

Influence of Communicative Openness on the Psychological Adjustment of Internationally Adopted Adolescents

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This study evaluated the predictive relationship between the communicative openness and psychological adjustment of adopted adolescents, controlling for preplacement risk factors. One hundred Spanish international adoptees aged 12–18 took part in the study. Data were gathered with a structured interview, the Youth Self Report and the Adoption Communication Scale. A history of maltreatment prior to the adoption was associated with more closed communication between parents and children. Prenatal drug exposure shows a relationship with the presence of externalizing behaviors and attention problems in adolescents. Finally, a lower degree of communicative openness regarding the child's origins was significantly associated with the presence of all the adolescent behavioral problems studied.

Interest in international adoption continues to flourish in Spain. Despite the decline in international adoption in our country, Spain remains one of the main recipients of children adopted abroad (Selman, 2012). A total of 54,261 international adoptions were registered in Spain between 1997 and 2016; China, Russia, Colombia, and Ethiopia were the main countries of origin (Ministry of Health, Social Services, and Equality, 2018).

Studies show that the majority of internationally adopted children are well-adjusted, with few differences between adopted children and their non-adopted peers living in intact homes with their biological parents (Bimmel, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2003; Hjern, Lindblad, & Vinnerljung, 2002; Juffer & Van IJzendoorn, 2005). However, adopted children have a higher probability of suffering from behavioral, attention, psychological, relational, academic, and physical health problems (Askeland et al., 2017; Dalen, 2002; Lindblad, Weitof, & Hjern, 2010; Maat, Knuiman, Rijk, Hoksbergen, & van Baar, 2018; Rueter & Koerner, 2008; Van IJzendoorn & Juffer, 2006; Wiik et al., 2011). Similar results were found in the adopted population in Spain. The majority of

adopted children in our country achieves a standardized adaptation level (Barcons et al., 2014; Palacios & Sánchez, 1996), but some show higher rates in inattention and hyperactivity symptoms (Berástegui, 2007; Palacios & Sánchez, 1996), more difficulties in adjustment to school (Reinoso & Forns, 2012), and higher insecure attachment patterns (Barcons et al., 2012).

Other researchers suggest that adopted individuals have a higher risk of behavior problems based on their results showing the high proportion of adopted individuals in clinical settings (Kotsopoulos et al., 1988). A study carried out in Spain found that the prevalence of adopted adolescents hospitalized in a psychiatric unit was 2.84%, while adopted adolescents account for 0.6% of the general adolescent population, and it concluded that adopted adolescents were more prone to show disruptive behavior serious enough to require hospitalization than their nonadopted peers (Fernández-Rivas et al., 2014). A growing body of research suggests that the higher prevalence may be in part due to adoptive parents' greater willingness to seek psychological assistance (Miller et al., 2000; van Ginkel, Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2016). The type of sample (clinical or nonclinical) and other factors such as age at the time of adoption can act as confounding variables when psychological adjustment is compared

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between adopted and nonadopted adolescents (Nilsson et al., 2011).

Many studies have related the minor's age at the time of adoption with his or her subsequent development. Van IJzendoorn and Juffer (2006) reported that adoptions before 12 months of age were associated with more complete catch-up in terms of attachment and school achievement than later adoptions. Other authors have also found age at adoption to be a significant factor contributing to the children's adjustment, especially internalizing, externalizing, attention, and social problems (Barcons et al., 2014; Berástegui, 2007; Hawk & McCall, 2010; Merz & McCall, 2010). However, other studies did not find this relationship (Askeland et al., 2017; Grotevant et al., 2006; Judge, 2004; Juffer & Van IJzendoorn, 2005; Verhulst, Althaus, & Versluis-den Bieman, 1992), suggesting that it is not age at placement per se that negatively impacts children but rather the psychosocial adversities they experience before their adoption. A briefer preadoption time may imply shorter exposure to risk factors such as maltreatment and multiple foster placements. These preplacement factors, along with prenatal drug exposure, in utero malnutrition, and low birth weight were found to increase the risk of subsequent maladjustment (Crea, Barth, Guo, & Brooks, 2008; Groza & Ryan, 2002; Rutter, Kreppner, & O'Connor, 2001; Simmel, Brooks, Barth, & Hinshaw, 2001; Stevens et al., 2008). Studies that control for variables like background characteristics and early maltreatment suggest that adoption status is not a predictor of maladjustment (Grotevant et al., 2006).

Although these early life experiences have an adverse impact on children's physical, psychological, and educational adjustment, early intervention can often reduce some of the long-term consequences on development, especially in relation to attachment, emotion regulation, impulse control, and learning (Dole, 2005; Gribble, 2007; Gunnar, Bruce, & Grotevant, 2000; Jacobs, Miller, & Tirella, 2010). In fact, adoption has been viewed as a protective factor in children's lives (Brodzinsky & Pinderhughes, 2002; Hoksbergen, 1999). Through adoption, the child shifts from being in a situation of deprivation to being part of a nurturing family that supports gradual recovery from the effects of early trauma (McGuinness & Pallansch, 2000; Palacios, Román, & Camacho, 2011).

In an effort to understand recovery from adversity, as well as individual differences in the adjustment of adopted children, attention has been placed on different characteristics of adoptive family life (Palacios & Brodzinsky, 2010). One

potentially important characteristic that has been identified is the quality of parent-child communication (Ferrari, Ranieri, Barni, & Rosnati, 2015). Some studies have postulated that the higher risk for psychopathology in adopted individuals is related to unresolved abandonment issues, identity confusion, and thoughts about their birth parents (Brodzinsky, 2011; Feigelman, 1997; Hollingsworth, 1998; Smith, 2001). Adoption theorists have suggested that open, honest, and emotionally attuned family dialogue about adoption-related issues (including preplacement history, birth parents, birth culture, etc.) is more likely to foster healthier psychological adjustment among adopted children than more closed and defensive parent-child communication (Brodzinsky, 2005; Kohler, Grotevant, & McRoy, 2002; Wrobel, Kohler, Grotevant, & McRoy, 2003). In support of this position, researchers have found that greater communicative openness about adoption in the family is associated with fewer behavioral problems among preadolescent adoptees (Brodzinsky, 2006), higher self-esteem among both preadolescent and adolescent adoptees (Brodzinsky, 2006; Hawkins et al., 2007; Reppold & Hutz, 2009), a more positive adoption identity among adolescents (Le Mare & Audet, 2011), and greater information-seeking about their origins among young adult adoptees (Skinner-Drawz, Wrobel, Grotevant, & Von Korff, 2011). In contrast, Neil (2009) failed to find a significant relationship between the level of communication about the adoption and internalizing and externalizing behaviors in children aged 5–13. Nevertheless, methodological differences may explain the disparity in findings between this study and the previous ones. The adopted individuals in the Neil study were younger than in the other studies, and its measure of communication about adoption was based on parent interview data rather than the adoptees' perceptions. As adopted individuals get older, their interest and participation in family discussions about adoption and the impact of these discussions may become more pronounced.

In Spain, although adopted children's right to know their biological origin is stipulated in the Constitution, the implementation of structural open adoption was not approved until 2015, unlike other countries such as the United States, United Kingdom, the Netherlands, and Germany, which have vast experience in this field. Structural openness—that is, involving contact between the adoptive and birth family—has emerged in some national adoption cases (Rosser & Berástegui, 2017) but not in international ones, possibly because locating and

contacting birth parents is more difficult. In the face of this barrier, it is all the more important that adoptive parents ensure that communication with their children about their adoption be ongoing and as open as possible. As Brodzinsky (2005) emphasized, structurally closed adoptions need not be, nor should they be, communicatively closed placements.

Concern about the extent of communicative openness in Spanish adoptive families is supported by research reported by Palacios and colleagues (Palacios, Sánchez-Sandoval, & León, 2005; Sánchez-Sandoval, 2002). They noted that even though 95% of Spanish children are informed about their adoption status by the age of six, 30% of the parents reported that they only discussed the issue of adoption once with their children. Reinoso, Juffer, and Tieman (2012) found that by the age of 12 all the minors who participated in their study of a Spanish sample had already been informed of their status as adoptees and showed adequate understanding of what adoption means. Their results show that adoptive parents were able to grasp their children's point of view and understand what it meant for them to be adopted. Despite this, their findings indicate that the adopted children themselves perceived a higher sense of cultural belonging to and interest in their birth country than the parents thought they did. This suggests that at times adoptive parents tend to underestimate their child's sense of connection with their country of origin.

Berástegui and Jódar (2013) examined the information that the parents shared with their children in relation to their adoption and origins in a sample of 375 Spanish families who had adopted both internationally and nationally. The results showed that the majority of families with children under the age of 3 had not yet spoken directly about adoption with their children. By the time the children were between the ages of 3 and 6, the families had begun to initiate communication with the children regarding adoption, especially in terms of their country of origin and the fact that they were adopted. Topics related to the child's past, physical and racial differences, and the reasons why the child was separated from his or her biological family were the most difficult for families to share, even when the children were older than 12. The authors stressed the difficulty of discussing these topics, since handling loss and difference is crucial in the construction of the adoptees' identities. According to the same study (Berástegui & Jódar, 2013), the degree of communication on origins was positively and significantly related to the child's

age. The openness of family communication did not show significant differences between fathers and mothers, or between types of family (single-parent vs. two-parent).

To date, we have data about the adopted child's cultural interest in their birth country, the child's age when the parents start the conversation, and the topics discussed. However, there are no studies in Spain that have examined the parent-child communicative environment (support of adoption-related emotions) at home and its implications on the children's psychological adjustment.

It is important for researchers to gather more information about this issue so that Spanish families can be offered appropriate preparation, education, and guidance. Therefore, this study sought to evaluate the predictive relationship between communicative openness and the psychological adjustment of adopted adolescents while controlling for preplacement risk factors that are known to correlate with adjustment outcomes.

We had three main hypotheses: (1) the adolescent's self-evaluation about psychological and behavioral problems will show a moderate degree of maladjustment, and most of them will report a high level of communicative openness with their adoptive parents; (2) preplacement risk factors (prenatal substance exposure and previous histories of maltreatment) will negatively affect the adolescent's psychological adjustment; and (3) despite the fact that these preplacement risk factors can negatively affect psychological adjustment, communicative openness will contribute positively to adolescent's current emotional well-being.

METHOD

Participants

One hundred international adoptees (43 boys and 57 girls) aged 12–18, with a mean age of 13.9 ($SD = 1.4$), and their respective parents agreed to participate in this study. Eighty subjects lived in intact, two-parent families. Ten of the children were from divorced families and lived primarily with their mothers, nine other children were adopted by single women, and one had lost his father. None of them had contact with their birth family. The mean age of the adoptive mothers was 51.8 ($SD = 5.8$) and the mean age of the fathers was 53.4 ($SD = 5.4$). The children were adopted from Eastern Europe (48%), South America (27%), Asia (24%), and Africa (1%). The mean age when the children were placed in their families was

2.9 years old ($SD = 2.2$), with the minimum being 1 month and the maximum 10 years. All of them had been institutionalized prior to placement, and the mean time that they had remained in the institution was 1.7 years ($SD = 1.3$).

Instruments

Adoptive parent interview. A structured interview was designed specifically for the study to collect sociodemographic data and information related to the child's preplacement history and adoption. The sociodemographic data on the adoptive family included the adolescent's gender and current age, country of origin, and age at placement, along with the parents' ages and education levels, the family structure (single or married parents, intact or divorced families, and the presence of biological and/or adopted siblings), and the adolescent's contact with any psychiatric or psychological care unit. Information about preplacement risk factors (prenatal substance exposure and history of child maltreatment) was collected through the answers *yes or no/unknown*. The maltreatment variable includes physical maltreatment, emotional maltreatment, sexual abuse, and neglect (Table 1).

Youth Self Report. The Youth Self Report (YSR) developed by Achenbach and Rescorla (2001) is a 112-item self-report questionnaire designed to collect information directly from youths (aged 11–18) on different skills and behavioral problems. It is a well-established psychiatric screening scale that has shown excellent psychometric properties (ASEBA, 2012). The YSR contains two sub-areas: (1) 20 competence items that measure the child's participation in hobbies, games, sports, jobs, chores, friendship, and activities, and (2) 112 items that measure eight behavior and adjustment subscale symptoms: withdrawal, somatic complaints, anxiety and depression, aggressive behavior, delinquent behavior, social problems, thought problems, and attention problems. The first three subscales are referred to as "internalizing," whereas the next two are referred to as "externalizing." The remaining three subscales (social problems, thought problems, and attention problems) are categorized as "neither internalizing nor externalizing." Only the subscale referring to behavior and adjustment symptoms was used in this study; the adolescents selected their responses on a scale from 0 (*not true*) to 2 (*very true or often true*). For this study, raw scores were transformed into *T*-scores for Spain ($M = 50$, $SD = 10$). Scores $T \geq 65$ obtained on "internalizing"

TABLE 1
Individual and Family Characteristics of the Sample

	M	(SD)	Range
Current age (years)	13.9	1.4	12–18
Placement age (years)	2.9	2.2	0–10
Current age of adoptive fathers (years)	53.4	5.4	35–65
Current age of adoptive mothers (years)	51.8	5.8	37–66
	N	%	
Sex			
Boys	43	43	
Girls	57	57	
Country of origin			
Eastern Europe ^a	48	48	
South America ^b	27	27	
Asia ^c	24	24	
Africa ^d			
Adoptive family structure			
Two-parent	80	80	
Single-parent (only mother)	9	9	
Divorced parents	10	10	
Deceased father	1	1	
Adoptive mother's educational level			
Elementary, secondary or/ and high school	26	26	
University	61	61	
Postgraduate studies	13	13	
Adoptive father's educational level			
Elementary, secondary or/ and high school	29	29	
University	47	47	
Postgraduate studies	13	13	

Note. ^aRussia, Bulgaria, and Romania.

^bBolivia, Guatemala, Colombia, Mexico, Haiti, and Nicaragua.

^cChina and India.

^dEthiopia.

and "externalizing" problems indicate clinically significant symptomatology, while *T*-scores between 60 and 64 indicate a risky situation (borderline scores). On the "social problems," "thought problems," and "attention problems" subscales, *T*-scores >70 indicate psychopathology, and borderline values are between 65 and 69. The Spanish adaptation of the scale was used in this study (Lemos, Vallejo, & Sandoval, 2002).

Adoption Communicative Scale. The Adoption Communication Scale was developed by Brodzinsky (2006) based upon the Parent-Adolescent Communication Scale created by Barnes and Olson (1985). It is a 14-item, child-reported instrument. Using a 5-point Likert-type scale, the instrument measures the extent to which children view their parents as being open and sensitive in communicating about the adoption, as well as the extent to

which the children feel comfortable discussing the adoption with their parents. The children's mean score across the 14-item scale represents their perception of communicative openness in the family, with higher ratings reflecting a greater degree of openness. This scale was subsequently expanded by Grotevant, Rueter, Wrobel, and Von Korff (2009) to measure communication with mothers and fathers separately (14 items for each). For the current study, we used the Spanish version of Grotevant's expanded scale (Aramburu et al., 2015).

Procedure

All the families that had completed the compulsory postadoptive follow-up in our center between August 1999 and April 2010 were contacted regarding the study. The criteria for inclusion in this study were that the adopted child was between the ages of 12 and 18 and was aware of his or her adoption status. Adolescents were excluded if they had medical or psychiatric disorders that impeded their ability to read, comprehend, or respond to the questionnaires. Of the 861 families who had adopted children internationally, only 179 met the inclusion criteria. A total of 682 children were excluded because they were younger than 12, and 5 were eliminated because of serious illnesses. An additional 74 children did not participate because of their or their parents' lack of interest in the study.

The statement on the purpose of the research and the request for cooperation were sent by letter to all eligible families. Both the adoptive parents and their teenagers had to voluntarily agree to participate in the study by signing a letter of informed assent. Through a phone call to the families that wished to participate, we arranged a meeting to conduct the assessment. Most of the meetings took place at the family home, although some were held at the Institut Universitari de Salut Mental Vidal i Barraquer, Universitat Ramon Llull. The final sample consisted of 100 international adoptees and their respective parents. The methods and questionnaires used in the study were approved by the Ethics Committee of the Institut Universitari de Salut Mental Vidal i Barraquer, Universitat Ramon Llull.

RESULTS

First, the descriptive findings about preplacement risk factors, communicative openness, and the

adolescent's psychological adjustment are presented. Next, the bivariate relationships between the child's age and gender, age at placement, preplacement risk factors, communicative openness about the adoption, and each behavioral problem were calculated, using Pearson's correlation coefficient. Finally, five separate hierarchical regression analyses were conducted to test the relative contribution of communicative openness on the adolescents' behavioral problems, while controlling for preplacement risk factors.

Descriptive Data on Adolescents' Behavioral Problems, Preplacement Risk Factors, and Communicative Openness

The availability of population reference values for the instrument used (YSR) allowed the reporter's scores to be compared with the general normative Spanish population. The descriptive data shown in Table 2 indicate average scores on behavioral problems within the normal range (*T*-scores between 48.3 and 54.3) in all scales.

In the case of externalizing behaviors, 6% of the sample showed scores in the borderline or clinical range ($T \geq 60$), while 15% did for internalizing behaviors. Of the adolescents studied, 6% obtained borderline or clinical scores ($T \geq 65$) on thought problems, 9% on social problems, and 3% on the attention problems scale.

Of the entire sample, 74 adolescents have used mental health services, and the majority of them (63) has received or is currently receiving psychological or psychiatric treatment. Forty-two adolescents have sought help for behavioral, attention, and hyperactivity problems; 12 for learning problems; 13 for internalizing-type problems (such as anxiety or depression); three for social problems; and four for thought problems.

According to the parents' reports, 32% of the adolescents had suffered from a history of maltreatment prior to their adoption, and 27% of their

TABLE 2
Descriptive Statistics About Behavioral Problems and Communicative Openness

	M	(SD)
Internalizing behaviors	48.2	10.5
Externalizing behaviors	48.4	7.9
Thought problems	54.5	5.6
Attention problems	53.9	5.5
Social problems	54.3	6.6
Communicative openness	3.8	0.1

birth mothers had consumed alcohol or drugs during pregnancy.

The mean score on communicative openness on adoption was 3.8, with a minimum of 1 and a maximum of 5 (*SD* = 0.1). Most adoptees reported high-quality communication with their adoptive parents. The results from a paired *t*-test revealed that the adopted adolescents reported similar adoption communication scores with their adoptive mothers and fathers, *t* (48) = 1.24, *p* = .222. Neither the gender nor age of the adoptee was significantly associated with family communication about the adoption. These data suggest that the youths perceived both adoptive parents as having been able to create a communicative home environment that is reasonably comfortable for them.

Bivariate Relationship Between Sociodemographic Data, Preplacement Risk Factors, Communicative Openness, and Adolescents’ Behavioral Problems

Pearson product correlations were calculated among the various predictors and dependent variables (see Table 3). Children’s age and age at placement were not significantly correlated with either externalizing or internalizing behaviors. Although girls were more likely to score higher on internalizing behavior than boys, no other gender differences were noted with regard to psychological adjustment. Prenatal drug exposure and the child’s history of maltreatment were both positively associated with externalizing and social problems. Thus, our second hypothesis that the variables related to preplacement risk factors would correlate positively with adolescent psychological adjustment was confirmed only in the case of externalizing and social problems.

Communicative openness was inversely related to all behavioral problems. We should also highlight the inverse correlation between communicative openness and a history of maltreatment ($-.384$, *p* = .017).

Regression Modeling of the Adolescents’ Behavioral Problems

Multiple hierarchical regression analyses using each behavior problem scale as the dependent variable were performed for the purpose of explaining the major variance in the adopted children’s adjustment. The independent variables were as follows: prenatal substance exposure, the child’s history of maltreatment, and communicative openness. The regression analysis was performed stepwise with

TABLE 3
Correlations Among Behavioral Problems, Preplacement Risk Factors, and Communicative Openness

	Inter. behaviors	Extern. behaviors	Thought problems	Attention problems	Social problems	Comm. openness
Child’s age	.006	-.008	.089	-.021	-.074	.056
Gender (male = 0; female = 1)	.217*	.067	-.003	.025	.100	.025
Placement age	.181	-.013	-.086	.172	.093	-.043
Prenatal substance exposure (no = 0; yes = 1)	-.008	.197*	.159	.194	2.69**	-.037
History of maltreatment (no = 0; yes = 1)	.173	.276**	.139	.174	2.90**	-.338*
Comm. openness	-.596**	-.297*	-.400**	-.421**	-.457**	—

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

preplacement risk factors entered in block 1. Next, communicative openness was entered in block 2 to determine any unique variance associated with this family variable. Only significant values of the regression models are shown in Table 4.

For externalizing behaviors, prenatal substance exposure significantly predicted the adopted children's externalizing behaviors, accounting for 12% of the variance in this outcome variable. Communicative openness increased the ability to predict externalizing behaviors up to 20% ($\Delta R^2 = .081$, $p = .036$). Current internalizing behaviors were predicted significantly by a child's history of maltreatment, accounting for a 12% of the variance. But when the communicative openness variable was included, this relationship was no longer significant. Communicative openness significantly predicted internalizing behavior, accounting for 38% of the variance on this variable ($\Delta R^2 = .259$, $p < .001$). Regarding thought problems, none of the preplacement risks factors was a significant predictive variable. Only communicative openness was a significant predictive variable, accounting for 16% of the variance in this outcome scale ($\Delta R^2 = .160$, $p = .004$).

TABLE 4
Summary of Hierarchical Regression Modeling of the Adolescent's Behaviors Problems

Predictors	R	R ²	β	F	Sig.
Externalizing behaviors					
Model 1	.351	.123		6.5	.013
Prenatal substance exposure			.351		.013
Model 2	.451	.204		5.8	.005
Prenatal substance exposure			.340		.013
Communicative openness			-.284		.036
Internalizing behaviors					
Model 1	.346	.120		6.3	.15
History of maltreatment			.346		.15
Model 2	.615	.379		14	.000
Communicative openness			-.541		.000
Thought problems					
Model 1	.400	.160		8.96	.004
Communicative openness			-.400		.004
Attention problems					
Model 1	.495	.245		7.5	.002
History of maltreatment			.327		.018
Prenatal substance exposure			.295		.031
Model 2	.589	.347		7.9	.000
Prenatal substance exposure			.314		.016
Communicative openness			-.339		.011
Social problems					
Model 1	.351	.123		6.6	.013
History of maltreatment			.351		.013
Model 2	.502	.252		7.7	.001
Communicative openness			-.381		.007

In the first model, attention problems were significantly predicted by prenatal substance exposure and the child's history of maltreatment. However, when the communicative openness variable was introduced, the variable on the child's history of maltreatment was no longer significant. The final model, made up of the variables on prenatal substance exposure and communicative openness, explains nearly 35% of the variance on the attention problems scale ($\Delta R^2 = .101$, $p = .011$). Finally, adolescents' social problems were predicted by the child's history of maltreatment. In the final model, communicative openness proved to be the only predictive variable, accounting for 25% of the variance ($\Delta R^2 = .129$, $p = .007$).

In summary, a lower degree of communicative openness regarding the child's origins predicted the presence of all the adolescent behavioral problems studied. Consistent with our three hypotheses, we can confirm that despite the impact of some preplacement risk factors on adolescents' behaviors, communicative openness plays an important role in their current psychological adjustment.

DISCUSSION

This study is the first to analyze the psychological adjustment of adolescents adopted in Spain from their point of view. In addition, the impact of significant preplacement factors on adjustment and the putative positive effect of communicative openness were analyzed. The psychological adjustment assessed through the YSR showed that the majority of the adolescents earned scores within the normal range. Likewise, most adoptees reported high-quality communication with their adoptive parents. After controlling for preplacement risk factors, a high degree of communicative openness regarding the child's origins exerted a moderating effect above and beyond the presence of all the behavioral problems studied.

Regarding our first objective, we found that a large proportion of the adoptees in our sample are psychologically well-adjusted and seem to function quite well in adolescence. These findings converge with other studies carried out in our country with school-aged children (Barcons et al., 2014; Reinoso & Forns, 2012). They also concur with studies conducted in other countries which found that the rate of behavioral problems in adopted teenagers is modest, indicating that, as a group, international adoptees are generally socio-emotionally well-adjusted (Bimmel et al., 2003; Hjern et al., 2002; Juffer & Van IJzendoorn, 2005).

Our results confirm the minors' adjustment abilities; specifically, despite having suffered from adverse preadoption situations, they have achieved good psychological adjustment. Nevertheless, many of them (74%) have sought mental health services during their lifetime. This data agrees with those that suggest that adoptive parents may be more sensitive to psychological dysfunction and more likely to obtain clinical services for their adopted children (Miller et al., 2000; van Ginkel et al., 2016).

Focusing on those who presented behavioral problems, we found that twice as many adolescents showed internalizing behaviors as externalizing behaviors. In addition, the percentage of attention problems proved to be lower than social and thought problems. Counter to our results, other studies (Berástegui, 2007; Bimmel et al., 2003; Merz & McCall, 2010; Palacios & Sánchez, 1996) report that higher percentages of externalizing and attention problems were found in postinstitutionalized children than internalizing behaviors. Two factors may account for our results: first, the age of the sample, as some studies show that significant anxiety and depression symptoms emerge in adolescence (Reinoso & Forns, 2012; Sonuga-Barke et al., 2009), and secondly, the percentage of adolescents studied who are receiving treatment for externalizing and attention and hyperactivity problems. The percentage of adolescents who have been or are receiving psychological care or pharmacological treatment for these kind of problems (42) is three times higher than those who have sought assistance for internalizing problems (13). These data show that adoptive parents in Spain usually seek assistance because of externalizing behavior, as suggested by Palacios (2007). Nevertheless, the results lead one to suspect that Spanish adoptive parents may not notice some of the internalizing problems, as well as those related with anxiety, depression, or withdrawal (Reinoso & Forns, 2012), and they therefore do not seek professional assistance.

Concerning communicative openness, a significant negative correlation was found between communicative openness and each of the behavioral problems studied, especially with regard to internalizing behaviors and social and attention problems. The adopted adolescents reported positive communication with both adoptive parents. In line with Ferrari et al. (2015), nonsignificant differences were found between communication with the mother and father. In line with that study and the one by Berástegui and Jódar (2013), we did not find

adoptive sex or age to be significantly associated with family communication on the adoption. Another interesting finding of our study is that adolescents who have suffered from a history of maltreatment prior to adoption reported more closed communication about their adoption. Considering the bidirectional relationship between the parent-child relationship and children's behavior (Judge, 2004), it is unclear whether adoptive parents may find it more difficult to establish open communication when their children have suffered from prior histories of maltreatment or whether the tendency towards behavior problems in adolescents with adverse preadoptive situations could make parent-child communication more difficult. Future longitudinal studies should explore the causal link between these variables.

Regarding variables related to the adolescent's adjustment (second and third objectives), the prenatal substance exposure variable proved to be a factor associated with externalizing behaviors. This concurs with the results of Crea et al. (2008), who suggest that 14 years postadoption, substance-exposed children demonstrated higher levels of behavior problems than those who had not been exposed. Likewise, Simmel et al. (2001) found a clear association between prenatal drug exposure and externalizing symptoms among adopted youths. The rise in variance provided by communicative openness is slight but significant (8%). A child's history of maltreatment is associated with more internalizing behaviors, but when the communicative openness variable was introduced, the former lost significance due to the correlation between the child's history of maltreatment and communication. Therefore, our results disagree with those from the survey by Juffer and Van IJzendoorn (2005), which found that there were no differences in internalizing problematic behavior among international adoptees that had and had not experienced preadoption adversity. In the case of internalizing behaviors, communicative openness predicts nearly 38% of the variance in this variable, so this variable's influence on internalizing problems is important. Something similar happens when we performed a regression analysis for social problems. In relation to attention problems, the child's prenatal substance exposure and communicative openness were the variables which showed the most significance. Indeed, the positive relationship between prenatal substance exposure and attention/hyperactivity symptoms in international adoptees is also amply demonstrated in the literature (Lindblad et al., 2010; Simmel et al., 2001;

Stevens et al., 2008). Furthermore, when communicative openness was added, R^2 increased significantly, suggesting that the less communicative openness there is, the greater the presence of attention problems. Finally, according to our data, communicative openness was the only variable that is strongly linked to thought problems. These data suggest that adolescents who feel that their parents close and open regarding both adoption issues and their prior history may be better able to mentalize anxieties (oftentimes related to body changes that reveal the lack of a birth heritage with their adoptive parents) and diminish the feeling of strangeness that is so frequent in this stage.

In the research literature, another factor related to competence outcomes and behavioral problems was the child's age at the time of adoption (Hawk & McCall, 2010; Lindblad et al., 2010; McGuinness & Pallansch, 2000; Wiik et al., 2011). Unlike other studies carried out in Spain (Barcons et al., 2014; Berástegui, 2007), we found no evidence that the age at the time of adoption was a decisive factor in Spanish international adoptees' behavioral problems. Our results more closely resemble those of Askeland et al. (2017), Reinoso and Forns (2012), and Verhulst et al. (1992), who said that age at placement per se did not contribute to the prediction of later maladjustment, regardless of the influence of early adversities such as a child's preplacement history of maltreatment and prenatal drug exposure.

The hierarchical regression analyses revealed a high degree of association between communicative openness and the adopted adolescents' behavioral problems after controlling for preplacement risk factors. These results concur with those obtained by Brodzinsky (2006), who found that communicative openness significantly predicted children's ratings of their own self-esteem and behavior problems. Years later, Reppold and Hutz (2009) also found that the best self-esteem and depression adjustment scores were found among adolescents whose families maintained a standard of open communication regarding their affiliation from an early age. Based on the data obtained, we found that the adolescent adoptees showed a certain degree of behavioral problems, which are quite closely related to the communicative environment in their homes. As Kohler et al. (2002) suggested, adopted adolescents' levels of preoccupation are related to their adoption and their relationship with their adoptive families.

Like all teenagers, adopted adolescents are in the process of trying to define themselves, but for adopted adolescents, "who am I?" questions can be

more complicated due to the connection with their two families (the one that gave them life and the one that is raising them). They must integrate aspects of both families into their emerging identities. "Parents who are more open, supportive, and empathic in their communication about adoption are more likely to have children who are able to integrate these aspects of their lives into a positive sense of self" (Brodzinsky, 2011, p. 202). Although the degree of communicative openness within an adoptive family is assumed to result from reciprocal influences between parents and adopted children, from a developmental perspective, it is presumed that the adoptive parents' attitudes and behaviors create the initial context that supports the children's subsequent communicative openness or lack thereof (Brodzinsky, 2005; Palacios et al., 2005). Parents must act as a support and help the child to explore and understand the feelings that arise with the discovery of their adoption and to integrate the known elements of their history into a new identity (Reppold & Hutz, 2009).

This study has several limitations. First, around 40% of the initial sample decided not to participate, many of them because they were reluctant to talk about issues specifically related to the child's adoption and origins. This leads us to believe that the majority of families that find it difficult to create open communication around this topic are also the ones that preferred not to participate in this study. Another limitation is a difficulty encountered in any study of international adoption, which involves the challenge of verifying the children's early circumstances. Finally, we examined communicative openness and psychological adjustment solely from the perspective of the adolescents and did not consider the perceptions of their adoptive parents. Future research should explore these areas by taking both perspectives into account.

Despite these limitations, these results contribute to the literature about the psychological adjustment of international adopted adolescents in Spain and the influence of family context on the behavioral outcomes of adopted adolescents. Our study demonstrates that the adolescents' behaviors cannot solely be explained by preplacement risk factors, but that communicative openness, as a family process experience, plays an important role in fostering healthier adjustment among adopted teenagers. Therefore, studies like ours provide adoptive parents with tools to help their children and promote better psychological adjustment. With closed adoptions, which are the norm in Spain, it is important for the adoptive parents to initiate

communication about the minor's origins not only based on information transfer but also on the support and accompaniment of adoption-related emotions.

Our results may also be informative for clinicians, practitioners, and others who work with adoptive families, as well as for policies regarding openness in adoption. These professionals, who are in contact with adoptive families both before and after the adoption, can offer interventions focused on promoting communicative openness. Clinicians can be very helpful to parents in supporting greater communicative openness by helping families find age-appropriate ways of discussing difficult background information and of supporting children's connections with their birth heritage.

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