

# Parental structure and well-being among Spanish children: Promotion of positive parenting

# Estructura parental y bienestar de las niñas y niños españoles: Promoción de una parentalidad positiva

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#### Resumen

El presente trabajo surge como una inquietud por avanzar en el estudio de la estructura parental desde la Teoría de la Autodeterminación (SDT) que reconoce el potencial de la familia para desarrollar formas de funcionamiento saludables y autónomas. Los objetivos del estudio son: a) analizar la influencia de la provisión de estructura parental en el ajuste de los menores (comportamiento prosocial, agresión física y verbal e inestabilidad emocional); b) evaluar el papel mediador de las creencias parentales en la relación entre las prácticas parentales y el desarrollo psicosocial de niños y niñas; y c) evidenciar el papel mediador del género de los progenitores en la provisión de estructura. En el estudio participaron 2.396 progenitores y 1.325 menores que cursaban Educación Primaria. Los resultados indicaron que las madres se perciben como más provisoras de un ambiente estructurado que los padres. Además, la provisión de estructura influye en el comportamiento prosocial de los menores de forma positiva, mientras que los entonos familiares caóticos logran el efecto contrario. Se concluye señalando la relevancia de reflexionar sobre la provisión de estructura en la formación parental, para mejorar tanto el desempeño de los adultos en el quehacer cotidiano como el desarrollo de los menores y adolescentes.

#### **Palabras clave**

Estructura Parental, Teoría de la Autodeterminación, Bienestar Infantil, Parentalidad Positiva, Ajuste Psicosocial

#### Abstract

The present study arose from a desire to advance the study of parental structure from Self-Determination Theory (SDT), recognizing the potential of the family in developing healthy, autonomous functioning. The objectives of the study were: a) to analyze the influence of parental structure on children's adjustment (prosocial behavior, physical and verbal aggression, and emotional instability); b) evaluate the mediating role of parental beliefs in the relationship between parenting practices and children's psychosocial development; and c) demonstrate the mediating role of parents' gender in providing structure. The study involved 2.396 parents and 1.325 children in primary education. The results indicated that mothers believe that they

provide a more structured environment than fathers. In addition, the provision of structure positively influences children's prosocial behavior, while chaotic family environments have the opposite effect. The article concludes by highlighting the importance of reflecting on the provision of structure in parental training to improve adults' performance of daily tasks and children's and adolescents' development.

#### **Key Words**

Parental Structure, Self-Determination Theory, Child Well-Being, Positive Parenting, Psychosocial Adjustment

#### **1. INTRODUCTION**

Self-determination theory indicates that individuals have three basic psychological needs, the need for autonomy, competence, and relatedness. In this context, the family must promote and support the satisfaction of the three basic needs, and there are three parental dimensions that are thought to help meet children's psychological needs. The first, and most widely-studied dimension, is autonomy support, which includes parental behaviors that support children's autonomy, encouraging them to take the initiative and express their points of view and opinions, and allowing them space to solve their own problems (Grolnick & Pomerantz, 2009). The second dimension is warmth, which refers to the extent to which parents are interested in, knowledgeable about, and play an active role in their children's lives (Mauras et al., 2013).

Finally, the least-studied dimension is structure, which refers to the organization of the environment to facilitate competence (Farkas & Grolnick, 2010). In the context of parent-child relationships, parents must provide a context that clarifies expected behaviors –so that children can guide their behavior competently– and provide information on the expected consequences of behaviors. In short, in a structured family environment, there should be clear and consistent rules, expectations and consequences that are contingent on actions. In addition, there needs to be constructive feed-back. Parents should tell their children why the rules are necessary and explain to them that their behaviors affect others. Finally, parents must clearly maintain a leadership role with the ability to impose consequences (Farkas & Grolnick, 2010). In this context, the main objective of this study was to analyze the influence of parental structure on the emotional adjustment of children aged 8 to 12 years old.

#### 1.1. Parental structure and children's outcomes

In accordance with SDT, several studies have demonstrated that provision of parental structure has a positive influence on children's well-being. In this regard, in a study with sixth-grade children (Grolnick et al., 2014) found that parental structure was positively related to children's perceptions and feelings of competence in relation to unsupervised time, but this relationship was not found in other areas, such as school homework or the responsibility domain. Another interesting point in Grolnick et al. (2014) is that when parents provide structure, children feel more in control of outcomes and less helpless with regard to successes and failures. In addition, Grolnick et al. (2015. See also Griffith & Grolnick, 2014) observed that parental structure predicted children's perceptions of competence, autonomous, intrinsic and introjected motivation,

and school engagement. This parental dimension has also been shown to be positively associated with help-seeking and avoidance, such that parents can help children to achieve adaptive coping behaviors (Raftery-Helmer & Grolnick, 2015). In Flamm & Grolnick (2013), the provision of clear, consistent, predictable rules and expectations was associated with adolescents' emotional well-being, especially among girls. Similarly, Marbell & Grolnick (2013) encountered that parental structure was related to depression. Skinner et al. (2005) found that parental structure was related to children's perceived academic competence and classroom engagement, and to adolescents' reports of positive academic outcomes, social competence, mastery, and self-worth, while it was negatively correlated with adolescent substance abuse and problem behavior. In Costa et al. (2019), structure positively predicted psychological needs, prosocial behaviors, and positive affect, while chaos (the opposite of a structured family environment) negatively predicted aggressive behaviors and negative affect. Finally, in Ratelle et al. (2018a), parental structure explained the largest share of variance in academic achievement, adjustment, self-efficacy, and identity in a sample of adolescents.

Farkas and Grolnick (2010) performed a more specific analysis based on the different components of the parental structure. Provision of clear, consistent guidelines was associated with children's perceptions of control, perceived cognitive competence, classroom engagement, and grades. Predictability was related to perceived cognitive competence and grades, while opportunity to succeed related to children's perceived control over academic success, perceived cognitive competence, engagement in academic behaviors, and self-worth. Provision of rationales and information feed-back were associated with effective strategies for academic success. Finally, parental leadership was associated with classroom engagement.

The Farkas' and Grolnick's study developed the multidimensional conceptualization of the parental structure using interview-based research, while Ratelle et al. (2018a) demonstrated the validity of this conceptualization in survey-based research. Specific dimensions (clear and consistent rules, guidelines, and expectations; feedback; opportunities to meet expectations; provision of rationales) were concluded to have positively contributed to some of the outcomes: academic achievement, adjustment, self-efficacy, and identity. Nevertheless, the study also found an unexpected negative association between predictability and academic adjustment and achievement. Regardless of that, the study demonstrated that the structure factor as a whole was a stronger predictor than specific dimensions.

Few studies have examined the relationship between gender and parental provision of structure. Flamm and Grolnick (2013) observed that structure was associated with positive outcomes for children but was related to greater perceived competence and lower depressive symptoms for girls—not for boys. Grolnick et al. (2014) concluded that parents implemented structure in a more controlling manner with their boys than their girls. In Costa et al. (2019), maternal structure had a positive effect on the fulfillment of the need for autonomy, while paternal chaos had negative effects on the need for autonomy and the need for competence. Similarly, Ratelle et al. (2018b. See also Ratelle et al., 2017) found that mothers' and fathers' provision of structure played different roles in promoting students' positive academic outcomes, and in Ratelle et al. (2017), adolescents reported similar levels of structure when asked to evaluate their parent's behaviors.

Finally, the SDT theory perspective indicates that there are different antecedents that can influence the development of the parental dimensions. The literature has established a classification of these antecedents as: a) pressure from "above" (social contextual factors such as the parents' employment or the state of their marriage); b) pressure from "within" (parents' personality characteristics, such as contingent self-worth, maladaptive perfectionism, separation-anxious parents); and finally c) pressure from "below" (children's behavior, such as temperament) (Grolnick, 2009; Soenens & Vansteenkiste, 2010). More studies are needed to examine antecedents in the prediction of parenting dimensions. There have been few studies about parental structure. Grolnick et al. (2014) looked at pressure from above and found that parental education was associated with provision of structure.

#### **1.2. The current study**

The first goal of the present study was to test the influence of parental provision of structure on children's adjustment (prosocial behavior, physical and verbal aggression, and emotional instability). There has been little research done to estimate the relative contribution of structure to children's outcomes; most studies have examined other parenting dimensions, such as parental autonomy-support and warmth. Based on previous research supporting the associations between parental structure and other positive and negative children's outcomes, we expected parental provision of structure to be a strong predictor of children's adjustment. According to SDT theory, the satisfaction of the three basic psychological needs (autonomy, competence, and relatedness) is universal and inherent to the human condition. Even in cultures with a more collectivist orientation, the promotion of autonomy, competency, and relatedness is necessary (Soenens et al., 2015a). This is one reason why it is interesting to study another culture to test the universality of the SDT perspective in relation to parental provision of structure.

In addition, the present study aimed to assess the mediating role of parenting beliefs in the relationship between parental practices and positive and negative outcomes. As noted above, SDT theory indicates a need to understand the role played by different antecedents in parental practices. For this reason, one of this study's innovative contributions is to analyze some pressures from "within", specifically certain parenting beliefs (child-invested contingent self-esteem, parental separation anxiety, parenting motivation, parental achievement goals, and unfulfilled dreams). Various studies (Jungert et al., 2015; Mageau et al., 2016; Soenens et al., 2015b; Wuyts et al., 2015a; Wuyts et al., 2015b; Wuyts et al., 2017), have analyzed the influence of these parental beliefs on autonomy supportive parenting but there are no studies about their influence on parental provision of structure. Based on previous research, we expected parents' assessments of their parenting beliefs to contribute to parental provision of structure.

Another goal of the study was to test the mediating role of parent's gender. Pesch et al. (2016) support the idea separate measurements are needed from mothers and fathers to examine each parents' unique role in outcomes. Few studies about parental structure have had the participation of both parents, and in most studies, only adolescents or children have been asked about parental behaviors (Costa et al., 2019; Flamm & Grolnick, 2013; Griffith & Grolnick, 2014; Grolnick et al., 2014, 2015; Raftery-Helmer & Grolnick, 2015; Ratelle et al., 2018a). In some cases, studies asked one parent,

usually mothers, and children (Farkas & Grolnick, 2010). In our study, we examined separate models for mothers and fathers. Few studies have used data obtained from mothers and fathers at the same time (Ratelle et al., 2017; Ratelle et al., 2018a; Skinner et al., 2005). In our case, mothers and fathers, from the same families separately completed self-report questionnaires about parental provision of structure. We expected to find no differences between mothers and fathers in their provision of structure. In addition, we hypothesized that children's gender would have no influence on parenting behavior.

## 2. METHOD

### 2.1. Participants

The sample was made up of 2.396 parents (1.164 fathers, 48,6%; 1.232 mothers, 51,4%) and 1.325 children (637 boys, 48,1%; 685 girls, 51,7%) aged between 7 and 13 years old, from 8 autonomous communities in Spain. The parents' educational attainment was as follows: 39,73% had completed secondary school or vocational qualifications; 21,91% had completed only primary school; and 38,36% had university-level qualifications. In terms of employment, 59,02% of the parents were working full time, 9,06% were working part time, 19,99% were retired, 6,59% were unemployed, and 5,34% were homemakers. Almost two-thirds of the parents (64,73%) were married, 16,61% were widowed, 6,93% lived with a partner, 6,59% were separated, and 5,13% defined themselves as single.

#### **2.2. Measure instruments**

The study used data from various research instruments –with permission from the authors– which had been adapted and validated for the Spanish context. The instruments were completed by the study participants (parents and children in each family unit).

#### 2.2.1. Parent measure instruments

This instrument was made up of the following scales, which were all completed separately by fathers and mothers:

1. Parents as a Social Context Questionnaire, PSCQ (Skinner et al., 2005). This is a 31-item questionnaire which assesses the dimensional model of parenting, based on Self-Determination Theory, developed by Skinner et al. (2005). This model summarizes various constructs and distinguishes three conceptual dimensions: warmth/rejection; autonomy support/coercion-control, structure/chaos. The items are rated on 4-point Likert scale from 1 (*completely disagree*) to 4 (*completely agree*). In this study we used the third dimension: structure (6 items, e.g. "I make it clear what will happen if my child does not follow our rules") and chaos (4 items, e.g., "I let my child get away with things I really shouldn't allow"). Cronbach's alpha values for structure were ,61 (mothers) and ,64 (fathers), and for chaos they were ,70 (mothers) and ,67 (fathers) (Skinner et al., 2005).

2. Parenting Motivation (Jungert et al., 2015). This scale comprises 12 items to evaluate autonomous and controlled motivation for parenting. Six items measure controlled motivation (e.g., ". I want to prove to the people around me that I am a good parent.") and six items measure autonomous motivation (e.g., "I feel a sense of personal accomplishment in taking care of my child in my own way"). The items are rated on a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). The scale yielded an  $\alpha$  coefficient of ,78 for autonomous motivation and ,82 for controlled motivation (Jungert et al., 2015).

3. Parental Child-Invested Contingent Self-*Esteem* (Wuyts et al., 2015a). This scale consists of 15 items that evaluate the tendency of parents to perceive their self-esteem from the achievements of their children. There are 3 items about achievement (e.g. "My self-esteem depends, to a large extent, on my child's achievement at school"), 6 items about children's failures (e.g., "When my child fails I feel bad about myself"), and 6 items about children's success (e.g., "Usually I feel a strong sense of pride when my child does well in school"). Parents rated each item on a 5-point Likert-type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). The original version, with a Belgian sample, produced an alpha coefficient of ,91 for mothers and ,89 for fathers.

4. Unfulfilled Dreams (Wuyts et al., 2015a). This scale uses 6 items to evaluate people's beliefs about their dreams and aspirations when they were younger (e.g., "I feel disadvantaged because I haven't fulfilled certain dreams in the past"). Items are rated on a 5-point Likert-type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*).

5. Parental Separation Anxiety (Hock et al., 1989). This scale has 21 items to evaluate aspects of paternal/maternal anxiety and feelings of guilt when they are apart from their children (e.g., "Children will be afraid in a new place without their mother/father"). Items are rated on a 5-point Likert- type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). Hock et al. (1989) found an internal consistency of ,90 (T1) and ,91 (T2).

6. Parental Achievement Goals (Mageau et al., 2016). This scale assesses parents' goals regarding their children's development and achievement. Parental mastery goals were measured with 3 items (e.g., "I try to help my child be the best in the activities he/she is engaged in",  $\alpha$ =,69) (Mageau et al., 2016), performance-approach goals were measured with 4 items (e.g., "I try to encourage my child to finish among the first in what he/she does.",  $\alpha$ =,80) (Mageau et al., 2016), and performance-avoidance goals were assessed with 4 items (e.g., "I do not want my child to do activities in which he/she will be less competent than others",  $\alpha$ =,85) (Mageau et al., 2016). Parents rate each item on 7-point Likert-type scale from 1 (*completely disagree*) to 7 (*completely agree*). The scale was adapted to Spanish, with the following values for Cronbach's alpha: ,74 in mastery goals, ,85 in performance-approach goals, and .81 in performance-avoid goals (Inda et al., 2020).

#### 2.2.2. Child measure instruments

The instrument for the children was made up of the following scales:

1. Physical and Emotional Aggression Questionnaire (Caprara & Pastorelli, 1993. Spanish adaptation Del Barrio et al., 2001). The scale has 20 items to evaluate children's

behavior aimed at physically or verbally hurting others (e.g. "I hurt my classmates", "I kick and punch", "Insult to classmates"). Children rate each item on a 3-point Likert scale (1 = Often, 2 = Sometimes; 3 = Never). The alpha value in a study with a sample of Spanish children aged 7 to 10 years old was .84 (Del Barrio et al., 2001), in another study with a sample of Spanish children aged 7 to 12 years old it was ,89 (Tur-Porcar et al., 2018).

2. Emotional instability (Caprara & Pastorelli, 1993. Spanish adaptation Del Barrio et al., 2001). The scale consists of 20 items which assess children's behavior related to lack of control, impulsiveness and emotionality in social contexts (e.g., "I'm impatient; "I interrupt others when they speak"). Each item has 3 response options indicating how often each behavior occurs (1=*Often*, 2=*Sometimes*, 3=*Never*). The value of alpha in the Spanish version (children aged 7 to 10 years) was ,74 (Del Barrio et al., 2001), and with Spanish children aged 7 to 12 years old it was ,81 (Tur-Porcar et al., 2018).

3. Prosocial Behavior Scale (Caprara & Pastorelli, 1993. Spanish adaptation Tur, 2003). The scale consists of 15 items with a three-item response format (1=Often, 2=Sometimes and 3=Never). The scale measures altruistic and conforming child behavior (e.g., "I'm kind", "I try to help others"). Cronbach's alpha was ,72 in a Spanish version (Tur-Porcar et al., 2018).

### 2.3. Procedure

Data were collected from children aged 7 to 12 years old and from their parents. Members of the research team contacted several schools to request participation in the study. All of the families in participating schools with children aged between 7 and 12 were sent a letter explaining the study, which included an informed consent form and the parent questionnaires. Once parents had signed their informed consent and completed their questionnaire(s), the children's questionnaires were administered during class time. Participants did not receive any remuneration for their participation, the children were given a pencil and the school received a certificate of participation in the study. The children took about 25-45 min to complete the questionnaire depending on their age.

Scales were translated from English where necessary. To produce the Spanish versions, we followed the rules established by the International Test Commission. Two translations were made from English to Spanish, both by members of the research team with a good command of English. Following that, an initial translation was defined by consensus between them, and this version was assessed by two experts in parenting (T1). Notes and discussions were recorded. T1 was back-translated into English by two native English-language translators (T2) and the final version was achieved after all members of the research team agreed.

### 2.4. Data analysis

The correlations between the scores in the different scales were assessed using Pearson or Spearman correlation coefficients, depending on whether the assumption normality was violated or not. Differences between the structure and chaos dimensions according to parent gender, child gender, and parental educational attainment were evaluated using the Student's t-test for independent samples, and with Welch's correction for different variances.

Subsequently, we examined the relationship between the two components of the Parents as a Social Context Questionnaire (structure and chaos) and children's emotional instability, prosocial behavior, and physical and verbal aggression, along with the relationship with parental gender, children's gender, and parents' educational attainment. Similarly, we moved on to examine the relationship between structure and chaos and the antecedents of parental conduct (Parenting Motivation, parental child-invested contingent self-esteem, unfulfilled dreams, parental separation anxiety, parental achievement goals), again according to gender and parents' educational attainment. All of these relationships were assessed via linear ANCOVA models.

The significance level used was 0,05. Statistical analysis was performed using the R program (R Development Core Team, 2020), version 3.6.3, using the psych (Revelle, 2021) and EFAtools libraries (Steiner & Grieder, 2020).

#### 3. **RESULTS**

#### 3.1. Descriptive statistics and correlations

Table 1 shows the differences between mothers' and fathers' scores in the predictor variables. There were differences between the two genders in each variable. Mothers perceived themselves to be more structured than fathers did. Moreover, fathers had higher scores than mothers in chaos. In addition, parents created more structured family environments for girls than they did for boys, whereas they were more chaotic with sons. Despite these gender differences, parents had high scores in structure and low scores in chaos.

Parent's gender		Mothers			Fathers		
	N	М	SD	N	М	SD	р
Structure	1.232	19,59	4,56	1.164	17,87	5,59	< 0,001
Chaos	1.232	7,21	3,67	1.164	8,50	4,35	< 0,001
Children's gender		Girls			Boys		
	N	М	SD.	Ν	М	SD.	р
Structure	1.232	19,16	4,84	1.158	18,34	5,44	< ,001
Chaos	1.232	7,48	3,83	1.158	8,18	4,24	< ,001

Table 1. Parents' mean scores in structure and chaos by parent's gender and children's gender

Table 2 shows the differences between parents' educational attainment in the predictor variables. Given the sufficiently large sample and the rejection of the hypothesis of homogeneity of variance (Bartlett's test, p < ,001), the hypothesis of equal medians was rejected (Kruskal-Wallis test, p < ,001). Dunn's test indicated that all of the levels were different from each other for the "structure" variable. Ordering by significance gives the following preference: Secondary-vocational and primary (p < ,001), university and primary (p < ,001), and university and secondary-vocational (p = ,005). There were higher scores in provision of structure from parents with secondary-

school qualifications, followed by university level, then by those with primary school only.

For the predictive variable "chaos", Dunn's test indicates that there were significant differences between certain pairs of levels. Ordering by significance gives the following preference: University and primary (p < ,001), and secondary and university (p < ,001). There were no differences between the secondary and university levels (p = ,444). Parents with only a primary-school education perceived themselves to be more chaotic parents than parents with secondary or university-level educations.

	Primary Education		Secondary Education			University			
	N	М	SD.	N	М	SD	N	М	SD.
Structure	525	14,28	6,47	952	20,40	3,35	919	19,61	4,35
Chaos	525	11,62	4,76	952	6,69	2,76	919	6,86	3,43

Table 2. Parents' mean scores in structure and chaos by parent's educational attainment

The relationships between children's outcomes (emotional instability, prosocial behavior, and physical and emotional aggression) and the two parental dimensions, structure and chaos, were evaluated through Spearman correlations. The Spearman linear correlation coefficients between the variables are presented in Table 3.

,044*	-,073***
-,049**	,104***
-,073***	,074***
	,044* -,049** -,073***

*Note*. \*\*\**p* <, 001, \*\**p* < ,01, \**p* < ,05.

#### Table 3. Summary of Spearman linear correlation coefficients

The relationships between parenting antecedents (parental separation anxiety, unfulfilled dreams, parenting motivation, parental achievement goals, parent child-invested contingent self-esteem) and the structure and chaos parental dimensions measured through the PSCQ were evaluated through Spearman correlations. The Spearman linear correlation coefficients between the variables are presented in Table 4.

	Structure	Chaos
Dreams	,027	,160***
GoalsAV	-,020	,124***
GoalsPE	,075***	,122***
GoalsMA	,152***	,014
MOVEXT	,036**	,140***
MOVIN	,181***	-,007
Anxiety	,074***	,078***
Self	,053**	,147***

*Note.* Dreams= Unfulfilled dreams; GoalsAV=Parental avoidance goals; GoalsPE= Parental performance goals; GoalsMA=Parental mastery goals; MOVEXT=Extrinsic parenting motivation; MOVIN=Intrinsic parenting motivation; Anxiety=Parental anxiety separation; Self=Parental Child-invested contingent self-esteem; \*\*\*p < ,001, \*\*p < ,01, \*p < ,05.

Table 4. Summary of Spearman linear correlation coefficients

#### **3.2. ANCOVA Models**

Subsequently, ANCOVA models were created for structure and chaos. The predictor variables included in each model were the children's outcomes (prosocial behavior, emotional instability, and physical and emotional aggression), together with the 3 variables to examine differences (children's gender, parent's gender, and parental educational attainment).

The data in Table 5 about structure confirm that structured environments positively influenced children's prosocial behavior (p < .05). At the same time, there was a negative, statistically significant relationship between provision of structure and emotional instability (p < .05) and physical and emotional aggression (p < .001). There were also differences according to parental gender, with women scoring significantly higher than men, and according to educational attainment, as there were significantly higher scores from parents with higher educational attainment than those who had only completed primary education. In addition, the scores were more significant when the children were girls.

I	Prosocial Behavior	Emotional Instability	Physical and Emotional Aggression
nStructure	,08*	-,04*	-,06**
Parent's gender			
Fathers	-	-	-
Mothers	1,03***	1,04***	1,04***
Children's gender			
Boys	-	-	-
Girls	,37	,42**	,39*
Educational attainment			
Primary	-	-	-
Secondary	5,91***	5,89***	5,89***
N University	5,05***	5,01***	5,02***

*ote*. \*\*\**p* < ,001, \*\**p* < ,01, \**p* < ,05.

Table 5. ANCOVA coefficients for structure with children's outcomes as predictors

When it comes to chaos, the data in Table 6 confirm that chaotic environments had a negative influence on children's prosocial behavior (p < ,001). There was also a positive, statistically significant relationship between unstructured family environments and children's emotional instability (p < ,001) and physical and emotional aggression (p < ,01). There were also differences according to parents' gender, with women scoring significantly lower than men, and according to education, with participants with secondary or university-level education scoring significantly lower. In addition, the scores were more significant when the children were girls.

	Prosocial Behavior	Emotional Instability	Physical and Emotional Aggression
Chaos	-,10***	,06***	,05**
Parent's gender			
Fathers	-	-	-
Mothers	-,68***	-,69***	-,69***
Child's gender			
Boys	-	-	-
Girls	-,29	-,34**	-,34**
Educational attainment			
Primary	-	-	
Secondary	-4,80***	-4,78***	-4,78***
University	-4,56***	-4,50***	-4,50***

*Note*. \*\*\**p* < ,001, \* *p* <, 01, \**p* < ,05.

Table 6. ANCOVA coefficients for chaos with children's outcome as predictors

Finally, ANCOVA models were specified for structure and chaos (see Table 7), incorporating the parental backgrounds as predictor variables (parenting motivation, parental child-invested contingent self-esteem, unfulfilled dreams, parental separation anxiety, parental achievement goals), together with the 3 variables to examine differences (children's gender, parent's gender, and parental educational attainment).

*Note* Dreams= Unfulfilled dreams; GoalsAV=Parental avoidance goals; GoalsPE= Parental performance goals; GoalsMA=Parental mastery goals; MOVEXT=Extrinsic parenting motivation; MOVIN=Intrinsic parenting motivation; Anxiety=Parental anxiety separation; Self=Parental Child-invested contingent self-esteem; \*\*\*p < ,001, \*\*p < ,01, \*p < ,05.

	Structure	Chaos
Dreams	,02	,16
GoalsAV	,09	,11
GoalsPE	,00	,09
GoalsMA	,26**	-,07
MOVEX	-,07	,12
MOVIN	,49***	-,34**
Anxiety	,43***	-,13
Self	-,10	,36**
Parent's gender - Men	-	-
Parent's gender- Women	,96***	-,62***
Parent's educational attainment- Primary	-	-
Parent's educational attainment- Secondary	6,03***	-4,74***
Parent's educational attainment- University	5,30***	-4,44***

Table 7. ANCOVA coefficients for Structure and Chaos with parental antecedents as predictors

For structure, there were positive correlations between structure and parental separation anxiety (p = ,001), parental mastery goals (p < ,001), and autonomous motivation towards parenting (p < ,001). There were also differences according to parent's gender, with women scoring significantly higher than men, and according to

educational attainment, with parents who had higher educational attainment scoring significantly higher than those with only a primary education.

For chaos, there was a positive correlation between chaos and parental child-invested contingent self-esteem (p = .005), and a negative correlation between chaos and autonomous motivation towards parenting (p = .001). There were also gender differences, with women scoring significantly lower than men, and differences according to educational attainment, with parents who had only a primary education scoring significantly higher than the others.

#### **4. DISCUSSION AND CONCLUSION**

We expected no differences between mothers and fathers in their provision of structure, and we also expected children's gender not to influence parenting behavior. However, our results indicate that there were differences between mothers' and fathers' scores in the predictor variables, and that there were differences according to children's gender. Mothers perceived themselves to be more structured than fathers perceived themselves to be. Moreover, fathers had higher scores than mothers in chaos. In addition, parents created more structured family environments for girls than they did for boys, whereas they were more chaotic with boys. Despite these gender differences, overall, the parents had high scores in structure and low scores in chaos. Parents with a secondary education scored higher in the provision of structure, followed by those with a university education and then those with only a primary education. In this regard, our results are consistent with Grolnick et al. (2014), who found high parental education levels to be associated with provision of structure. Parents in our study with only a primary education perceived themselves to be more chaotic parents than parents with a secondary or university education. Our conclusion is that being a woman and having a secondary or university education favors the deployment of family strategies that lead to structured environments, where establishing rules and limits characterizes the organization needed for the family to be able to function appropriately and autonomously.

We expected parental provision of structure to be a strong predictor of children's adjustment. In this regard, the data confirmed that structured environments positively influence children's prosocial behavior. Studies have indicated that children from structured environments exhibit greater confidence in their own abilities and better psychological, academic, and social adjustment (Costa et al., 2019; Farkas & Grolnick, 2010; Flamm & Grolnick, 2013; Griffith & Grolnick, 2014; Grolnick et al., 2014, 2015; Ratelle et al., 2018a). We also found a statistically significant negative relationship between provision of structure and emotional instability, and physical and emotional aggression. This suggests that establishing clear norms and ensuring children understand limits and boundaries helps them to become more aware of how their actions have consequences, and that they can anticipate them and plan their behavior so that they can avoid troublesome peers or risky behaviors (Rodríguez Meirinhos, 2019). In order to achieve this educational potential, the family environment should be characterized by, among other things, establishing clear rules children can understand, parental supervision, and feedback for the children, "no's, rules, and limits are vital for their wellbeing" (Millet, 2015, p.117). There were differences in the relationship between structure and children's adjustment according to parents' gender, women having significantly higher scores than men. There were also differences based on parent's education, as those with higher levels of education scored significantly higher than those with only a primary education. The scores were also more significant when the children were girls.

Our data confirmed that chaotic environments have a negative influence on children's prosocial behavior. There was also a statistically significant positive relationship between an unstructured family environment and emotional instability, and physical and emotional aggression. Unstructured environments are characterized by arbitrary, unpredictable, inconsistent discipline, and poor supervision. Rules are not clear and there is little supervision about whether they are followed (Skinner et al., 2005). Children in these conditions can feel that they have less control over the consequences of their actions, and may see themselves as less competent (Rodríguez Meirinhos, 2019). A lack of organization and structure in the parental context interferes with the development of competencies, and is related to greater presence of behavior problems, poorer academic performance, and lower levels of social skills (Costa et al., 2019; Farkas & Grolnick, 2015; Skinner et al., 2005). Again, we found differences in the relationship between chaos and children's adjustment according to the parent's gender, with women scoring significantly lower than men. There were also differences according to education, as parents with secondary or university educations scored significantly lower. Once again, the scores were more significant when the children were girls.

Finally, we expected that parents' assessments of their parenting beliefs would contribute to parental provision of structure. Our results showed that there were positive correlations between structure and parental separation anxiety, parental mastery goals, and autonomous motivation towards parenting. The results indicate that parents who express anxiety when they are separated from their children provide more family structure. One possible explanation for this result is that, according to the SDT (Soenens & Vansteenkiste, 2010), the development of structured family environments can be implemented either by supporting children's autonomy or by exercising control over them. In the latter case, parents who provide structure but exercise control tend to set rules without considering the child's perspective and use coercion to enforce the rules. In this regard, parents who express anxiety about separation from their children may tend to organize the environment to try and ensure that the children are not separated from them. This may explain our results.

There was a positive correlation between chaos and parental child-invested contingent self-esteem, and a negative correlation between chaos and autonomous motivation towards parenting. We conclude that there is a positive relationship between some negative parental beliefs and the provision of an environment lacking rules and limits. In this regard, parents who measure their self-worth in terms of their children's successes and failures (Wuyts et al., 2015b) tend to produce environments in which rules do not exist, or if they do exist, they are insufficient and frequently transgressed without consequences. However, when parents are actively involved in parenting because it gives them satisfaction and pleasure, they tend to produce less chaotic family environments. For these parents, parenting is important because it is integrated into their value systems and these beliefs seem to act as a protective factor preventing development of a chaotic parenting style.

The study has some limitations, which warrant interpreting the findings with caution. First, the cross-sectional nature of the study is a methodological limitation. The main limitation of a cross-sectional study is that variables are assessed simultaneously, meaning it is not possible to establish a true cause and effect relationship. More longitudinal research is needed in order to analyze the causal relationships over time between parental beliefs, parenting educational styles, and children's adjustment. Another limitation is that the sample population was children and parents in a specific geographical and cultural context. One of the objectives arising from self-determination theory is to corroborate the theoretical assumptions that support it in different cultural and geographic contexts (the universalistic perspective, Soenens et al., 2015a). Our study contributes to this objective, but we must be aware that caution is needed when generalizing results from other cultural contexts.

To summarize, parent-child dynamics characterized by the promotion of autonomy and structure (clear, consistent limits) establish a basic foundation for satisfying children's needs, as well as for their wellbeing and adjustment. The present study, from the perspective of positive parenting, offers the ideal setting in which to address intervention with families to encourage parental training programs to promote these dimensions. The aim is to support parents in raising and educating their children -an essential though complicated task- and to help them play their parental roles. It is about encouraging interventions that promote the family as the ideal context in which to encourage positive relational, communicative, and life skills in children, as well as proactive family communication, cohesion and organization (Orte et al., 2020). Preventive family intervention aims to construct resources that will allow families to better face problematic situations and come out of them stronger. It is worth highlighting some documented evidence-based programs in family education (Hidalgo et al., 2016; Martínez et al., 2016; Orte et al., 2019; Rodrigo et al., 2015; Santos-Rego et al., 2019; Torío et al., 2019) as well as resources that parents might use to establish good contact with their children and give them support and guidance (For example, see the Guide to encourage positive parenting from Torío et al., 2022). To sum up, not all of our behavior as parents has the same effect on our children's education. It is important to identify the strategies that promote our children's comprehensive development, to reinforce them if we already have them, or to acquire and improve them otherwise.

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#### **REFERENCES**

- Caprara, G.V. & Pastorelli, C. (1993). Early emotional instability, prosocial behavior, and aggression: some methodological aspects. *European Journal of Personality*, 7, 19-36. https://doi.org/10.1002/per.2410070103
- Costa, S., Sireno, S., Larcan, R. & Cuzzocrea, F. (2019). The six dimensions of parenting and adolescent psychological adjustment: the mediating role of psychological needs. *Scandinavian Journal of Psychology*, 60, 128-137. https://doi.org/10.1111/sjop.12507

- Del Barrio, V., Moreno, C. & López, R. (2001). Evaluación de la agresión y la inestabilidad emocional en niños españoles: su relación con la depresión. *Clínica y Salud, 12*(1), 33-50.
- Farkas, M.S. & Grolnick, W.S. (2010). Examining the components and concomitants of parental estructure in the academic domain. *Motivation and Emotion*, 34, 266-279.
- Flamm, E. & Grolnick, W. (2013). Adolescent adjustment in the context of life change: the supportive role of parental structure provision. *Journal of Adolescence*, 36, 899-912. https://doi.org/10.1016/j.adolescence.2013.07.006
- Griffith, S.F. & Grolnick, W. (2014). Parenting in Caribbean Families: A Look at Parental Control, Structure, and Autonomy Support. *Journal of Black Psychology*, 4(2), 166-190. *Doi: 10.1177/0095798412475085*
- Grolnick, W. (2009). The role of parents in facilitating autonomous self-regulation for education. *Theory and Research in Education*, 7(2), 164-173. *Doi: 1177/1477878509104321*
- Grolnick, W. & Pomerantz, E. (2009). Issues and Challenges in Studying Parental Control: Toward a New Conceptualization. *Child Development Perspectives*, 3(3), 165-170. *Doi:* 10.1111/j.1750-8606.2009.00099.x
- Grolnick, W., Raftery-Helmer, J., Marbell, K., Flamm, E., Cardemil, E. & Sánchez, M. (2014). Parental provision of structure: implementation and correlates in three domains. *Merrill-Palmer Quarterly*, 60, 355-38.
- Grolnick, W., Raftery-Helmer, J., Flamm, E., Marbell, K. & Cardemil, E. (2015). Parental provision of academic structure and the transition to middle school. *Journal of Research on Adolescence*, 25, 668-684. Doi: 10.1111/jora.12161
- Hidalgo, V., Jiménez, L., López-Verdugo, I., Lorence, B. & Sánchez, J. (2016). Family education and support, program for families at psychosocial risk: the role of implementation process. *Psychosocial Intervention*, 25(2), 79-85.
- Hock, E., McBride, S. & Gnezda, T. (1989). Maternal separation anxiety: Mother-Infant separation from the maternal perspective. *Child Development*, 60(4), 793-802. *Doi:10.2307/1131019*
- Inda, M., Rodríguez, C., Fernández, C. & Viñuela, P. (2020). Rol de las metas parentales orientadas al logro de la tarea en el autoconcepto de estudiantes universitarios. *Revista Iberoamericana de Diagnóstico y Evaluación*, 56(3), 143-158. *Doi: 10.21865/RIDEP56.3.11*
- Jungert, T., Landry, R., Joussemet, M., Mageau, G., Gingras, I. & Koestner, R. (2015). Autonomous and controlled motivation for parenting: associations with parent and child outcomes. *Journal of Child and Family Studies*, 24, 1.932-1.942. Doi: 10.1007/s10826-014-9993-5
- Mageau, G., Bureau, J., Ranger, F., Allen, M. & Soenens, B. (2016). The role of parental achievement goals in predicting autonomy-supportive and controlling parenting. Journal of *Child and Family Studies*, 25, 1.702-1.711. Doi: 10.1007/s10826-015-0341-1
- Marbell, K. & Grolnick, W. (2013) Correlates of parental control and autonomy support in an interdependent culture: A look at Ghana. *Motivation and Emotion*, 37, 79-92. *Doi:* 10.1007/s11031-012-9289-2
- Martínez, R., Rodríguez, B., Álvarez, L. & Becedoniz, C. (2016). Evidence in promoting positive parenting through the program-guide to develop emotional competences. *Psychosocial Intervenction*, 25(2), 111-117.
- Mauras, C., Grolnick, W. & Friendly, R. (2013). Time for "the talk"...Now what? Autonomy support and structure in mother-daughter conversations about sex. *Journal of early Adolescence*, 33.849, 458-481.
- Millet, E. (2015). *Hiperparternidad. Del mundo "mueble" al modelo "altar". Consecuencias de la paternidad helicoptero.* Plataforma Editorial.
- Orte, C., Ballester, Ll. & Pascual, B. (2019). Effective family-based prevention interventions. *Pedagogía social. Revista Interuniversitaria, 34,* 13-15.

- Orte, C., Ballester, Ll. & Amer, J. (Eds.). (2020). *Educación familiar. Programas e intervenciones basados en la evidencia.* Octaedro.
- Pesch, K.M., Larson, L.M. & Surapaneni, S. (2016). Parental autonomy support and career wellbeing: mediating effects of perceived academic competence and volitional autonomy. *Journal of Career Assessment*, 24(3), 497-512. https://doi.org/10.1177/1069072715599392
- Raftery-Helmer, J. & Grolnick, W. (2015). Children's coping with academic failure: relations with contextual and motivational resources supporting competence. *Journal of Early Adolescence*, 36(8), 1-25. https://doi.org/10.1177/0272431615594459
- Ratelle, C., Duchesne, S. & Guay, F. (2017). Predicting school adjustment from multiple perspectives on parental behaviors. *Journal of Adolescence*, 54, 60-72. *Doi:* 10.1016/j.adolescence.2016.11.008
- Ratelle, C., Duchesne, S., Guay, F. & Boisclair, G. (2018a) Comparing the contribution of overall structure and its specific dimensions for competence-related constructs: A bifactor model. *Contemporary Educational Psychology*, 54, 89-98. Doi: 10.1016/j.cedpsych.2018.05.005
- Ratelle, C., Morin, A., Guay, F. & Duchesne, S. (2018b). Sources of evaluation of parental behaviors as predictors of achievement outcomes. *Motivation and Emotion*, 42, 513-526. *Doi: 10.1007/s11031-018-9692-4*
- Revelle, W. (2021). *Procedures for Personality and Psychological Research*. Northwestern University, Evanston, Illinois, USA.
- Rodrigo, M.J., Máiquez, M.L., Martín, J.C., Byrne, S. & Rodríguez, B. (2015). Manual práctico de parentalidad positiva. Síntesis.
- Rodríguez Meirinhos, A. (2019). *Necesidades de apoyo de las familias con adolescentes que padecen enfermedades mentales. Promoción de una parentalidad positiva.* (Tesis doctoral). Universidad de Sevilla, Sevilla.
- Santos-Rego, M.A., Lorenzo-Moledo, M. & Priegue-Caamaño, D. (2019). La mejora de la participación e implicación de las familias en la escuela: un programa de acción. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 22(3), 93-197. http://dx.doi.org/10.6018/reifop.22.3.389931
- Skinner, E., Jonhson, S. & Snyder, T. (2005). Six dimensions of parenting: A motivational model. *Parenting: Science and Practice.* 5, 175-235.
- Soenens, B. & Vansteenkiste, M. (2010). A theoretical upgrade of the concept of parental psychological control: proposing new insights on the basis of self-determination theory. *Developmental Review*, 30, 74-99. Doi: 10.1016/j.dr.2009.11.001
- Soenens, B., Vansteenkiste, M. & Van Petegem, S. (2015a). Let us not throw out the baby with the bathwater: applying the principle of universalism without uniformity to autnomy-supportive and controlling parenting. *Child Development Perspectives*, *9.819*, 44-49. *Doi:* 10.11117cdep.12103
- Soenens, B., Wuyts, D., Vansteenkiste, M., Mageau, G. & Brenning, K. (2015b). Raising trophy kids: the role of mother's contingent self-esteem in maternal promotion of extrinsic goals. *Journal of Adolescence*, 42, 40-49. Doi: 10.1016/j.adolescence.2015.04.001
- Steiner, M.D. & Grieder, S.G. (2020). EFAtools: An R package with fast and flexible implementations of exploratory factor analysis tools. *Journal of OpenSource Software*, 5(53), 2521.
- Torío-López, S., Peña Calvo, J.V., García-Pérez, O. & Inda-caro, M. (2019). Evolución de la parentalidad positiva: un estudio longitudinal de los efectos de la aplicación de un programa de educación parental. *REIFOP. Revista Electrónica de Formación del Profesorado*, 22(3), 109-126.
- Torío-López, S, Fernández-García, C.M<sup>a</sup> Inda-Caro, M., Viñuela-Hernández, P., García-Pérez, O., Rodríguez Menéndez, C., Martínez-García, M.L., Rodríguez-Álvarez, M. y Rivoir-González, E. (2022). *Guía para promover una parentalidad positiva. Estrategias*

*educativas de apoyo para padres y madres con hijos e hijas entre 0-12 años de edad.* Servicio de Publicaciones Universidad de Oviedo (en prensa).

- Tur, A.M. (2003). Conducta agresiva y prosocial en relación con temperamento y hábitos de crianza en niños y adolescentes [Aggressive and prosocial behavior in relation to temperament and parenting habits for children and adolescents] [Doctoral dissertation, Universidad de Valencia]. Available at http://roderic.uv.es/handle/10550/38891?show=full
- Tur-Porcar, A.M., Doménech, A. & Mestre, V. (2018). Vínculos familiares e inclusión social. Variables predictoras de la conducta prosocial en la infancia. Anales de Psicología, 34(2), 340-348. http://dx.doi.org/10.6018/analesps.34.2.308151
- Wuyts, D., Chen, B., Vansteenkiste, M. & Soenens, B. (2015a). Social pressure and unfulfilled dreams among Chinese and Belgian parents: two roads to controlling parenting via childinvested contingent self-esteem. *Journal of Cross-Cultural Psychology*, 1-19. *Doi:* 10.1177/0022022715603/25
- Wuyts, D., Vansteenkiste, M., Soenens, B., & Assor, A. (2015b). An examination of the dynamics involved in parental child-invested contingent self-esteem. *Parenting: Science* and Practice, 15, 55-74. Doi: 10.1080/15295192.2015.1020135
- Wuyts, D., Soenens, B., Vansteenkiste, M., Van Petegem, S. & Brenning, K. (2017). The role of separation anxiety in mothers' use of autonomy support: An observational study. *Journal of Child and Family Studies*, 26, 1949-1957. *Doi:* 10.1007/s10826-017-0707-7