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Peer Relationships During Late Childhood in Internationally Adopted and Institutionalised Children

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Abstract

The aim of this study is to analyse the interpersonal relationships in the school context of children living in different care settings (adoptive families, residential care centres, birth families). Participants were 76 children between eight and fourteen years of age (M = 10.78, SD = 1.38), belonging to one of three groups: international adoptees, children living in residential care in Spanish institutions and a comparison sample of Spanish children living with their birth families with no connection with child protection. Sociometric information was collected in the classroom of each child during school hours. Internationally adopted children from Russia showed considerable difficulties in their relationships with peers, they were more likely to be rejected and their peers described them as less prosocial and somewhat more aggressive. With a better sociometric position than the adoptees, children in residential care were rated by their peers as more aggressive and less prosocial than the normative population. Coordination and integrated work between the family, protection centres, schools and other social services should be a strategic priority in the promotion of healthy social development in these groups of children.

Keywords: international adoption; residential care; peer relations; social relationships

Most children are born into families that care for them as much as they can. In this family context, children live experiences and create bonds that will influence how they interpret the world and their relationships with others. Children exposed to security and sensitive care in early childhood tend to be more socially competent in the school years (Waters & Sroufe, 1983). On the contrary, when early experiences are based on distrust, neglect or maltreatment, children will have more difficulty creating positive and effective friendships later on. Evidence supporting this model in biological families is abundant (e.g. Groh et al., 2014; Pallini, Schneider, Baiocco, Madigan, & Atkinson, 2014) and recent studies have started to address the relations between early adversity and social relationships in adoptive families (e.g. Barone, Lionetti, & Green, 2017). This article extends this analysis also to children living in institutional care. While adopted and institutionalised children have early adversity in common, their life trajectories are very different thereafter. Our goal here is to study the impact of these trajectories (adoption vs. institutional care) on peer relationships in comparison with a normative group.

Peer Relationships of Internationally Adopted Children

The meta-analysis on peer relationships carried out by DeLuca, Claxton and van Dulmen (2018) included adoptive samples with a wide range of ages and of pre-adoptive experiences. The results indicated that 82% of adoptees have no significant difficulties in their peer relationships. Although they are less likely to have good friends, the quality of their friendship is similar to that of normative samples.

In their study with school-age children, Stams, Juffer, Rispens and Hoksbergen (2000) explored the sociometric status of children adopted from Sri Lanka, South Korea and Colombia in their first weeks of life with little or no institutional exposure. Similar to what happens in normative samples (Cillessen & Bukowski, 2018), 26% were

classified as popular, 52% had an average status, 10% were ignored, 7% were controversial and 5% were rejected.

Research has documented the negative impact of early institutional deprivation on later social integration (Gunnar, Van Dulmen, & The International Adoption Project Team, 2007; Sonuga-Barke, Schlotz, & Kreppner, 2010). Moreover, a longer exposure to institutional rearing is related to more peer difficulties (Kadlec & Cermak, 2002; Marcovitch et al., 1997). In particular, studies on the social development of international adoptees from Eastern Europe exposed to institutionalisation tend to report problems in social relationships. According to parents' and, especially, teachers' reports, they present greater difficulties in their social functioning than their non-adopted peers (Caprin, Benedan, Ballarin, & Gallace, 2017; Glennen & Bright, 2005; Petranovich, Walz, Staat, Chiu, & Wade, 2016). These studies indicate that 20% to 30% of post-institutionalised international adoptees experience significant problems with friends or peers (Merz & McCall, 2010; Palacios, Moreno, & Román, 2013).

Research on post-institutional children has indicated that conclusions based on self-reports of interpersonal relationships tend to be similar to those of normative samples (Barcons-Castel, Fornieles-Deu, & Costas-Moragas, 2011; Goodman & Kim, 2000; Hawk & McCall, 2014). Also, according to Julian and McCall (2016), due to increased social and behavioural demands, the interpersonal problems of post-institutional children are more evident when assessed in adolescence than in childhood. In particular, research has documented more problems in early adolescence than in later years (Howard, Smith, & Ryan, 2004).

Peer Relationships of Children in Residential Care

Social development of children in residential care (RC) has been less explored, in part because in many western countries children's institutionalisation is exceptional

(e.g., in England, Department for Education, 2018). However, in other countries, institutionalisation affects significant percentages of children in care. This is the case of Spain, with 48% of them placed in institutional settings (Ministerio de Sanidad, Consumo y Bienestar Social, 2018), a percentage that is even higher in other countries such as Portugal, Latin-American and Middle-East countries.

The studies on children in RC generally show significant difficulties in their social development, with caregivers and teachers reporting more social and relational difficulties than in normative peers (Garcia Quiroga, Hamilton-Giachritsis, & Ibañez, 2017; Simsek, Erol, Öztop, & Münir, 2007; Zhang, Cecil, Barker, Mori, & Lau, 2018). Martín, Muñoz De Bustillo, Rodríguez and Pérez (2008) found that, compared with normative samples, children from Spanish institutions were more likely to be rejected and less likely to be chosen by their peers to perform academic tasks. Also, their classmates described them more negatively, as more aggressive and less able to resolve conflicts. Other studies have shown that institutionalised children tend to be more indiscriminate and less selective in their friendship (Roy, Rutter, & Pickles, 2004; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998) and, despite that, they have fewer reciprocal friends at school than children living in family contexts (Argumendo & Albornoz, 2006; Martín, Muñoz de Bustillo, & Pérez, 2011). Moreover, their social support networks are weaker (e.g., fewer support persons, less help provided) than those of their peers (Bravo & Fernández del Valle, 2003; Makanui, Jackson, & Gusler, 2019; Singstad, Wallander, Lydersen, Wichstrøm, & Kayed, 2019).

The comparison of adopted children with those reared in institutions is especially relevant for our purposes. In these comparisons, children in family contexts have better cognitive development, school performance, mental health and fewer behavioural problems than their siblings or peers growing in residential care

(Christoffersen, 2012). Studying the same samples reported here, Palacios et al. (2013) observed that at ages four to eight years children in residential care had more social difficulties and less social skills than children of the same age in adoptive and biological families. The present article extends this comparison to the early adolescence years.

Research comparing the social development of adoptees and children in residential care is limited and mainly based on parents/caregivers' and teachers' reports. Even though there is some statistical correspondence between teachers' and peers' perceptions, peers are the ones who provide the most valid assessment of social status (van den Berg, Lansu, & Cillessen, 2015). Peer relationships from the peers' points of view in Eastern European adoptees and children in residential care have not yet been examined in detail. Our goal is to study in greater depth the social integration of these children in the context where these interactions occur more frequently (i.e., school), and with direct measures of their integration in the peer group.

The Present Study

The aim of this study is to explore the social relationships of international adoptees (IA) and children in residential care (RC) in the school context, compared with children who grow up in their biological family (comparison group, CG). Firstly, this paper analyzes the sociometric status of IA, RC and CG children in their peer groups. Given the number of studies that have reported significant relational difficulties in IA and RC school-age children, we were especially interested in studying whether the percentage of rejected children would be higher in IA and RC compared to CG. Secondly, we explored the number of nominations that children expressed and received from peers, their reciprocal friendship and enmity relationships and their perceptions about the peers who would nominate them (i.e., sociometric perceptions). Thirdly, we explored peer reports of likeability and social behaviours in our three groups.

Method

Participants

The participants in this study were 76 children aged between eight and fourteen years (M = 10.78, SD = 1.38). These children belonged to one of three groups: international adoptees from Russia in Spain (IA; n = 24), children living in residential care in Spanish institutions (RC; n = 19) and a comparison sample of Spanish children living with their birth families without experiences of early adversity (CG; n = 33).

The adoptive group was composed of children born in Russia and adopted by Spanish families at an average age of 36 months (SD = 15). In this group, the percentage of boys (79%) was greater than that of girls (21%), an imbalance typical in adoptions from Russia (Pascual, 2000). All the children in this group had been institutionalised in their country of origin (average 27 months, SD = 14).

The group of children in RC (58% girls, 42% boys) was composed of Spanish children separated from their birth families due to severe experiences of maltreatment. They arrived at the residential centres at an average age of 5.97 years (SD = 1.31). Compared with Eastern European institutions (e.g. O'Connor et al., 2000; Rutter & the English and Romanian Adoptees study team, 1998), the Spanish protection centres have more favourable material conditions. Caregivers have professional qualifications and the number of children and caregivers is about similar, with caregivers rotating in turns. While in these centres, children attend the schools in the community.

The CG was composed of Spanish children (58% boys, 42% girls) from different neighbourhoods and socio-economic levels in the same city where most of the adopted and institutionalised children lived. The CG children were living with their birth families with no contact whatsoever with child protection.

Permission to contact schools was given by the families of the adoptive and community group, as well as by the child protection authority responsible for institutional care. The classrooms of these 76 children were visited to collect the sociometric data. In total, the 76 target children were evaluated in their 66 classrooms from 52 different schools (some of the target children attended the same schools and, more exceptionally, the same classroom). In order to obtain the sociometric data of the target children, all their classmates (n = 1621) completed the sociometric questionnaires. The average class size was 25 students (*SD* = 3). Average class sizes were statistically similar in the three groups of children (IA: *M* = 25, *SD* = 3; RC: *M* = 26, *SD* = 3; CG: *M* = 25, *SD* = 4), $F(2, 74) = 0.78$, $p = .462$.

Measures

Sociometric Status and Indices of Peer Relationships. Each child in each classroom answered a sociometric questionnaire with four questions in which they had to mention the classmates they most liked to be with (positive nominations), the classmates they least liked to be with (negative nominations), the classmates that they believed liked to be with him/her (positive perceptions) and the classmates that they believed did not like to be with him/her (negative perceptions). The number of nominations in each question was unlimited. This sociometric information was collected during school hours. Using the software program SOCIOMET (González & García-Bacete, 2010) 12 indicators described in Table 1 were analysed. The sociometric status considered are those proposed by Coie, Dodge and Coppotelli (1982). The sociometric classification is based on an adjusted probability method, whose validity for the identification of sociometric status in the classroom has been demonstrated in comparison with other methods (García-Bacete & Cillessen, 2017). Children are assigned to one sociometric status category based on the positive and negative

nominations received from peers with respect to the mean of their classroom, with 95% confidence intervals. Preferred children score high in positive nominations and low in negative nominations, rejected children score high in negative nominations and low in positive nominations, neglected children score low in both positive and negative nominations, controversial children score high in both indexes and the other children conform the average group (with positive and negative nominations around the mean of their classroom). More details of each index and their calculation can be found in González and García-Bacete (2010).

Peer Reports of Likeability and Social Behaviours. Likeability and social behaviours were assessed using sociometric qualifications. Each child in the classroom answered four questions about all their classmates. The first question evaluated likeability (*How much do you like being with N?*) on a Likert scale with 5 options (1 = *I do not like being with him/her at all*, 5 = *I like being with him/her a lot*). The next three questions evaluated aggressiveness (*How much does N hit or insult?*), prosocial behaviour (*How much does N help?*) and withdrawal (*How embarrassed does N feel when he/she is with other children?*) through a scale with three options (1 = *not at all or very little*, 3 = *quite a bit or a lot*). The scores of the target children were obtained by calculating the average of all the evaluations received from their peers. For this study, the scores in the four scales were standardized using *z* scores ($M = 0$, $SD = 1$).

Procedure

The study reported herein is part of a broader project on child welfare and protection in Spain. The sociometric assessment reported here was included in the second wave of the study, which took place between 2012 and 2013. A detailed explanation of the creation and first contact with the sample at the beginning of the first wave of the project can be found in Palacios et al. (2013).

For this data collection, all the families that participated in the first wave were contacted by phone. The families who agreed to participate (72.4% of the original sample) signed a written consent that allowed the contact with children's schools. For children in RC, consent was given by the child protection authority.

The main teachers of 93 children were first contacted by phone, 76 (82%) of them accepted to participate in the study, while 17 (five IA, seven CG and five RC) chose not to do so. The participating schools were visited from the middle of the academic year onwards. Two trained psychologists guided the data collection during a 45-minute regular class session. No child in the classroom knew who the target child was. Due to time restrictions in the schools, peer reports of likeability and social behaviours (but not the rest of the assessment) could be measured for 70 of the 76 participant children. The University Ethics Committee approved the research project as conforming to the regulations in force in Spain and the European Union for studies involving human participants.

Data Analyses

Data analyses were performed using IBM SSPS Statistics 24. Correlations between quantitative variables were explored using Pearson's r. The relations between one qualitative independent variable and quantitative dependent variables were explored through the Student t (for independent variables with two categories, i.e., gender) and one-way ANOVAs based on Welch's F (for independent variables with three categories, i.e., the group of children). Post hoc tests were based on the Games-Howell's procedure. Effect sizes were measured through partial eta squared (η^2_p; .01 small, .06 medium, .14 large, Cohen, 1988). Associations between qualitative variables (e.g., group of children and sociometric status) were explored through Chi-square (χ^2), together with adjusted

standardized z values. Effect sizes for χ^2 were based on Cramer's V (0.10 small, 0.30 medium, 0.50 large).

Results

We first analysed the relationship of sociometric status and peer ratings of likeability and social behaviours with the gender and age of the participants. Secondly, we explored the sociometric status of children in each group as well as group differences in the indexes of social relationships (direct nominations, social preference, number of friends and enmities, opposing feelings and sociometric perceptions; Table 1). Thirdly, peer reports of likeability and the social behaviours of the children were studied.

Relationship of Sociometric Status and Peer Ratings With Participants' Gender and Age. When analysing the complete sample, the distribution of the sociometric status did not significantly differ between boys and girls, χ^2 (4) = 5.05, p = .283, V = .258. Peer ratings of prosocial behaviour were higher for girls (n = 26, M = 0.47, SD = 0.98) than for boys (n = 44, M = -0.28, SD = 0.91), t (68) = 3.20, p = .002. By contrast, boys exhibited a higher level of aggressiveness (n = 44, M = 0.29, SD = 1.03) than girls (n = 26, M = -0.49, SD = 0.73), t (65.82) = 3.69, p < .001. Differences between boys and girls were non-significant in peer ratings of likeability (girls: n = 26, M = 0.17, SD = 1.02; boys: n = 44, M = -0.10, SD = 0.99; t (68) = 1.08, p = .282) and withdrawal (girls: n = 26, M = 0.25, SD = 1.00; boys: n = 44, M = -0.15, SD = 0.98; t (68) = 1.63, p = .108).

To analyse the differences in sociometric status based on the age of the participants, the sample was divided into two groups, above and below the mean age value, M = 10.59 (n = 39 and n = 37, respectively). There were no significant differences in the distribution of the sociometric status between both age groups, χ^2 (4)

= 2.07, p = .723, V = .165. Peer ratings of likeability and social behaviours were not significantly related to the age of the participants (n = 70 in all the correlations: likeability: r = .016, p = .896; prosociality: r = -.100, p = .412; withdrawal: r = -.091, p = .456; aggressiveness: r = .142, p = .241).

Sociometric Status and Indices of Peer Relationships

Sociometric Status in the Peer Group. Table 2 shows the number and percentage of children from each group in each sociometric status. A χ^2 test was performed to analyse if the distribution of the sociometric status differed between the three groups. To gain statistical power, given our specific interest in rejection by peers, the non-problematic average and preferred status were merged into one group, and the neglected (n = 2) and controversial (n = 3) participants were not retained for this analysis. The association between group and sociometric status was statistically significant and had a medium effect size, χ^2 (2) = 7.40, p = .025, V = .323. The IA children were less likely to have an average/preferred status in their peer group (z = -2.5) and a higher probability of being rejected (z = 2.5) compared with the other two groups. Community children (CG) had a higher probability of being average/preferred (z = 2.3) and a lower probability of being rejected by peers (z = -2.3) than the other groups.

Direct Nominations and Social Preference. Table 3 shows the means in each index and the comparisons between groups. Regarding the number of positive nominations expressed by the children, group differences were non-significant and the effect size was small (η^2_p = .049). Regarding the number of negative nominations expressed, group differences were non-significant and the effect size was also small (η^2_p = .017), indicating that children from the three groups gave negative nominations to a similar number of peers.

When analysing the received positive and negative nominations, significant group differences were found (Table 3). Post hoc tests showed that IA children received fewer positive nominations from their peers than the CG, while the differences between RC and CG were non-significant. On the other hand, IA and RC groups received significantly more negative nominations than the CG (an average of eight and seven negative nominations respectively, compared to three in the CG).

The social preference index reflected that IA and RC children received more negative than positive evaluations from their peers (Table 3). That is, the percentage of peers who nominated them positively was lower than the percentage of peers who nominated them negatively. The tendency was the opposite in the CG and the group differences were significant.

Reciprocal Friendships, Enmities and Opposing Feelings. We considered a *reciprocal friendship* when two classmates positively nominated each other in the sociometric activity. In this study, 96.4% of IA, 90.5% of RC and 100% of CG children had at least one reciprocal friend in their classroom.

Afterwards, the mean number of reciprocal friendships in the three groups of children was compared. Between groups' comparisons reached statistical significance, with a large effect size ($p = .004$, $\eta^2_p = .158$): IA and RC children had significantly fewer reciprocal friends in the classroom than the CG (IA and RC children had, on average, between three and four reciprocal friends, while CG had about five; post hoc *p* values reported in Table 3).

Since the number of nominations in the sociometric activity was unlimited, we wanted to explore whether these friendship results would change if the number of nominations was restricted to three. For this, we explored *significant friendships* (reciprocal friends when considering only the first three nominations of each child).

Figure 1 shows the percentage of children from each group with zero, one, two and three significant friends. The group differences were statistically non-significant and the effect size was small, χ^2 (6) = 12.26, p = .056, V = .29. However, the percentage of IA without significant friends was higher than in the other groups (z = 2.0) and the percentage of this group with three significant friends was lower (z = -1.8). On the contrary, the percentage of CG without significant friends was lower (z = -2.4) and the percentage of children with three significant friends was higher than in the other groups (z = 2.8).

Regarding relations of enmity, the mean number of reciprocal enmities in the three groups of children was compared. Results indicated that group differences were significant and the effect size was medium (p = .012, η^2_p = .101). Post hoc tests revealed that RC had more reciprocal enmities in the classroom than CG, but the rest of post hoc comparisons were non-significant (Table 3).

In the three groups, children expressed opposing feelings (i.e., a positive mention towards a peer from whom a negative mention is received, or vice versa) with an average of between one and two classmates (Table 3). Non-significant differences were observed between the groups in this area.

Sociometric Perceptions. Sociometric perceptions reflect children's beliefs about which classmates like and dislike being with them. As seen in Table 3, group differences in positive perceptions (i.e., belief of being liked by others) were statistically significant, with a medium effect size. The post hoc comparison between CG and IA tended to statistical significance (p = .082), with a tendency in IA children to express fewer positive perceptions than the other groups. Conversely, group differences in negative perceptions (children’s perceptions about peers who do not like being with

them) were not statistically significant, indicating that children from the three groups perceived a similar number of peers who disliked being with them.

Peer Reports of Likeability and Social Behaviours

The peers of the target children at school rated their likeability, prosociality, withdrawal and aggressiveness. Table 4 shows the group comparisons. IA and RC obtained lower scores in likeability than CG ($p = .002$ and $p = .019$, respectively). IA and RC also obtained lower scores than the CG in prosociality ($p = .001$ and $p = .002$, respectively) and RC obtained higher scores than the CG in aggression ($p < .001$). The differences in aggression between IA and CG tended to statistical significance ($p = .066$). Non-significant differences between groups were observed in social withdrawal, although the effect size of the differences was medium.

Discussion

This study advances our knowledge of the relationships that adopted and institutionalised children maintain at school and provides evidence that children exposed to early adversity tend to present difficulties in their peer relationships later in the school years. In contrast with most existing research based on self-reports or information from parents and teachers, these results add highly valuable information directly provided by peers, including the study of sociometric status, sociometric perceptions, friendship and peer reports of social behaviours.

Peer Relations of Internationally Adopted Children

Sociometric Status and Social Preference. The analysis of the sociometric status showed a generally unfavourable situation for our IA group. Children in our sample adopted internationally from Russia are more likely to be rejected by their classmates. Specifically, 45.8% are categorised as rejected, a percentage much higher than the 15% in the comparison sample and in the normative samples (Cillessen &

Bukowski, 2018). Our findings differ from the study by Stams et al. (2000), in which internationally early-adopted girls were more popular and less rejected by their peers than normative samples. This difference is probably related to the gender of the children, their countries of origin, their pre-adoptive history and their ages at adoptive placement. The study by Stams et al. (2000) included a higher proportion of adopted girls than in our sample (in mixed classrooms girls from the normative population tend to be over-represented in the popular category and boys over-represented in the rejected category, Cillessen & Bukowski, 2018), as well as children adopted at earlier ages and from countries such as Colombia or Korea, where the material conditions in institutions are more favourable than in Eastern European countries (O'Connor et al., 2000).

Our findings also differ from the more positive portrait of adopted children's peer relationships described in the meta-analysis by DeLuca et al. (2018). The studies included in this meta-analysis did not consider sociometric information based on direct assessment by peers and this could explain the difference, together with the specific age of our sample, as discussed below.

The study by Palacios et al. (2013) on the same children at an average age of seven years reported a more favourable sociometric position of adopted children, with only 7% rejected by peers. Moreover, in that study, the adoptees were less likely to be ignored by their peers and had a high social impact in their group. The previous study was based on teachers' reports and research has shown that the attunement of teachers to the social status of their students is moderate (van den Berg et al., 2015). Also, the present study considers children in their late childhood or early adolescence, with previous research indicating more difficulties with peers as children adopted from Eastern Europe grow older (Julian & McCall, 2016), particularly during the early

adolescence years (Howard et al., 2004). No doubt, the 46% of rejection by peers reported here is a worrisome finding for our adoption group.

Friendship Relationships. The analysis of friendship shows a more favourable situation, since IA have an average of three reciprocal friends in the classroom. Nevertheless, when analysing the closest circle of friends, only 58% of adoptees have significant friends at school (reciprocal friends when the number of nominations is restricted to three). Some of these findings are consistent with previous research based on parents' and teachers' reports indicating that most internationally adopted children have quality relationships with their peers. For example, parents have reported that about 65% to 80% of post-institutionalised international adoptees have a best friend or a small group of friends (Humphreys et al., 2018) and 95% of adoptees report having friends (Cohen & Westhues, 1995; Hawk & McCall, 2014), similar to what sociometric information shows in this study. However, the reduction in significant friendship described here has not been reported beforehand. Together with the high level of rejection by peers, this is a worrying finding.

Sociometric Perceptions. Adopted children perceive being rejected by an average of two classmates, but they actually received an average of eight negative nominations. This means that these children's social perception is not entirely in line with reality. Some studies have shown that IA children with a history of institutional care tend to present more difficulties than normative samples in social information processing and in interpreting social cues (e.g. Wismer Fries & Pollak, 2004; Humphreys, 2018). These difficulties could explain the social misperceptions of the IA children in this study.

Peers Reports of Likeability and Social Behaviours. Our findings indicate that likeability in the group of peers is lower in IA than in the CG children. Additionally,

peers describe IA children as less prosocial and somewhat more aggressive than non-adopted children. This is consistent with prior studies showing that peer acceptance is poorer in international adoptees placed in their new families after their first months of life (Pitula et al., 2014). Prior literature has also suggested that, compared with their non-adopted peers, international adoptees are less prosocial and tend to share less when playing with other children (Pitula, Depasquale, Mliner, & Gunnar, 2017; Pitula et al., 2014).

Peer Relationships of Children in Residential Care

Sociometric Status and Social Preference. Compared with the other two groups in our study, the majority of children in RC occupy an intermediate sociometric position, although the percentage of rejected children is also high (26%) compared to the community group (15%). This sample of institutionalised children had been studied previously at an average age of seven years using teachers' reports (Palacios et al., 2013) and they already had more difficulties than normative samples in their integration in the group of peers. Other studies have also suggested that institutionalised children are more isolated (Martín & Muñoz de Bustillo, 2009; Vorria et al., 1998) and more rejected by schoolmates to do academic tasks (Martín et al., 2008) than the community children. In our study, compared with the IA group, the RC children were less likely to be rejected and more likely to be average. It is interesting that the lower sociometric status of IA children is not observed in our RC children. Since these children live in group settings, perhaps they develop the "hyper-cooperativeness" described by Keil et al. (2018) and this facilitates their integration in the peer group. Also, the institutional circumstances of these children are much better (e.g., material conditions, caretakers' training, children-caretakers ratio, integration in the schools of the community) than the

Eastern European institutions described in other studies (e.g., O'Connor et al., 2000; Rutter & the English and Romanian Adoptees study team, 1998).

Friendship Relationships. For RC children, this study reports that 90.5% have reciprocal friends in the classroom, with an average of between three and four. Previous studies, based on peers and self-reports, have reported higher percentages (from 50% to 66%) of institutionalised children with no reciprocal friends at school (Argumendo & Albornoz, 2006; Martín et al., 2011). What our study adds is that when the closest circle of three reciprocal nominations is considered, 31% of RC children have no significant friends in the classroom. In general, our results suggest that children in residential care have a network of reciprocal friends at school, although the size of this network is small when compared with normative samples, in line with other studies (Bravo & Fernández del Valle, 2003; Martín & Dávila, 2008).

Sociometric Perceptions. Children in residential care perceived a level of peer acceptance similar to the community children in our sample. However, these children were rejected by more peers than the ones they identified (on average, they received seven negative nominations but were able to identify four). Like happened in the adoptive group, the early maltreatment experiences of this group may have an impact on their social information processing. For example, in emotion recognition tasks, victims of abuse have greater difficulty interpreting facial expressions of joy or sadness (Gibb, Schofield, & Coles, 2009), or neutral or friendly expressions (Leist & Dadds, 2009). These results are also consistent with studies with normative samples suggesting direct and indirect relations between peer rejection and social information processing biases (e.g. Lansford, Malone, Dodge, Pettit, & Bates, 2010). As discussed above, it is possible that these difficulties in social information processing interfere with their perception of

peers' acceptance. If this is the case, the use of self-report measures of peer integration should be questioned for these groups of youngsters.

Peers Reports of Likeability and Social Behaviours. Our results show that peer ratings of likeability are significantly lower in institutionalised children than in the normative sample. Additionally, classmates describe institutionalised children are less prosocial and more aggressive than their peers. This information is consistent with the existing literature showing that peers in the classroom, teachers and caregivers tend to describe these children more negatively, with greater behavioural problems than their classmates and less able to solve conflicts (Attar-Schwartz, 2009; Martín et al., 2008).

In summary, based on the information provided by peers, our findings show significant differences in the peer relationships of children with early adversity compared to those with more normative trajectories. In this comparison, adopted and institutionalised children in our sample have a number of similarities: more negative nominations by peers, more negative than positive evaluations, fewer reciprocal friends, lower scores of likeability and prosociality. But the comparison also indicates that, on average, in their early adolescence years, the adoption group is more rejected by peers and has a lower percentage of significant friends in the classroom, while the institutionalised group is rated by their peers as more aggressive.

Strengths, Limitations, Future Lines of Research and Practical Applications

The use of peers as informants of the social integration of adopted and institutionalised children is uncommon in existing research. The rich information obtained through this direct assessment in the school context is one of the strengths of this article. However, access to these samples, as well as caregivers' and teachers' participation, are not simple tasks. The sample size was small (even though sociometric data was collected in 66 classrooms) and gender was not balanced in the adoptive

group, with the methodological consequences that this entails. Gender differences were observed in aggression and prosocial behaviour, but could not be controlled in further between-groups comparisons. Future studies with larger and more balanced samples could address this issue. Another priority for future research is to go deeper in the study of potential developmental cascades (Masten & Cicchetti, 2010) that could explain the peer integration difficulties experienced by these children, taking into account factors such as neurobiological risks, executive function or indiscriminate social engagement, among other things. Future studies with larger samples could also consider nested analyses to explore the effect of other contextual variables (e.g., classroom climate) on children's social integration.

This research provides key information for the intervention with adopted and institutionalised children. A proper identification of isolation or rejection by peers is a first necessary step, and for this the use of sociometric techniques seems advisable. Once identified, actions to improve these children's social skills, to promote their integration into their peer group and to avoid unfavourable circumstances (isolation, rejection) should be undertaken, coordinating efforts between families, protection centres and schools. Very often, the educational community is uninformed about the specific needs of children with early adversities. When this happens, it is unlikely that teachers are aware of the difficulties they may experience in the school context, which highlights the importance of developing strategies to strengthen cooperation between all those involved in promoting these children's personal and social development.

Conclusions

In their late childhood and early adolescent years, children adopted from Russia and those living in Spanish child protection centres show considerable difficulties in their relationships with peers in the school context. Similar in a number of problems,

they also show specific difficulties. Awareness of their problems and integrated work between families, protection centres and schools are necessary in the promotion of the social development of children like those studied herein. Child protection and education professionals are key to ensure that this happens.

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721 Table 1

722 *Indices of peer relationships obtained from the sociometric assessment*

Indexes	Description
Nominations expressed by the target child	
Positive nominations	Number of peers that the child likes being with
Negative nominations	Number of peers that the child dislikes being with
Positive perceptions	Number of peers that the child believes like to be with him/her
Negative perceptions	Number of peers that the child believes do not like to be with him/her
Nominations received by the target child	
Positive nominations	Number of peers who like being with the child
Negative nominations	Number of peers who do not like being with the child
Composite scores	
Reciprocal friendships	Number of peers who like being with the child and the child also likes being with them
Reciprocal enmities	Number of peers who do not like being with the child and the child does not like being with them either
Significant friendships	Number of reciprocal friendships when only the first three nominations of each child are considered
Social preference	Percentage of the difference between the number of peers who like being with the child and the number of peers who do not like being with the child
Opposing feelings	Number of cases in which the child positively nominates a peer and is negatively nominated by the latter, or the other way around
Sociometric status	Sociometric status (based on Coie, Dodge & Coppotelli, 1982): preferred, neglected, rejected, controversial, average

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Table 2

Sociometric status in adopted children, children in residential care and the community group

	Adopted group (n = 24)	Residential care group (n = 19)	Community group (n = 33)
Preferred	2 (8.3%)	1 (5.3%)	5 (15.2%)
Average	9 (37.5%)	11 (57.9%)	22 (66.7%)
Neglected	1 (4.2%)	1 (5.3%)	0 (0%)
Rejected	11 (45.8%)	5 (26.3%)	5 (15.2%)
Controversial	1 (4.2%)	1 (5.3%)	1 (3%)

Table 3

Average scores of the three groups of children in each index and comparisons between the groups

Measure	Group	*n*	*M*	*SD*	*Welch's F*	Effect size [a]	Pairwise comp.	Post hoc *p* values
Positive nominations expressed	CG	32	7.94	2.18	2.02	.049	CG-IA	.141
	IA	24	6.54	2.98			CG-RC	.556
	RC	19	7.05	3.29			IA-RC	.859
Negative nominations expressed	CG	32	3.97	2.47	0.47	.017	CG-IA	.999
	IA	24	3.96	2.91			CG-RC	.622
	RC	19	4.84	3.59			IA-RC	.663
Positive nominations received	CG	33	8.45	4.25	4.35*	.107	CG-IA	.014
	IA	24	5.58	3.20			CG-RC	.141
	RC	19	6.21	3.88			IA-RC	.838
Negative nominations received	CG	33	3.27	3.73	10.86***	.229	CG-IA	.000
	IA	24	8.25	4.80			CG-RC	.007
	RC	19	7.05	4.24			IA-RC	.664
Social preference	CG	33	25.12	32.69	10.01***	.225	CG-IA	.000
	IA	24	-11.25	31.24			CG-RC	.007
	RC	19	-2.32	27.68			IA-RC	.586
Reciprocal friendships	CG	32	5.44	2.74	6.39**	.158	CG-IA	.003
	IA	24	3.17	2.18			CG-RC	.033
	RC	19	3.58	2.29			IA-RC	.822
Reciprocal enmities	CG	32	0.75	1.22	5.00*	.101	CG-IA	.078
	IA	24	2.00	2.50			CG-RC	.035
	RC	19	1.95	1.75			IA-RC	.996
Opposing feelings	CG	32	1.22	1.16	2.02	.049	CG-IA	.232
	IA	24	1.92	1.79			CG-RC	.292
	RC	19	1.84	1.54			IA-RC	.988
Positive perceptions expressed	CG	32	5.16	3.23	3.43*	.068	CG-IA	.082
	IA	24	3.58	2.13			CG-RC	.972
	RC	19	5.37	3.25			IA-RC	.114
Negative perceptions expressed	CG	32	3.41	2.47	2.67	.073	CG-IA	.261
	IA	24	2.42	2.19			CG-RC	.555
	RC	19	4.32	3.28			IA-RC	.093

Note: CG = community group; *IA* = adoptive group; *RC* = Residential care group.

[a] Effect sizes = η^2_p (.01 small, .06 medium, .14 large).

*$p < .05$, **$p < .01$, ***$p < .001$.

Table 4

Peer ratings of likeability, prosociality, aggression and withdrawal for each group of children.

Measure	Group	*n*	*M*	*SD*	Welch's *F*	Effect size [a]	Pairwise comp.	Post hoc *p* values
Likeability	CG	28	.517	0.92	7.35**	.187	CG-IA	.002
	IA	24	-.432	0.97			CG-RC	.019
	RC	18	-.227	0.83			IA-RC	.741
Prosociality	CG	28	.588	1.05	8.95***	.234	CG-IA	.001
	IA	24	-.403	0.78			CG-RC	.002
	RC	18	-.378	0.74			IA-RC	.994
Withdrawal	CG	28	-.149	0.87	2.75	.077	CG-IA	.105
	IA	24	.375	0.94			CG-RC	.927
	RC	18	-.268	1.17			IA-RC	.151
Aggression	CG	28	-.494	0.91	9.82***	.200	CG-IA	.066
	IA	24	.122	1.01			CG-RC	.000
	RC	18	.606	0.76			IA-RC	.190

Note: CG = community group; *IA* = adoptive group; *RC* = Residential care group.

[a] Effect sizes = η^2_p (.01 small, .06 medium, .14 large).

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

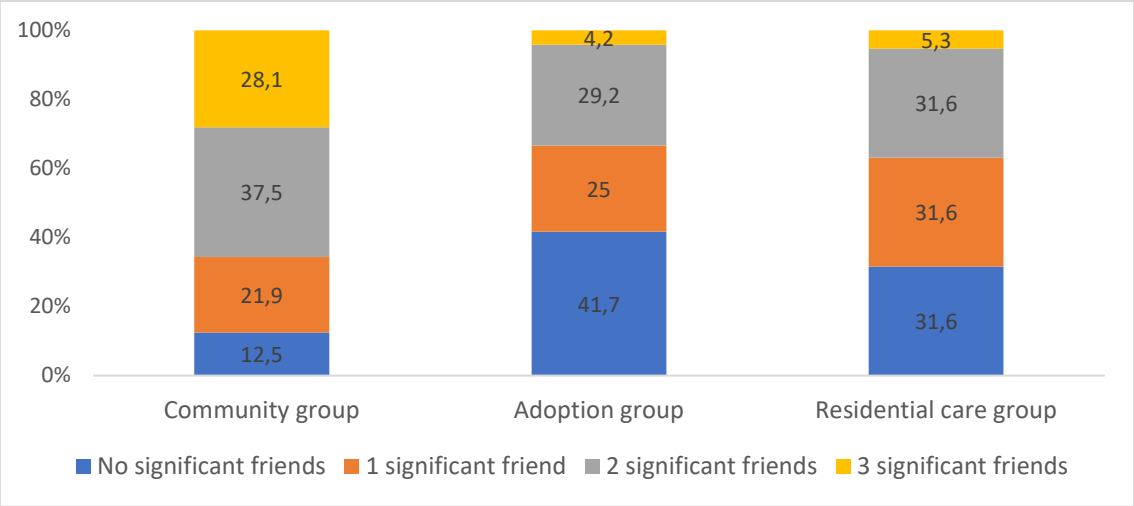

Figure 1. Percentage of children in each group with zero, one, two or three significant friends in the classroom.