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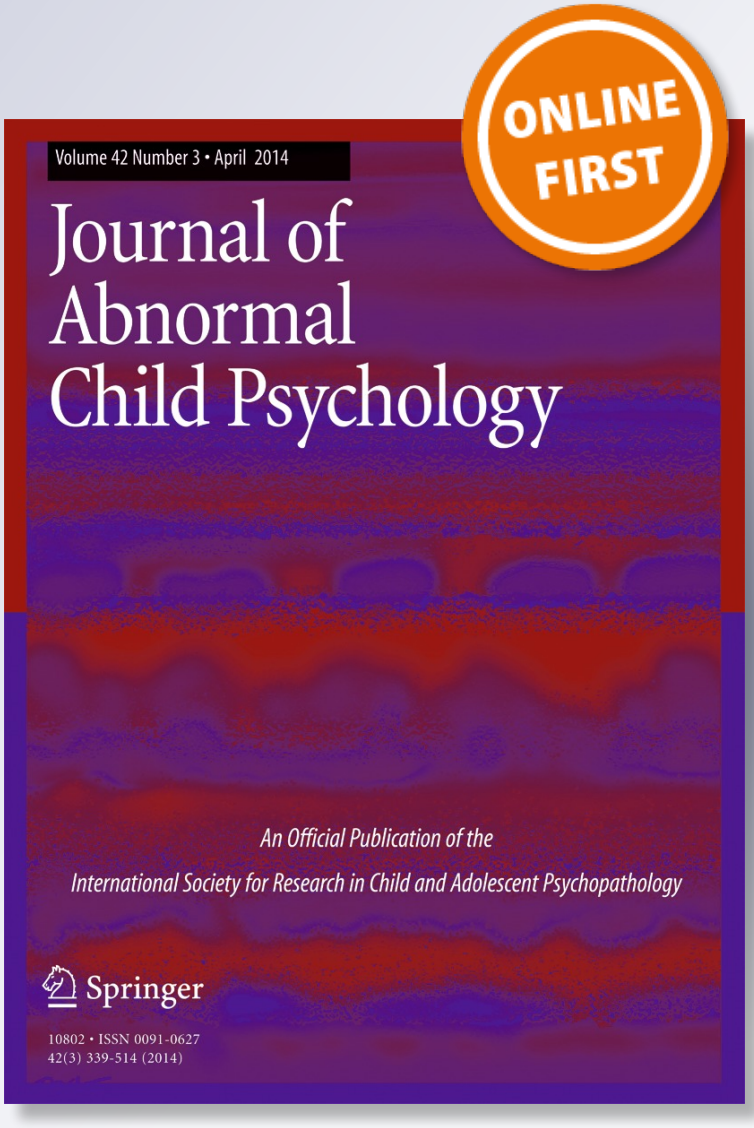

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Peer Victimization and Internalizing Symptoms Among Post-Institutionalized, Internationally Adopted Youth

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Early institutional or orphanage rearing, typically characterized by profound psychosocial deprivation, has been associated with adjustment difficulties that may persist long after adoption (for a review, see Gunnar 2001). In particular, post-institutionalized (PI) youth, especially those having experienced longer durations of adverse care, are more likely to show deficits in social cognition (e.g., Theory of Mind, Colvert et al. 2008b; Tarullo et al. 2007; emotion processing, Parker and Nelson 2005; Wismer Fries and Pollak 2004). These difficulties in recognizing and understanding others' thoughts and feelings are likely to hinder PI youths' ability to navigate social interactions with peers, which become increasingly complex in adolescence (Steinberg and Morris 2001). As such, PI youth may become targets of peers' rebuffs and abuse, common sequelae of social cognitive deficits in normative samples (e.g., Kaukiainen et al. 2002). Indeed, early institutional deprivation has been linked to elevated social problems in broad-based functional assessments (Groze and Ileana 1996; Gunnar et al. 2007; Hawk and McCall 2011), and several studies have described lower peer acceptance and difficulties forming and maintaining intimate friendships years after adoption (e.g., Hodges and Tizard 1989; Tizard and Hodges 1978).

Little research to date has examined distinct aspects of peer relations in PI populations. Often, numerous aspects of peer problems such as peer acceptance, isolation, and verbal and physical bullying have been combined into one scale for analysis (e.g., Rutter et al. 2001). Furthermore, because the focus has often been on youths' behavior (e.g., is she aggressive?) and not treatment by peers (e.g., is she victimized?), our understanding of PI children and adolescents' peer relations is somewhat one-sided. In one exception, Raaska et al. (2012) assessed self-reported experiences of bullying in 9- to 15-year-old internationally adopted youth, some of whom had experienced institutional care prior to adoption. Compared to youth raised in their natal families, younger adoptees were more likely to be victimized, while older adoptees were less likely to bully others. In turn, rejection and victimization by peers may promote emotional difficulties in PI children and adolescents. In normative samples, peer maltreatment has been associated with increases in internalizing symptoms (e.g., depression, loneliness; for a review, see Hawker and Boulton 2000). However, the relationship between peer victimization and emotional problems has not been examined in PI youth, despite research documenting heightened levels of internalizing problems in this population in adolescence (Colvert et al. 2008a; Tieman et al. 2005).

Thus, the present study examined multiple aspects of peer relationships, including peer aggression, victimization and rejection, in PI youth adopted as infants or young children compared to youth who were raised in their families of origin. This comparison group was selected to allow for an approximate match to PI participants on the basis of parent education and family socio-economic status. In addition to measuring overt forms of victimization, we also measured relational victimization (e.g., exclusion, friendship manipulation; Crick and Grotpeter 1995), as research has shown that it makes unique contributions to psychosocial adjustment (Crick and Grotpeter 1996). We expected that PI youth, particularly those having experienced longer durations of institutional care, would experience lower peer acceptance and more peer victimization. We also hypothesized that these experiences would mediate the relation between early institutional care status and internalizing symptoms. Given mixed findings regarding

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overt aggression in PI youth (e.g., Merz and McCall 2010; Gunnar et al. 2007), and the lack of information about relational aggression, we did not make strong predictions about whether these behaviors would be elevated. We also examined differences in prosocial behavior and social withdrawal, because these behaviors are important predictors of social adjustment (e.g., Boivin et al. 1995; Crick 1996). Based on studies of domestic and international adoptees, we hypothesized that being older at adoption (i.e., 12 months or older) would be associated with more negative outcomes (for a review, see Zeanah et al. 2011). Finally, we explored whether gender moderated the associations between early institutional care and peer functioning. Some studies of PI children have reported more adverse effects for boys compared to girls, for instance, with respect to behavior problems and peer victimization (Bos et al. 2011; Raaska et al. 2012), though others find no gender interactions (Gunnar et al. 2007; Juffer and Van IJzendoorn 2005). Given these mixed findings, we explored but did not make directional predictions for gender effects.

Method

Participants

Participants were 568 post-institutionalized (PI) and 301 never-institutionalized, non-adopted (NA) youth, aged 8.5 through 14.0 years (PI: *M* age=11.5 years, *SD*=1.5; NA: *M* age=11.0 years, *SD*=1.6). PI participants originated from 24 countries, with the majority from China (34.9 %), Russia (20.4 %), India (11.3 %), Colombia (6.5 %), Vietnam (5.1 %), and Romania (4.9 %). Most (78.2 %) had spent at least 90 % of their pre-adoption lives in institutional care, with the duration of institutional care ranging from 1.5 to 58.0 months. All PI participants were adopted by the time they were 6 years old (*M*=15.9 months, *SD*=12.8, range 1.5 to 72 months) and had been living in their adoptive families for at least 6 years.

In order to compare the PI youth to NA youth, who would be missing data if a continuous measure of deprivation were used, we divided the PI participants into earlier adopted (EA: adopted between 1.5 and 11.5 months, *M* 7.5; *n*=284, 74.6 % female) and later adopted (LA: adopted between 12 and 72 months, *M* 24.4; *n*=284, 67.6 % female) groups. We used age at adoption rather than duration of institutional care because we were interested in the *timing* of deprivation; nevertheless, adoption age and duration of institutional care were highly correlated (r=0.93, p<0.001). EA youth were slightly more likely to have been adopted from Southeast Asian countries (50.7 % of EA), and LA youth from Russia or Eastern Europe (47.5 % of LA), χ^2 (2, N=568)=71.27, p<0.001. NA participants (58.5 % female; ethnicity 90 % non-Hispanic white) were chosen to provide a rough match on parental education and family income to the families who adopted internationally. Nonetheless, household yearly income was slightly but significantly lower among the NA than among either of the PI groups, χ^2 (18, N=837)=143.87, p<0.001. Moreover, all three groups differed in terms of parental education, with the highest education in the EA (median=greater than 4-year degree) and the lowest in the NA group (median=4-year degree), χ^2 (6, N=855)=61.74, p<0.001. Parent education and income were used as covariates in all analyses.

Procedure

PI participants were recruited from a registry of parents interested in having their internationally adopted children participate in research. This registry reflected 60–75 % of all families adopting from countries using institutional care in the time frame of the study (Hellerstedt et al. 2008). In cases where both adoptive parents provided responses (70 % of participants), these were averaged. The University of Minnesota Institutional Review Board approved all procedures. NA youth were drawn from the Wisconsin Study of Families and Work (Hyde et al. 1995), in which mothers provided data on 480 children in the spring of grades 3, 5, and 7. All procedures were approved by the University of Wisconsin Institutional Review Board. To equate age at assessment between PI and comparison youth, we randomly selected one assessment per child of the three available for the comparison group. Despite this selection, comparison youth remained younger on average than PI participants, so age at assessment was used as a third covariate.

Measures

Demographics and Background Respondents provided information about family income and education of the primary caregiving parent (this was the mother in 91 % of cases). Adoptive parents provided information about their child's adoption history (birth country, age at adoption, and duration of institutional care).

Peer Relations and Internalizing Measures Parents completed the MacArthur Health and Behavior Questionnaire (HBQ; Boyce et al. 2002; Essex et al. 2002), Parent-Form, version 2.1, for Late Childhood and Adolescence (9–18 years). The present analyses used the HBQ subscales that assess 1) overt aggression (8 items), 2) relational aggression (7 items), 3) peer acceptance (8 items), 4) overt victimization (5 items), 5) relational victimization (6 items), 6) prosocial behavior (10 items), 7) social withdrawal (11 items), and 8) internalizing symptoms (42 items assessing problems with depression, separation anxiety, and generalized anxiety). Because the relational victimization subscale was only added in the third assessment period in the Wisconsin study, all relational

victimization scores come from grade 7 for the NA participants (n=280, 165 female, M age=13.2 years). All subscale alpha coefficients were greater than or equal to 0.78, with one exception. Overt aggression had lower alphas (0.58 and 0.61 in grades 3 and 5, respectively) in the Wisconsin sample in elementary school, but at those assessments the variable included only four items covering both physical and verbal aggression; thus, the observed alphas are acceptable given scale breadth and the limited number of items. Moreover, when we computed a second version of overt aggression in the adoptive sample that included only the items available at the early Wisconsin waves, the short and long versions were correlated at 0.91. This suggests that, although the 4-item version available in the grade 3 and grade 5 Wisconsin data may have reduced internal consistency, it does effectively tap the underlying construct as measured by the 8-item scale.

Data Analytic Plan

All dependent variables but two were positively skewed and so were base-10 log-transformed for all subsequent analyses. Peer acceptance and prosocial behavior were negatively skewed; these subscales were reflected before applying the log transformation. Transformation resulted in acceptable skewness values, ranging from 0.25 to 1.92 (e.g., West et al. 1995). We used multivariate analysis of variance (MANCOVA) within a general linear model (GLM) framework to examine the six peer relationship measures (with the exception of relational victimization, see below) as dependent measures, group (NA, EA, LA) and sex as grouping factors, and family income, education of primary caregiver, and child's age at assessment as covariates. Note, the magnitude of the correlation among the dependent variables meets requirements of MANCOVA (Brace et al. 2006). Because relational victimization was only available at NA youths' third assessment period, we conducted a separate ANCOVA for this measure, including the same factors and covariates as our larger MANCOVA and substituting NA participants' age at this specific assessment. Finally, we conducted a series of linear regression analyses using only PI participants to verify that results for the dichotomized PI sample held when age at adoption was examined continuously (adjusted ps=0.007).

Procedures recommended by Preacher and Hayes (2004) were followed to test the hypothesis that peer acceptance and victimization mediated the relationship between PI status and internalizing symptoms. Five thousand bootstrap resamples were used to generate confidence intervals that estimated the size and significance of the indirect effect. Three mediation models were conducted with group (NA, EA, LA) as the independent variable, internalizing symptoms as the dependent variable, and the peer scale (overt victimization, relational victimization, or peer acceptance) as the potential mediator. Family income, parental education, and child sex and age were entered as covariates. Significance thresholds were corrected for multiple comparisons (p=0.012 and CI 99 %).

Results

Descriptive statistics and correlations among dependent variables are shown in Table 1.

Effects of Covariates and Child Sex

Results of the MANCOVA showed a significant multivariate effect of child's age (Hotelling's T=0.05, F(6, 815)=7.22,

Table 1 Correlations among dependent variables

Measure	1	2	3	4	5	6	7	8
1. Overt Aggression	-							
2. Relational Aggression	0.55**	-						
3. Peer Acceptance	0.43**	0.39**	-					
4. Overt Victimization	0.29**	0.47**	0.67**	-				
5. Relational Victimization	0.30**	0.37**	0.70**	0.68**	-			
6. Prosocial Behavior	0.29**	0.34**	0.26**	0.25**	0.39**	-		
7. Social Withdrawal	0.11**	0.15**	0.27**	0.23**	0.39**	0.33**	-	
8. Internalizing Symptoms	0.33**	0.38**	0.48**	0.46**	0.46**	0.21**	0.46**	-
Mean	0.16	0.14	3.44	1.36	1.51	1.46	0.53	0.34
SD	0.25	0.23	0.57	0.44	0.53	0.39	0.37	0.25
N	869	868	869	869	848	867	869	868

Correlations are shown for log-transformed (and, in the case of peer acceptance and prosocial behavior, reflected) variables. Means and SDs are shown for variables prior to transformation; peer acceptance and overt and relational victimization items are rated from 1 to 4; the remaining subscales/scale are rated from 0 to 2

** p<0.01

$p<0.001$, $\eta_p^2=0.05$) and household income (Hotelling's T=0.03, $F(6, 815)=4.11$, $p<0.001$, $\eta_p^2=0.03$). Univariate follow-up tests showed a main effect of child's age for overt and relational aggression ($ps<0.05$), such that older children were less aggressive. Children living in families with a lower household income had greater rates of overt aggression, overt victimization, and social withdrawal, and lower rates of prosocial behavior (all $ps<0.05$). No significant effects of covariates were found for relational victimization.

As expected, there was a significant multivariate effect of child sex on peer measures, Hotelling's T=0.20, $F(6, 815)=26.88$, $p<0.001$, $\eta_p^2=0.17$. Univariate follow-up tests, presented in Table 2, yielded main effects of sex on overt aggression, peer acceptance, overt victimization, and prosocial behavior. Bonferroni-corrected pairwise comparisons showed that boys were described as more overtly aggressive, less peer accepted, more overtly victimized, and less prosocial than girls. No sex differences in relational aggression or victimization were present. However, as in other studies (e.g., Crick and Bigbee 1998), we further analyzed relational aggression and victimization while controlling for their overt counterparts. When we did this, girls were described as more relationally aggressive and victimized than boys ($ps<0.001$). Sex and group did not interact, indicating that this was true for both PI and NA girls.

Group Differences

Multivariate tests revealed a significant multivariate effect of group, Hotelling's T=0.22, $F(12, 1628)=15.09$, $p<0.001$, $\eta_p^2=0.10$. Univariate follow-up tests show significant main effects of group on overt aggression, peer acceptance, overt victimization, and prosocial behavior (see Table 2). The univariate ANCOVA conducted on relational victimization also showed a main effect of group, $F(2, 801)=6.76$, $p<0.01$, $\eta_p^2=0.02$. Bonferroni-corrected post hoc tests revealed that PI youth were *less* overtly aggressive than NA youth; EA youth were the least aggressive. Peer acceptance and overt and relational victimization exhibited a different pattern, with EA and NA youth not differing significantly from one another and LA youth showing lower peer acceptance and greater victimization than EA and NA participants. Finally, NA youth were more prosocial than EA youth, who were more prosocial than LA youth (all adjusted $ps<0.05$).

Table 2 Significant F-tests for univariate follow-up tests

Measure	Effect	*MS*	*F*	df_1, df_2
Overt Aggression	Group	0.10	18.50***	2, 820
	Sex	0.30	58.28***	1, 820
Peer Acceptance	Group	0.35	18.07***	2, 820
	Sex	0.09	4.79*	1, 820
	Group by sex	0.10	5.36**	2, 820
Overt Victimization	Group	0.03	6.16**	2, 820
	Sex	0.20	41.01***	1, 820
	Group by sex	0.03	7.05**	2, 820
Prosocial Behavior	Group	0.26	26.10***	2, 820
	Sex	0.47	46.49***	1, 820

All dependent variables were log-transformed before analyses (peer acceptance and prosocial behavior were negatively skewed, so were reflected before log transforming)

*** $p<0.001$, ** $p<0.01$, * $p<0.05$

Group-By-Sex Interaction

MANCOVA findings revealed a significant group-by-sex interaction effect at the multivariate level, Hotelling's T=0.03, $F(12, 1628)=1.93$, $p<0.05$, $\eta_p^2=0.01$. Follow-up tests showed a significant univariate interaction effect for peer acceptance and overt victimization (see Table 2). In addition, univariate ANCOVA yielded a significant group-by-sex interaction effect on relational victimization $F(2, 801)=4.37$, $p<0.05$, $\eta_p^2=0.01$. To unpack these findings, tests of simple effects of group within sex were conducted. For boys and girls, simple effects were significant for all three variables – peer acceptance, overt and relational victimization – although the effects were stronger for boys. Thus, for boys, $F(2, 274)$ values ranged from 6.38 to 13.69, $ps<0.01$, while for girls, $F(2, 545)$ values ranged from 3.50 to 4.34, $ps<0.05$. Bonferonni-corrected post-hoc tests showed that for peer acceptance among both boys and girls, LA youth were less accepted than both EA and NA youth (although the difference between LA and EA youth was only marginally significant in girls, adjusted $p=0.05$). For boys, LA youth were significantly more overtly and relationally victimized than NA youth, with EA youth in the middle and not different from either group (see Fig. 1). Among girls, LA youth were more victimized than EA participants, with NA youth in the middle and not different from other groups (adjusted $ps<0.05$).

Regression Analyses

Regression analyses using only PI participants demonstrated that, after entering age at assessment and sex, a continuous index of age at adoption (square root transformed to correct positive skew) significantly predicted greater overt aggression ($\beta=15$), lower peer acceptance ($\beta=25$), greater overt ($\beta=19$) and relational victimization ($\beta=15$), and lower prosocial behavior ($\beta=12$) (all $ps<0.007$), replicating the group effects reported above.

Mediation Analyses

First, we examined whether overt victimization mediated the relation between group (NA, EA, LA) and internalizing

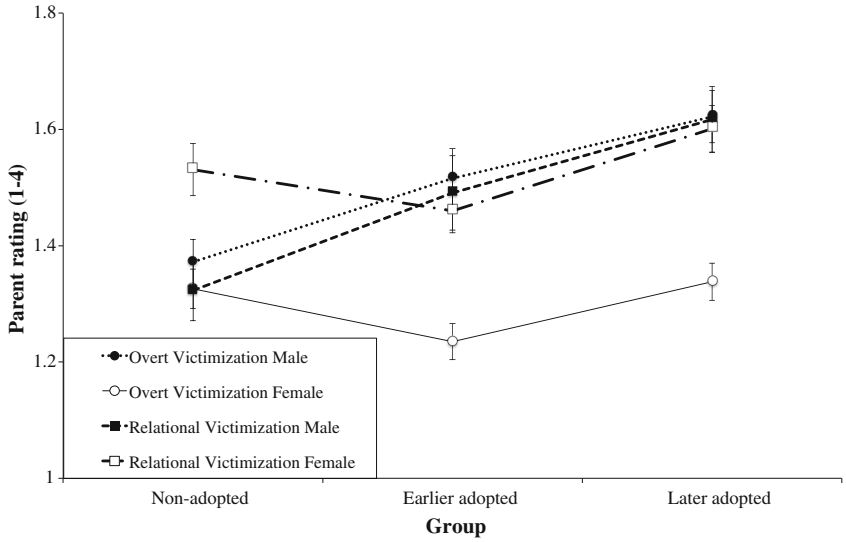

Fig. 1 Parent ratings of overt and relational victimization for non-adopted, earlier adopted, and later adopted participants. Mean scores are corrected for age, family income, and parental education. Standard error bars are shown

symptoms. Group predicted overt victimization, $t(824)=2.97$, $p<0.01$, and internalizing symptoms, $t(824)=2.65$, $p<0.01$. After controlling for group, overt victimization predicted internalizing symptoms, $t(824)=15.64$, $p<0.001$. The indirect effect of group on internalizing symptoms via overt victimization was significant, $z=2.91$, $p<0.01$. In the second analysis, group predicted relational victimization, $t(803)=3.21$, $p<0.01$; after controlling for group, relational victimization predicted internalizing symptoms, $t(803)=14.64$, $p<0.001$. The indirect effect was significant, $z=3.12$, $p<0.01$. Finally, group predicted peer acceptance, $t(824)=5.47$, $p<0.001$, and after controlling for group, peer acceptance predicted internalizing symptoms $t(824)=14.44$, $p<0.001$; the indirect effect was significant, $z=5.10$, $p<0.001$. Bootstrapped confidence intervals for all indirect effects did not contain zero. In sum, the three mediation hypotheses were supported.

Discussion

As predicted, PI youth adopted by US families were reported by parents to have more peer problems than were US-born youth raised in their natal families. However, PI youth did not score more poorly on every aspect of peer relationships. PI youth were less, rather than more, overtly aggressive towards peers. These findings are consistent with the results of a meta-analysis showing that externalizing problems are not particularly elevated among internationally adopted youth (Juffer and van Ijzendoorn 2005) and with evidence that international adoptees in Finland are less likely to be classified as bullies than comparison youth (Raaska et al. 2012). In contrast with overt aggression, we did not find group differences in relational aggression. Relational forms of aggression may be most difficult for parents to judge, as these are subtle and may depend on information that goes beyond the immediate act (e.g., knowledge of friendships and peer group dynamics; Crick et al. 1999).

A history of institutional deprivation was associated with greater overt and relational victimization, particularly among later adopted youth. These findings are consistent with a previous study showing higher rates of peer victimization in 9- to 10-year-old international adoptees (Raaska et al. 2012). Raaska et al. (2012) did not report increased victimization in older participants (11–15 years), but we did see this in our PI youth, who averaged 12 years of age. It may be that victimization will decrease for our participants as they move out of middle school, a period of peak bullying (Nansel et al. 2001). While previous studies of institutional effects have included items on overt and, less frequently, relational victimization in assessing social problems, the present study is the first to report on these as separate constructs. Although the high correlation between forms of victimization may suggest that parents had difficulty differentiating overt from relational subtypes, the two types of victimization are also known to co-occur at this age (Crick and Grotpeter 1996). In addition to being the most victimized, later adopted youth were also the least peer-accepted. Peer victimization and acceptance have shown parallel associations in normative samples using standard peer nomination instruments (e.g., Hodges and Perry 1999). Taken together, results suggest that early deprivation, particularly if it is experienced for a prolonged period of time, is related to a constellation of peer problems characterized by peer dislike and maltreatment.

The processes underlying vulnerability to peer bullying remain to be examined in PI youth. For instance, problems with social skills may help explain PI youth's victimization experiences. We found that PI youth were rated as less prosocial towards peers than were comparison subjects, with later adopted youth exhibiting the least prosocial behavior. This is concerning, given that lower levels of prosocial

behavior have been shown to predict social maladjustment (e.g., Crick 1996). Youth who proffer fewer offers to share with, help, and include peers in activities may have difficulty initiating friendships and are likely to be passed over in favor of more prosocial peers when friendships are being formed. Another common correlate of peer victimization is social withdrawal (e.g., Schwartz et al. 1998). Yet, we did not find PI youth in our sample to be more withdrawn than comparison subjects. Instead, previous research suggests that PI children tend to act overly friendly in their social interactions with many adults and children (e.g., O'Connor et al. 1999). More broadly, problems with peer victimization and acceptance may reflect difficulties navigating the social landscape, including deciding how to behave, who to talk to, what to say, and what not to say. These difficulties may result from deficits in social awareness, or social cognition, which have been shown to increase with longer durations of institutional care in previous research (e.g., Tarullo et al. 2007; Wismer Fries and Pollak 2004).

Sex Differences in Peer Functioning

Consistent with previous research (e.g., Crick and Bigbee 1998; Crick and Grotpeter 1995), boys were rated higher on overt aggression and victimization than girls and, when we controlled for their lower levels of overt aggression, girls emerged as more relationally aggressive and victimized. This pattern of sex differences was noted regardless of adoption status. However, other sex differences did differ by group. For instance, male adoptees, especially those adopted later, experienced lower peer acceptance and more victimization, whereas, among girls, the difference between groups was less pronounced and earlier adopted girls appeared to fare as well, if not better, than non-adopted girls. Previous research has also shown poorer outcomes in PI boys (e.g., Bos et al. 2011; re: victimization, see Raaska et al. 2012). The present findings extend this work by indicating additional sex differences in peer acceptance and prosocial behavior, and by highlighting the greater impact of later adoption on boys' peer functioning. This pattern of results may suggest distinct developmental trajectories for the social development of boys and girls who experience early psychosocial deprivation.

Relationship with Internalizing Symptoms

As predicted, overt and relational victimization and lower levels of peer acceptance mediated the relationship between PI status and internalizing symptoms, mirroring the mental health implications of victimization in normative populations (e.g., Hawker and Boulton 2000). Evidence that early institutional care increases anxiety and depression is mixed: elevated internalizing problem have typically not been found, particularly in childhood (Juffer and Van IJzendoorn 2005), although they may emerge in adolescence (Colvert et al. 2008a). Our results suggest that peer victimization, an especially salient stressor in adolescence, may be involved. On the other hand, pre-existing internalizing problems may also increase risk for subsequent victimization (Reijntjes et al. 2010). Unfortunately, the cross-sectional nature of this study precludes conclusions regarding directionality.

Limitations and Conclusions

The present findings are bolstered by a particularly large sample of participants for studies of PI youth; due to recruiting through the International Adoption Project, our PI group is representative of international adoptees in Minnesota. As an additional strength, the study included a large comparison group. However, a possible limitation concerns the degree of similarity between our PI and comparison groups. In the comparison sample, lower SES predicted greater overt and relational aggression. Thus, although we controlled for SES in all analyses, it is unclear how results might change if we drew our comparison sample from a level of SES equivalent to our PI youth. Additionally, in the present study we relied on parents' *perceptions* of their children's peer experiences. It is possible that parents of adoptees over-reported certain problem areas in the hopes of drawing attention to their children's needs. Although the HBQ incorporates well-validated items drawn from widely-used measures, and parents' reports of aggression often correlate with peers' reports (Crick et al. 1999), future studies should include multiple informants of PI youth's social experiences, including teachers, peers, and trained observers. Finally, the low observed alpha for one dependent variable (overt aggression) in the comparison sample raises the possibility that the four items comprising the subscale may be tapping somewhat heterogeneous constructs. However, in the later version of the instrument, used with all PI participants and with some comparison youth, the overt aggression subscale included additional items and achieved an acceptable alpha; the short and long versions of the subscale were also highly correlated among PI youth. This suggests that the earlier version does effectively tap the underlying construct as measured by the longer scale.

Although our sample size in the present study was insufficient to allow for formal comparisons between birth regions, it is possible that participants' post-adoption functioning was influenced by their region of origin. For example, there is evidence that certain groups of adoptees are at greater behavioral risk because of more adverse prenatal care (Johnson 2000). In addition, ethnic minority status has been shown to increase risk for peer victimization in a Finnish sample (Strohmeier et al. 2011). However, in the present sample, there were more Southeast Asian youth in the earlier adopted group, which was faring better, and more youth of Russian or Eastern European origin – who are mainly Caucasian – in the later

adopted group, which was faring more poorly. Given this, it seems unlikely that ethnic minority status can account for the findings of increased peer problems in later adopted youth. As a final caution to interpretation, effect sizes – while statistically significant – are generally small.

Limitations notwithstanding, the present study provides evidence for the importance of peer relationship functioning following adverse early experiences. Rather than conferring a general risk for nonspecific social problems, early institutional care was associated with specific risk for peer victimization and rejection in adolescence, and these difficulties were associated with heightened emotional problems. The present findings stress the need to promote effective peer skills in PI youth, and this may be especially true in boys. Further research is also needed to clarify social cognitive processes that may place some internationally adopted youth at risk for victimization. Such work has the potential to provide important insight into the impact of early deprivation on the development of peer competence and may prove useful for designing interventions to improve the functioning of youth who begin their lives under conditions of deprivation and socio-emotional neglect.

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