3); and, fourth, parenting is expected to mediate in the association between post-divorce family profiles and child symptomatology (Hypothesis 4).

Method

Participants

Participants were 303 divorced or separated parents with high IPC attending public services (family visitation centers) by judicial referral and who voluntarily agreed to participate in the study. Most of the parents reported JLC, 78% ($n = 210$), compared to 22% of participants who reported JPC ($n = 60$). The average age of the participants was 40 years ($SD = 6.9$), 62% were mothers, and 38% fathers. The relationship with their ex-partners was classified in most cases as non-existent (45%), limited (24%), or very limited (16%). Most of the parents had separated more than 3 years ago (52%) or between 1 and 3 years ago (34%). Ninety-three percent of the participants reported not having a new stable partner. Concerning the participants' children, their mean age was 7.6 years ($SD = 4.1$), and, regarding gender, 48% were boys and 52% were girls. 70% of the parents had children over 6 years of age and 30% had children younger than 5.

Instruments

The variables type of custody, number of children, children's age, the existence of new partners, quality of the relationship with the ex-partner, time elapsed since the divorce, gender of the parents, and type of custody were collected through an ad hoc questionnaire, along with other variables to describe the participants. The variable IPC was evaluated taking into account the judicial referral report and interviews conducted by the professionals of the services involved. The presence of destructive conflict was considered to be high IPC, as defined by Davies et al. (2016), that is, conflict

characterized by hostility, escalating distress, and detachment. The rest of the variables were collected through the following instruments:

Parental Mental Health Symptoms. Parental symptoms were assessed with the Spanish version of the Symptom Checklist (SCL-90 (Derogatis, 1992)), adapted by González de Rivera et al. (2002). A global indicator was used, made up of the dimensions of Somatization (12 items, $\alpha = .92$, $\omega = .93$), Interpersonal sensitivity (9 items, $\alpha = \omega = .86$), Depression (13 items, $\alpha = .90$, $\omega = .91$), and Anxiety (10 items, $\alpha = .91$, $\omega = .92$). Symptoms are scored on a 5-point Likert scale, ranging from 0 (*not at all*) to 4 (*very much*). The original authors reported an alpha of .95. In this study, Cronbach's alpha and McDonald's omega were both .97 for the indicator of global parental symptomatology.

Children's Mental Health Symptoms. These were assessed with the Spanish version of the Child Behavior Checklist (Achenbach, 1991), with parents reporting their children's symptoms. This scale assesses the prevalence of specific symptoms in children and adolescents, from both community and clinical samples, yielding scores for internalizing and externalizing syndromes, respectively. The symptoms related to somatization, anxiety-depression, and aggressive behavior were considered in this study, as they are the most frequently studied in the literature on the impact of divorce. The items were rated on a 3-point scale (0 = *not true*; 1 = *a bit true, sometimes true*; 2 = *very often or fairly often true*). The mean reliability coefficients in this study were high (Somatization: $\omega = .82$, $\alpha = .79$; Anxiety-Depression: $\omega = .78$, $\alpha = .77$; aggressive behavior: $\omega = \alpha = .91$).

Coparenting. This variable was evaluated through the *Cuestionario de Apoyo Recibido de la ex Pareja* [Questionnaire of Support received from the Ex-partner](CARE, (Yarnoz-Yaben, 2010)). This 8-item instrument assesses divorced parents' perception of the help they receive from their former partners for the children's upbringing. Responses are rated on a 5-point Likert-type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). The original instrument presents an internal consistency of $\alpha = .79$ and adequate construct validity. In the present study, the reliability coefficients were very high (both alpha and omega coefficients of .99).

Parenting. For this study, the "Escala de Afecto- versión padres" (EA-P [Affection Scale - Parent Version]; (Bersabé et al., 2001)) was used, which assesses the level of Affection-communication (Factor 1; i.e., "I trust my child") and Criticism-rejection (Factor 2; i.e., "I think that what he/she does is wrong") in the relationship. The total scale consists of 20 items, 10 per factor, which are rated on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). The original version had adequate internal consistency ($\alpha = .78$ in Factor 1 and $\alpha = .66$ in Factor 2). The reliability was very high in this study (Affection-communication: $\omega = .90$, $\alpha = .89$; Criticism-rejection: $\omega = .95$, $\alpha = .93$).

Procedure

This cross-sectional study was carried out through the National Federation of Family Visitation Centers (Spain) or at the psychosocial intervention resources for judicial referral in high-conflict family situations (Torre, 2018). The managers of twelve centers from nine of the 17 autonomous communities agreed to participate. The participants were informed about the purpose of

the study, the voluntary nature of their participation, and were assured of their confidentiality. All of them came from different family units but, in those few cases in which both parents agreed to participate in the study, the selection of the participating parent was decided at random. The questionnaires were completed in the centers individually, in about 30 minutes. Written informed consent was obtained from all the participants.

All of the parents had to be in charge of one or more minors. The exclusion criterion was the diagnosis of severe psychopathological disorders or the existence of domestic violence. For this purpose, the judicial referral report and/or the case history registered at the center was checked for the existence of a nosological diagnosis or an active restraining order.

Data were collected during the years 2016-2017, and the study was approved by the Ethics Committee of the University (ETK-7/16-17). All procedures contributing to this work complied with the original Declaration of Helsinki.

Data analysis

Firstly, to test Hypothesis 1, we analyzed the differences in child symptomatology as a function of the type of custody. For this purpose, we used ANOVAs for independent samples, including child symptomatology as the dependent variable (i.e., Somatization, Anxiety-Depression, or Aggressiveness), and type of custody (JPC vs. JLC) as the factor. The effect size was calculated using partial square eta (η_p^2), considering an η_p^2 value of .01 as small, .06 as medium, and .14 as a large effect size (Cohen, 1988).

Next, different latent profiles based on the type of custody, coparenting, and parental symptoms were developed to test Hypothesis 2. Latent profile analyses (LPA) (Vermunt & Magidson, 2002) were carried out with Mplus 7.11 (Muthén & Muthén, n.d.). Specifically, we followed the three-step procedure described by Asparouhov and Muthén, (2014). In the first step, we compared LPA models with one to five latent profiles to estimate the number of underlying profiles. The best model was established taking into account various fit indicators such as Akaike's Information Criterion (AIC), the Bayesian Information Criterion (BIC), the mean-adjusted Bayesian Information Criterion (aBIC), the entropy, the Lo-Mendell-Rubin adjusted likelihood ratio test (LMRa), and the bootstrap likelihood ratio test (BLRT) (Hu & Bentler, 1999). To decide the number of profiles, we also considered parsimony, the theoretical interpretation, and the size of the profiles (Porcu & Giambona, 2017). The second step consisted of identifying the most likely profile membership of each individual based on the likelihood of belonging to each profile found in the previous step. In the third step, we analyzed the antecedents and outcomes of the obtained profiles. In terms of antecedents, we tested whether the child's age (younger or older than 5 years), the existence of a new partner, the frequency of relationship with the ex-partner, and separation time influenced the likelihood of belonging to a certain profile. At the level of outcomes, to test Hypothesis 3, we analyzed the predictive differences of each profile in the levels of children's anxiety-depression, somatization, and aggressiveness and in the parental patterns of affection-communication and criticism-rejection, while controlling for children's age, new partners, frequency of the relationship with the ex-partner, time elapsed since the divorce, number of children, and gender of the parent. Finally, after analyzing the profiles, we analyzed the mediator role of the parenting patterns to explain the differential levels of the children's somatization,

anxiety-depression, and aggressive behavior as a function of the parents' profile through the INDIRECT procedure of Mplus.

Results

Descriptive statistics are displayed in Table 1. ANOVA results indicated the absence of differences in child symptomatology as a function of the type of custody. Thus, JPC and JLP were not related to children's somatization, $F(1, 268) = 0.41, p = .523$, anxiety-depression, $F(1, 268) = 2.98, p = .086$, or aggressiveness, $F(1, 268) = 1.55, p = .214$, which supports Hypothesis 1.

In the first step of the LPA (Table 2), the 3-profile model obtained a better fit. Although the 4-profile model showed lower AIC and aBIC, the 3-profile model showed better BIC, entropy, a nonsignificant LMRa (which indicates greater parsimony and adequacy), and higher profile-size adequacy (Fig 1).

In the second step, we observed the characteristics and composition of the profiles (Table 3 and Fig 1). Profile 1 represented 16% of the sample and showed higher levels of parental psychological symptomatology and lower levels of perceived coparenting (this latter variable was similar to Profile 2). Also, this profile was predominant in parents with JLC (80%). Profile 2 represented a higher percentage of the sample (74%) and was characterized by low psychological symptomatology (similar to Profile 3) and low levels of coparenting (similar although somewhat higher than Profile 1). Also, like Profile 1, this second profile was more frequent in JLC parents (83%). Finally, Profile 3 was the least prevalent and represented 10% of the sample. It was characterized by low parental psychological symptomatology (similar to Profile 2) and was the only profile with high levels of coparenting. In this profile, the type of custody was nonsignificant ($p = .978$), with both JPC and JLC occurring with the same frequency (50%). Summing up, these results indicate the presence of three differential post-divorce profiles, which supports Hypothesis 2.

Table 1
Descriptive Statistics and ANOVA Comparisons by Type of Custody Arrangement

	Total		JPC		JLC		F	η^2_p
	M	SD	M	SD	M	SD		
Child somatization	1.2	1.4	1.1	1.2	1.2	1.4	0.41	.002
Child anxiety-depression	2.0	1.7	1.7	1.6	2.2	1.8	2.98	.011
Child aggressiveness	2.3	1.9	2.1	1.9	2.5	1.9	1.55	.006

Note: JPC = Joint Physical Custody; JLC = Joint Legal Custody. The significance values were greater than .05

Table 2
Model Fit and Model Comparisons of Latent Profile Analysis

Model	AIC	BIC	aBIC	Entropy	LMRa	BLRT
1-Profile model	3867.68	3886.25	3870.39	NA	NA	NA
2-Profile model	3787.97	3821.40	3792.85	.818	84.03***	87.71***
3-Profile model	3726.11	3774.38	3733.16	.815	66.94**	69.86***
4-Profile model	3717.54	3780.67	3726.76	.812	15.87	16.57*
5-Profile model	3719.99	3797.97	3731.37	.798	1.42	1.48

Note: AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; aBIC = sample-size-adjusted Bayesian Information Criterion; LMRa = Lo-Mendell-Rubin adjusted likelihood ratio test of K - 1 versus K Profiles; BLRT = bootstrap likelihood ratio test of K - 1 Versus K Profiles; NA = Not applicable. Loglikelihood computation was not reliable for 4-Profile and 5-Profile Models
* $p < .05$; ** $p < .01$; *** $p < .001$

In the third step of the LPA, we analyzed the antecedents and outcomes of the profiles (see Table 4). Regarding antecedents, the multinomial logistic regressions using the three-step procedure indicated that the children's age did not predict belonging to any

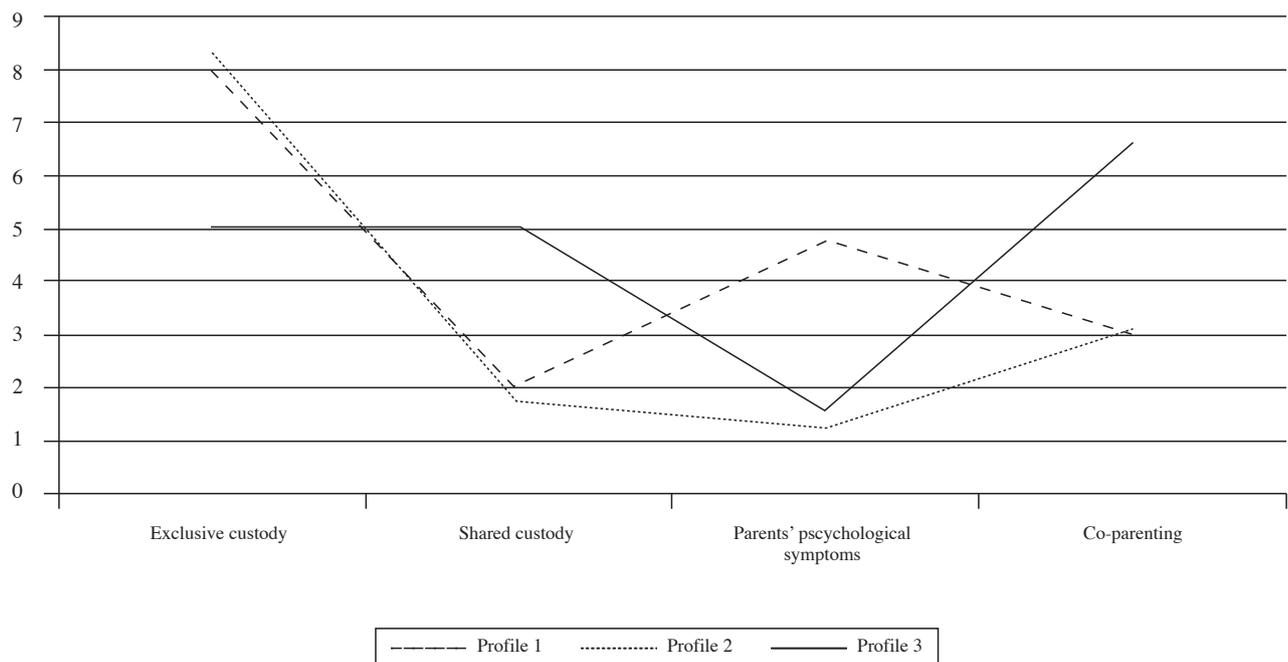


Figure 1. Estimates of the 3-Profile model. In the present figure, Joint Physical Custody and Joint Legal Custody are displayed as the percentages divided by ten for stylistic reasons

of the profiles. Having a new partner was related to belonging to Profile 3 versus Profile 1, whereas there were no differences between Profiles 1 and 2. Concerning the relationship with the ex-partner, scarce or non-existent relations were more prevalent in Profile 1 than in Profiles 2 or 3. On the contrary, a fluid relationship with the ex-partner was more frequently observed in Profile 3 than in Profile 1, but it was not more frequent in Profile 3 versus Profile 2. Regarding the time elapsed since the separation, it was observed that the more time elapsed, the more likely was membership in

Table 3
Estimates of 3-Profile Model

	Profile 1		Profile 2		Profile 3	
	Estimate	<i>p</i>	Estimate	<i>p</i>	Estimate	<i>p</i>
JLC	80%	.001	83%	< .001	50%	.978
JPC	20%		17%		50%	
Parent's psychological symptoms	4.74	< .001	1.25	< .001	1.59	< .001
Co-parenting	2.98	< .001	3.11	< .001	6.64	< .001
Profile <i>n</i>	48		224		31	
% of the sample	16%		74%		10%	

Table 4
Profile comparison: antecedents and outcomes

		Profile comparisons			
		1 vs. 2	1 vs. 3	2 vs. 3	
Antecedents	Children's age	-0.79	-1.14	-0.36	
	New partner	-1.07	-4.46*	-3.40*	
	Relationship with ex-partner	Non-existent	-0.60	27.94***	28.54***
		Scarce	-0.79	24.28***	25.07***
		Fluid	-1.06	-3.04*	-1.98
	Time since separation	-0.49**	0.61	1.10***	
	Outcomes	Children's symptomatology	Somatization	5.40*	8.01**
Anxiety-Depression			8.33**	16.45***	4.98*
Aggressiveness			6.43*	10.31**	2.25
Parenting		Affection-communication	0.14	0.79	0.81
		Affection-Criticism	6.06*	5.46*	0.11
Indirect effect		PM □ Criticism-rejection □ Somatization	0.02	0.03 [†]	–
		PM □ Criticism-rejection □ Anxiety-Depression	0.04 [†]	0.05*	–
	PM □ Criticism-rejection □ Aggression	0.08*	0.11**	–	

Note: PM = Profile membership. Profile comparison estimates are logistic regression coefficients for antecedents, chi-square comparisons for outcomes, and standardized regression coefficients for indirect effects.
[†] *p* < .10. * *p* < .05. ** *p* < .01. *** *p* < .001

Profile 2 versus Profiles 1 or 3 but it did not differentiate belonging to Profile 1 versus Profile 3.

In terms of outcomes, concerning the children's symptomatology, Profile 1 ($M = 1.9, SE = 0.3$) was related to higher levels of somatization than Profile 2 ($M = 1.1, SE = 0.1$) or Profile 3 ($M = 0.8, SE = 0.2$). There was no difference between Profiles 2 and 3. Profile 1 was also related to higher levels of anxiety-depression ($M = 2.9, SE = 0.3$) than Profile 2 ($M = 2.0, SE = 0.1$) or Profile 3 ($M = 1.3, SE = 0.3$). Also, belonging to Profile 3 was related to children's lower levels of anxiety-depression than belonging to Profile 2. With regard to aggressive behavior, Profile 1 ($M = 3.2, SE = 0.3$) was related to higher levels than Profiles 2 ($M = 2.3, SE = 0.1$) or 3 ($M = 1.8, SE = 0.3$), but there were no significant differences between Profiles 2 and 3.

In relation to parental affective patterns, there were no differences between the profiles in affection-communication (Profile 1: $M = 45.4, SE = 1.1$; Profile 2: $M = 45.9, SE = 0.4$; Profile 3: $M = 46.6, SE = 0.7$). Profile 1 ($M = 16.9, SE = 0.7$) was related to higher levels of criticism-rejection than Profiles 2 ($M = 15.0, SE = 0.3$) and 3 ($M = 14.7, SE = 0.6$), but there were no differences in criticism-rejection between Profiles 2 and 3. Hence, the results supported Hypothesis 3, as the post-divorce profiles were related to child symptomatology.

On the basis of the differences found between the profiles, we only tested whether criticism-rejection acted as an explanatory mediator of the relationship between the profiles and the children's symptomatology. In this regard, we observed that Profile 3 was related to less anxiety-depression and aggressiveness, and marginally to less somatization, than Profile 1 through criticism-rejection. Profile 2 was related to less aggressiveness, and marginally less to anxiety-depression, than Profile 1. Profile 2 had a direct, but not an indirect, effect on somatization. The indirect negative effect of Profile 3 in the prediction of anxiety-depression, $\chi^2(1) = 3.12, p = .077$, was marginally stronger than that of Profile 2, but they both predicted aggressiveness equally, $\chi^2(1) = 0.93, p = .335$.

The indirect effects indicated partial mediation in all cases except for the differential effect of Profile 2 ($\beta = -0.09, p = .152$) and Profile 3 ($\beta = -0.09, p = .195$) in aggressive behavior, whose direct effects ceased to be significant. The model with indirect effects significantly explained 16% of the variance of somatization, 19% of the variance of anxiety-depression, and 34% of the variance of aggressiveness. These results partially support Hypothesis 4, as only the criticism-rejection parenting pattern played a mediating role.

Discussion

The present study makes an important contribution to our understanding of the impact of divorce, employing a person-centered analysis, and identifying concurrent patterns in parents' perception of child symptomatology. To date, it is the first study to have considered these variables together in a Spanish sample. The profile with the greatest parental symptomatology and coparenting played a protective role against child symptomatology, from the parents' perspective. Moreover, the effect of these profiles is explained in part by the mediating role of parenting.

The results obtained have allowed us to support the proposed hypotheses, by revealing the absence of the explanatory power of the variable type of custody in the somatic, anxious, and

depressive symptoms or the aggressive behaviors of children from divorced families. On the contrary, based on the study of latent profiles, the results advocate taking into account parental symptoms and coparenting to understand post-divorce profiles and their relationship with child symptomatology. The mediating role of parenting was also partially supported.

Firstly, after observing no differences as a function of the type of custody in the children's symptomatology (Hypothesis 1), in line with what was identified in the review carried out by Baude et al. (2019), three profiles were identified in divorced families (Hypothesis 2). The most frequent was Profile 2 (74%), characterized by low parental symptoms and low coparenting, and mainly JLC agreements. It is associated with more time elapsed since the separation. The other two profiles represent the extremes. Profile 1 represents 16% of participants, who are clearly at a disadvantage. It describes families that are mainly organized through JLC, in which the participating parent does not receive any support from the other parent (low coparenting) and, at the same time, it presents high parental symptomatology. This profile is more frequent when less time has elapsed since the separation. In contrast to this profile, Profile 3 represents the 10% most advantaged people, in terms of the members' better psychological adjustment and the perceived support of the ex-partner. It is more common when the relationship with the ex-partner is good, and with the presence of a new stable partner. There were no differences between profiles as a function of the children's age, as in other studies (Baude et al., 2016).

Thirdly, we note that most of the families in JPC belong to Profile 2, characterized by scarce coparenting, whereas Profile 3, more advantaged, was found with the same frequency in both types of custody. Therefore, the notable premise about maintaining parental involvement through JPC does not seem to be confirmed in this study (Nielsen, 2018; Vezzetti, 2016), which seems to agree more with the warning of Fabricius et al. (2018) about possible JPC without coparenting. Therefore, prescribing a JPC custody without considering coparenting could increase the risk of incorrect allocations (Mahrer et al., 2018; Parkinson, 2018), an aspect that should be examined in detail in future studies, with larger and more representative samples.

Fourthly, the distribution of families suggests that parental symptoms and coparenting are the key variables to explain child symptomatology (Hypothesis 3). The profile with the greatest parental symptomatology (Profile 1) was related to children's higher symptomatology. That is, lower somatization, anxiety-depression, and aggressive behavior were observed in children whose parents had low symptomatology, consistent with other studies (Clark et al., 2018). In some cases, the profile with the highest coparenting (Profile 3) played a protective role against children's symptomatology, in particular, with regard to anxious-depressive symptoms and aggressive behavior. These data are consistent with those obtained by Bertoni et al. (2015) and show the relevance of coparenting when valuating custody (Nielsen, 2017, 2018).

Fifthly, the effects of these profiles are explained in part by the mediating role of parenting, as in other studies (Sandler et al., 2013), even when controlling for the time since separation, the frequency

of relationship with the ex-partner, the presence of a new stable partner, the age of the children, the number of children, and the gender of the parent. In this study, the results partially supported this hypothesis (Hypothesis 4), as only criticism-rejection, but not affection-communication, mediated the relationship between the post-divorce profiles and child symptomatology. However, the result is consistent with the existence of a more hostile and coercive discipline coupled with parental symptoms (Deutsch & Clyman, 2016; Errazuriz et al., 2012).

The results, therefore, support the two-way effect of parental symptoms identified in the literature (Deutsch & Clyman, 2016): the direct pathway, through which the children seem to suffer from exposure to parental symptoms, and the indirect pathway, through parenting.

However, the study is exploratory and preliminary and presents some limitations that require cautious consideration of the results. Among the limitations is the absence responses from the children and from both parents. Most of the participants' children were under the age of 12, so indirect assessment through the parents was chosen in all cases. However, it would be desirable to incorporate measures from other professionals (pediatricians, psychologists, teachers, etc.) in further studies. Also, for future studies, although it is extremely difficult for both parents to participate, the use of parental dyads would be particularly enriching, as well as in-depth analysis of some variables such as interparental conflict, coparenting, type of custody, etc., in order to deepen the results obtained. Secondly, the small size of the sample is another limitation, which is linked to the specificity of the participants, divorced people with high IPC. In this sense, it would be interesting to continue the study, analyzing the results in the divorced population with less interparental conflict, which would, in turn, allow analyzing the generalization of the results obtained. Finally, a third relevant aspect is the cross-sectional nature of the study design, which prevents obtaining causal results. Therefore, by understanding post-divorce childhood symptomatology, we could benefit from future studies with longitudinal designs that allow observing the relationship between post-divorce patterns and symptomatology as a function of time, with data from different sources.

Therefore, although the results should be considered as preliminary because of the limitations indicated above, they have allowed us to highlight the complex and multidimensional nature of divorce, and the need to address not only the custody, but also parental symptoms, coparenting, and parenting in order to promote children's psychological adjustment.

Acknowledgments

This work was supported by the Ministerio de Economía y Competitividad [grant RETOS 2015: PSI2015-67983-R] and by the Ministerio de Sanidad, Servicios Sociales e Igualdad [FEDEPE_grant n° exp 492, programa 002; 9/12/2016].

The authors thank the professionals and users of the Family Visitation Centers for their participation in this study.

References

- Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist and Profile*. University of Vermont, Department of Psychiatry.
- Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, 21(3), 329-341.
- Baude, A., Drapeau, S., Lachance, V., & Ivers, H. (2019). Adjustment of children in joint custody and associated variables: A systematic review. *Journal of Child Custody*, 16(4), 313-338. <http://10.1080/15379418.2019.1691106>
- Baude, A., Pearson, J., & Drapeau, S. (2016). Child adjustment in joint physical custody versus sole custody: A meta-analytic review. *Journal of Divorce and Remarriage*, 57(5), 338-360. <https://doi.org/10.1080/10502556.2016.1185203>
- Bersabé, R., Fuentes, M. J., & Motrico, E. (2001). Análisis psicométrico de dos escalas para evaluar estilos educativos parentales [Psychometric analysis of two scales to assess parental educational styles]. *Psicothema*, 13(4), 678-684.
- Bertoni, A., Iafate, R., Carrà, E., & Valls-Vidal, C. (2015). Divorced parents and children of divorce: Social, relational and individual aspects of wellbeing. In A. M. Columbus (Ed.), *Advances in psychology research (Vol. III)*. Nova Science.
- Braver, S. L., & Votruba, A. M. (2018). Does joint physical custody "cause" children's better outcomes? *Journal of Divorce & Remarriage*, 00(00), 1-17. <https://doi.org/10.1080/10502556.2018.1454203>
- Clark, D. A., Klump, K. L., & Burt, S. A. (2018). Parent depressive symptomatology moderates the etiology of externalizing behavior in childhood: An examination of gene-environment interaction effects. *Developmental Psychology*, 54(7), 1277-1289. <https://doi.org/10.1037/dev0000522>
- Cohen, J. (1988). *Statistical Power for the behavioral sciences* (2nd ed.). Erlbaum.
- Davies, P. T., Martin, M. J., Coe, J. L., & Cummings, E. M. (2016). Transactional cascades of destructive interparental conflict, children's emotional insecurity, and psychological problems across childhood and adolescence. *Development and Psychopathology*, 28(3), 653-671. <http://doi.org/10.1017/S0954579416000237>
- Derogatis, L. R. (1992). *SCL-90-R: Administration, scoring and procedures manual for the revised version and other instruments of the Psychopathology Rating Scale Series*. Clinical Psychometric Research.
- Deutsch, R. M., & Clyman, J. (2016). Impact of mental illness on parenting capacity in a child custody matter. *Family Court Review*, 54(1), 29-38.
- Elam, K. K., Sandler, I., Wolchik, S., & Tein, J. Y. (2016). Non-residential father-child involvement, interparental conflict and mental health of children following divorce: A person-focused approach. *Journal of Youth and Adolescence*, 45(3), 581-593. <https://doi.org/10.1007/s10964-015-0399-5>
- Errazuriz, P. A., Harvey, E. A., & Thakar, D. A. (2012). A longitudinal study of the relation between depressive symptomatology and parenting practices. *Family Relations*, 61(April), 271-282. <https://doi.org/10.1111/j.1741-3729.2011.00694.x>
- Fabricius, W. V., Aaron, M., Akins, F. R., Assini, J. J., & McElroy, T. (2018). What happens when there is presumptive 50/50 parenting time? An evaluation of Arizona's new child custody statute. *Journal of Divorce and Remarriage*, 59(5), 414-428. <https://doi.org/10.1080/10502556.2018.1454196>
- Fernández-Rasines, P. (2017). Sharing child custody: Co-parenting after divorce in Spain. *Oñati Socio-Legal Series*, 6, 1229-1246.
- Fransson, E., Turunen, J., Hjern, A., Ostberg, V., & Bergstrom, M. (2016). Psychological complaints among children in joint physical custody and other family types: Considering parental factors. *Scandinavian Journal of Public Health*, 44(2), 177-183. <https://doi.org/10.1177/1403494815614463>
- González de Rivera, J. L., De las Cuevas, C., Rodríguez, M., & Rodríguez, F. (2002). *Cuestionario de 90 síntomas SCL-90-R de Derogatis, L. Adaptación Española* [The Symptom Checklist 90 SCL-90-R. Spanish Adaptation]. TEA Ediciones.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- INE (2019). *Estadística de nulidades, separaciones y divorcios. Año 2018* [Statistics of annulments, separations and divorces. Year 2018] (Vol. 2018, pp. 1-7). https://www.ine.es/prensa/ensd_2018.pdf
- Instituto de Política Familiar (2018). *Informe Evolución de la Familia en Europa 2018* [Report of the evolution of the family in Europe]. <http://ipfe.org/España/Documentos/IPF>
- Jaffe, P. (2014). A presumption against shared parenting for family court litigants. *Family Court Review*, 52(2), 187-192. <https://doi.org/10.1111/fcre.12081>
- Jiménez-García, P., Contreras, L., & Cano-Lozano, M. (2019). Types and intensity of postdivorce conflicts, the exercise of coparenting and its consequences on children. *Revista Iberoamericana de Psicología y Salud*, 10(1), 48-63. <http://10.23923/j.riips.2019.01.025>
- Lamb, M. E. (2014). Dangers associated with the avoidance of evidence-based practice. *Family Court Review*, 52(2), 193-197.
- Mahrer, N. E., O'Hara, K. L., Sandler, I. N., & Wolchik, S. A. (2018). Does shared parenting help or hurt children in high-conflict divorced families? *Journal of Divorce and Remarriage*, 59(4), 324-347. <https://doi.org/10.1080/10502556.2018.1454200>
- Martínez-Pampliega, A., Aguado, V., Corral, S., Cormenzana, S., Merino, L., & Iriarte, L. (2015). Protecting Children After a Divorce: Efficacy of Egokitzen—An Intervention Program for Parents on Children's Adjustment. *Journal of Child and Family Studies*, 24(12), 3782-3792. <https://doi.org/10.1007/s10826-015-0186-7>
- McIntosh, J. E., Pruett, M. K., & Kelly, J. B. (2014). Parental separation and overnight care of young children, Part II: Putting theory into practice. *Family Court Review*, 52(2), 256-262. <https://doi.org/10.1111/fcre.12088>
- Modecki, K. L., Hagan, M. J., Sandler, I., & Wolchik, S. A. (2015). Latent profiles of nonresidential father engagement six years after divorce predict long-term offspring outcomes. *Journal of Clinical Child and Adolescent Psychology*, 44(1), 123-136. <https://doi.org/10.1080/15374416.2013.865193>
- Muthén, L. K., & Muthén, B. O. (n.d.). *Mplus user's guide. Seventh Edition*. Muthén & Muthén.
- Nielsen, L. (2017). Re-Examining the research on parental conflict, coparenting, and custody arrangements. *Psychology, Public Policy, and Law*, 23(2), 211-231. <https://doi.org/10.1037/law0000109>
- Nielsen, L. (2018). Joint versus sole physical custody: Children's outcomes independent of parent-child relationships, income, and conflict in 60 studies. *Journal of Divorce & Remarriage*, 59(4), 247-281. <https://doi.org/10.1080/10502556.2018.1454204>
- OECD-27_Family_Database (2015). SF3.2. *Family dissolution and children*. http://www.oecd.org/els/family/SF_3_2_Family_dissolution_children.pdf
- Parkinson, P. (2018). Shared physical custody: What can we learn from Australian law reform? *Journal of Divorce and Remarriage*, 59(5), 401-413. <https://doi.org/10.1080/10502556.2018.1454197>
- Perrig-Chiello, P., Hutchison, S., & Morselli, D. (2015). Patterns of psychological adaptation to divorce after a long-term marriage. *Journal of Social and Personal Relationships*, 32(3), 386-405. <https://doi.org/10.1177/0265407514533769>
- Porcu, M., & Giambona, F. (2017). Introduction to latent class analysis with applications. *The Journal of Early Adolescence*, 37(1), 129-158.
- Ranieri, S., Molgora, S., Tamanza, G., & Emery, R. E. (2016). Promoting coparenting after divorce: A relational perspective on child custody evaluations in Italy. *Journal of Divorce and Remarriage*, 57(5), 361-373. <https://doi.org/10.1080/10502556.2016.1185204>
- Sandler, I. N., Wheeler, L. A., & Braver, S. L. (2013). Relations of parenting quality, interparental conflict, and overnights with mental health problems of children in divorcing families with high legal conflict. *Journal of Family Psychology*, 27(6), 915-924. <https://doi.org/10.1037/a0034449>
- Smyth, B. M., & Chisholm, R. (2017). Shared-time parenting after separation in Australia: Precursors, prevalence, and postreform patterns. *Family Court Review*, 55(4), 586-603. <https://doi.org/10.1111/fcre.12306>
- Steinbach, A. (2019). Children's and parents' well-being in joint physical custody: A literature review. *Family Process*, 58(2), 353-369. <http://10.1111/famp.12372>

- Steinbach, A., Augustijn, L., & Corkadi, G. (2020). Joint physical custody and adolescents' life satisfaction in 37 North American and European countries. *Family Process*, 2020-04-15. <http://10.1111/famp.12536>
- Torre Laso, J. (2018). *Los divorcios conflictivos: Guía de intervención en los puntos de encuentro familiar* [Conflictive divorces: Intervention guide for Family Meeting Points]. Morata.
- Vezzetti, V. C. (2016). New approaches to divorce with children: A problem of public health. *Health Psychology Open*, 3(2). <https://doi.org/10.1177/2055102916678105>
- Vermunt, J. K., & Magidson, J. (2002). Latent profile cluster analysis. In J. A. Hagennars & A. L. McCutcheon (Eds.), *Applied latent profile analysis* (pp. 89-106). Cambridge University Press.
- Warshak, R. A. (2014). Social science and parenting plans for young children: A consensus report. *Psychology, Public Policy, and Law*, 20(1), 46-67. <https://doi.org/10.1037/law0000005>
- Yarnoz-Yaben, S. (2010). Cuestionario de Apoyo Recibido de la Ex Pareja (CARE): un instrumento breve para evaluar la co-parentalidad post divorcio [Questionnaire of Support Received from the ex-partner (CARE): A brief instrument for assessing post-divorce co-parenting]. *Psicothema*, 15(2), 133-142.
- Yáñez-Yaben, S., & Garmendia, A. (2016). Parental divorce and emerging adults' subjective well-being: The role of "carrying messages". *Journal of Child and Family Studies*, 25(2), 638-646. <https://doi.org/10.1007/s10826-015-0229-0>
- Zumbach, J. (2016). Mental disorders in children and parents in family law proceedings: Cases on child protection matters versus child custody and visitation issues. *Journal of Child and Family Studies*, 25(10), 3097-3108. <https://doi.org/10.1007/s10826-016-0476-8>