The European Journal of Psychology Applied to Legal Context (2019) 11(1) 23-32

The European Journal of Psychology Applied to Legal Context

http://journals.copmadrid.org/ejpalc

Longitudinal Effects of Parenting Mediated by Deviant Peers on Violent and Non-Violent Antisocial Behaviour and Substance Use in Adolescence

Olalla Cutrín, Lorena Maneiro, Jorge Sobral, and José A. Gómez-Fraguela

Universidade de Santiago de Compostela, Spain

ARTICLE INFO

Article history:
Received 7 June 2018
Accepted 15 October 2018

Keywords:
Parenting practices
Deviant peers
Antisocial behaviour
Adolescence
Mediation effects

A B S T R A C T

The current work aimed to analyse the prospective effects of parenting practices on adolescent problematic behaviour taking into account the mediation effects of deviant affiliations in normative Spanish adolescents. For this purpose, a sample of 663 adolescents aged 12 to 15 (M = 12.49, SD = 0.68) and gender-balanced (54.3% male) were recruited from 13 state secondary schools in Galicia (NW Spain). Two structural equation models were tested separately on violent behaviour, nonviolent antisocial behaviour, and substance use: the parenting model analysed parental knowledge and parental support through deviant peers, and the sources model analysed adolescent disclosure, parental control, and parental solicitation through deviant peer affiliations. The results of the parenting model indicated that the effects of parental knowledge on all the types of problematic behaviour were significantly mediated by deviant peer affiliations. In addition, the direct effect of parental knowledge was significant on substance use for males. Regarding the sources model, the results indicated that the effects of adolescent disclosure were significantly mediated by deviant peer affiliations on all the types of problematic behaviour only for females. No significant effects of parental support, parental control, and parental solicitation were found. Methodological and practical implications of these findings are discussed.

Efectos longitudinales de las prácticas parentales mediados por los iguales desviados sobre el comportamiento antisocial violento y no violento y el consumo de sustancias en la adolescencia

Palabras clave:
Prácticas parentales
Iguales desviados
Conducta antisocial
Adolescencia
Efectos de mediación

R E S U M E N

El presente trabajo tuvo como objetivo analizar los posibles efectos de las prácticas parentales sobre el comportamiento problemático en adolescentes españoles normativos, teniendo en cuenta los efectos de mediación de la afiliación con iguales desviados. Para ello, se utilizó una muestra de 663 adolescentes de 12 a 15 años (M = 12.49, DT = 0.68) equilibrada por género (54.3% varones) de 13 centros públicos de secundaria de Galicia (NO de España). Se analizaron dos modelos de ecuaciones estructurales por separado para conducta violenta, comportamiento antisocial no violento y consumo de sustancias: el modelo de crianza que analiza el conocimiento parental y el apoyo parental a través de los iguales desviados y el modelo de fuentes que analiza la autorrevelación adolescente, control parental y solicitud parental a través de la afiliación con iguales desviados. Los resultados del modelo de crianza indicaron que los efectos del conocimiento parental sobre todos los tipos de comportamiento problemático estuvieron significativamente mediados por la afiliación con iguales desviados. Además, el efecto directo del conocimiento parental fue significativo sobre el consumo de sustancias para los varones. Con respecto al modelo de fuentes, los resultados indicaron que solo para las mujeres los efectos de la autorrevelación adolescente estuvieron significativamente mediados por la afiliación con iguales desviados sobre todos los tipos de comportamiento problemático. No se encontraron efectos significativos del apoyo, el control y la solicitud parentales. Se discuten las implicaciones metodológicas y prácticas de estos hallazgos.

Cite this article as: Cutrín, O., Maneiro, L., Sobral, J., & Gómez-Fraguela, J. A. (2019). Longitudinal effects of parenting mediated by deviant peers on violent and non-violent antisocial behaviour and substance use in adolescence. *The European Journal of Psychology Applied to Legal Context, 11*, 23-32. https://doi.org/10.5093/ejpalc2018a12

Funding: This study was supported by the Programa de Axudas á etapa predoutoral da Xunta de Galicia (Consellería de Cultura, Educación e Ordenación Universitaria).
Correspondence: olalla.cutrin@usc.es (O. Cutrín).

The direct effects of parenting practices and deviant peer affiliations on several types of problematic behaviour and maladjusted outcomes have been reiteratedly exposed in literature reviews (e.g., Brauer & De Coster, 2015; Chen, Drabick, & Burgers, 2015; Newman, Harrison, Dashiff, & Davies, 2008) and statistically confirmed in research and meta-analytic studies (e.g., Assink et al., 2015; Hoeve et al., 2009; Petersen, Bates, Dodge, Lansford, & Pettit, 2015). Findings regarding the direct effects of parental "monitoring" or parental knowledge and deviant peer affiliations are some of the more consistent results in the prediction of antisocial behaviour and substance use in adolescence. Thus, low levels of parental monitoring and knowledge as well as high levels of peer deviancy have been associated with higher levels of adolescent problematic behaviour (for reviews, see McGloin, 2009; Racz & McMahon, 2011). However, other parenting-related variables have not showed the same consistent relationships with problematic behaviour.

Parenting Practices and Types of Adolescent Problematic Behaviour

Two remarkable studies changed the conception of measuring parental monitoring (Kerr & Stattin, 2000; Stattin & Kerr, 2000). These works proposed that actually the level of parental knowledge about children's life was the construct assessed by most of the studies rather than the effort to actively monitor children. The research of these authors presented parental knowledge as a variable comprised of three sources to get through them such a knowledge:

First, the children could tell them spontaneously, without any prompting (child disclosure). Second, parents could ask their children and their children's friends for the information (parental solicitation). Third, parents could impose rules and restrictions on their children's activities and associations, thereby controlling the amount of freedom children have to do things without telling them (parental control) (Stattin & Kerr, 2000, p. 1073).

Since then, several studies have analysed these sources of knowledge in relation to problematic behaviour. Child or adolescent disclosure is considered the main predictor of parental knowledge (Kerr, Stattin, & Burk., 2010). Adolescent disclosure was consistently and directly related to lower levels of antisocial behaviour and substance use (e.g., Ahmad, Smetana, & Klimstra, 2015; Hoeve et al., 2009; Willoughby & Hamza, 2011). Regarding parental control and parental solicitation, results have not been so consistent. Some studies found that parental control (e.g., Parra & Oliva, 2006; Willoughby & Hamza, 2011) and parental solicitation (e.g., Keijsers, Frijns, Branje, & Meeus, 2009; Lippold, Greenberg, Graham, & Feinberg, 2014) were significantly related to lower levels of antisocial behaviour and substance use. Nevertheless, other research found that parental control and parental solicitation were not directly related to problematic behaviour (Gault-Sherman, 2012; Muñoz, Pakalniskiene, & Frick, 2011; Rekker, Keijsers, Branje, Koot, & Meeus, 2017), whereas in other studies control and solicitation were even positively related to antisocial behaviour and substance use (Laird, Marrero, & Sentse, 2010; Willoughby & Hamza, 2011). These contradictions may be based on differences in definition and operationalisation of the variables among studies. Nevertheless, the inconsistent effects of parental control and parental solicitation point out the need to evaluate these sources separately. This contributes to avoid biased results and mistaken conclusions about the significance of parenting variables labelled under the knowledge construct.

Another common parenting variable in research has been parental support. Parental support can be defined as a general construct of parent-child affective relationships, including warmth, attachment, and involvement (De Haan, Prinzie, & Deković, 2012). Parental support has been often presented as a significant predictor of lower levels of antisocial behaviour and substance use (e.g., Hoeve et al., 2009; Parra & Oliva, 2006; Wang, Dishion, Stormshak, & Willett, 2011). However, several studies did not find significant direct prospective relationships of parental support, warmth, or attachment and aggressive behaviour and rule-breaking (De Haan et al., 2012), delinquency (Meldrum & Barnes, 2017; Yun, Cui, & Blair, 2016), and substance use (Pereyra & Bean, 2017). Other research has even found that parental support was positively related to aggression, delinquency, nonviolent behaviour, and substance use in adolescence (Cutrín, Gómez-Fraguela, & Sobral, 2017c), specifically in those adolescents with low levels of empathy or involved in gangs (Van der Graaff, Branje, De Wied, & Meeus, 2012; Walker-Barnes & Mason, 2004). As similarly occurs with parental control and parental solicitation, the conceptual broadness of parental support may be one of the reasons for the contradictory findings as regards problematic behaviour. In addition, the existence of indirect relationships between different risk factors and behaviour may also explain such inconsistence. Therefore, it should be taken into account that other variables may be influencing the effects of parenting practices on problematic behaviour.

Mediation Effects of Parenting through Deviant Peers

The interest in research about the mediation effects of deviant peers on the relationship between parenting and problematic behaviour has substantially increased in the last decade. In this regard, evidence has shown that negative parenting practices are indirectly related to problematic behaviour through increasing the affiliation with antisocial peers in adolescence, and these results were found across contexts and in several types of problematic behaviour. For instance, research has indicated that the effects of low monitoring and low parental knowledge on the adolescent level of delinquency were mediated by deviant peer affiliations (e.g., Dynes, Domoff, Hassan, Tompsett, & Amrhein, 2015; O'Donnell, Richards, Pearce, & Romero, 2012; Walters & Espelage, 2018). In this line, some studies found that both low parental control and low maternal support were indirectly related to involvement in delinquent activities via deviant peer affiliations (Deutsch, Crockett, Wolff, & Russell, 2012), and that low parental attachment was indirectly related to delinquency through the affiliation with deviant peers as well (De Vries, Hoeve, Stams, & Asscher, 2016). Likewise, some studies have analysed these mediation effects on more specific types of problematic behaviour. For example, Van Ryzin and Dishion (2013) evidenced that family coercive interactions led to coercive joining with peers and, consequently, to violent behaviour in early adulthood. Other research indicated that parenting comprising monitoring, attachment, discipline, and guidelines was indirectly related to the level of violent behaviour in adolescence through the affiliation with deviant peers (Haggerty, Skinner, McGlynn-Wright, Catalano, & Crutchfield, 2013). Similarly, Trudeau, Mason, Randall, Spoth, and Ralston (2012) found that parenting composed of affect, discipline, guidelines, and monitoring indirectly predicted, through deviant peers, externalizing behaviour including violent, aggressive behaviour and nonviolent, rule-breaking behaviour. Other studies also showed that deviant peer affiliations mediated the effect of permissive parenting on higher levels of aggressive behaviour and rule-breaking (Hinnant, Erath, Tu, & El-Sheikh, 2016). As regards substance-related problems, some studies found that low rule-setting monitoring was indirectly related to higher levels of adolescent substance use by the mediation of being affiliated with substance-using peers (Kiesner, Poulin, & Dishion, 2010). In this line, other research evidenced that the effects of monitoring and quality in family relationships were mediated by deviant peer affiliations for both tobacco and alcohol use (Van Ryzin, Fosco, & Dishion, 2012). The recent study of Cox, Criss, Harrist, and Zapata-Roblyer (2017) specifically indicated that being affiliated with

deviant peers mediated the effect of parenting on externalizing behaviour, whereas being affiliated with substance-using peers mediated the effect of parenting on adolescent substance use.

Gender Differences in Antisocial Behaviour and Risk Factors

Research has consistently found the existence of a gender gap in antisocial behaviour and delinquency, especially when violence is considered; that is, females present lower levels of delinquency, general antisocial behaviour, and violent behaviour in comparison with males (Lanctôt, 2015; Zahn-Waxler & Polanichka, 2004). Nevertheless, current research has indicated that both females and males present similar levels of substance use in adolescence, including tobacco, alcohol, and other illicit drugs (e.g., Colell, Sánchez-Niubò, & Domingo-Salvany, 2013). As regards risk factors, parenting and peers seem to influence males and females differently but findings are not consistent. Literature has traditionally proposed that females are more influenced by family factors. Females tend to be more monitored by their parents and have more supportive and communicative relationships (Javdani, Sadeh, & Verona, 2011; Kerr et al., 2010). However, some research has indicated that males seem to be more vulnerable than females to the lack of positive parenting practices (e.g., McAdams, Salekin, Marti, Lester, & Barker, 2014). On the other hand, evidence has proposed that males are more influenced by deviant peers because they are more frequently involved in antisocial groups during adolescence (e.g., Trudeau et al., 2012). Nevertheless, research has also suggested that females are more likely to affiliate with opposite-sex peers and, therefore, to be more exposed to the influence of older males (e.g., Poulin, Denault, & Pedersen, 2011).

The Current Study

The current work aimed to analyse the prospective effects of parenting practices on adolescent problematic behaviour taking into account the mediation effects of deviant peer affiliations. In the Spanish context, some attempts of analysing these effects have been previously carried out. In this regard, previous studies found that parental knowledge, parental support, and parent-adolescent conflict were indirectly related to violent and nonviolent behaviour (Cutrín, Gómez-Fraguela, Maneiro, & Sobral, 2017; Cutrín, Gómez-Fraguela, & Sobral, 2017a), as well as substance use (Cutrín, Gómez-Fraguela, & Sobral, 2017b) through the affiliation with deviant peers. The mediated relationship of parenting practices and antisocial behaviour through deviant peers was also found for Spanish juvenile offenders (Cutrín, Gómez-Fraguela, & Luengo, 2015). Nevertheless, all these studies were carried out using a cross-sectional design and, therefore, leading to preliminary conclusions that should be tested at a longitudinal level in order to check the generalization of these results. In order to address this research gap in the Spanish context, the current study aimed to confirm the direct effects of parenting variables on later problematic behaviour, as well as the mediation effects of deviant peers on such relationship. This study also aimed to clarify some previous inconsistent results regarding the role of specific parenting practices. For that purpose, different parenting variables were analysed: two main positive parenting practices (parental knowledge and parental support) and, in a separate model, the three sources of parental knowledge proposed by the Kerr and Stattin's classical works (adolescent disclosure, parental control, and parental solicitation; Kerr & Stattin, 2000; Stattin & Kerr, 2000). In addition, direct and mediation effects were analysed separately on several types of problematic behaviour (violent and nonviolent antisocial behaviour, and substance use) and also examined in female and male adolescents. This work, then, is proposed as a preliminary study – and to the best of our knowledge, the first in our context – regarding longitudinal mediated relationships between parenting and problematic behaviour through deviant peer affiliations in normative Spanish adolescents. The specific hypotheses proposed in the current study were: (1) parenting practices directly predict deviant peer affiliations and problematic behaviour; (2) deviant peer affiliations are directly related to problematic behaviour; (3) parenting practices indirectly predict problematic behaviour through increasing the affiliation with deviant peers; and (4) no gender differences exist in direct and mediated relationships.

Method

Participants

The initial sample was composed of 666 adolescents in 1st grade of compulsory secondary education [1º ESO] from 13 state secondary schools in Galicia (NW Spain). Three subjects were removed from the sample because more than 90% of their responses were missed. Thus, the final sample at time 1 (T1) was composed of 663 adolescents aged 12 to 15 (M = 12.49, SD = 0.68) and gender-balanced (54.3% male). From the final sample, 78.4% of adolescents lived with both parents, 16.9% lived only with their mother, 2.3% lived only with their father, and 2.4% lived with other relatives. Youths presented similar cultural and social characteristics regarding ethnicity and socio-economic background, most of them being white (more than 90%) and coming from middle and low-middle income contexts. In order to obtain data from the four provinces of Galicia, 24 schools were selected by convenience sampling. In those centres that agreed to participate (5 in rural and 8 in urban contexts), data were collected in all groups of 1st grade and participation exceeded 90%. The follow-up at time 2 (T2) was carried out one year after the first data collection. The level of attrition between the two data collections was 25.1% (N_{T2} = 499). Seven subjects were removed from the sample because more than 90% of their responses were missed. Significant differences were found between participants and non-participants in T2 regarding gender, $\chi^2(1) = 4.61$, $p = .032$, age, $t(663) = 5.72$, $p < .001$, and antisocial behaviour in T1, $F(1, 602) = 37.296$, $p < .001$, non-participants being mostly males, older, and showing higher frequency of antisocial behaviour than participants.

Measurements

Parental knowledge (T1). The degree of parental knowledge regarding adolescent's whereabouts, activities, and friendships was measured in T1 by a self-reported 5-item scale based on previous scales (i.e., Kerr & Stattin, 2000; Stattin & Kerr, 2000; e.g., "Your parents know what you do during your free time"; α = .78). Items were scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .60 and .69.

Parental support (T1). Parental warmth, responsiveness, and closeness were assessed in T1 by a self-reported 8-item scale validated in normative Spanish adolescents (Oliva, Parra, Sánchez-Queija, & López, 2007; e.g., "You feel supported and understood"; α = .90). This scale was scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .60 and .84.

Adolescent disclosure (T1). The degree in which adolescents spontaneously reveal information about their life with their parents was measured in T1 using a self-reported 5-item scale based on previous scales (i.e., Kerr & Stattin, 2000; Oliva et al., 2007; Stattin & Kerr, 2000; e.g., "You tell them what you do when you go out"; α = .82). Items were scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .49 and .85.

Parental control (T1). The level of rules and restrictions established by parents to control the amount of children's freedom

was assessed in T1 using a self-reported 5-item scale based on previous scales (i.e., Kerr & Stattin, 2000; Oliva et al., 2007; Stattin & Kerr, 2000; e.g., "Before you go out on Saturday, they require you to tell them where you are going and with whom"; α = .83). Items were scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .59 and .78.

Parental solicitation (T1). The degree in which parents directly ask adolescents for information was evaluated in T1 using a self-reported 5-item scale based on previous scales (i.e., Kerr & Stattin, 2000; Oliva et al., 2007; Stattin & Kerr, 2000; e.g., "They start conversations with you about your free time"; α = .73). Items were scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .50 and .75.

Deviant peers (T2). The presence of antisocial behaviour in the peer group was assessed in T2 by an 11-item scale developed and validated in normative Spanish adolescents (Cutrín, Maneiro, Sobral, & Gómez-Fraguela, 2018b). This scale presents two subscales to assess general antisocial behaviour (seven items; e.g., "They get into trouble in their free time"; α = .83) and substance use in the peer group (four items; e.g., "They take 'legal' drugs (tobacco or alcohol)"; α = .87). The global score presented an internal consistency of α = .88. Items were scored from 0 (*never*) to 3 (*always*). The lambda coefficients in the structural models were between .60 and .97.

Violent behaviour (T2). Violence and physical aggression were assessed in T2 by a 6-item scale of the short Spanish version of the Antisocial Behaviour Questionnaire validated in Spanish adolescents (ABQ; Luengo, Otero-López, Romero, Gómez-Fraguela, & Tavares-Filho, 1999) and used in previous studies with normative Spanish adolescents (e.g., Cutrín, Gómez-Fraguela, Maneiro et al., 2017; e.g., "Fighting and hitting someone"; α = .74). Items were scored from 0 (*never*) to 3 (*very often*). The lambda coefficients in the structural models were between .34 and .83.

Nonviolent antisocial behaviour (T2). Nonviolent forms of antisocial behaviour were evaluated in T2 by three 6-item scales of the ABQ (Luengo et al., 1999) used in previous studies with normative Spanish adolescents (e.g., Maneiro, Gómez-Fraguela, Cutrín, & Romero, 2017): rule-breaking scale (e.g., "Spending the night out without permission"; α = .71), theft scale (e.g., "Taking something from class without permission with the intention of stealing it"; a = .73), and vandalism scale (e.g., "Setting fire to something: a dustbin, table, car, etc."; a = .75). The global score presents an internal consistency of α = .81. Items were scored from 0 (*never*) to 3 (*very often*). The lambda coefficients in the structural models were between .55 and .94.

Frequency of substance use (T2). The frequency of tobacco, alcohol, and cannabis use throughout life was assessed in T2 by 3 items scored from 0 (*never*) to 5 (*almost every day*). The global score presents an internal consistency of α = .75. The lambda coefficients in the structural models were between .61 and .95.

Procedure

Compliance with ethical standards was taken into account throughout the investigation. The study was presented to the heads of 24 secondary schools. In the 13 centres that agreed to participate in the study, parental consent was requested and, subsequently, adolescent assent was obtained at the moment of the questionnaire implementation. Qualified psychologists visited these centres during school hours in order to explain the objectives and provide proper instructions to the adolescents who answered the self-reported scales in their classrooms. The total questionnaire was composed of 150 items to be answered in a class period of 50 minutes. Adolescent participation was voluntary, and anonymity and confidentiality of information were totally guaranteed.

Data Analysis

IBM SPSS Statistics 20 and MPLUS 7 were used to conduct the statistical analyses. Firstly, reliability, descriptive, and variance analyses across gender and controlling for age were carried out. Secondly, partial correlations among the variables of the study controlling for age were conducted for both genders. Lastly, two types of structural equation models were tested in order to analyse the existence of mediation effects separately in both genders. The first type examines the effects of two general parenting-related variables (i.e., parental knowledge and parental support) on adolescent problematic behaviour through affiliation with antisocial peers; also called 'parenting model'. The parenting model was tested separately for violent behaviour, nonviolent antisocial behaviour, and substance use. The second type examines the effects of three specific sources of parental knowledge (i.e., adolescent disclosure, parental control, and parental solicitation) on adolescent problematic behaviour through the affiliation with antisocial peers; also called 'sources model'. The sources model was also tested separately for violent behaviour, nonviolent antisocial behaviour, and substance use. A combination of maximum likelihood (ML) and bootstrapping (b = 5,000) were used in order to maximize accurate estimations under a non-normal distribution and estimate bias-corrected 95% confidence intervals for indirect effects (Hancock & Liu, 2012). The goodness-of-fit indexes χ^2/df, CFI, RMSEA, and SRMR were used to estimate the models, considering as criteria for an optimum fit χ^2/df < 2-3, CFI > .95, RMSEA and SRMR < .05, and for an acceptable or reasonable fit χ^2/df < 4, CFI > .90, and RMSEA and SRMR between .08 and .10 (Hu & Bentler, 1999).

Results

Preliminary Analyses

As can be seen in Table 1, descriptive results indicated that females reported significantly higher levels of parenting-related variables (i.e., parental knowledge, adolescent disclosure, parental control, and parental solicitation), except for parental support, which did not show significant differences between genders. On the other hand, males reported

Table 1. Descriptive Results of MANOVA for all Study Variables by Gender and Controlling for Age

Variables	Females	Males	Range	F	p	Partial η^2 Gender
	M (SD)	M (SD)				
Knowledge (T1)	13.09 (2.33)	12.27 (2.96)	15	10.027	.002	.022
Support (T1)	20.05 (4.84)	19.16 (4.42)	24	3.623	.058	.008
Disclosure (T1)	10.92 (3.49)	9.84 (3.94)	15	8.704	.003	.019
Control (T1)	11.46 (3.74)	10.63 (3.61)	15	5.246	.022	.012
Solicitation (T1)	10.42 (3.26)	9.37 (3.31)	15	10.705	.001	.024
Deviant peers (T2)	4.25 (4.70)	5.74 (5.56)	33	8.769	.003	.020
Violent behaviour (T2)	0.32 (1.11)	1.11 (2.03)	14	24.858	.000	.053
Nonviolent behaviour (T2)	0.47 (0.83)	1.12 (1.86)	11	22.421	.000	.048
Substance use (T2)	1.01 (1.78)	1.49 (2.41)	15	5.176	.023	.012

Note. η^2 = eta squared effect size.

Table 2. Partial Correlations among the Study Variables for both Genders and Controlling for Age

Variables	Know (T1)	Supp (T1)	Disclos (T1)	Contr (T1)	Solicit (T1)	D. peers (T2)	Viol (T2)	Nonviol (T2)	Subst (T2)
Knowledge (T1)	1								
Support (T1)	.59*** (.48***)	1							
Disclosure (T1)	.75*** (.67***)	.62*** (.59***)	1						
Control (T1)	.32*** (.37***)	.28*** (.24***)	.36*** (.44***)	1					
Solicitation (T1)	.43*** (.42***)	.47*** (.43***)	.52*** (.53***)	.68*** (.60***)	1				
Deviant peers (T2)	-.29*** (-.38***)	-.16* (-.19**)	-.27*** (-.28***)	-.02 (-.11)	.00 (-.16*)	1			
Violent behaviour (T2)	.02 (-.35***)	.00 (-.22**)	-.01 (-.29***)	-.09 (-.04)	-.08 (-.16*)	.31*** (.52***)	1		
Nonviolent behaviour (T2)	-.14* (-.44***)	-.07 (-.31***)	-.13 (-.36***)	-.05 (-.11)	-.01 (-.25***)	.54*** (.65***)	.47*** (.72***)	1	
Substance use (T2)	-.24*** (-.36***)	-.08 (-.16*)	-.20** (-.25***)	-.04 (-.13)	-.04 (-.13)	.60*** (.52***)	.27*** (.59***)	.48*** (.67***)	1

Note. The coefficients in parentheses correspond to males coefficients.
Know (T1) = knowledge; Supp (T1) = support; Disclos (T1) = disclosure; Contr (T1) = control; Solicit (T1) = solicitation; D. peers (T2) = deviant peers; Viol (T2) = violent behaviour; Nonviol (T2) = nonviolent behaviour; Subst (T2) = substance use.
*p < .05. **p < .01. ***p < .001.

Table 3. Goodness-of-Fit Indexes of the Structural Equation Models

Model	χ^2	*DF*	χ^2/DF	CFI	RMSEA	SRMR
Parenting-peers-violent	1,002.59***	400	2.51	.88	.067 [.062-.073]	.076
Parenting-peers-nonviolent	697.63***	286	2.44	.91	.066 [.060-.072]	.064
Parenting-peers-substance	668.54***	286	2.34	.92	.064 [.057-.070]	.068
Sources-peers-violent	1,138.06***	476	2.39	.87	.065 [.060-.070]	.074
Sources-peers-nonviolent	827.91***	350	2.37	.90	.064 [.059-.070]	.070
Sources-peers-substance	781.11***	350	2.23	.91	.061 [.055-.067]	.070

***p < .001.

significantly higher frequencies of antisocial-related variables (i.e., antisocial peers, violent behaviour, nonviolent behaviour, and substance use). Effect sizes indicated that violent and nonviolent antisocial behaviour were the variables most influenced by gender (see Table 1).

All the parenting-related variables were significantly and positively intercorrelated similarly in females and males (see Table 2). Parental knowledge, parental support, and adolescent disclosure were significantly and negatively correlated with deviant peer affiliations in both genders, and significantly and negatively correlated with problematic types of behaviour, exclusively in males in the case of violent behaviour. Parental solicitation was only significantly and negatively correlated with deviant peers, violent and nonviolent behaviour in males, and parental control was not significantly correlated with any antisocial-related variable in females nor males. Regarding antisocial-related variables, deviant peers, violent behaviour, nonviolent behaviour, and substance use were significantly and positively intercorrelated in both genders.

Structural Equation Models for Mediation: Direct and Indirect Effects

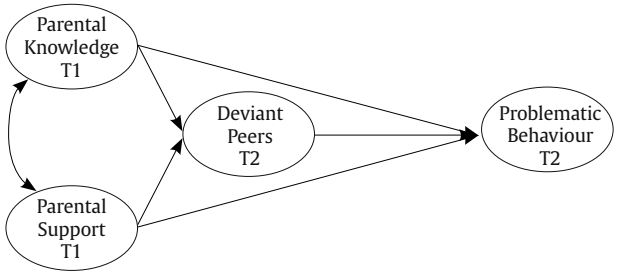

Figure 1. Conceptual *parenting model* examining direct and mediation effects of parenting variables (i.e., knowledge and support) and deviant peer. Affiliations on different types of problematic behaviour (i.e., violent and nonviolent antisocial behaviour and substance use).

All the tested structural equation models have obtained mostly acceptable fit indexes (see Table 3). Regarding the parenting model (see Figure 1), three structural models were tested, one for each type of problematic behaviour. As shown in Table 4, parental knowledge and parental support were significantly correlated in the three structural models (r = .66, p < .001 for females and r = .60, p < .001 for males). Parental knowledge in T1 significantly and negatively predicted deviant peer affiliations in T2 for both genders in the three models, and deviant peers in T2 were significantly and positively related to violent behaviour, nonviolent behaviour, and substance use in T2 for both genders. In addition, parental knowledge in T1 also significantly and negatively predicted substance use in T2 for males. Parental support did not predict any variable in T2 (see Table 4). Regarding the explained variance by the parenting model, R^2 of violent behaviour was .13 and .50 for females and males, respectively; R^2 of nonviolent behaviour was .51 and .71 for females and males, respectively; R^2 of substance use was .77 and .52 for females and males, respectively; and R^2 of deviant peers ranged from .12 to .20 for females and from .16 to .29 for males in the three models.

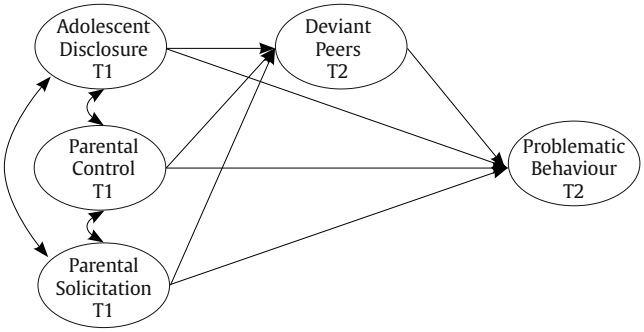

Figure 2. Conceptual *sources model* examining direct and mediation effects of the sources of parental knowledge (i.e., disclosure, control, and solicitation) and deviant peer affiliations on different types of problematic behaviour (i.e., violent and nonviolent antisocial behaviour and substance use).

Regarding the sources model (see Figure 2), three structural models were also tested, one for each type of problematic behaviour. As can be seen in Table 5, adolescent disclosure and parental control were significantly correlated in the three models (r = .44, p < .001 for

Table 4. Results of Parenting Models Analysing Direct Effects of Parenting Variables (i.e., Knowledge and Support) and Deviant Peer Affiliations on Problematic Behaviour for both Genders

	Females			Males		
Model 1: violent behaviour	*b* (*SE*)	β	*p*	*b* (*SE*)	β	*p*
Knowledge T1–Deviant peers T2	-2.56 (0.95)	-.45	.003	-2.73 (0.88)	-.45	.001
Support T1–Deviant peers T2	0.03 (0.68)	.01	.971	-0.75 (1.02)	-.12	.453
Knowledge T1–Violent T2	0.09 (0.06)	.21	.091	-0.02 (0.11)	-.03	.825
Support T1–Violent T2	-0.02 (0.03)	-.06	.583	-0.14 (0.11)	-.18	.177
Deviant peers T2–Violent T2	0.03 (0.02)	.39	.031	0.07 (0.03)	.60	.000
Model 2: nonviolent behaviour						
Knowledge T1–Deviant peers T2	-2.52 (0.94)	-.45	.002	-2.93 (0.85)	-.51	.000
Support T1–Deviant peers T2	0.03 (0.66)	.01	.967	-0.22 (0.96)	-.04	.818
Knowledge T1–Nonviolent T2	0.25 (0.38)	.14	.496	-0.74 (0.51)	-.17	.151
Support T1–Nonviolent T2	-0.07 (0.24)	-.05	.777	-0.47 (0.43)	-.11	.265
Deviant peers T2–Nonviolent T2	0.24 (0.09)	.75	.000	0.51 (0.11)	.69	.000
Model 3: substance use						
Knowledge T1–Deviant peers T2	-1.68 (0.76)	-.37	.009	-1.76 (0.74)	-.40	.004
Support T1–Deviant peers T2	0.13 (0.51)	.04	.795	0.01 (0.67)	.00	.983
Knowledge T1–Substance T2	-0.43 (0.31)	-.26	.136	-0.59 (0.24)	-.33	.007
Support T1–Substance T2	0.21 (0.12)	.17	.058	0.06 (0.18)	.03	.760
Deviant peers T2–Substance T2	0.29 (0.09)	.80	.000	0.22 (0.05)	.54	.000

females and $r = .59$, $p < .001$ for males) as well as adolescent disclosure and parental solicitation ($r = .63$, $p < .001$ for females and $r = .69$, $p < .001$ for males), and parental control and parental solicitation ($r = .87$, $p < .001$ for females and $r = .92$, $p < .001$ for males). Only adolescent disclosure in T1 significantly and negatively predicted deviant peer affiliations in T2 for females in the three models, and deviant peers in T2 was significantly and positively related to violent behaviour, nonviolent behaviour, and substance use in T2 for both genders. Regarding the explained variance by the sources model, R^2 of violent behaviour was .17 and .50 for females and males, respectively; R^2 of nonviolent behaviour was .53 and .74 for females and males, respectively; R^2 of substance use was .76 and .45 for females and males, respectively; and R^2 of deviant peers ranged from .18 to .24 for females and from .10 to .17 for males in the three models.

Lastly, Table 6 displays the mediation effects. For the parenting model (see Figure 1), the bootstrapping results indicated that only parental knowledge in T1 significantly predicted violent behaviour, nonviolent behaviour, and substance use in T2 through the mediation of deviant peer affiliations for both females and males. Although the indirect path "knowledge-peers-violent behaviour" was not associated to a significant value of probability for females ($p < .05$), the effects were included in a confidence interval which did

Table 5. Results of Sources Models Analysing Direct Effects of the Sources of Parental Knowledge (i.e., Disclosure, Control, and Solicitation) and Deviant Peer Affiliations on Problematic Behaviour for both Genders

	Females			Males		
Model 4: violent behaviour	*b* (*SE*)	β	*p*	*b* (*SE*)	β	*p*
Disclosure T1–Deviant peers T2	-2.21 (0.73)	-.66	.002	-1.44 (0.99)	-.37	.126
Control T1–Deviant peers T2	-1.21 (1.51)	-.35	.423	0.94 (3.66)	.22	.799
Solicitation T1–Deviant peers T2	3.62 (3.06)	.67	.210	-1.41 (6.13)	-.22	.819
Disclosure T1–Violent T2	0.10 (0.09)	.37	.279	-0.05 (0.13)	-.11	.667
Control T1– Violent T2	-0.00 (0.19)	-.01	.994	0.20 (0.52)	.37	.690
Solicitation T1–Violent T2	-0.13 (0.38)	-.30	.722	-0.29 (0.87)	-.36	.730
Deviant peers T2–Violent T2	0.03 (0.02)	.44	.049	0.08 (0.03)	.62	.000
Model 5: nonviolent behaviour						
Disclosure T1–Deviant peers T2	-2.16 (0.71)	-.65	.002	-1.48 (0.97)	-.39	.113
Control T1–Deviant peers T2	-1.14 (1.45)	-.33	.438	0.41 (3.62)	.10	.911
Solicitation T1–Deviant peers T2	3.48 (2.93)	.64	.218	-0.54 (6.10)	-.09	.930
Disclosure T1–Nonviolent T2	0.04 (0.38)	.04	.917	-0.39 (0.63)	-.14	.543
Control T1–Nonviolent T2	-0.40 (0.67)	-.36	.553	1.82 (2.39)	.59	.448
Solicitation T1–Nonviolent T2	0.53 (1.33)	.31	.687	-2.59 (4.07)	-.58	.518
Deviant peers T2–Nonviolent T2	0.23 (0.10)	.71	.001	0.53 (0.11)	.73	.000
Model 6: substance use						
Disclosure T1–Deviant peers T2	-1.48 (0.60)	-.56	.007	-0.77 (0.78)	-.26	.289
Control T1–Deviant peers T2	-1.06 (1.13)	-.39	.349	0.31 (3.00)	.09	.916
Solicitation T1–Deviant peers T2	2.73 (2.38)	.63	.218	-0.70 (0.89)	-.15	.886
Disclosure T1–Substance T2	0.04 (0.26)	.04	.871	-0.26 (0.27)	-.22	.346
Control T1–Substance T2	0.09 (0.42)	.09	.836	-0.05 (1.21)	-.04	.968
Solicitation T1–Substance T2	-0.31 (0.88)	-.20	.710	0.17 (1.99)	.09	.932
Deviant peers T2–Substance T2	0.32 (0.11)	.88	.000	0.24 (0.07)	.60	.000

Table 6. Standardized Indirect Effects of all Parenting-Related Variables on Problematic Behaviour through Affiliation with Deviant Peers for both Genders

Indirect effect	Females			Males		
	β	*p*	95 % CI	β	*p*	95 % CI
Knowledge–Peers–Violent	-.18	.125	-0.39, -0.04	-.27	.011	-0.46, -0.12
Support–Peers–Violent	.00	.975	-0.11, 0.12	-.07	.457	-0.22, 0.10
Knowledge–Peers–Nonviolent	-.34	.019	-0.60, -0.14	-.35	.003	-0.56, -0.18
Support–Peers–Nonviolent	.01	.968	-0.19, 0.20	-.03	.821	-0.19, 0.18
Knowledge–Peers–Substance	-.30	.021	-0.53, -0.10	-.21	.014	-0.37, -0.08
Support–Peers–Substance	.03	.801	-0.18, 0.21	.00	.984	-0.13, 0.13
Disclosure–Peers–Violent	-.29	.314	-0.65, -0.09	-.23	.233	-0.48, 0.01
Control–Peers–Violent	-.15	.723	-0.63, 0.03	.13	.844	-0.50, 1.06
Solicitation–Peers–Violent	.29	.605	0.03, 0.93	-.14	.859	-1.21, 0.59
Disclosure–Peers–Nonviolent	-.46	.112	-0.85, -0.23	-.29	.200	-0.62, -0.02
Control–Peers–Nonviolent	-.24	.578	-0.84, 0.09	.07	.922	-0.79, 1.06
Solicitation–Peers–Nonviolent	.46	.412	0.08, 1.21	-.06	.939	-1.19, 0.93
Disclosure–Peers–Substance	-.48	.149	-0.99, -0.26	-.18	.347	-0.39, 0.05
Control–Peers–Substance	-.34	.530	-1.15, 0.00	.07	.935	-0.50, 0.99
Solicitation–Peers–Substance	.88	.455	0.13, 1.61	-.17	.909	-1.15, 0.59

Note. CI = Confidence Interval.

not contain zero; therefore, this effect is considered significant. For the sources model (see Figure 2), the bootstrapping results indicated that no source of parental knowledge in T1 significantly predicted problematic behaviour in T2 through deviant peers. Although the coefficients was not associated to a significant value of probability (p < .05), for females indirect effects of adolescent disclosure through deviant affiliations on the three types of problematic behaviour were included in confidence intervals which did not contain zero; therefore, these effects are considered significant. For males the indirect path "knowledge-peers-nonviolent behaviour", although included in a confidence interval which did not contain zero, is not considered significant because adolescent disclosure was not directly associated with deviant peers.

Discussion

The current study intended to address the gap about the lack of studies analysing longitudinally the mediation effects of deviant peers on the relationship between parenting practices and problematic behaviour in the Spanish context. In addition, this study aimed to address the inconsistencies in previous research regarding the significance of parenting practices in the prediction of problematic behaviour. Therefore, the current study aimed to confirm the direct effects of several parenting variables (from the general to specific practices) on later problematic behaviour, as well as the mediation effects of deviant peers in normative Spanish adolescents.

Regarding the results of the parenting model (i.e., direct and mediated effects by peers of parental knowledge and parental support on violent behaviour, nonviolent antisocial behaviour, and substance use; see Figure 1), deviant peer affiliations were concurrently related to all the types of problematic behaviour for both genders, as previous research consistently found (e.g., Assink et al., 2015; Beardslee et al., 2018; McGloin, 2009; Meldrum & Barnes, 2017). Moreover, only prospective indirect effects of parental knowledge were significant for both males and females. These findings add evidence regarding the effects of parental knowledge through deviant peers in the Spanish context, as cross-sectional studies has previously suggested (e.g., Cutrín, Gómez-Fraguela, Maneiro & Sobral, 2017; Cutrín, Gómez-Fraguela, & Sobral, 2017a). The consistence of parental knowledge as a predictor of deviant associations (directly) and problematic behaviour (indirectly) was confirmed across types of behaviour and across genders. Thus, in line with previous research, low levels of parental knowledge constitute a robust risk factor for deviant peer affiliations, which, in turn, are related to increasing levels of delinquency (Walters & Espelage, 2018) and violent and nonviolent antisocial behaviour (Tompsett & Toro, 2010). In addition, as other research has similarly found (e.g., Lippold, Fosco, Ram, & Feinberg, 2016; Sitnick, Shaw, & Hyde, 2014), parental knowledge directly and negatively predicted the frequency of substance use, but only for males. Traditionally, the female gender has been associated with a greater vulnerability to factors within the family context (for a review, see Javdani et al., 2011); however, considering specific variables, males seem to be more strongly influenced by parental monitoring than females. In this regard, as in the current work, previous studies have found that the direct effects of low levels of parental knowledge on substance use actually seem to be stronger for males (e.g., Cutrín, Gómez-Fraguela, & Sobral, 2017b; McAdams et al., 2014).

Regarding the other main variable included in the parenting model, no significant direct or indirect effects were found for parental support for any type of problematic behaviour for females or males. Low levels of supportive and warmth parent-child relationships have been generally proposed as a risk factor of problematic behaviour in adolescence (e.g., Hoeve et al., 2009; Wang et al., 2011). However, similarly to the findings of the current study, several studies have found that support-related practices (e.g., warmth, attachment, involvement) were not a significant direct predictor of deviant peer affiliations (Barrera et al., 2002) and antisocial behaviour or substance use (e.g., De Haan et al., 2012; Meldrum & Barnes, 2017; Pereyra & Bean, 2017). Other research has specifically found that parental support was not significant as indirect predictor of problematic behaviour through deviant peers (Pires & Jenkins, 2007), in line with the results of the current study.

On the other hand, the results of the sources model (i.e., direct and mediated effects by peers of adolescent disclosure, parental control, and parental solicitation on violent behaviour, nonviolent antisocial behaviour, and substance use; see Figure 2) indicated similar results. Thus, in such model deviant peer affiliations were concurrently related to all the types of problematic behaviour for both genders, in line with previous research (e.g., Assink et al., 2015; Beardslee et al., 2018; McGloin, 2009; Meldrum & Barnes, 2017). Furthermore, contrary to the results found in other studies (e.g., Kerr et al., 2010; Stattin & Kerr, 2000), adolescent disclosure did not directly predict problematic behaviour in T2. Only prospective direct effects of adolescent disclosure on deviant peer affiliations were significant for females and, consequently, indirect effects of disclosure on antisocial behaviour and substance use were only significant for females. As these findings suggest and previous research has proposed, parent-child communication patterns, including disclosure of information, appear to be more influential on female development (Keijsers

& Poulin, 2013). Regardless gender, and similarly to the current results, other studies have found that child disclosure was the only significant source of parental knowledge negatively related to the time spent with peers (Keijsers, Branje, VanderValk, & Meeus, 2010) and deviance in the peer group (Kerr & Stattin, 2000). Other research has specifically indicated that child disclosure was indirectly related to antisocial behaviour through increasing deviant peer affiliations (Deković, Wissink, & Meijer, 2004).

Nevertheless, no significant direct or indirect effects were found for parental control or parental solicitation for any type of problematic behaviour for females or males. Previous studies have shown similar results finding that both parental control and parental solicitation were not significant predictors of deviant peer affiliations (Kerr & Stattin, 2000) and rule-breaking (Ahmad et al., 2015), as well as rule-setting or parental control were not significant predictors of delinquency (Gault-Sherman, 2012; Muñoz et al., 2011; Oliva et al., 2007). However, as previously mentioned, such inconsistencies in the findings may be derived from differences in the operationalisation of the variables. Parenting practices, and specifically the sources of parental knowledge, are constructs highly intercorrelated. Therefore, the broad nature of the parenting practices, together with a lack of clarity in the measures used in the studies, may lead to widespread results in the field.

To sum up, the current results partially support the hypothesis one (direct effects of parenting practices) and three (indirect effects of parenting practices) for parental knowledge and adolescent disclosure, but not for parental support, parental control, and parental solicitation. The results also support the hypothesis two (direct effects of deviant peer affiliations). Lastly, the results of this study partially support the hypothesis regarding the fact that no gender differences exist in direct and mediated relationships. The current findings were mostly similar for both genders: significant direct and indirect relationships for females were also significant for males (knowledge and deviant peers), and no significant relationships for females were also not significant for males (support, control, and solicitation). As exceptions, on the one hand, low levels of parental knowledge directly predicted frequency of substance use for males and, on the other hand, low levels of adolescent disclosure indirectly predicted antisocial behaviour and substance use through deviant peers for females. Furthermore, the explained variance of both types of antisocial behaviour was higher in males and the explained variance of substance use was higher in females; however, deviant affiliations were hardly explained by the models.

As other research points out, these results seem to indicate that individual characteristics and personality traits related to an antisocial propensity may be interacting with parenting practices to explain to a large extent the involvement in antisocial behaviour (e.g., Muñoz et al., 2011; Silva & Stattin, 2016). These traits may be specially determining the affiliation with deviant peers (i.e., selection process; e.g., Cutrín et al., 2017; Schaefer, 2018). In this regard, although the purpose of this study was not to exhaustively analyse the differences between types of behaviour or genders, this work intended to avoid drawing biased conclusions regarding the effects of parenting practices on problematic behaviour and to base future studies to further analyse the potential differences.

Limitations and Future Directions

Some limitations should be taken into account for the proper interpretation of the results of the current study. Firstly, although this study has overcome the main limitation of previous studies by using a longitudinal design, data were collected only in two times and, consequently, deviant peer affiliations and problematic behaviour were analysed in the same wave. More times of follow-up are needed in order to analyse the independent variables, the mediator, and the criterion variables in different longitudinal waves. Secondly, all the measures in the current study were self-reported by adolescents; therefore, the results may be partly influenced by shared method variance. Other sources of information, such as parents or peer reports, should be included in future data collections. Moreover, as stated before, future studies should focus on deeply analysing gender differences in the strength of relationships and their implications. In addition, no moderation effects among parenting variables or between socio-demographic covariates and parenting variables were tested. Moderated relationships as well as bidirectional effects could add possible explanations regarding the non significant effects found for some of the variables; therefore, other studies should take into account these effects to better explain problematic behaviour in adolescence.

Implications and Conclusions

The findings of the current study present some methodological and practical implications. Overall, the findings point out the need of analysing risk factors of problematic behaviour and their relationships as specifically as possible in order to avoid drawing too general conclusions. Examination of parenting practices under a global construct may lead to biased assumptions regarding the significance of certain variables in the appearance and development of problematic behaviour. Certainly, parenting practices actually work interrelatedly defining broader parenting constructs (e.g., parental knowledge) or parenting styles (e.g., authoritative or permissive; for a review, see Newman et al., 2008). However, as a complex psychosocial system, parenting practices may not contribute at the same level to conform these constructs and styles. Therefore, the study of parenting practices as independent factors that directly contribute to the same extent to constitute a broader construct may lead to inaccurate findings (Pardini, Waller, & Hawes, 2015). On the contrary, the analysis of specific interrelations between variables (i.e., mediations or moderations) and modifications of such relationships under specific conditions (e.g., community or juvenile sample, male or female, high or low socioeconomic status, presence or absence of callous-unemotional traits) might provide more accurate information about the complex relationships established in the real life (Day, Wanklyn, & Yessine, 2014). Only thus research can contribute to adapt, plan, and implement prevention and intervention programs focused on those meaningful dynamic variables for specific groups, increasing therefore the effectiveness of the programs (Andrews & Bonta, 2010; Basanta, Fariña, & Arce, 2018). Furthermore, the findings of the current study also suggest that the implementation of prevention programs focused on strengthening positive parenting practices might prevent later deviant affiliations and, consequently, future problematic behaviour. In this regard, in the Spanish context, some programs have shown favourable results to improve parenting skills at early ages and at the adolescent stage (e.g., Benavides, Quesada-Conde, Romero, & Pichardo, 2016; Orte, Ballester, & March, 2013; Romero, Villar, Luengo, & Gómez-Fraguela, 2009).

In conclusion, the current study has confirmed longitudinally some of the results found in previous research in the Spanish context (e.g., Cutrín et al., 2015; Cutrín et al., 2017), specifically the mediated effects of parental knowledge on violent and nonviolent behaviour, as well as substance use, through deviant peer affiliations. Moreover, the current study has added evidence to other studies in the Spanish context regarding the sources of parental knowledge as predictors of antisocial friendships and problematic behaviour (Cutrín, Maneiro, Sobral, & Gómez-Fraguela, 2018a). Future studies should go beyond these findings and more deeply analyse complex interrelations among parenting variables and deviant peers in order to progress in the comprehension of antisocial behaviour and substance use during adolescence.

Conflict of Interest

The authors of this article declare no conflict of interest.

References

Ahmad, I., Smetana, J. G., & Klimstra, T. (2015). Maternal monitoring, adolescent disclosure, and adolescent adjustment among Palestinian refugee youth in Jordan. *Journal of Research on Adolescence, 25*, 403-411. https://doi.org/10.1111/jora.12133

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). Cincinnati, OH: Anderson Publishing Co.

Assink, M., van der Put, C. E., Hoeve, M., de Vries, S. L. A., Stams, G. J. J. M., & Oort, F. J. (2015). Risk factors for persistent delinquent behavior among juveniles: A meta-analytic review. *Clinical Psychology Review, 42*, 47-61. https://doi.org/10.1016/j.cpr.2015.08.002

Barrera, M., Prelow, H. M., Dumka, L. E., Gonzales, N. A., Knight, G. P., Michaels, M. L., ... Tein, J. (2002). Pathways from family economic conditions to adolescents' distress: Supportive parenting, stressors outside the family, and deviant peers. *Journal of Community Psychology, 30*, 135-152. https://doi.org/10.1002/jcop.10000

Basanta, J., Fariña, F., & Arce, R. (2018). Risk-Need-Responsivity Model: Contrasting criminogenic and noncriminogenic needs in high and low risk juvenile offenders. *Children and Youth Services Review, 85,* 137-142. https://doi.org/10.1016/j.childyouth.2017.12.024

Beardslee, J., Datta, S., Byrd, A., Meier, M., Prins, S., Cerda, M., & Pardini, D. (2018). An examination of parental and peer influence on substance use and criminal offending during the transition from adolescence to adulthood. *Criminal Justice and Behavior, 45*, 783-798. https://doi.org/10.1177/0093854818764767

Benavides, A., Quesada-Conde, A. B., Romero, M., & Pichardo, M. C. (2016). Programas de prevención familiar en edades tempranas. Programa aprender a convivir en casa, una propuesta de intervención [Family prevention programmes at early ages. *Aprender a Convivir en Casa* - Learning to Live Together at Home - program, a suggestion for intervention]. *International Journal of Developmental and Educational Psychology. Revista INFAD de Psicología, 1,* 465-474. https://doi.org/10.17060/ijodaep.2016.n1.v1.227

Brauer, J. R., & De Coster, S. (2015). Social relationships and delinquency: Revisiting parent and peer influence during adolescence. *Youth & Society, 47*, 374-394. https://doi.org/10.1177/0044118X12467655

Chen, D., Drabick, D. A., G., & Burgers, D. E. (2015). A developmental perspective on peer rejection, deviant peer affiliation, and conduct problems among youth. *Child Psychiatry and Human Development, 46,* 823-838. https://doi.org/10.1007/s10578-014-0522-y

Colell, E., Sánchez-Niubò, A., & Domingo-Salvany, A. (2013). Sex differences in the cumulative incidence of substance use by birth cohort. *International Journal of Drug Policy, 24*, 319-325. https://doi.org/10.1016/j.drugpo.2012.09.006

Cox, R. B., Criss, M. M., Harrist, A. W., & Zapata-Roblyer, M. (2017). Are negative peer influences domain specific? Examining the influence of peers and parents on externalizing and drug use behaviors. *Journal of Primary Prevention, 38*, 515-536. https://doi.org/10.1007/s10935-017-0488-1

Cutrín, O., Gómez-Fraguela, J. A., & Luengo, M. A. (2015). Peer-group mediation in the relationship between family and juvenile antisocial behavior. *The European Journal of Psychology Applied to Legal Context, 7,* 59-65. https://doi.org/10.1016/j.ejpal.2014.11.005

Cutrín, O., Gómez-Fraguela, J. A., Maneiro, L., & Sobral, J. (2017). Effects of parenting practices through deviant peers on nonviolent and violent antisocial behaviours in middle- and late-adolescence. *The European Journal of Psychology Applied to Legal Context, 9*, 75-82. https://doi.org/10.1016/j.ejpal.2017.02.001

Cutrín, O., Gómez-Fraguela, J. A., & Sobral, J. (2017a). Gender differences in the influence of parenting on youth antisocial behaviour through deviant peers. *The Spanish Journal of Psychology, 20,* e58. https://doi.org/10.1017/sjp.2017.53

Cutrín, O., Gómez-Fraguela, J. A., & Sobral, J. (2017b). Gender differences in youth substance use: The effects of parenting through a deviant peer group. *Journal of Child & Adolescent Substance Abuse, 26*, 472-781. https://doi.org/10.1080/1067828X.2017.1369203

Cutrín, O., Gómez-Fraguela, J. A., & Sobral, J. (2017c). Two faces of parental support: Risk and protection for antisocial youth depending on parental knowledge. *Journal of Child and Family Studies, 26*, 296-305. https://doi.org/10.1007/s10826-016-0559-6

Cutrín, O., Maneiro, L., Sobral, J., & Gómez-Fraguela, J. A. (2018a). Longitudinal validation of a new measure to assess parental knowledge and its sources in Spanish adolescents. *Journal of Child and Family Studies*. Manuscript submitted for publication.

Cutrín, O., Maneiro, L., Sobral, J., & Gómez-Fraguela, J. A. (2018b). Validation of the deviant peers scale in Spanish adolescents: A new measure to assess antisocial behaviour in peers. *Journal of Psychopathology and Behavioral Assessment*. Manuscript submitted for publication.

Day, D. M., Wanklyn, S. G., & Yessine, A. K. (2014). A review of terminological, conceptual, and methodological issues in the developmental risk factor literature for antisocial and delinquent behavior. *Child & Youth Care Forum, 43*, 97-112. https://doi.org/10.1007/s10566-013-9227-9

De Haan, A.,D., Prinzie, P., & Dekovic, M. (2012). Change and reciprocity in adolescent aggressive and rule-breaking behaviors and parental support and dysfunctional discipline. *Development and Psychopathology, 24*, 301-315. https://doi.org/10.1017/S0954579411000848

De Vries, S. L. A., Hoeve, M., Stams, G. J. J. M., & Asscher, J. J. (2016). Adolescent-parent attachment and externalizing behavior: The mediating role of individual and social factors. *Journal of Abnormal Child Psychology, 44*, 283-294. https://doi.org/10.1007/s10802-015-9999-5

Deković, M., Wissink, I. B., & Meijer, A. M. (2004). The role of family and peer relations in adolescent antisocial behaviour: Comparison of four ethnic groups. *Journal of Adolescence, 27*, 497-514. https://doi.org/10.1016/j.adolescence.2004.06.010

Deutsch, A. R., Crockett, L. J., Wolff, J. M., & Russell, S. T. (2012). Parent and peer pathways to adolescent delinquency: Variations by ethnicity and neighborhood context. *Journal of Youth and Adolescence, 41,* 1078-1094. https://doi.org/10.1007/s10964-012-9754-y

Dynes, M. E., Domoff, S. E., Hassan, S., Tompsett, C. J., & Amrhein, K. E. (2015). The influence of co-offending within a moderated mediation model of parent and peer predictors of delinquency. *Journal of Child and Family Studies, 24,* 3516-3525. https://doi.org/10.1007/s10826-015-0153-3

Gault-Sherman, M. (2012). It's a two-way street: The bidirectional relationship between parenting and delinquency. *Journal of Youth and Adolescence, 41*, 121-145. https://doi.org/10.1007/s10964-011-9656-4

Haggerty, K. P., Skinner, M. L., McGlynn-Wright, A., Catalano, R. F., & Crutchfield, R. D. (2013). Parent and peer predictors of violent behavior of black and white teens. *Violence and Victims, 28*, 145-160. https://doi.org/10.1891/0886-6708.28.1.145

Hancock, G. R., & Liu, M. (2012). Bootstrapping standard errors and data-model fit statistics in structural equation modeling. In R. H. Hoyle (Ed.), *Handbook of structural equation modeling* (pp. 296-306). New York, NY: The Guilford Press.

Hinnant, J. B., Erath, S. A., Tu, K. M., & El-Sheikh, M. (2016). Permissive parenting, deviant peer affiliations, and delinquent behavior in adolescence: The moderating role of sympathetic nervous system reactivity. *Journal of Abnormal Child Psychology, 44*, 1071-1081. https://doi.org/10.1007/s10802-015-0114-8

Hoeve, M., Dubas, J. S., Eichelsheim, V. I., van der Laan, P. H., Smeenk, W., & Gerris, J. R. M. (2009). The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology, 37*, 749-775. https://doi.org/10.1007/s10802-009-9310-8

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1-55. https://doi.org/10.1080/10705519909540118

Javdani S., Sadeh N., & Verona E. (2011). Expanding our lens: Female pathways to antisocial behavior in adolescence and adulthood. *Clinical Psychology Review, 31,* 1324-1348. https://doi.org/10.1016/j.cpr.2011.09.002

Keijsers, L., Branje, S. J., VanderValk, I. E., & Meeus, W. (2010). Reciprocal effects between parental solicitation, parental control, adolescent disclosure, and adolescent delinquency. *Journal of Research on Adolescence, 20,* 88-113. https://doi.org/10.1111/j.1532-7795.2009.00631.x

Keijsers, L., Frijns, T., Branje, S., & Meeus, W. (2009). Developmental links of adolescent disclosure, parental solicitation, and control with delinquency: Moderation by parental support. *Developmental Psychology, 45*, 1314-1327. https://doi.org/10.1037/a0016693

Keijsers, L., & Poulin, F. (2013). Developmental changes in parent-child communication throughout adolescence. *Developmental Psychology, 49*, 2301-2308. https://doi.org/10.1037/a0032217

Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology, 36,* 366-380. https://doi.org/10.1037/0012-1649.36.3.366

Kerr, M., Stattin, H., & Burk, W. J. (2010). A reinterpretation of parental monitoring in longitudinal perspective. *Journal of Research on Adolescence, 20*, 39-64. https://doi.org/10.1111/j.1532-7795.2009.00623.x

Kiesner, J., Poulin, F., & Dishion, T. J. (2010). Adolescent substance use with friends: Moderating and mediating effects of parental monitoring and peer activity contexts. *Merrill - Palmer Quarterly, 56*, 529-556. https://doi.org/10.1353/mpq.2010.0002

Laird, R. D., Marrero, M. D., & Sentse, M. (2010). Revisiting parental monitoring: Evidence that parental solicitation can be effective when needed most. *Journal of Youth and Adolescence, 39*, 1431-1441. https://doi.org/10.1007/s10964-009-9453-5

Lanctôt, N. (2015). Development of antisocial behavior in adolescent girls. In J. Morizot & L. Kazemian (Eds.), *The development of criminal and antisocial behavior: Theory, research and practical applications* (pp. 399-411). Cham, Switzerland: Springer International Publishing. https://doi.org/10.1007/978-3-319-08720-7_25

Lippold, M. A., Fosco, G. M., Ram, N., & Feinberg, M. E. (2016). Knowledge lability: Within-person changes in parental knowledge and their associations with adolescent problem behavior. *Prevention Science, 17,* 274-283. https://doi.org/10.1007/s11121-015-0604-5

Lippold, M. A., Greenberg, M. T., Graham, J. W., & Feinberg, M. E. (2014). Unpacking the effect of parental monitoring on early adolescent problem behavior: Mediation by parental knowledge and moderation by parent–youth warmth. *Journal of Family Issues, 35*, 1800-1823. https://doi.org/10.1177/0192513X13484120

Luengo, M. A., Otero-López, J. M., Romero, E., Gómez-Fraguela, J. A., & Tavares-Filho, E. T. (1999). Análisis de ítems para la evaluación de la conducta antisocial: Un estudio transcultural [Item analysis in the assessment of antisocial behavior: a cross-cultural study]. *Revista Iberoamericana de Diagnóstico y Evaluación Psicológica, 1*, 21-36. Retrieved from http://www.aidep.org/03_ridep/ridep.html

Maneiro, L., Gómez-Fraguela, J. A., Cutrín, O., & Romero, E. (2017). Impulsivity traits as correlates of antisocial behaviour in adolescents. *Personality and Individual Differences, 104,* 417-422. https://doi.org/10.1016/j.paid.2016.08.045

McAdams T. A., Salekin R. T., Marti C. N., Lester W. S., & Barker E. D. (2014). Co-occurrence of antisocial behavior and substance use: Testing for sex differences in the impact of older male friends, low parental knowledge and friends' delinquency. *Journal of Adolescence, 37*, 247-256. https://doi.org/10.1016/j.adolescence.2014.01.001

McGloin, J. M. (2009). Delinquency balance: Revisiting peer influence. *Criminology: An Interdisciplinary Journal, 47*, 439-477. https://doi.org/10.1111/j.1745-9125.2009.00146.x

Meldrum, R. C., & Barnes, J. C. (2017). Unstructured socializing with peers and delinquent behavior: A genetically informed analysis. *Journal of Youth and Adolescence, 46*, 1968-1981. https://doi.org/10.1007/s10964-017-0680-x

Muñoz, L. C., Pakalniskiene, V., & Frick, P. J. (2011). Parental monitoring and youth behavior problems: Moderation by callous-unemotional traits over time. *European Child & Adolescent Psychiatry, 20*, 261-269. https://doi.org/10.1007/s00787-011-0172-6

Newman, K., Harrison, L., Dashiff, C., & Davies, S. (2008). Relationships between parenting styles and risk behaviors in adolescent health: An integrative literature review. *Revista Latino-Americana de Enfermagem, 16,* 142-150. https://doi.org/10.1590/S0104-11692008000100022

O'Donnell, P., Richards, M., Pearce, S., & Romero, E. (2012). Gender differences in monitoring and deviant peers as predictors of delinquent behavior among low-income urban African American youth. *The Journal of Early Adolescence, 32*, 431-459. https://doi.org/10.1177/0272431610397661

Oliva, A., Parra, Á., Sánchez-Queija, I., & López, F. (2007). Estilos educativos materno y paterno: evaluación y relación con el ajuste adolescente [Maternal and paternal parenting styles: Assessment and relationship with adolescent adjustment]. *Anales de Psicología, 23, 49-56. Retrieved from* http://www.um.es/analesps

Orte, C., Ballester, L., & March, M. X. (2013). El enfoque de la competencia familiar, una experiencia de trabajo socioeducativo con familias [The family competence approach, an experience of socio-educational work with families]. *Pedagogía Social. Revista Interuniversitaria, 21, 13-37.* https://doi.org/10.7179/PSRI_2013.21.02

Pardini, D. A., Waller, R., & Hawes, S. W. (2015). Familial influences on the development of serious conduct problems and delinquency. In J. Morizot & L. Kazemian (Eds.), *The development of criminal and antisocial behavior: Theory, research and practical applications* (pp. 201-220). Cham, Switzerland: Springer International Publishing. https://doi.org/10.1007/978-3-319-08720-7_13

Parra, Á., & Oliva, A. (2006). Un análisis longitudinal sobre las dimensiones relevantes del estilo parental durante la adolescencia [Relevant dimensions of parenting style during adolescence: A longitudinal study]. *Infancia y Aprendizaje/Journal for the Study of Education and Development, 29,* 453-470. https://doi.org/10.1174/021037006778849594

Pereyra, S. B., & Bean, R. A. (2017). Latino adolescent substance use: A mediating model of inter-parental conflict, deviant peer associations, and parenting. *Children and Youth Services Review, 76*, 154-162. https://doi.org/10.1016/j.childyouth.2017.03.001

Petersen, I. T., Bates, J. E., Dodge, K. A., Lansford, J. E., & Pettit, G. S. (2015). Describing and predicting developmental profiles of externalizing problems from childhood to adulthood. *Development and Psychopathology, 27,* 791-818. https://doi.org/10.1017/S0954579414000789

Pires, P., & Jenkins, J. M. (2007). A growth curve analysis of the joint influences of parenting affect, child characteristics and deviant peers on adolescent illicit drug use. *Journal of Youth and Adolescence, 36*, 169-183. https://doi.org/10.1007/s10964-006-9127-5

Poulin, F., Denault, A., & Pedersen, S. (2011). Longitudinal associations between other-sex friendships and substance use in adolescence. *Journal of Research on Adolescence, 21*, 776-788. https://doi.org/10.1111/j.1532-7795.2011.00736.x

Racz, S. J., & McMahon, R. J. (2011). The relationship between parental knowledge and monitoring and child and adolescent conduct problems: A 10-year update. *Clinical Child and Family Psychology Review, 14*, 377-398. https://doi.org/10.1007/s10567-011-0099-y

Rekker, R., Keijsers, L., Branje, S., Koot, H., & Meeus, W. (2017). The interplay of parental monitoring and socioeconomic status in predicting minor delinquency between and within adolescents. *Journal of Adolescence, 59*, 155-165. https://doi.org/10.1016/j.adolescence.2017.06.001

Romero, E., Villar, P., Luengo, M. A., & Gómez-Fraguela, J. A. (2009). EmPeCemos: Un programa multicomponente para la prevención indicada de los problemas de conducta y el abuso de drogas [EmPeCemos: Multi-component program for indicated prevention of conduct problems and drug abuse]. *Revista Española de Drogodependencias, 34,* 420-447. Retrieved from http://www.aesed.com/revista_red.php

Schaefer, D. R. (2018). A network analysis of factors leading adolescents to befriend substance-using peers. *Journal of Quantitative Criminology, 34*, 275-312. https://doi.org/10.1007/s10940-016-9335-4

Silva, T. C., & Stattin, H. (2016). The moderating role of parenting on the relationship between psychopathy and antisocial behavior in adolescence. *Development and Psychopathology, 28,* 505-515. https://doi.org/10.1017/S0954579415001121

Sitnick, S. L., Shaw, D. S., & Hyde, L. W. (2014). Precursors of adolescent substance use from early childhood and early adolescence: Testing a developmental cascade model. *Development and Psychopathology, 26*, 125-140. https://doi.org/10.1017/S0954579413000539

Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development, 71,* 1072-1085. https://doi.org/10.1111/1467-8624.00210

Tompsett, C. J., & Toro, P. A. (2010). Predicting overt an covert antisocial behaviors: Parents, peers, and homelessness. *Journal of Community Psychology, 38*, 469-485. https://doi.org/10.1002/jcop.20375

Trudeau, L., Mason, W. A., Randall, G. K., Spoth, R., & Ralston, E. (2012). Effects of parenting and deviant peers on early to mid-adolescent conduct problems. *Journal of Abnormal Child Psychology, 40*, 1249-1264. https://doi.org/10.1007/s10802-012-9648-1

Van der Graaff, J., Branje, S., De Wied, M., & Meeus, W. (2012). The moderating role of empathy in the association between parental support and adolescent aggressive and delinquent behavior. *Aggressive Behavior, 38*, 368-377. https://doi.org/10.1002/ab.21435

Van Ryzin, M. J., & Dishion, T. J. (2013). From antisocial behavior to violence: A model for the amplifying role of coercive joining in adolescent friendships. *Journal of Child Psychology and Psychiatry, 54,* 661-669. https://doi.org/10.1111/jcpp.12017

Van Ryzin, M. J., Fosco, G. M., & Dishion, T. J. (2012). Family and peer predictors of substance use from early adolescence to early adulthood: An 11-year prospective analysis. *Addictive Behaviors, 37,* 1314-1324. https://doi.org/10.1016/j.addbeh.2012.06.020

Walker-Barnes, C., & Mason, C. A. (2004). Delinquency and substance use among gang-involved youth: The moderating role of parenting practices. *American Journal of Community Psychology, 34*, 235-250. https://doi.org/10.1007/s10464-004-7417-1

Walters, G. D., & Espelage, D. L. (2018). The significance of variable order in assessing the effect of perceived parental knowledge and peer deviance on participant delinquency: a replication and extension. *Crime & Delinquency, 64,* 1417-1436. Advance online publication. https://doi.org/10.1177/0011128717749858

Wang, M., Dishion, T. J., Stormshak, E. A., & Willett, J. B. (2011). Trajectories of family management practices and early adolescent behavioral outcomes. *Developmental Psychology, 47,* 1324-1341. https://doi.org/10.1037/a0024026

Willoughby, T., & Hamza, C. A. (2011). A longitudinal examination of the bidirectional associations among perceived parenting behaviors, adolescent disclosure and problem behavior across the high school years. *Journal of Youth and Adolescence, 40,* 463-478. https://doi.org/10.1007/s10964-010-9567-9

Yun, H., Cui, M., & Blair, B. L. (2016). The mediating roles of adolescent disclosure and parental knowledge in the association between parental warmth and delinquency among Korean adolescents. *Journal of Child and Family Studies, 25*, 2395-2404. https://doi.org/10.1007/s10826-016-0425-6

Zahn-Waxler, C., & Polanichka, N. (2004). All things interpersonal: Socialization and female aggression. In M. Putallaz & K. L. Bierman

(Eds.), *Aggression, antisocial behavior, and violence among girls: A developmental perspective* (pp. 48-68). New York, NY: The Guilford Press.