

Peer Relations of Children with Incarcerated Parents

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Abstract

Having a history of parental incarceration is associated with an increased risk for numerous challenges. The present study examined several factors of peer relations among children with incarcerated parents and their peers to determine if problematic peer relations play a role in the difficulties these children experience. Participants were 77 elementary school children and their caregivers from a high-crime, high-poverty neighborhood, over half of whom had experienced parental incarceration. Caregivers assessed their child's social behavior and problem behaviors, and, during the course of an interview, children's helping behavior was assessed through a behavioral measure. Children with incarcerated parents displayed significantly more aggressive behavior than their peers and, according to their caregivers, they also tended to have more aggressive social behavior and to engage in greater relational aggression. Because aggression is an important indicator of problematic peer relations, it is very likely that the increased difficulties that children with incarcerated parents face are partially related to additional challenges with their peer relations.

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Peer Relations of Children with Incarcerated Parents

Peer relations are strongly linked to children's outcomes in adolescence and adult life, particularly affecting social, emotional, and academic factors (Ladd, 1999). Experiencing peer acceptance predicts success at school and social adjustment, whereas experiencing peer rejection is associated with increased risk for many difficulties, including depression, anxiety, antisocial behaviors, and juvenile delinquency. Children's relations with their peers are strongly affected by prosocial behaviors, like cooperating, sharing, or helping others. Behaving prosocially is a stable predictor of peer acceptance (Bierman, 1987), whereas peer rejection is elicited by behaving aggressively and not acting prosocially. The family also plays a role in peer relations, as children from families that emphasize antisocial behavior are potentially more likely to be rejected by their peers or befriend other children with antisocial tendencies.

This paper will examine the peer relations and prosocial behavior of children who have experienced parental incarceration. Children with incarcerated parents experience both similar social, emotional, and academic difficulties as children who are rejected by their peers (Murray & Farrington, 2005; Myers, Smarsh, Amlund-Hagen, & Kennon, 1999) and also come from families that would potentially put them at risk. In the current study, indicators of the quality of children's peer relations, as well as their likelihood to engage in prosocial behavior, are assessed. Comparisons will be made between children who have experienced parental incarceration and their classmates who have no history of parental incarceration.

Peer Relations

Peer relations involve the average opinion of group members towards individuals in the group. Instead of reflecting a dyadic tie such as friendship, levels of peer acceptance illustrate how well liked or disliked a child is, on average, by the members of his or her peer group (Buhs

& Ladd, 2001). The principal method for categorizing a child's peer relations is through sociometric classification (Coie & Dodge, 1983). Through sociometric classifications, children nominate the three classmates they would most like to work or play with and the three classmates they would least like to work or play with. Children are classified as popular if they receive many positive nominations from their classmates and few negative nominations. Being classified as popular has been associated with sociability and success at school (Austin & Draper, 1984; Newcomb, Bukowski, & Pattee, 1993). Popular children tend to be socially skilled, well regulated, and low in aggression. Children are classified as neglected if they receive few positive or negative nominations, as controversial if they receive many positive and many negative, and as average if they receive an average number of positive and negative nominations. Children who are classified as rejected receive few positive nominations from their peers, but many negative. Rejected children are categorized as aggressive-rejected if they are prone to threatening and disruptive behavior (Hinshaw, Zupan, Simmel, Nigg, & Melnick, 1997), or as withdrawn-rejected if they are socially withdrawn and often isolated from their peers. Children who experience peer rejection do not have positive experiences with their peers (Parker & Asher, 1987) and are especially at risk for difficulties later in life.

Experiencing rejection is strongly linked to both engaging in victimization or bullying and being the recipient of peer victimization. In a sample of 380 children, followed longitudinally from kindergarten to fifth grade, Buhs, Ladd, and Herald (2006) found that children who were less well accepted by their peers in kindergarten were at greater risk for experiencing peer abuse (victimization) in later grades. Additionally, in the same sample, ratings of aggressive behavior in kindergarten predicted chronic peer victimization, indicating that more aggressive children were more likely to experience victimization. The literature has also solidly

established that aggression is associated with peer rejection. A meta-analysis of 41 studies related to sociometric classification indicated that rejected children, in comparison with average children, show elevated levels of aggressive behavior (Newcomb et al., 1993). Furthermore, longitudinal research has illustrated that children who behave aggressively tend to become increasingly disliked by peers during the school year (Little & Garber, 1995). In order to better understand the experiences of children who are rejected by their peers, this study will specifically examine children's peer experiences of victimization and aggressive behavior.

Central factors affecting peer relations are children's prosocial behavior and levels of empathy. Prosocial behavior involves children's display of positive behaviors, communication skills, emotion regulation skills, social awareness, and sensitivity (Bierman, 2004). Empathy, the ability to understand and share in another's emotional state or context (Cohen & Strayer, 1996), is an important component of prosocial behavior. In a study of 131 nine to ten year old children, prosocial children displayed greater empathic awareness than both bullies and victims of relational or physical aggression (Warden & MacKinnon, 2003), illustrating the strong connection between prosocial behavior and empathy.

Prosocial behaviors are a stable predictor of peer acceptance (Bierman, 1987), whereas aggressive or disruptive behaviors elicit peer rejection. Children who cooperate, share materials, invite others to play, and take turns are attractive playmates. They are viewed as friendly, nice, kind, and considerate (Coie, Dodge, & Kupersmidt, 1990) and, as a result, are frequently well-liked by their peers. Children who behave in prosocial ways are more popular than children who are not as prosocial, largely because they have a better capacity to respond constructively to socially difficult situations and are more aware of the possible negative consequences of their actions than children who victimize others (Warden & MacKinnon, 2003). Because of the strong

connection between prosocial behaviors and peer relations, it is not surprising that they are associated with similar life outcomes.

Peer Relations and Children's Outcomes

Peer relations, prosocial behavior, and empathy are strongly linked to outcomes later in life. Additionally, because of the strong connection between having problematic peer relations and engaging in bullying or being the recipient of peer victimization, it can be inferred that most outcomes associated with peer rejection are also associated with engaging in bullying or experiencing victimization. In general, children who experience peer rejection, lack prosocial behavior, or have low levels of empathy are at an increased risk for numerous difficulties both during childhood and adulthood, including engaging in aggressive, violent, or criminal behaviors.

Peer group rejection is often associated with aggressive and destructive behaviors (Parker & Asher, 1987), and a lack of prosocial behavior increases a child's risk for becoming more aggressive (Caprara, Dodge, Pastorelli, & Zelli, 2006). Children's involvement in violent acts is also affected, as having high levels of empathy contributes to violence avoidance efficacy beliefs, which involves how certain children are in their ability to stay away from a fight, seek help instead of fighting, and keep from getting in a fight. These beliefs lead to an increased confidence that one can negotiate violent situations without fighting, which, in turn, reduces violent behavior (Jagers, Sydnor, Mouttapa, & Flay, 2007). In a meta-analysis of 35 studies, empathy was negatively related to offending, with a particularly strong relationship between low empathy and violent offending (Jolliffe & Farrington, 2004). In addition to a higher risk for aggression and violence, children who are less accepted by their peers are one and a half to two times more likely to become delinquent prior to age 14, compared to other children (Roff, 1975;

Roff, Sells, & Golden, 1972). Furthermore, in a sample of 167 urban children with high exposure to psychosocial adversities (e.g., family financial problems, parent substance use, violence), prosocial involvement predicted lower rates of delinquency behaviors at ages 13-15 (Kaufmann, Wyman, Forbes-Jones, & Barry, 2007).

Poor peer relationships in childhood may also foreshadow adjustment problems in adolescence and adulthood (Parker & Asher, 1987). In a longitudinal study of 60 young adults who were initially assessed while in fifth grade, peer rejection during preadolescence was strongly associated with poorer overall life status adjustment in later life (Bagwell, Newcomb, & Bukowski, 1998). The risk of developing internalizing and externalizing problem behaviors is also increased. Children's general prosocial tendencies were negatively associated with externalizing problems (Hay & Pawlby, 2003). In a sample of 407 children followed longitudinally from grade 3 through grade 10, children classified as rejected in third grade were found to be higher than their peers in externalizing and internalizing symptoms when assessed again during adolescence, even seven years after their initial assessment (Coie, Terry, Lenox, Lochman, & Hyman, 1995).

Experiencing peer rejection is also associated with mental health problems. Higher levels of peer rejection in childhood were found to be related to greater psychological maladjustment in young adulthood in a longitudinal study of 60 participants (Bagwell et al., 1998). Peer rejection contributes directly to anxiety, depression, and anger (Parker & Asher, 1987) and can also exacerbate existing behavioral and emotional adjustment difficulties (Parker, Rubin, Price, & DeRosier, 1995). As a result of this increased risk for psychological difficulties, a disproportionate number of rejected children experience mental health problems and antisocial behavior as adults (Parker et al., 1995).

Because academic pursuits take place in a social context, peer rejection might undermine academic competence (Hymel, Comfort, Schonert-Reichl, & McDougall, 1996). In general, children who are rejected have problematic academic profiles (Wentzel & Asher, 1995). One study found that about 25% of low-accepted elementary school children dropped out of high school, compared to about 8% of other children (Parker & Asher, 1987). Rejected children also have higher rates of absenteeism (DeRosier, Kupersmidt, & Patterson, 1994), lower grade-point averages (Wentzel & Caldwell, 1997), and are much more likely than other children to repeat a grade or be suspended from school, to be truants, or to drop out (Kupersmidt & Coie, 1990). Rejected children's increased risk for experiencing academic difficulties is significant, as it has the potential to limit children's educational attainment and financial success later in life.

A central factor in the problems experienced by rejected children is the increased vulnerability that is associated with rejection. Without the support of friends, these children are inordinately vulnerable to both normative stressors, like school transitions, and nonnormative stressors, like the death of a parent or possibly parental incarceration (Asher & Parker, 1989). This high level of vulnerability can sometimes lead to increased aggression and escape behaviors, such as substance abuse or truancy (Parker & Asher, 1987).

The Influence of the Family on Peer Relations

The family plays a major role in both children's peer relations and prosocial behavior, as children's experiences with their families directly influence how they interact with others. This relationship frequently leads children from at-risk families to have difficulties in their relationships with peers at school and an increased risk for peer rejection. Socialization in the family is also the primary environmental influence on the development of prosocial behavior. Children imitate the prosocial behavior of adults with whom they have a positive relationship

(Hart & Fegley, 1995), particularly their parents, which illustrates why parents and children are similar in their prosociality (Stukas, Switzer, Dew, Goycoolea, & Simmons, 1999). Parents provide opportunities for children to engage in helpful tasks, which can increase their willingness to be prosocial at a later time (Eisenberg, Cialdini, McCreath, & Shell, 1987). Parenting style also significantly affects prosocial behavior. Constructive and supportive parenting is associated with high levels of prosocial behavior (Strayer & Roberts, 2004), as is discipline that involves reasoning, especially when used by parents who are warm and supportive (Hoffman, 1963).

Antisocial behavior, which can be learned in the home, is strongly linked to rejection by peers (Cantrell & Prinz, 1985). Antisocial children tend to be from families that have little parental involvement with the child, and poor monitoring and supervision of the child's activities (Loeber & Dishion, 1983; McCord, McCord, & Howard, 1963). Having an antisocial parent also places a child at significant risk for antisocial behavior, largely because antisocial parents are at risk for ineffective discipline practices, which are strongly related to having an antisocial child (Robins & Earls, 1985). Patterson and colleagues developed a social interactional model to further explain the link between family relations, and children's antisocial behavior and peer rejection. If children are rewarded in their interactions with their parents for coercive and antisocial behaviors, they will perform them more. As a result, they may develop an antisocial temperament, which will be present in settings outside of the home, including school. At school, this antisocial behavior often leads to being disliked by peers (Patterson, 1982). As an estimated 40-60% of the male prison population has antisocial personality disorder (Moran, 1999), the problems that result from having antisocial parents are of particular interest in this study. Because children with incarcerated parents are especially likely to have an antisocial parent, they are exposed to the familial risk factors that increase peer rejection.

There are additional factors affecting children's peer relations within the family that are relevant to the study of children with incarcerated parents. A child's social competence and relationships are largely affected by children's attachment to their parents. Children who do not experience sensitive, responsive parenting and who are not securely attached have difficulties in peer relationships, whereas securely attached children have been shown to have good social skills and be relatively popular with peers (Kerns, Klepac, & Cole, 1996). The challenges in peer relations associated with attachment are of particular concern for children with incarcerated parents, who may experience difficulties related to attachment due to separation from their parents. This is illustrated by Poehlmann's (2005) finding that 63% of a sample of 60 children, ages 2.5 to 7.5, with incarcerated mothers had insecure attachment classifications. Family stress also plays a role in children's peer relations. Children from families with fewer economic resources and higher levels of stress (e.g., unemployment, health problems) are more likely to be rejected by their peers (Criss, Pettit, Bates, Dodge, & Lapp, 2002; Dishion, 1990). The link between stress and peer rejection provides additional evidence that children with incarcerated parents come from families that put them at risk, as parental incarceration is likely to result in higher stress within the family.

Experiencing Parental Incarceration

In addition to coming from a family that potentially puts them at risk for problems with peer relations and not behaving prosocially, children with incarcerated parents experience many of the same difficulties as children who are rejected by their peers, lack prosocial behaviors, or have low levels of empathy. Although the challenges associated with having an incarcerated parent have been documented (Murray & Farrington, 2005; Myers et al., 1999), aspects of their peer relations and prosocial behaviors have not yet been examined. A closer examination of

these factors will allow us to determine if they are potentially risk factors associated with these children's increased risk for future difficulties.

Experiencing parental incarceration is associated with numerous and varied negative outcomes. In a longitudinal study of 411 males (some of whom who experienced parental incarceration), children with a history of parental incarceration were involved in greater risk-taking behaviors, had lowered IQ scores, often experienced poor life success, were frequently disobedient, and showed a lack of concentration or restlessness (Murray & Farrington, 2005). Murray and Farrington also found that experiencing parental incarceration predicted boys' antisocial outcomes throughout the life course. These children are also at a higher risk for developing internalizing behaviors, such as emotional problems, anxiety, and depression (Myers et al., 1999; Murray & Farrington, 2008), and externalizing problems behaviors, including aggressive and delinquent behaviors (Murray & Farrington, 2005). Similarly to rejected children, they are at a higher risk for having problems at school. Trice and Brewster (2004) compared the school performances of adolescents with an incarcerated mother to their best friend and found that the adolescents with a history of maternal incarceration were more likely to experience academic failure, drop out of school, experience suspension, and have extended absences from school. The most negative outcome, however, is that children with incarcerated parents are at a high risk for being incarcerated themselves. In Virginia, 29% of boys and 25% of girls among incarcerated juveniles reported having a history of parental incarceration (McGarvey & Waite, 1998). Children with incarcerated parents are additionally more likely than their peers to be convicted of a crime as they become adults (Huebner & Gustafson, 2007).

The Current Study

The current study will examine peer rejection, along with prosocial behavior and empathy, in order to determine if there are significant differences between children with incarcerated parents and their peers regarding those factors. The central research questions involve distinctions between children with incarcerated parents and their peers. Do children with a history of parental incarceration display fewer prosocial behaviors than their peers? Do children with incarcerated parents report experiencing more victimization? Do these children more frequently engage in bullying than their peers? Additionally, because children with incarcerated parents are at particular risk for externalizing and internalizing problem behaviors, those behaviors will be measured in order to determine their relation to peer relations.

Because children with incarcerated parents are at a higher risk for experiencing many challenges, it was hypothesized that they will display more problematic peer relations and show fewer prosocial behaviors, as compared to their peers. Based on prior research, it was also hypothesized that externalizing and internalizing problems will be higher among children with incarcerated parents. Examining these hypotheses by comparing children with incarcerated parents to their peers is especially important, as it can potentially lead to drawing conclusions concerning the causal factors behind the specific challenges that these children experience.

Method

Participants

Elementary school students were recruited from an elementary school in Newport News, Virginia to participate in the study. The school is located in a low-income neighborhood, where 35% of families live below the poverty line, which is almost four times higher than the poverty rate in the United States (U.S. Census Bureau, 2000). In addition to high poverty rates, the

neighborhoods where the students live also are at higher risk for crime. According to the City of Newport News Police Department, the precinct where students live has the highest crime rates in the city.

Seventy-seven children (66% female) participated in the study. There were 26 third, 26 fourth, and 25 fifth grade students from 15 classes. Their average age was 9.45 years (range 8-11). The majority (95%) of children were African-American, 4% were of multiple ethnicities, and 1% list their ethnicity as other. Seventy-seven caregivers also participated in the study. The majority (87%) of the caregivers reported being the child's mother, but 5% were the child's father, 5% were the child's grandmother, and 3% were the child's aunt. The median household yearly income reported by the parents/guardians was \$20,000-30,000, with 20% reporting a household income of less than \$10,000.

Measures

Parental Incarceration. The child's history of parental incarceration was assessed through parents and guardians' self-report on a demographic questionnaire. Parents/guardians reported both maternal and paternal incarceration, along with the number of times the parent was incarcerated and length of incarceration, and the child's age during the incarceration. Over half of the caregivers (51%) reported that their child had experienced parental incarceration, with 32 children (42%) experiencing only paternal incarceration, 5 (6%) experiencing only maternal incarceration, and 3 (4%) experiencing both maternal and paternal incarceration. For the current study, all children who have experienced parental incarceration were considered together, regardless of which parent was incarcerated.

Children's Peer Relations. Caregivers assessed their children's behaviors with peers with the My Child's Behavior with Other Children questionnaire (NICHD SECCYD, 2008). This 43-

item questionnaire assesses children's relationships and behaviors with peers. It includes 31 items from Ladd's revision of the Child Behavior Scale (Ladd & Profilet, 1996) measuring aggressive behavior (i.e., Taunts and teases other children), prosocial behavior (e.g., Seems concerned when other children are distressed), asocial behavior (e.g., Keeps peers at a distance), and exclusion by peers (e.g., Not chosen as playmate by peers). An additional 6-item assessment of peer victimization (e.g., Pushed around by other children), adapted from the self-report Peer Victimization Scale (Kochenderfer & Ladd, 1996), and 6-item assessment of relational aggression (e.g., When mad at a peer, ignores or stops talking to that child), from the Children's Social Behavior Scale—Teacher Form (Crick, 1996) are also included. Parents rated the child's behavior with peers on a 3-point scale ($0 = \textit{not true}$, $1 = \textit{sometimes true}$, and $2 = \textit{often true}$). In previous research (Crick, 1996; Kochenderfer & Ladd, 1996; Ladd & Profilet, 1996), the My Child's Behavior with Other Children questionnaire has demonstrated good internal reliability (.74 to .96). For the current sample, internal reliability was .71 for the exclusion by peers subscale, .77 for the aggressive behavior subscale, .70 for the prosocial behavior subscale, .64 for the asocial behavior subscale, .93 for the peer victimization subscale, and .74 for the relational aggression subscale.

Prosocial Behavior. Children's behavioral response to a person needing help was assessed during the course of an interview. Helping behavior was measured by assessing if and how much the child assists the researcher when he or she is in need of help. After completing a demographic questionnaire, the interviewer broke the tip of his or her pencil and went to replace it. As the interviewer reached for a new pencil, he or she "accidentally" dropped all of the extra pencils on to the floor. After saying "Oops," the interviewer continued preparing for the next questionnaire for 20 seconds. Then, he or she retrieved the pencils from the floor for 30 seconds.

Behavior was coded as follows. A code of one signifies that the child either spontaneously helped during the initial 20 seconds or during the time when the experimenter is collecting the pencils. A code of zero is given when the child does not help at all. For the analyses, all children who helped were categorized together, regardless of when their helping occurred. This assessment of helping was originally used by Iannotti (1985), who found that helping an adult (the interviewer) in this manner was related to children having a sensitivity to the needs and emotions of others, which would enable the child to use this awareness in their social interactions.

Problem Behaviors. Caregivers assessed their child's problem behaviors using the 113-item Child Behavior Check List (*CBCL*; Achenbach & Rescorla, 2001), which requests ratings of the child's behavioral, emotional, and social problems over the past six months. The caregiver rates each of the items as being *0 = not true*, *1 = somewhat or sometimes true*, or *2 = very true or often true*. Twenty-six of the problem items on the *CBCL* focus on internalizing problems, which are divided into anxious/depressed (e.g., is self-conscious or easily embarrassed), withdrawn/depressed (e.g., would rather be alone than with others), and somatic complaints (e.g., has nightmares). There are 35 externalizing problem items on the *CBCL*, divided into rule-breaking behavior (e.g., lies, cheats) and aggressive behavior (e.g., is disobedient at home). The remaining scales assess social problems (e.g., not liked), thought problems (e.g., hears voices), attention problems (e.g., can't sit still), and other problems (e.g., wets the bed). Validation studies using the *CBCL* indicates strong internal consistency, with values ranging from .78 to .97 with adequate content, criterion-related, and construct validity (Achenbach & Rescorla, 2001), and internal reliability for the current sample was .95.

Procedure

Consent forms were distributed to the children to take home to their caregivers. Caregivers were asked to provide their consent for their child and themselves to participate. Though 70% of participants returned a consent form, 90% of those returning consents consented for their child to participate and, of those, only 82% consented for themselves to participate as well. All caregivers who consented for themselves to participate were mailed a packet of questionnaires, and 57% of the questionnaires mailed out were completed. After receiving consent from their caregivers and giving assent themselves, the students were interviewed during their weekly tennis class at school. The children received an activity book (e.g., Mad Libs), plain note pad, and two pencils as compensation for their participation. Their caregivers additionally completed questionnaires regarding the child's family background and behavior at both home and school. For compensation, they were given a \$20 gift certificate to Target following the completion of the questionnaires.

Results

Descriptive and preliminary analyses revealed several significant gender differences. On the Child Behavior Checklist (*CBCL*), caregivers were significantly more likely to report that boys had more attention problems, $t(65) = -2.11, p < .05$, and engaged in more rule-breaking, $t(62) = -2.34, p < .05$, and aggressive behavior, $t(65) = 2.08, p < .01$, than girls. Age was associated with more attention problems, $r(67) = .28, p < .05$, according to caregiver report on the *CBCL*, and increased aggressive behavior, $r(67) = .24, p < .05$, according to caregiver report of child's behavior with other children. These gender and age differences are taken into account in future analyses.

Next, the relation between caregiver report of prosocial behavior and children's actual prosocial behavior was examined (See Table 1). Children who displayed helping behavior during the helping task behaved more prosocially, $t(62) = -2.29, p < .05$, and had lower levels of relational aggression according to their caregivers' reports, $t(62) = 2.18, p < .05$, than their peers who did not display helping behavior.

To examine the differences between children with incarcerated parents and their peers, a series of independent samples t – tests were performed. First, demographic data, with participants separated by history of parental incarceration, is presented in Table 2. Also presented are the results of the t – tests. There were several significant differences between the groups on the demographic variables, specifically involving the children's families. The fathers of children with a history of parental incarceration were more likely to be younger than the fathers of their peers without a history of parental incarceration, $t(66) = 2.42, p < .05$, as are the mothers of children with a history of parental incarceration, $t(73) = 2.13, p < .05$. There is also a trend towards significance concerning the marital status of the children's caregivers, with children whose parents have not been incarcerated in their lifetime being more likely to have caregivers who are currently married, $t(75) = 1.92, p = .06$, as well as more likely to have caregivers who have been divorced, $t(75) = 1.76, p = .08$. Children with incarcerated parents were also more likely than their peers to be from families with a lower household income, $t(72) = 3.41, p < .001$, and their participating caregiver had a significantly lower educational attainment, $t(74) = 2.61, p < .05$, than the caregivers of their peers.

Correlations between the demographic and outcome variables are presented in Table 3. As was expected from the t -test, having a history of parental incarceration was associated with decreased family income, $r(74) = -.37, p < .01$, and caregiver educational level, $r(76) = -.29, p <$

.05. There were also several significant correlations between these demographic variables and the outcomes measures. The negative correlations between the caregiver's educational level, and children's aggressive behavior and engagement in relational aggression indicated that increased caregiver education is associated with less aggressive behavior, $r(66) = -.29, p < .05$, and less engagement in relational aggression, $r(67) = -.24, p < .05$, whereas the positive correlation between caregiver report of children's prosocial behavior and caregiver's educational level indicated that increased caregiver education is associated with more prosocial behavior, $r(67) = .25, p < .05$. There was also a trend towards significance regarding family income and children's engagement in relational aggression, $r(67) = -.21, p = .08$, which indicated that increased family income is correlated with less engagement in relational aggression.

Next, differences in children's peer relations, problem behaviors, and helping behavior in relation to their history of parental incarceration were examined (see Table 4). Children's behavior with their peers, according to caregiver report, trended towards a significant difference between children with incarcerated parents and their peers. Caregiver reports of children's aggressive social behavior, $t(65) = -1.68, p = .098$, and engagement in relational aggression, $t(66) = -1.73, p = .07$, trended towards significance, with the caregivers of children with incarcerated parents reporting more aggressive social behavior than the caregivers of their peers. On the *CBCL*, there were several significant differences regarding the caregivers' report of children's problem behaviors. Caregivers reported that children with a history of parental incarceration were more likely to have aggressive behavior, $t(65) = -2.37, p < .05$, and attention problems, $t(65) = -2.00, p < .05$.

A Chi-Square analysis was performed in order to examine children with incarcerated parents and their peers' performances on the behavioral measure. For the helping behavior

assessment, there was a trend towards significance, with children with incarcerated parents displaying more helping behaviors than their peers, $\chi^2(1, N = 72) = 3.19, p = .07$.

Lastly, to follow-up the significant findings regarding differences in caregiver reports of children's problem behaviors, regression analyses were performed to account for the influence of child gender and age on these variables (see Table 5). Having a history of parental incarceration predicted more aggressive behavior, $\beta = .25, t(63) = 2.10, p < .05$, when the effects of gender and age were controlled. However, children's attention problems were not found to be predicted by parental incarceration when the effects of gender and age were controlled, $\beta = .17, t(63) = 1.48, p = .14$.

Discussion

The results of the present study indicate that children with a history of parental incarceration are reported by their caregivers to display significantly more aggressive behavior than their peers. Because of the strong association between displaying aggressive behavior and having problematic peer relations (Little & Garber, 1995; Newcomb et al., 1993), it is likely that these children experience difficulties in their relationships with their peers. Although the numerous challenges that children with incarcerated parents experience have been solidly established, the specific factors that cause these challenges have not been well defined. The finding that children with a history of parental incarceration have higher levels of aggressive behavior in relation to their peers suggests that problematic peer relations may play a significant role in the increased difficulties that these children experience later in life.

Children with incarcerated parents were found to have higher levels of aggression in several domains. Specifically, their caregivers reported that they tended to display more aggressive social behavior, that they tended to engage in more relational aggression, and that

they also displayed more aggressive behavior in general. This study supports the findings of Murray and Farrington (2005), which found that parental imprisonment predicted greater aggressive and antisocial behavior. Moreover, the findings suggest that children with incarcerated parents behave more aggressively in social settings with their peers.

It was additionally found that children with a history of parental incarceration come from families with a significantly lower household income and have caregivers with significantly lower education levels. Both of these demographic characteristics were subsequently found to be associated with several factors related to peer relations, indicating that it is possible that the differences in peer relations between children with incarcerated parents and their peers are transmitted through lower household income and caregiver education level. Prior research (Criss et al., 2002; Dishion, 1990) has also indicated that family stress is strongly related to peer relations, with children who are from families with fewer economic resources and higher levels of stress experiencing more difficulties with their peers. Because family income and caregiver educational levels are related to children's peer relations, which are an important factor in numerous life outcomes, it follows that both demographic characteristics also significantly affect other life outcomes.

Although a central hypothesis concerning aggressive behavior was supported by the study, the findings related to children's helping behavior were unexpected. There was a trend towards a significant difference between children with a history of parental incarceration and their peers, such that children with a history of parental incarceration actually helped more during the behavioral task. Children with incarcerated parents were both more likely to exhibit aggressive behavior and more likely to engage in prosocial, helping behavior, which contradicts Vittorio et al.'s (2006) finding that a lack of prosocial behavior increases a child's risk for

becoming more aggressive. The findings suggest that the central factor in children with incarcerated parent's problematic peer relations is perhaps having increased aggressive behavior, rather than lacking prosocial behavior. This conclusion is additionally supported by the finding of no significant differences between children with a history of parental incarceration and their peers on any of the other measures of peer relations. However, because no other factors related to problematic peer relations were significant, it is possible that the greater aggressive behavior displayed by children with incarcerated parents is not actually related to problematic peer relations, as all aggressive children are not rejected by their peers. Although popular children are generally less aggressive than rejected children (Newcomb et al., 1993), children who are perceived as having a high status in the peer group and considered popular tend to be viewed as above average in social aggression (Lease, Kennedy, & Axelrod, 2002).

The main strength of the study was the use of a comparison group of children without a history of parental incarceration, who attended the same school and lived in similar, high-poverty, high-crime neighborhoods as the children with incarcerated parents. These demographic similarities allow us to be confident that, aside from their parental history of incarceration, the two groups of children were comparable to each other. Additional strengths of the study include the use of several subscales to thoroughly examine different aspects of peer relations and the use of a behavioral task to determine if there was an observable difference in helping behavior between children with incarcerated parents and their peers.

However, there were several limitations to the study. Because the data were collected at one time point, rather than longitudinally, it is impossible to determine causation. To better determine if aggression causes the increased difficulties experienced by children with incarcerated parents, multi-year studies, following children as they progress through the school

system and into adulthood, should be performed. An additional limitation of the study is the lack of children with incarcerated mothers. Only 11 (13%) of participants had a history of maternal incarceration, which makes it difficult to determine if our findings apply to both paternal and maternal incarceration. Because several studies have found that children with incarcerated mothers have different experiences than children with incarcerated fathers (Dallaire, 2007), future research should address this issue by including more children with incarcerated mothers.

The findings of the study suggest that aggressive behavior is an important factor in the numerous difficulties children with a history of parental incarceration experience, which also implies that these difficulties are linked to problematic peer relations. Both problematic peer relations and having an incarcerated parent are also associated with many of the same outcomes, including academic difficulties, externalizing and internalizing symptoms, and criminal behavior (Coie et al., 1995; Huebner & Gustafson, 2007; Hymel et al., 1996; Myers et al., 1999; Roff et al., 1972; Trice & Brewster, 2004). As multiple studies have shown that children's experiences with their families directly influence their relations with their peers (Kerns et al., 1996; Patterson, 1982), this connection between the challenges related to having an incarcerated parent and difficulties in peer relations is further plausible.

The results of the current study have several implications. Caregivers of children with incarcerated parents must be aware of their child's increased risk for behaving aggressively and use effective discipline practices, which do not reward their child for aggressive or coercive behavior (Patterson, 1982). Caregivers also should attempt to change aspects of their family life that negatively affect their child's peer relations, such as lowering the family stress level and engaging in sensitive and responsive parenting, in order to reduce the effects of aggressive behavior on children's peer relations. Additionally, there are implications related to the

educational system, as academic pursuits take place in a social context (Hymel et al., 1996).

Without the support of friends, children with incarcerated parents will be particularly vulnerable to normative stressors, like school transitions, which can result in increased aggression (Parker & Asher, 1987). Because children with incarcerated parents frequently must move and change schools when their parent is incarcerated (Myers et al., 1999), teachers and school personnel should attempt to ease the child's transition in a new classroom to reduce the possibility of the child developing increased aggression.

Whereas previous research has viewed increased aggression as a result of having an incarcerated parent (Murray & Farrington, 2005), our study considers it as more of a causal factor of the other difficult outcomes related to experiencing parental incarceration. In order to potentially improve the later life outcomes of children with incarcerated parents, interventions should focus on reducing and preventing their aggressive behavior, particularly in school settings with their peers.

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Table 1

Helping Behavior, Social Behavior, and Problem Behavior of Participants in the Current Study

	Displayed Helping Behavior (<i>n</i> = 58) <i>M</i> (<i>SD</i>)	Did Not Display Helping Behavior (<i>n</i> = 14) <i>M</i> (<i>SD</i>)	<i>t</i> -value
<i>Caregiver Report of Child's Behavior with Other Children</i>			
Aggressive Behavior Scale	3.25 (3.13)	4.12 (1.80)	0.97
Prosocial Behavior Scale	14.74 (2.55)	12.82 (2.40)	-2.29*
Exclusion by Peers Scale	0.75 (1.28)	0.82 (1.54)	0.16
Asocial Behavior Scale	1.20 (1.43)	1.42 (1.78)	0.45
Peer Victimization Scale	2.83 (3.60)	2.90 (4.18)	0.06
Relational Aggression	2.15 (2.10)	3.58 (1.78)	2.18*
<i>Caregiver Report of Child Problem Behaviors</i>			
Anxious/Depressed	2.70 (2.64)	3.40 (2.27)	0.78
Withdrawn/Depressed	1.41 (1.87)	1.36 (2.11)	-0.08
Somatic Complaints	1.44 (1.93)	1.55 (1.75)	0.17
Aggressive Behavior	4.58 (5.14)	5.36 (3.47)	0.48
Rule-Breaking Behavior	2.56 (2.89)	2.09 (1.58)	-0.52
Social Problems	2.16 (2.19)	2.55 (3.11)	0.49
Thought Problems	2.02 (2.57)	0.91 (0.94)	-1.41
Attention Problems	4.38 (4.54)	2.45 (2.25)	-1.37
Other Problems	3.31 (2.52)	3.50 (1.69)	0.20

Note: [†]*p*<.10; **p*<.05; ***p*<.01; ****p*<.001

Table 2

Demographic Characteristics for Participants in the Current Study by History of Parental Incarceration

	History of Parental Incarceration (<i>n</i> = 39) <i>M</i> (<i>SD</i>)	No History of Parental Incarceration (<i>n</i> = 38) <i>M</i> (<i>SD</i>)	<i>t</i> -value
Age			
Child	9.62 (0.87)	9.29 (0.87)	-1.73
Father	33.06 (6.18)	38.77 (12.17)	2.42*
Mother	32.46 (5.07)	35.16 (5.87)	2.13*
Child Gender (%)			1.36
Female	61%	74%	
Ethnicity (%)			0.12
African-American	95%	95%	
Mixed/Multiple	5%	2.5%	
Other/Not Listed	0%	2.5%	
Marital Status of Caregiver (%)			
Currently Married	18%	45%	1.92 ^t
Divorced (now or previously)	13%	37%	1.76 ^t
Household Income (%)			3.42***
Less than \$20,000	62%	27%	
\$20,000-\$50,000	32%	43%	
\$50,000 and above	6%	30%	
Caregiver Education Level (%)			2.61*
Some Middle/High School	24%	5%	
Completed High School	10%	16%	
Some Education after High School	59%	54%	
Received Bachelor's Degree	5%	14%	
Post-Bachelor's Education	3%	11%	

Note: ^t*p*<.10; **p*<.05; ***p*<.01; ****p*<.001

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Table 3

Correlations Between Demographic Variables, and Social Behavior and Problem Behavior

Variable	1	2	3	4	M (SD)
<i>Demographic Variables</i>					
1. Child's Age	1.00	-			9.45 (0.84)
2. Family Income	-.21 [†]	1.00	-		3.32 (2.19)
3. Caregiver Educational Level	-.12	.53***	1.00	-	3.86 (1.22)
4. History of Parental Incarceration	.20 [†]	-.37**	-.29*	1.00	0.51 (0.50)
(1 = Yes, 0 = No)					
<i>Caregiver Report of Child's Behavior with Other Children</i>					
5. Aggressive Behavior	.24*	-.10	-.29*	.20 [†]	3.45 (2.91)
6. Prosocial Behavior	-.04	.07	.25*	-.09	14.41 (2.56)
7. Exclusion by Peers	-.04	-.08	-.16	.11	0.75 (1.30)
8. Asocial Behavior	.19	-.10	-.20	.11	1.35 (1.57)
9. Peer Victimization	-.06	-.16	-.17	.07	2.83 (3.61)
10. Relational Aggression	.09	-.21 [†]	-.24*	.21 [†]	2.35 (2.09)
<i>Caregiver Report of Child Problem Behaviors</i>					
11. Anxious/Depressed	.16	.02	-.02	.19	2.73 (2.53)
12. Withdrawn/Depressed	.12	-.08	-.09	.17	1.42 (1.85)
13. Somatic Complaints	.07	-.13	-.14	.10	1.52 (1.88)
14. Aggressive Behavior	.09	-.14	-.13	.28*	4.79 (4.87)
15. Rule-breaking Behavior	.17	-.03	.07	.17	2.41 (2.65)
16. Social Problems	.12	-.10	-.10	.23 [†]	2.24 (2.33)
17. Thought Problems	.18	-.13	-.11	.15	1.75 (2.33)
18. Attention Problems	.28*	-.13	-.04	.24*	3.93 (4.22)
19. Other Problems	.02	.01	-.02	.15	3.42 (2.43)

Note: [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 4

Social Behavior and Problem Behavior of Participants in the Current Study by History of Parental Incarceration

	History of Parental Incarceration (<i>n</i> = 39) <i>M</i> (<i>SD</i>)	No History of Parental Incarceration (<i>n</i> = 38) <i>M</i> (<i>SD</i>)	<i>t</i> -value
<i>Caregiver Report of Child's Behavior with Other Children</i>			
Aggressive Behavior Scale	4.03 (3.10)	2.85 (2.62)	-1.61 [†]
Prosocial Behavior Scale	14.20 (2.76)	14.64 (2.34)	0.70
Exclusion by Peers Scale	.89 (1.53)	0.59 (0.98)	-0.92
Asocial Behavior Scale	1.52 (1.79)	1.18 (1.33)	-0.86
Peer Victimization Scale	3.06 (3.90)	2.57 (3.28)	-0.55
Relational Aggression	2.77 (2.17)	1.91 (1.93)	-1.73 [†]
<i>Caregiver Report of Child Problem Behaviors</i>			
Anxious/Depressed	3.18 (2.50)	2.23 (2.51)	-1.50
Withdrawn/Depressed	1.71 (2.07)	1.10 (1.54)	-1.36
Somatic Complaints	1.69 (2.12)	1.31 (1.54)	-0.82
Aggressive Behavior	6.06 (5.06)	3.32 (4.27)	-2.37*
Rule-Breaking Behavior	2.85 (3.18)	1.94 (1.88)	-1.39
Social Problems	2.72 (2.46)	1.67 (2.07)	-1.86 [†]
Thought Problems	2.06 (2.59)	1.38 (1.95)	-1.16
Attention Problems	4.86 (4.51)	2.84 (3.62)	-2.00*
Other Problems	3.75 (2.31)	3.00 (2.55)	-1.16

Note: [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Caregiver Report of Behavior Problems

Variable	Caregiver Report of Aggressive Behavior			Caregiver Report of Attention Problems		
	B	SE B	β	B	SE B	β
Step 1						
Gender	-2.52	7.08	-0.25*	-2.46	0.99	-0.28*
Age	0.55	1.21	0.09	1.45	0.59	0.28*
Step 2						
Gender	-2.27	1.18	-0.23 [†]	-2.31	0.99	-0.27*
Age	0.30	0.71	0.05	1.30	0.59	0.25*
History of Parental Incarceration (1 = Yes, 0 = No)	2.44	1.16	0.25*	1.44	0.97	0.17

Note. For aggressive behavior, $R^2 = .07$ for Step 1; $\Delta R^2 = .06$ for Step 2; for attention problems, $R^2 = .16$ for Step 1; $\Delta R^2 = .03$ for Step 2

Note: [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$